



Cornfield Arroyo Seco Specific Plan (CASP) Update

Environmental Case: ENV-2021-2643-EIR
State Clearinghouse No.: 2021040206

Project Location: The Project Area comprises the entire area within the boundaries of the existing Cornfield Arroyo Seco Specific Plan (CASP), which is generally bordered by Chinatown to the west, Lincoln Heights to the east, and Cypress Park to the north. The Project Area is located entirely within Los Angeles City Council District One and within both the Downtown and the Northeast Los Angeles Community Plan Areas. Interstate 5 (I-5) and State Route-110 (SR-110) bisect the northern portion of the Project Area. Entrances and exits to and from SR-110 are located on the northern perimeter of the Project Area. Entrances and exits to I-5 are located at North Broadway/Pasadena Avenue and at Avenue 26 across from Lacy Street. Other major arterials located in the Project Area include Figueroa Street in the northern portion of the Project Area, San Fernando Road in the central portion of the Project Area, and Spring Street, Broadway Avenue, and Main Street in the southern portion of the Project Area. The Project Area is approximately 600 acres (0.93 square miles).

Council District: 1 (Hernandez)

Project Description: The Proposed Project is an update of the existing CASP. The update includes new land use and zoning regulations, incentives, and boundaries, for the purpose of encouraging affordable, mixed-income, and permanent supportive housing production. The Proposed Project would strengthen the existing CASP's affordable housing requirements, including the recalibration of the CASP's existing incentive zoning system; establish a new Community Benefits Program that incentivizes new publicly-accessible open space and community facilities; include provisions that facilitate the production of new 100% affordable housing and permanent supportive housing projects on public land; increase the zoning capacity for housing in targeted areas; and adopt a modernized zoning system based on the City's new modular Zoning Code. The Proposed Project would supersede the text, maps, and tables of the existing CASP, and will include the adoption of necessary revisions and any other amendments necessary to implement this update, including amendments to General Plan elements (such as the Framework Element), community plans, the Los Angeles Municipal Code (LAMC) Chapter 1 and Chapter 1A, specific plans, and other City ordinances.

PREPARED BY:

The City of Los Angeles
Department of City Planning

PREPARED WITH THE ASSISTANCE OF:

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July 2023

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1.0 INTRODUCTION

This chapter provides a brief introduction to the project, an overview of the purpose and focus of the Draft Environmental Impact Report (EIR), a discussion of the intended use of this Draft EIR, a description of the organization of the Draft EIR, and a discussion of the public review process and potential areas of controversy.

1.1 PROPOSED PROJECT

This Draft EIR analyzes the potential environmental effects of the “Proposed Project” or “Project.” The Proposed Project is composed of a long-term land use planning effort which is summarily described below:

The Proposed Project is an update of the existing Cornfield Arroyo Seco Specific Plan (CASP). The update includes new land use and zoning regulations, incentives, and boundaries, for the purpose of encouraging affordable, mixed-income, and permanent supportive housing production. The Proposed Project would amend the text, maps, and tables of the existing CASP, and will include the adoption of necessary revisions and any other amendments necessary to implement this update, including amendments to General Plan elements (such as the Framework Element), community plans, the Los Angeles Municipal Code (LAMC) Chapter 1 and Chapter 1A, specific plans, and other City ordinances.

1.2 PURPOSE OF THIS ENVIRONMENTAL IMPACT REPORT

This EIR has been prepared to comply with the requirements of the California Environmental Quality Act (CEQA), which requires the preparation and certification of an environmental impact report on any project proposed by the City to carry out or approve that may have a significant effect on the environment. (PRC Section 21100(a).) The EIR is ultimately intended as an informational document and by itself does not determine whether the Project, or any component of the Proposed Project, will be approved. The EIR aids in the decision-making process by disclosing the potential significant and adverse impacts. In conformance with CEQA, California Public Resources Code, Section 21000, this EIR provides objective information addressing the environmental consequences of the Proposed Project and identifies the means of reducing or avoiding its significant impacts where feasible.

The CEQA Guidelines help define the role and expectations of this EIR as follows:

- **Information Document.** An EIR is an informational document that will inform decision-makers as well as members of the public of the significant environmental effects of a project, identify feasible ways to minimize or avoid these effects, and describe a set of reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information contained in the administrative record (Section 15121(a)).
- **Degree of Specificity.** An EIR on an individual development project will be more detailed in the specific effects of the project than will an EIR on the adoption of a community plan, specific plan, or zoning ordinance because the effects of the individual development can be predicted with greater accuracy. An EIR on a project such as the adoption of a community plan, specific plan, and/or zoning ordinance should focus on the secondary effects that can be expected to follow from the

adoption but need not be as detailed as the analysis on the specific construction project that might follow (Section 15146).

- **Standards of Adequacy.** An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information that enables them to make a decision that intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure (Section 15151).

The CEQA Guidelines, Section 15382, defines a significant effect on the environment as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.”

1.3 LEAD, RESPONSIBLE, AND TRUSTEE AGENCY

The lead agency for the Proposed Project is the City of Los Angeles (City). The Department of City Planning is responsible for preparing the EIR for the review and consideration of the City Council, as the final decision-maker for the Proposed Project. The address for the Department of City Planning is the following:

City of Los Angeles
Department of City Planning
200 North Spring Street, Room 667
Los Angeles, CA 90012

The determination that the City of Los Angeles is the “lead agency” is made in accordance with CEQA Guidelines sections 15051 and 15367, which define the lead agency as the public agency that has the principal responsibility for carrying out or approving a project. This Draft EIR reflects the independent judgment of the City regarding the potential environmental impacts, the level of significance of the impacts both before and after the mitigation measures proposed to reduce the impacts.

Responsible agencies are other agencies responsible for carrying out/implementing a specific component of the Proposed Project or for approving a project (such as an annexation) that implements the goals and policies of a general plan. Section 15381 of the CEQA Guidelines defines a “responsible agency” as: “A public agency which proposes to carry out or approve a project, for which a lead agency is preparing or has prepared an EIR or Negative Declaration. For purposes of CEQA, responsible agencies include all public agencies other than the lead agency that have discretionary approval authority over the project.”

There are no responsible agencies for the Proposed Project. However, several other agencies have approval authority over individual developments that could be facilitated by the Proposed Project. These agencies include, but are not limited to, California Department of Transportation, California Department of Fish and Wildlife (CDFW), the South Coast Air Quality Management District, and the Los Angeles Regional Water Quality Control Board.

Trustee agencies have jurisdiction over certain resources held in trust for the people of California, but do not have legal authority to approve or carry out the project. CEQA Guidelines Section 15386 designates four agencies as trustee agencies: CDFW with regards to fish and wildlife, native plants designated as rare or endangered, game refuges, and ecological reserves; the State Lands Commission with regard to state-owned “sovereign” lands, such as the beds of navigable waters and state school lands; the California Department of Parks and Recreation with regard to units of the state park system; and, the University of California with regard to sites within the Natural Land and Water Reserves System. There are no trustee agencies for the Proposed Project.

1.4 AUTHORIZATION AND FOCUS

The City determined that an EIR is needed to evaluate potentially significant effects that could result from the implementation of the Proposed Project. An Initial Study was not prepared for the Proposed Project since it was determined from the outset that an EIR would be required (CEQA Guidelines Section 15060(d)).

The City is required to consider the information in the Draft EIR, along with any other relevant information, in making its decision on the Proposed Project. Although the Draft EIR does not determine the ultimate decision that will be made regarding implementation of the project, CEQA requires the City to consider the information in the Draft EIR and make findings regarding each significant effect in the Draft EIR.

Once certified, the Final EIR will serve as the environmental document for the Proposed Project and will be used as a basis for decisions related to future development in the Project Area. Other agencies may also use this Draft EIR in their review and approval process.

1.5 TYPE OF ENVIRONMENTAL REVIEW

The Proposed Project will guide development for the Cornfield Arroyo Seco Specific Plan (CASP) Area (“Project Area”) through 2040. This EIR considers broad specific plan level issues and evaluates the effects of the Project to the Project Area. This EIR also addresses environmental impacts from the Proposed Project to a level that can be assessed without undue speculation, in light of the scope of the Proposed Project components.

Consistent with the requirements of CEQA, the EIR compares the reasonably anticipated development from the Proposed Project against the existing environment and not to the existing plans and regulations. The No Project alternative considers the effects of the existing specific plan and zoning ordinances relative to the impacts of the Proposed Project.

Future Use of the EIR and Subsequent Projects

Approval of the Proposed Project does not constitute a commitment to any specific development project. It is contemplated that future site-specific approvals in the Project Area may be evaluated with consideration of the EIR under CEQA rules for subsequent approvals, where applicable, including but not limited to the following:

- **Addendums (CEQA Guidelines Sections 15162 and 15164).** Addendums may be used when a subsequent approval is consistent with the Proposed Project and no major revisions to the EIR are required based on a change to the Proposed Project, a change in circumstances, or new information, as a result of a new significant impact or an identified significant impact being more severe.

- **Tiering (Public Resources Code Section 21094 and CEQA Guidelines Section 15152).** Tiering refers to using the analysis of general matters contained in a broader EIR with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussion from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project.
- **Program EIR/Subsequent Approvals (CEQA Guidelines Section 15168.)** Projects within the scope of a Program EIR are eligible for streamlined review.
- **Projects Consistent with a Community Plan, General Plan, or Zoning (CEQA Guidelines Section 15183).** Streamlined environmental review is available for a project consistent with community plan, general plan, or zoning adopted with an EIR (Public Resources Code Section 21083).
- **Streamlining for Infill Projects (SB 226; PRC Section 21094.5; CEQA Guidelines Section 15183.3).** Eligible infill projects may qualify for streamlined environmental review at the project level where the effects of infill development have been addressed in a planning level decision or by uniformly applicable development policies.
- **Transit Priority Projects (SB 375; PRC Section 21155-21155.2).** Transit Priority Projects consistent with the SCAG RTP/SCS near transit that have imposed all or all applicable mitigation measures from a prior EIR may be exempt from CEQA or be subject to streamlined review.
- **Statutory Exemption for Projects Consistent with Specific Plan (SB 743; PRC Section 21155.4; CEQA Guidelines Section 15182).** Eligible projects consistent with a specific plan adopted/updated with an EIR may be eligible for these statutory exemptions if all requirements are met.

1.6 ENVIRONMENTAL REVIEW PROCESS

In compliance with CEQA, the City of Los Angeles completed a multi-step process to determine the appropriate scope of issues to be examined in this Draft EIR.

Pursuant to CEQA Guidelines Section 15082, the City filed a Notice of Preparation (NOP) with the State Clearinghouse in the Office of Planning and Research (State Clearinghouse No. 2021040206) as an indication that an EIR would be prepared. The Department of City Planning published the NOP for this Draft EIR for a 30-day public review period on April 8, 2021. The NOP was distributed to trustee agencies, responsible agencies, and other interested parties to request information and concerns relative to the potential environmental impacts of the Proposed Project.

Information, data and observations addressing comments from these letters are included throughout this Draft EIR where relevant. The NOP and NOP comment letters received are included in Appendix A of this Draft EIR. A public Scoping Meeting was held on April 22, 2021 to provide early consultation for the public to express their concerns about the Proposed Project and to acquire information and make recommendations on issues to be addressed in the Draft EIR, including the scope of impacts, alternatives, and potential mitigation.

The City received a total of 92 written and verbal comments and letter responses to the NOP. Information, data and observations addressing comments from these letters are included throughout this Draft EIR where relevant. Comments received are summarized in **TABLE 1-1**.

TABLE 1-1 NOP COMMENTS AND EIR RESPONSE	
Topic	Where Topic is Addressed in EIR
<p>Proposed Project Scope and Description</p> <ul style="list-style-type: none"> • Clear indication of which Area Plans will be revised to be consistent with the Proposed Project • Provide clear goals and objectives so the public can propose alternatives to those goals • Request that the financial and economic setting for existing and proposed population is assessed • Proposed Project should avoid development that may have adverse direct and indirect impacts on CA Protected Areas Database (CPAD) sites. If development adjacent to CPAD is unavoidable, the Proposed Project should include effective setbacks • Include language in the Proposed Project that informs future development activity of Los Angeles County Metropolitan Transportation Authority (Metro) notification procedures, including policy language or guidance that denotes development occurring within 100 feet of a Metro facility will require Metro review and approval, including Metro’s Development Guidelines and a recorded Noise Easement Deed • Policies should encourage transit-supportive public realm improvements, way finding signage, and enhanced ADA-compliant street crossing elements adjacent to transit stops and stations • Proposed Project should include the Connect US Action Plan, which is a community-driven active transportation plan that prioritizes pedestrian and bicyclist connections to and from adjacent neighborhoods • Refer to Metro’s 2020 Long Range Transportation and Measure M Expenditure Plan • Los Angeles Department of Water and Power (LADWP) suggests the Proposed Project include plans illustrating the LADWP Facilities boundaries and show impacts to facilities and access roads • Southern California Association of Governments (SCAG) recommends review of the Final Program Environmental Impact Report (Final PEIR) for Connect SoCal guidance • Proposed Project should incorporate the plans for a clean water campus for LA Sanitation employees • Include an outcome-focused Racial Equity Analysis 	<p>Section 3, Project Description Economic impacts and a GIS mapping tool are not within CEQA’s scope.</p>
<p>Aesthetics</p> <ul style="list-style-type: none"> • Consistency with historic buildings and new proposed uses, especially height differences between existing historic buildings and proposed residential high rises • Metro encourages thoughtful integration of art and culture into public spaces and will review proposals for public art or placemaking facing a Metro right-of-way • Use innovative architecture, with more interesting and innovative design 	<p>Section 4.1, Aesthetics</p>
<p>Air Quality</p> <ul style="list-style-type: none"> • Use of the South Coast Air Quality Management District (SCAQMD) Air Quality Handbook, the California Emissions Estimator Model (CalEEMod), and the 2016 Air Quality Management Plan in the analysis • Take into account all costs related to replacing building filtration including emissions from transportation to disposal sites and the waste generated • Provide SR-110 tunnel emissions and modeling of cold NOx • Delineate TOCs for CASP area and within 1,000 ft of boundary 	<p>Section 4.2, Air Quality</p>

TABLE 1-1 NOP COMMENTS AND EIR RESPONSE	
Topic	Where Topic is Addressed in EIR
<ul style="list-style-type: none"> • Provide numerical/quantified levels of findings, cumulative impacts, infrastructure improvements, and air quality modeling • Request that appendices and technical documents related to air quality, health risk and greenhouse gas analyses as input/output files (not PDFs) 	
Biological Resources <ul style="list-style-type: none"> • Wildlife impacts and nesting bird impacts • Concerns of potential impacts to nesting birds and avoiding disturbance by scheduling ground-disturbing activities outside of aviation breeding season • Avoid and minimize native trees, large and dense-canopied native and non-native trees to reduce habitat loss. Trees should be replaced if loss of habitat occurs. • Algal mats may affect wading bird habitat in the LA River for wading birds • No net loss of wetlands • Provide River flyways, closest wildfire risk area and vegetated hills 	Section 4.8, Biological Resources
Cultural Resources/Tribal Cultural Resources <ul style="list-style-type: none"> • Protection through Historical Zones • Provide review for endemic peoples, especially for the river confluence and summer water sources for villages • Review historic documents, ground and aerial photos and assess potential for subsurface remains as found in Union Station during Red Line construction • Evaluate the impacts of zone change and preserve William Mead Homes and Lincoln Heights Jail as historic buildings • Can an EIR Alternative include doubling of William Mead Homes (as done in the Rose Hill Courts project underway)? • Include SurveyLA findings and analysis 	Section 4.4, Cultural Resources Section 4.16, Tribal Cultural Resources
Energy	Section 4.5, Energy
Geology and Soils <ul style="list-style-type: none"> • Provide locations of recorded seismic events and blind/buried faults • ZIMAS identifies the Fault Zone as the Upper Elysian Park Fault; will the EIR/Plan consider earthquakes? 	Section 4.6, Geology and Soils
Greenhouse Gas Emissions	Section 4.7, Greenhouse Gas Emissions
Hazards and Hazardous Materials <ul style="list-style-type: none"> • Provide historic locations of railroads, cornfields, and industrial land uses • Hazardous material contamination from historic railroads, industrial development, and LA oil field 	Section 4.8, Hazards and Hazardous Materials
Hydrology and Water Quality <ul style="list-style-type: none"> • Maps of groundwater recharge/forced infiltration, storage, and outflow in relation to Los Angeles River • Provide a map of ancestral river floodplain and recharging zones and related land uses • Provide stormwater runoff and ground water reports • Low impact development for stormwater management 	Section 4.9, Hydrology and Water Quality

TABLE 1-1 NOP COMMENTS AND EIR RESPONSE	
Topic	Where Topic is Addressed in EIR
<ul style="list-style-type: none"> • Use of native plants in landscaping • Identify impacts for issuance of LSA Agreement and provide setbacks to maintain buffer areas adjoining ephemeral drainages • A new Water Supply Assessment (WSA) be required if changes occurred after the assessment on 4/6/2010 • Water distribution systems must be reviewed and approved by LADWP • Concern for groundwater contamination from industrial use and costs of remediation 	
<p>Land Use and Planning</p> <ul style="list-style-type: none"> • Lack of and expense for housing infrastructure - drains, sewers, cabling/transformers • Provide transition zones between public facilities and different zones/uses along with a planning development model for parcellation of current plots • Concern for scale of plan in relation to many single-story historic homes that are adjacent to industrial and mixed-use areas within the plan. • Metro supports the creation of General Plan Land Use Designations that prioritize growth around transit infrastructure, such as the Transit Core with the highest allowed FAR of all designations, and Transit Edge designations • Metro supports the inclusion of a core principle that calls for “Promoting a transit, bicycle, and pedestrian-friendly environment” and the creation of linkages between districts • Remove minimum parking requirements and consider shared parking opportunities • Allow for above grade parking and increase building heights for the parking • Increase FAR, building height, and density based on the existing Option B density bonus • Of the current Affordable Housing Bonus, Options A and B, do you anticipate the incentives being the same or expanding on the FAR options to allow for more housing? • Will update plan allow additional incentives via FAR and height? What is the new incentive structure? • TOC and/or state density bonus in addition to those incentives in the CASP • Maximize Extremely Low Income and Deeply Low Income units • Suggestion to accommodate additional housing in CASP by expanding the residential Urban Village (UV) zone. 	<p>Section 4.10, Land Use and Planning</p> <p>Economic impacts are not within CEQA’s scope.</p>
<p>Noise</p> <ul style="list-style-type: none"> • Provide traffic noise assessment with model, including railroad uses 	<p>Section 4.11, Noise</p>
<p>Population and Housing</p> <ul style="list-style-type: none"> • Provide current home ownership, rentals, and R2-R5 rental levels and costs for 2010-2020 and 2020-current • Provide household financial summaries for CASP, including TAZ • Provide definitions/enumerations for economic status and affordability • Needs of affordable housing, especially in Chinatown for lower income and seniors • Incorporate anti-gentrification and anti-displacement strategies to stabilize low-income residents and small businesses 	<p>Section 4.12, Population and Housing</p>

TABLE 1-1 NOP COMMENTS AND EIR RESPONSE	
Topic	Where Topic is Addressed in EIR
<ul style="list-style-type: none"> • How new 100% affordable housing proposal will incentivize private investment and encourage socioeconomic diversity • Able to prioritize distressed residents in surrounding communities to those affordable units? If so, what are the strategies? • Ensure new incentives and affordable housing units benefit current residents • How will this plan avoid large-scale low-income housing that usually amplifies economic segregation • Regarding low-income housing, are there paths to ownership? • How will update accommodate all income levels including medium income? • Provide SCAG 2045 projections for population, employment and housing 	
<p>Recreation</p> <ul style="list-style-type: none"> • Provide program and schedule for major services and support improvements/upgrades • Provide services available for R3-R5 averaged for the city and apply same service levels to all TAZs in SP • Include a community benefits program that incentivizes the creation of public parks and public spaces • Creation of community/public spaces and parks 	Section 4.14, Recreation
<p>Transportation and Traffic</p> <ul style="list-style-type: none"> • Creation of safest streetscape for pedestrians and bicyclists through physical design and geometrics to reduce exposure to vehicles • Eliminate car parking requirements to encourage public transit and provide at least one long-term bicycle parking space per residential unit • Metro recommends that the City review the Transit Supportive Planning Toolkit which identifies 10 elements of transit-supportive places • The City should address first-last mile connections to transit and is encouraged to support these connections with wayfinding signage inclusive of all modes of transportation • Request of a VMT analysis • Provide additional density for developments surrounding major transit stops and include stations for all rail lines that are existing and under construction • Emphasis of coordination of planning efforts between local agencies and the California Department of Transportation (Caltrans) districts 	Section 4.15, Transportation and Traffic
<p>Utilities and Service Systems</p> <ul style="list-style-type: none"> • Lack of and expense for housing infrastructure - drains, sewers, cabling/transformers 	Section 4.17, Utilities and Service Systems
<p>Alternatives</p> <ul style="list-style-type: none"> • Goodwill suggests accommodating additional housing in CASP by expanding the residential Urban Village (UV) zone 	Section 5, Alternatives
<p>Non-CEQA</p> <ul style="list-style-type: none"> • Why does the preservation of industrial land remain a goal of the CASP? • Concern for community members with language and technology barriers to participate and engage • Transcription of Zoom notes and meeting comments 	Non-CEQA

TABLE 1-1 NOP COMMENTS AND EIR RESPONSE	
Topic	Where Topic is Addressed in EIR
<ul style="list-style-type: none"> • Will planning and permit fees be reduced in CASP to offset current high development costs? • Market study findings • Concern with language and technology barriers among seniors and residents of CASP • Scoping meetings during business hours will exclude many stakeholders from participating 	

In accordance with CEQA Guidelines sections 15087 and 15105, this Draft EIR is being circulated for a 60-day review period. The Draft EIR was also submitted to the State Clearinghouse for distribution to state agencies.

Interested parties may provide written comments on the Draft EIR during the comment period. Comment letters may be sent via U.S. mail or email addressed to the following:

City of Los Angeles, Department of City Planning

ATTN:

Michael Sin, City Planner
 Case Number: CPC-2021-2642-SP; ENV-2021-2643-EIR
 200 N. Spring Street, Room 667
 Los Angeles, CA 90012

1.7 AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

Potential areas of controversy and issues to be resolved by the City’s decision-makers may include those environmental issue areas where the potential for an unavoidable and significant impact has been identified.

Based on the Scoping Meeting and NOP comment letters (summarized in **Table 1-1**, above, and provided in Appendix A of this Draft EIR), issues known to be of concern in the community and therefore, potential areas of controversy, include impacts to wildlife and nesting birds, hazardous material contamination, groundwater contamination, lack of housing infrastructure, consistency with historic buildings and adjacent industrial and mixed use areas, and lack of anti-gentrification and anti-displacement strategies,

1.8 ORGANIZATION OF THE DRAFT ENVIRONMENTAL IMPACT REPORT

This Draft EIR is organized into ten chapters, as follows:

1.0 INTRODUCTION. This chapter contains an overview of the purpose and focus of the Draft EIR, a discussion of the intended use of this Draft EIR, a description of the organization of the Draft EIR, and a discussion of the public review process and potential areas of controversy.

2.0 EXECUTIVE SUMMARY. This chapter provides a summary of the Proposed Project's potential environmental impacts that would result from implementation of the Proposed Project, proposed mitigation measures where applicable, and the level of significance of the impact before and after mitigation.

3.0 PROJECT DESCRIPTION. This chapter describes the Proposed Project, including project location, existing conditions, project objectives, and a description of the proposed changes to existing plans and zoning under the project.

4.0 ENVIRONMENTAL IMPACT ANALYSIS. This chapter is the primary focus of this Draft EIR. Each environmental issue is considered in a separate section, which contains a discussion of the environmental settings, the regulatory setting, the methodology and the thresholds of significance. Each section also includes the analyses of environmental impacts of the project, mitigation measures, conclusions regarding the level of significance after mitigation, and cumulative impacts for each of the following environmental topics and environmental issues:

- 4.1 **Aesthetics** - Changes to views, scenic resources, and visual quality
- 4.2 **Air Quality** - Changes in pollutants affecting air quality
- 4.3 **Biological Resources** - Impacts on any sensitive wildlife habitats or special species
- 4.4 **Cultural Resources** - Changes to historic resources and impacts to archaeological or paleontological resource and human remains
- 4.6 **Energy** - Wasteful or inefficient use of energy resources
- 4.7 **Geology and Soils** - Risk from geologic and seismic hazards
- 4.8 **Greenhouse Gas Emissions** - Changes to greenhouse gas emissions and conformance to applicable greenhouse gas plans, policy, and regulations
- 4.9 **Hazards and Hazardous Materials** - Changes in the risk of exposure to hazardous materials, or proximity to wildland fire hazards
- 4.0 **Hydrology and Water Quality** - Changes in water quality, drainage patterns and the amount of stormwater runoff
- 4.10 **Land Use and Planning** - Changes to land use and zoning
- 4.11 **Noise and Vibration** - Changes in noise and vibration levels due to construction, traffic, and proposed uses
- 4.12 **Population, Housing, and Employment** - Changes in population, jobs/housing balance, and the displacement of a substantial number of housing units or persons
- 4.13 **Public Services** - Impacts related to the construction of new or expanded public facilities (i.e. fire protection and schools)
- 4.14 **Recreation** – Impacts related to the construction of new or expanded recreational facilities and impacts to existing recreational facilities with implementation of the Proposed Project
- 4.15 **Transportation and Traffic** - Changes in transportation conditions and vehicles miles travelled, review of emergency access, potential hazardous design features, and potential conflict with alternative transportation (e.g., bicycles and public transportation)
- 4.16 **Tribal and Cultural Resources** – Impacts to cultural resources potentially related to one of more Native American tribes
- 4.17 **Utilities and Service Systems** - Impacts related to the increased need for utilities and infrastructure improvements and the construction of new or expanded facilities
- 4.18 **Effects Found Not to Be Significant** – Issues for which the Proposed Project was found to have no potential for significant environmental impacts

The proposed land use and zoning designation for all the properties in the Project Areas is known and can be analyzed for the Proposed Project.

5.0 ALTERNATIVES. This chapter provides analysis of a range of reasonable alternatives to the Proposed Project in accordance with CEQA Guidelines Section 15126(f). The range of alternatives considered is based on their ability to feasibly attain most of the project objectives and avoid or substantially lessen any of the significant effects of the Proposed Project.

- Alternative 1: No Project Alternative
- Alternative 2: No Urban Village Alternative
- Alternative 3: Reduced Urban Village Alternative

6.0 OTHER CEQA CONSIDERATIONS. This chapter provides analysis of a discussion of the (1) significant environmental effects that cannot be avoided if the Proposed Project is implemented, (2) significant irreversible environmental changes that would result from implementation of the Proposed Project, and (3) growth-inducing impacts of the Proposed Project.

7.0 PREPARERS OF THE DRAFT EIR. The chapter lists the persons and lead agency that were consulted or contributed in the preparation of this Draft EIR.

1.9 PUBLIC PARTICIPATION

CEQA encourages public participation in the planning and environmental review processes. The City will provide opportunities for the public to present comments and concerns regarding the CEQA processes. The public is invited to provide comments and concerns regarding the accuracy of the Draft EIR and the CEQA process. Written comments may be submitted to the City of Los Angeles City Planning Department to the attention of Michael Sin, City Planner, at 200 N. Spring Street, Room 667, Los Angeles, CA, 90012 or email to michael.sin@lacity.org, during the specified public review and comment period. The comment period and public hearing dates are indicated on the cover of this EIR. Pursuant to CEQA Guidelines Section 15088, the City will prepare written responses to any comments that raise significant environmental issues received during the noticed comment period and include those responses in the Final EIR. The public will also be provided opportunities to present oral and written comments at future hearings and meetings on the Proposed Project to City Planning Commission and the City Council. The City may but is not required to provide written responses to comments submitted after the circulation period for the Draft EIR.

1.10 FINAL EIR AND EIR CERTIFICATION

Following the close of the public review period on the Draft EIR, the City will prepare and publish a Final EIR, which will contain a summary of all written and recorded oral comments on this EIR received during the public review period for the Draft EIR and written responses to those comments that raise environmental concerns, along with copies of the letters received, and any necessary revisions to the EIR. The Draft EIR, comments on the EIR and a list of persons, organizations and public agencies that commented on the Draft EIR, response to comments, and any revisions to the Draft EIR will constitute the Final EIR. The City Council, in an advertised public meeting(s), will consider the documents and then, if found adequate, certify the Final EIR as completed in compliance with CEQA and the CEQA Guidelines.

1.11 CEQA FINDINGS FOR PROJECT APPROVAL

Where a certified EIR identifies significant environmental effects, CEQA Guidelines Sections 15091 and 15092 require the adoption of findings prior to approval of a project. Prior to approval of a project, one of three findings must be made, as required by PRC Section 21081 and CEQA Guidelines Section 15091:

- Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the significant environmental effect as identified in the Final EIR.
- Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR.

If the City approves the Proposed Project, despite significant impacts identified in the Final EIR that cannot be feasibly mitigated, the City must state in writing the reasons for its actions, under CEQA Guidelines Section 15093. Those findings, called a Statement of Overriding Considerations, must be prepared to substantiate the City's decision to accept the unavoidable significant environmental effects of the Proposed Project balanced against the benefits afforded by the Proposed Project.

1.12 MITIGATION MONITORING PROGRAM

At the time of project approval, CEQA and the CEQA Guidelines require lead agencies to adopt a mitigation monitoring program for monitoring the revisions it has required in the project and the measures it has imposed to mitigate or avoid significant effects on the environment (CEQA Section 21081.6; CEQA Guidelines Section 15097). This Draft EIR contains mitigation measures that if found feasible will be included in the Mitigation Monitoring Program for the Proposed Project.

2.0 EXECUTIVE SUMMARY

This document is an Environmental Impact Report (EIR) analyzing the environmental effects of the proposed updates to the City of Los Angeles' Cornfield Arroyo Seco Specific Plan (CASP) Update (herein referred to as "Proposed Project" or "Project"). The Proposed Project is an update of the existing CASP, which includes new land use and zoning regulations, incentives, and boundaries, for the purpose of encouraging affordable, mixed-income, and permanent supportive housing production. The Proposed Project would supersede the text, maps, and tables of the existing CASP, and will include the adoption of necessary revisions and any other amendments necessary to implement this update, including amendments to General Plan elements (such as the Framework Element), community plans, the Los Angeles Municipal Code (LAMC) Chapter 1 and Chapter 1A, specific plans, and other ordinances to implement those updates.

This section summarizes the characteristics of the Proposed Project, alternatives to the Proposed Project, and the environmental impacts and mitigation measures associated with the Proposed Project.

2.1 SUMMARY OF THE PROPOSED PROJECT

Project Proponent

City of Los Angeles
Department of City Planning
200 North Spring Street, Room 667
Los Angeles, CA 90012

Lead Agency Contact Person

Michael Sin, City Planner
Case Number: CPC-2021-2642-SP; ENV-2021-2643-EIR
200 N. Spring Street, Room 667
Los Angeles, CA 90012

PROJECT DESCRIPTION

This EIR has been prepared to examine the potential environmental effects of the updates to the City's Cornfield Arroyo Seco Specific Plan Update. The following is a summary of the full project description, which can be found in Section 3.0, *Project Description*.

CASP

The Proposed Project would strengthen the existing CASP's affordable housing requirements, including the recalibration of the CASP's existing incentive zoning system; establish a new Community Benefits Program that incentivizes new publicly-accessible open space and community facilities; include provisions that facilitate the production of new 100% affordable housing and permanent supportive housing projects on public land; increase the zoning capacity for housing in targeted areas; and adopt a modernized zoning system based on the City's new modular Zoning Code. The Proposed Project would also update the building form, urban design, open space, parking, conservation, performance, and sign standards of the existing CASP, including adopting standards in the New Zoning Code in lieu of those in the existing CASP, as necessary to support housing production and implement technical revisions that ensure consistency, clarity,

and ease of implementation and reflect current and future demographic, regulatory, environmental, and economic conditions. The Project Area boundaries would be revised to exclude parcels that currently do not contain zoning within the Project Area, such as RD zones, or to exclude peripheral open space areas adjacent to Elysian Park in the Silver Lake-Echo Park-Elysian Valley Community Plan Area. The Proposed Project would retain the existing ministerial review process for subsequent qualifying development projects.

The intent of the existing CASP was to guide the transition of a vehicular-oriented industrial and public facility area into a cluster of mixed-use, pedestrian-oriented neighborhoods. Policies in the existing CASP support a range of housing options, new public spaces, opportunities for walking and bicycling, and the retention of land for existing industrial businesses and new clean technology businesses. Among its numerous goals, a key priority of the existing CASP is to facilitate the production and continued provision of affordable housing for Extremely Low Income and Very Low Income households.

However, since the CASP's adoption, housing production of any kind within the Project Area boundaries has been limited. Among the projects constructed, at the time of EIR preparation, all involved discretionary actions from the City Planning Commission or Area Planning Commission to deviate from the CASP, or were entitled prior to the adoption of the CASP, with less than one percent of total units reserved for low-income households. The limited supply of available housing units (0.9 percent residential vacancy rate), together with the low average household income and strong demand for housing in the greater area, creates growing displacement pressure for existing residents and disproportionately in communities of color.

In light of the present housing situation, and in response to a City Council Motion (Council File No. 13-0078- S2) calling for the evaluation and amendment of the Specific Plan, the City of Los Angeles is updating the CASP with the goal of further bolstering the production of affordable, mixed-income, and permanent supportive housing in the Project Area. The Proposed Project will entail updates to the CASP's zoning regulations, land use incentives, boundaries, and other key provisions to facilitate the production of housing, consistent with the underlying vision and purpose of the adopted CASP.

PROJECT OBJECTIVES

The underlying purpose of the Proposed Project is to encourage the production of affordable, mixed-income, and permanent supportive housing in the Project Area.

Objectives of the Proposed Project are as follows:

- Increase the production of affordable, mixed-income, and permanent supportive housing within the Project Area.
- Protect residents, especially low-income households, from indirect and direct displacement, and ensure stability of existing vulnerable communities.
- Design and regulate housing to promote health and well-being, increase access to amenities such as parks and public transit, contribute to a sense of place, foster community and belonging, and plan for a sustainable future.
- Build, operate, and maintain welcoming and accessible housing for Angelenos with unique needs, including those with disabilities, large families, older adults, and other people facing housing barriers and economic insecurity.
- Refine Plan standards, processes, and procedures to be more intuitive and transparent, with the goal of enhancing development certainty for both market-rate and affordable housing developers; and
- While reducing overall employment capacity, preserve employment areas that show a concentration of jobs, while supporting small and/or legacy businesses, local employment, and new productive uses and employment spaces, such as light industrial and general commercial uses.

CASP REASONABLY ANTICIPATED DEVELOPMENT

The Proposed Project would continue to accommodate future growth in the Project Area, including the employment, housing, and population growth projections through the planning horizon year 2040. With implementation of the Proposed Project, the zoning designations of the Project Area would be updated to continue accommodating the population growth, housing, and employment demand projected by the Southern California Association of Governments (SCAG) through the year 2040. The Proposed Project would also accommodate growth in the City consistent with the City's Framework Element policies, SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and SB 375.

To assess potential environmental impacts of the Proposed Project, the reasonably anticipated development that is anticipated to occur in 2040 as a result of the Proposed Project was determined. The reasonably anticipated development of the Project Area was determined based on assumptions about the level of development that can be anticipated to occur during the life of the updated Specific Plan (through the year 2040, or approximately 20 years into the future, coincident with the adopted 2016-2040 RTP/SCS).¹ A key factor in determining reasonably anticipated development is the allocation of land and the distribution of uses to reflect the development patterns most likely to be built, or that are reasonably expected to occur. This approach is consistent with the approach used by SCAG to comply with federal laws that require RTPs to reflect development patterns most likely to be built in the region. As SCAG is a guiding precept, it is the City's responsibility while planning for the entire City in light of its Framework Element, the Sustainable Communities Strategy, and SB 375 policies, to determine whether any given specific plan or community plan should meet, exceed, or be under SCAG's expected projections for that specific plan or community plan area, and prepare a specific plan or community plan update in light of that responsibility.

The development growth assumptions for the Proposed Project, shown in **TABLE ES-1**, are based on the acreage of land designated for each type of function (by zone); allowable development capacity in each designation; anticipated levels of development in the life of the Proposed Project; discussion with existing public agencies, such as HACLA; and potential development constraints. Additionally, the development growth assumptions estimate that roughly 3,255 cumulative acres of grading would occur up to Project buildout in year 2040. This grading would not occur simultaneously throughout the Project Area but is projected to occur in order to accommodate total population growth. The rough grading estimates equate to no more than 200,000 cubic yards of grading at any given time and for a wide range of probable construction activities which are expected to occur, such as site preparation and remediation, if necessary. Projected daily worker and truck trips with associated haul routes are also expected to increase as a result of the Proposed Project.

TABLE ES-1 REASONABLY ANTICIPATED DEVELOPMENT OF THE PROPOSED PROJECT COMPARED TO SCAG FORECAST				
	2021 Baseline /a/	Existing Plan Reasonably anticipated development /b/	Proposed Project Reasonably anticipated development /b/	SCAG 2040 Growth Forecast /c/
Housing	2,012	12,773	20,036	5,039
Population	6,027	36,021	56,501	14,444
Employment	5,411	10,005	8,263	8,797
/a/ SCAG 2016-2040 RTP/SCS interpolated to 2021, adjusted				
/b/ LADCP 2021				
/c/ SCAG 2016-2040 RTP/SCS (includes portions of whole Transportation Assessment Zones outside of Project Area)				

¹ For a discussion on how the 2016-2040 RTP/SCS and 2020-2045 RTP/SCS projections are consistent with each other within the Project Area, and how 2016-2040 RTP/SCS projections are used in this EIR, see Section 3.0, *Project Description*, in this EIR.

2.2 AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

Potential areas of controversy and issues to be resolved by the City's decision-makers may include those environmental issue areas where the potential for an unavoidable and significant impact has been identified.

Based on the NOP comment letters (summarized in Table 1-1, of this Draft EIR, and provided in Appendix A of this Draft EIR), issues known to be of concern in the community and therefore, potential areas of controversy, include but are not limited to loss of affordable housing, lack of parks, lack of jobs, overconcentration of certain uses, protection of small businesses, displacement of residents, and environmental contamination.

The primary issue to be resolved through the planning and environmental review process for the Proposed Project is whether the City should adopt the updated CASP to replace the existing CASP. Options include adopting the Proposed Project or some variation of it (such as one of the alternatives considered in this EIR) or continuing to have the existing CASP guide development in the Project Area and throughout the City.

2.3 CLASSIFICATION OF ENVIRONMENTAL IMPACTS

The following environmental impact categories are analyzed in this EIR:

- **Aesthetics.** Consistency with applicable scenic quality regulations and changes to scenic vistas, scenic highways, and light/glare.
- **Air Quality.** Consistency with applicable air quality plan and changes in cumulative pollutant emissions, sensitive receptor exposure, and odors.
- **Biological Resources.** Consistency with applicable habitat conservation plan and policy and impacts to special status species and special species habitat, riparian habitat, wetlands, and migratory wildlife.
- **Cultural Resources.** Impacts to historical resources, archaeological resources, and human remains.
- **Energy.** Consistency with applicable renewable energy plans and changes in energy consumption.
- **Geology and Soils.** Risk from geologic and seismic hazards and impacts to paleontological resources.
- **Greenhouse Gas Emissions.** Generation of greenhouse gases and consistency with applicable plans, policy, and regulations related to climate change and greenhouse gas emissions.
- **Hazards and Hazardous Materials.** Changes in risk or exposure to hazardous materials, and consistency with applicable airport and emergency response plans.
- **Hydrology and Water Quality.** Consistency with applicable water quality plans and policy, and changes in water quality, groundwater supplies, drainage, and release in pollutants.
- **Land Use Planning.** Consistency with applicable land use plans and policies and impacts to community connectivity.
- **Noise.** Changes in noise and vibration levels due to construction, traffic, and operation of future development, and consistency with applicable airport plans.

- **Population and Housing.** Changes in population, and the displacement of housing units or persons.
- **Public Services.** Impacts related to the construction or expansion of public facilities (i.e. police protection, fire protection, schools, and libraries).
- **Recreation.** Impacts related to the construction, expansion, or deterioration of recreational facilities.
- **Transportation.** Consistency with applicable plans and policy related to circulation, impacts related to vehicle miles travelled metric, hazards, and emergency access.
- **Tribal Cultural Resources.** Impacts to tribal cultural resources.
- **Utilities and Services Systems.** Consistency with applicable regulations and goals, and impacts related to the construction of new or expanded facilities (i.e., wastewater treatment, drainage, water, solid waste, electric power, natural gas, telecommunications, police, fire, libraries and schools).

2.4 SUMMARY OF ALTERNATIVES

As required by Section 15126.6 of the CEQA Guidelines, a range of reasonable alternatives to the Proposed Project that would attain most of the basic project objectives but would avoid or substantially lessen any of its significant environmental effects must be examined. Project alternatives aim to identify and disclose ways to mitigate or avoid significant environmental effects that may result from the Proposed Project. Impacts found to be significant and unavoidable in Section 4.0, *Environmental Analysis*, include the exceedance of criteria air pollutant emission standards including construction-related NO_x, PM_{2.5}, PM₁₀ emissions and operation-related VOC, NO_x, CO, PM₁₀, and PM_{2.5} emissions, the possible loss of historical resources, temporary construction-related noise and construction-related vibration impacts, and traffic safety impacts related to highway off-ramps. Impacts found to be potentially significant but able to be reduced to less than significant with the imposition of proposed mitigation include impacts to sensitive receptors from construction-related activities, impacts to birds from construction activities, impacts from ground-disturbing activities to tribal and paleontological resources, or impacts resulting from contaminated soils.

The alternatives considered are summarized below. Project alternatives are further discussed in Section 5.0, *Alternatives*.

- **Alternative 1: No Project Alternative.** The “No Project” alternative involves continued implementation of the existing CASP. This alternative assumes that the City’s existing plans and policies would continue to accommodate development in accordance with existing zoning designations. The Project Area is projected to accommodate a population of 36,021 residents, 12,773 housing units, and 10,005 jobs by 2040. SCAG projects growth of the Project Area to reach 14,444 residents, 5,039 housing units, and 8,797 jobs by 2040. Therefore, population and housing growth in the Project Area would exceed SCAG’s forecasts under current plans, as would forecasted employment growth. Overall, current land use patterns limit population and housing growth in the Project Area, as compared to the Proposed Project, and would likely cause development to occur elsewhere in the region to meet the SCAG’s 2040 Citywide projections. This may increase regional emissions of air pollutants and greenhouse gases as well as increased regional energy consumption, and VMT.
- **Alternative 2: No Urban Village Alternative.** The “No Urban Village” alternative does not include the expansion of the residential Urban Village zone to any new parcels, but it includes other changes to the existing CASP that are likely to increase housing production, such as the

establishment of the new Public Use (P2) zone and allowing 100% affordable housing in the Urban Center, Urban Innovation, and Public Use (P2) zones. Under Alternative 2 the Project Area is projected to accommodate a population of 43,523 residents, 15,434 housing units, and 9,551 jobs by 2040. SCAG projects growth of the Project Area to reach 14,444 residents, 5,039 housing units, and 8,797 jobs by 2040. Therefore, population, housing and employment growth in the Project Area would exceed SCAG's forecasts under current plans, though the City has discretion in how it allocates growth across the City to meet other objectives and has historically allocated more growth to the Project Area than SCAG, consistent with the City's General Plan Framework. Overall, the lack of the residential Urban Village zone expansion would limit population and housing growth in the Project Area, as compared to the Proposed Project but would result in increased job opportunities in the Project Area as commercial and light industrial uses would take the place of residential development.

- **Alternative 3: Reduced Urban Village Alternative.** The "Reduced Urban Village" does include the expansion of the residential Urban Village zone to new parcels, but not to the same extent as the Proposed Project. Compared to the Proposed Project, Alternative 3 does not include any new Urban Village zoning east of the Los Angeles River, or in an area along Main Street west of the Los Angeles River. Under Alternative 3, the Project Area is projected to accommodate a population of 48,527 residents, 17,208 housing units, and 9,055 jobs by 2040. SCAG projects growth of the Project Area to reach 14,444 residents, 5,039 housing units, and 8,797 jobs by 2040. Therefore, population, housing and employment growth in the Project Area would exceed SCAG's forecasts under current plans. Overall, the reduced expansion of the residential Urban Village zone would limit population and housing growth in the Project Area, as compared to the Proposed Project but would result in increased job opportunities in the Project Area as commercial and light industrial uses would take the place of residential development.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires identification of the environmentally superior alternative among the options studied. In general, the environmentally superior alternative is the alternative that would be expected to generate the fewest adverse impacts. If the No Project Alternative (Alternative 1) is identified as environmentally superior, then another environmentally superior alternative shall be identified among the other alternatives.

Alternatives 1, 2, and 3 would all incrementally reduce impacts for multiple issue areas compared to the Proposed Project. This is because these alternatives would all reduce overall development levels in the Project Area. However, none of these alternatives would avoid any of the significant and unavoidable impacts of the Proposed Project. Alternative 1 would involve the lowest overall level of population growth and development in the Project Area. However, because Alternative 1 would not be subject to all of the same mitigation measures as proposed in the Proposed Project, it may result in higher greater overall impacts than the Proposed Project for certain issues, such as noise and tribal cultural resources. In addition, by limiting growth in the Project Area, Alternative 1 could cause more forecast growth and associated development to occur in other areas of the City or region that have less access to transit and longer distances between housing, jobs, and services. In this way, Alternative 1 may also result in greater overall regional VMT and associated GHG emissions.

Between the two other alternatives, Alternative 2 has the potential to reduce impacts more so than Alternative 3, although both are very similar with respect to environmental impacts. Alternative 2 would accommodate less growth in the Project Area, as compared to Alternative 3, potentially resulting in slightly reduced impacts to air quality (operational emissions), cultural resources, hazards/hazardous materials, public services, and utilities/service systems, although Alternative 2 would still result in the same impact conclusions as Alternative 3 and the Proposed Project in all impact categories. Similar to Alternative 1, limiting development potential in the Project Area may induce higher levels of growth in other areas of the

City and region that have fewer transit options and longer distances between housing, jobs, and services, potentially increasing regional traffic and related GHG emissions. Additionally, while significant impacts would potentially be less under Alternative 2, impacts related to historical resources, air quality, construction noise and vibration, and transportation safety impacts related to freeway off-ramp queuing would remain *significant and unavoidable*. Nonetheless, Alternative 2 is identified as the Environmentally Superior Alternative as it would be expected to generate the fewest adverse impacts.

TABLE ES-2 IMPACT COMPARISON OF ALTERNATIVES			
Issue	Alternative 1: No Project	Alternative 2: No Urban Village	Alternative 3: Reduced Urban Village
Aesthetics	=	=	=
Air Quality	+	+	+
Biology	+	+	+
Cultural Resources	+	+	+
Energy	-	-	-
Geology and Soils	+	+	+
Greenhouse Gas Emissions	-	-	-
Hazards/Hazardous Materials	+	+	+
Hydrology/Water Quality	=	=	=
Land Use and Planning	-	-	-
Noise	-	+	+
Population and Housing	-	-	-
Public Services	+	+	+
Recreation	+	+	+
Transportation/Traffic	-	-	-
Tribal Cultural Resources	-	+	+
Utilities/Service Systems	+	+	+
+ Superior to the Proposed Project (reduced level of impact) - Inferior to the Proposed Project (increased level of impact) = Similar level of impact to the Proposed Project Significant and unavoidable impacts are bolded and red. Note that for Alternative 1, impacts would not technically be “significant” under CEQA since that alternative involves continued implementation of the existing CASP; impacts are identified as “significant and unavoidable” if the physical effect associated with the alternative would be equivalent to a “significant impact” if the alternative involved a new discretionary action.			

2.5 SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

A summary of the environmental impacts associated with the Proposed Project is included in **Table ES-3**. If necessary, mitigation measures are included to avoid or decrease the severity of significant impacts. The level of significance before and after mitigation measures is also identified.

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
AESTHETICS				
Scenic Vista	Impact 4.1-1: Would implementation of the Proposed Project have a substantial adverse effect on a scenic vista?	Less than significant	No mitigation required.	Less than significant
Scenic Resources Within a State Scenic Highway	Impact 4.1-2: Would implementation of the Proposed Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No impact	No mitigation required.	No impact
Scenic Quality Zoning and Regulations	Impact 4.1-3: Would the Proposed Project conflict with applicable zoning and other regulations governing scenic quality in an urbanized area? Would the Proposed Project substantially degrade the existing visual character quality of public views of the site and its surroundings in a non-urbanized area?	Less than significant	No mitigation required.	Less than significant
Light and Glare	Impact 4.1-4: Would implementation of the Proposed Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	Less than significant	No mitigation required.	Less than significant
AIR QUALITY				
Air Quality Plan	Impact 4.2-1: Would implementation of the Proposed Project conflict with or obstruct implementation of the applicable air quality plan?	Less than significant	No mitigation required.	Less than significant
Cumulative Increase	Impact 4.2-2: Would implementation of the Proposed Project result in a cumulatively considerable net increase of any criteria pollutant for	<i>Construction</i> – Significant and unavoidable <i>Operation</i> –	4.2-2 Construction Emissions Reduction The City shall require all discretionary projects that involve construction-related activity to comply with the following and require the developers to notify any contractors, and include in	<i>Construction</i> – Significant and unavoidable

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
	which the project region is non-attainment under an applicable federal or state ambient air quality standard?	Significant and unavoidable	<p>any agreements with contractors and subcontractors, the following, or equivalent, best management practices in construction specifications:</p> <p>AQ1-1: Dust Control Compliance with SCAQMD Rule 403</p> <ul style="list-style-type: none"> a. Applicability Threshold Any Project whose construction activities involve the use of construction equipment and require a permit from City of Los Angeles Department of Building and Safety. b. Standard Consistent with SCAQMD Rule 403, best available dust control measures shall be implemented during Ground Disturbance Activities and active construction operations capable of generating dust. <p>AQ1-2: Equipment</p> <ul style="list-style-type: none"> a. Applicability Threshold Any Project whose construction activities involve the use of construction equipment and require a permit from LADBS. b. Standard Maintain construction equipment in good, properly tuned operating condition, as specified by the manufacturer, to minimize exhaust emissions. Documentation demonstrating that the equipment has been maintained in accordance with the manufacturer’s specifications shall be maintained per the proof of compliance requirements in Subsection I.D.6 of the Environmental Protection Measures Handbook. <p>All construction equipment shall achieve emissions reductions that are no less than what could be achieved by a Tier 3 diesel emissions control strategy for a similarly sized engine as defined by California Air Resources Board regulations.</p>	Operation – Significant and unavoidable

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
			<p>AQ1-3: Vehicle Idling Limit and Notification Signs</p> <p>a. Applicability Threshold Any Project whose construction activities involve the use of construction vehicles and require a permit from LADBS.</p> <p>b. Standard Vehicle idling during construction activities shall be limited to five minutes as set forth in the California Code of Regulations, Title 13, Section 2449. Signs shall be posted in areas where they will be seen by vehicle operators stating idling time limits.</p> <p>AQ1-4: Non-Diesel Fueled Electrical Power</p> <p>a. Applicability Threshold Any Project whose construction activities involve the use of construction equipment and require a permit from LADBS.</p> <p>b. Standard Electricity from power poles rather than temporary gasoline or diesel-powered generators shall be used To the Extent Available and Feasible.</p> <p>AQ1-5: Emissions Standards for Off-Road Construction Equipment Greater than 50 Horsepower</p> <p>a. Applicability Threshold Any Project whose construction activities involve the use of construction equipment, require a permit from LADBS, and involve at least 5,000 cubic yards of on-site cut/fill on any given day.</p> <p>b. Standard All off-road diesel-powered construction equipment equal to or greater than 50 horsepower shall meet the U.S. Environmental Protection Agency's (USEPA) Tier 4 emission standards during construction, or use alternative fuels (such as compressed natural gas, liquid petroleum gas, unleaded gasoline, or electricity.). Operators shall</p>	

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
			<p>maintain records of all off-road equipment associated with Project construction to document that each piece of equipment used meets these emission standards per the proof of compliance requirement in Subsection I.D.6.</p> <p>In lieu of compliance with the above requirement, an air quality study prepared in accordance with the SCAQMD's Air Quality Handbook may be provided by the Applicant or Owner demonstrating that Project construction activities would not exceed the SCAQMD's regional and localized construction thresholds.</p> <p>AQ1-6: Use of Low Polluting Fuels</p> <p>a. Applicability Threshold</p> <p>Any Project whose construction activities involve the use of construction equipment, require a permit from LADBS, and involve at least 5,000 cubic yards of on-site cut/fill on any given day.</p> <p>b. Standard</p> <p>Construction equipment less than 50 horsepower shall use low polluting fuels (i.e., compressed natural gas, liquid petroleum gas, unleaded gasoline, or electricity).</p> <p>In lieu of compliance with the above requirement, an air quality study prepared in accordance with the SCAQMD's Air Quality Handbook may be provided by the Applicant or Owner demonstrating that Project construction activities would not exceed the SCAQMD's regional and localized construction thresholds.</p> <p>AQ1-7: Emission Standards for On-Road Haul Trucks</p> <p>a. Applicability Threshold</p> <p>Any Project whose construction activities involve the use of construction equipment, require a permit from LADBS, and involve more than 90 round-trip haul truck trips on any given day for demolition debris and import/export of soil.</p> <p>b. Standard</p>	

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
			<p>Construction haul truck operators for demolition debris and import/export of soil shall use trucks that meet the California Air Resources Board's (CARB) 2010 engine emissions standards at 0.01 g/bhp-hr of particulate matter (PM) and 0.20 g/bhp-hr of nitrogen oxides (NO_x) emissions. Operators shall maintain records of all trucks associated with Project construction to document that each truck used meets these emission standards per the proof of compliance requirements in Subsection I.D.6 of the Environmental Protection Measures Handbook.</p> <p>In lieu of compliance with the above requirement, an air quality study prepared in accordance with the SCAQMD's Air Quality Handbook may be provided by the Applicant or Owner demonstrating that Project construction activities would not exceed the SCAQMD's regional and localized construction thresholds.</p> <p>AQ1-8: Routes for On-Road Haul Trucks</p> <p>a. Applicability Threshold</p> <p>Any Project whose construction activities involve the use of construction vehicles and require a permit from LADBS.</p> <p>b. Standard</p> <p>Construction contractors shall reroute construction trucks away from congested streets or Sensitive Uses, as feasible. The burden of proving that compliance is infeasible shall be upon the Applicant or Owner. Where avoiding Sensitive Uses and congested streets altogether is infeasible, routing away from Sensitive Uses shall be prioritized over routing away from congested streets.</p>	

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
Sensitive Receptors	Impact 4.2-3: Would implementation of the Proposed Project expose sensitive receptors to substantial pollutant concentrations?	<i>Construction</i> – Potentially significant <i>Operation</i> – Less than significant	Refer to Mitigation Measure 4.2-2.	<i>Construction</i> – Less than Significant with mitigation <i>Operation</i> – Less than significant
Odors	Impact 4.2-4: Would implementation of the Proposed Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<i>Construction</i> – Less than significant <i>Operation</i> – Less than significant	No mitigation required.	<i>Construction</i> – Less than significant <i>Operation</i> – Less than significant
BIOLOGICAL RESOURCES				
Special Status Species Habitat	Impact 4.3-1: Would implementation of the Proposed Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Potentially significant	<p>4.3-1 Biological Resources Assessment For individual projects that will include disturbance of vegetation, trees, structures, or other areas where biological resources could be present, a qualified biologist shall be retained by the applicant to conduct an initial site assessment. The assessment will include a review of the California Natural Diversity Database (CNDDDB) and iNaturalist maps to determine where sightings have occurred or habitats for nesting birds, or bat species have previously been identified. A site assessment survey may be required for sites that are in proximity to areas where habitats for nesting birds or bat species occur. Species-specific surveys may be required for sites that contain suitable habitats for nesting birds or bat species.</p> <p>4.3-2(a) Pre-Construction Bird Nest Surveys and Avoidance For projects in the Project Area, a pre-construction survey for nesting bird, including ground nest birds, survey shall be conducted no more than ten days prior to initiation of ground disturbance and vegetation removal activities for any grading or</p>	Less than significant with mitigation

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
			<p>construction activity initiated during the bird nesting season (February 1 – August 31). The nesting bird pre-construction survey shall be conducted on foot by a qualified biologist and shall include a 100-foot buffer around the construction site. If nests are found, an avoidance buffer (dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary. All construction personnel shall be notified as to the existence of the buffer zone and to avoid entering the buffer zone during the nesting season. No ground disturbing activities or vegetation removal shall occur within this buffer until the biologist has confirmed that breeding/ nesting is completed and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist on the basis that the encroachment will not be detrimental to an active nest. A Statement of Compliance signed by the Applicant and Owner is required to be submitted to LADBS at plan check and prior to the issuance of any permit. Any survey, report, construction monitoring, and implementation of protective measures conducted shall be documented by a qualified biologist, and shall be provided to the City upon request. Best management practices (BMPs) to avoid disturbing nesting birds, including burrowing owls, during construction include visually check all sections of pipe or other construction materials for the presence of wildlife before moving and capping or elevating the ends of all pipes or similar construction materials while storing to prevent wildlife from entering them.</p> <p>4.3-2(b) Notification All project applicants will be notified of and shall include on their plans an acknowledgement of the requirement to comply with the federal MBTA and CFGC to not destroy active bird nests and of best practices recommended by qualified biologist to avoid impacts to active nests, including checking for nests prior to construction activities during February 1-August 31 and what</p>	

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
			to do if an active nest is found, including inadvertently during grading or construction activities. Such best practices shall include giving an adequate construction and grading buffer to avoid the active nest during construction.	
Riparian Habitat	Impact 4.3-2: Would implementation of the Proposed Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	Less than significant	No mitigation required.	Less than significant
Wetlands	Impact 4.3-3: Would implementation of the Proposed Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Potentially significant	Mitigation Measure AQ1-1 in Section 4.2 <i>Air Quality</i> would address impacts related to fugitive dust.	Less than significant
Migratory Wildlife, Biological Resources Plan	Impact 4.3-4: Would implementation of the Proposed Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Less than significant	No mitigation required.	Less than significant
Local Policies and Ordinances	Impact 4.3-5: Would implementation of the Proposed Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Less than significant	No mitigation required.	Less than significant

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
Habitat Conservation Plan	Impact 4.3-6: Would implementation of the Proposed Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No impact	No mitigation required.	No impact
CULTURAL RESOURCES				
Historical Resources	Impact 4.4-1: Would implementation of the Proposed Project cause a substantial adverse change in the significance of a historical resource as pursuant to § 15064.5?	Significant and unavoidable	No feasible mitigation measures have been identified.	Significant and unavoidable
Archaeological Resources	Impact 4.4-2: Would implementation of the Proposed Project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	Potentially significant	<p>4.4-2(a) Archaeological Resources Evaluation and Avoidance/Recovery</p> <p>For any project that requires a permit for grading or excavation; if a possible archaeological resource is uncovered during earthwork or construction, all work shall cease within a minimum distance of 50 feet from the find until a qualified archaeologist has been retained to evaluate the find in accordance with National Register of Historic Places and California Register of Historical Resources criteria. The qualified archaeologist may adjust this avoidance area, ensuring appropriate temporary protection measures of the find are taken while also considering ongoing construction needs in the surrounding area. Temporary staking and delineation of the avoidance area shall be installed around the find in order to avoid any disturbance from construction equipment. Ground disturbance activities may continue unimpeded on other portions of the site outside the specified radius.</p> <p>Any potential archaeological resource or associated materials that are uncovered shall not be moved or collected by anyone other than an archaeological monitor or qualified archaeologist unless the materials have been determined to be non-unique archaeological resources, as defined in Public Resources Code</p>	Less than significant with mitigation

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
			<p>Section 21083.1(h), by the qualified archaeologist. The qualified archaeologist shall determine if the resources are unique archaeological resources as defined in Public Resources Code Section 21083.2(g).</p> <p>Consistent with Public Resources Code Section 21083.2, the handling, treatment, preservation, and recordation of unique archaeological resources should occur as follows:</p> <ul style="list-style-type: none"> • The find should be preserved in place or left in an undisturbed state unless the project would damage the resource. • When preserving in place or leaving in an undisturbed state is not possible, excavation and recovery of the find for scientific study should occur unless testing or studies already completed have adequately recovered the scientifically consequential information from and about the resource, and this determination is documented by a qualified archaeologist. <p>Ground Disturbance Activities in the area where resource(s) were found may recommence once the identified resources are properly assessed and processed by a qualified archaeologist. A report that describes the resource(s) and its disposition, as well as the assessment methodology, shall be prepared by the qualified archaeologist according to current professional standards and maintained for a minimum of five years after the Certificate of Occupancy is used. If appropriate, the report should also contain the qualified archaeologist's recommendations for the preservation, conservation, and curation of the resource at a suitable repository, such as the Natural History Museum of Los Angeles County, with which the Applicant or Owner must comply.</p> <p>4.4-2(b) Archaeological Assessment</p> <p>Prior to issuance of a permit for grading or excavation all project applicants will receive notice and acknowledge receipt of the following notice:</p>	

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
			<p>Several laws regulate the treatment of archaeological, paleontological, and tribal cultural resources and make it a criminal violation to destroy those resources. These regulations include, but are not limited to:</p> <ul style="list-style-type: none"> • California Penal Code Section 622.5 provides the following: “Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of archeological or historical interest or value, whether situated on private lands or within any public park or place, is guilty of a misdemeanor.” • Public Resources Code Section 5097.5(a) states: “A person shall not knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.” • California Code of Regulations, Title 14, Section 4307 states: “No person shall remove, injure, deface or destroy any object of paleontological, archaeological, or historical interest or value.” Section 1427 “recognizes that California’s archaeological resources are endangered by urban development and population growth and by natural forces...Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of archaeological or historical interest or value, whether situated on private lands or within any public park of place, is guilty of a misdemeanor. It is a misdemeanor to alter any archaeological evidence found in any cave, or to remove any materials from a cave.” <p>The following best practices are recognized by archaeologists and environmental consultants to ensure archaeological resources are not damaged during grading, excavation, or other Ground Disturbance Activities:</p>	

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			<ul style="list-style-type: none"> Records Search. A cultural resources records search should be requested from and conducted by the California Historical Resources Information System's (CHRIS) South Central Coastal Information Center (SCCIC) located at California State University, Fullerton to determine whether any cultural resources have been previously identified on or within a 0.5-mile radius of the Project site. The results of this records search shall be used as an indicator of the archaeological sensitivity of the Project site. A qualified archaeologist shall be retained and use all reasonable methods, consistent with professional standards and best practices, to determine the potential for archaeological resources to be present on the Project site. If the qualified archaeologist determines there is a medium to high potential that archaeological resources may be located on the Project site and it is possible that such resources will be impacted by the Project, the qualified archaeologist shall advise the Applicant and Owner to retain an Archaeological monitor to observe all Ground Disturbance Activities within those areas identified as having a medium to high potential in order to identify any resources and avoid potential impacts to such resources. Monitoring. An archaeological monitor should monitor excavation and grading activities in soils that have not been previously disturbed in order to identify and record any potential archaeological finds and avoid potential impacts to such resources. In the event of a possible archaeological discovery, the archaeological monitor shall notify a qualified archaeologist. The Archaeological monitor has the authority to temporarily halt earthwork activities. Handling, Evaluation, and Preservation. Any archaeological resource materials or associated materials that are uncovered shall not be moved or collected by anyone other than an archaeological monitor or qualified archaeologist unless they have been determined to be nonunique archaeological resources, as defined in Public Resources Code Section 21083.1(h) by a qualified archaeologist. A 	

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			<p>qualified archaeologist shall determine if the resources are unique archeological resources as defined in Public Resources Code Section 21083.2(g).</p> <ul style="list-style-type: none"> • Consistent with Public Resources Code Section 21083.2, the handling, treatment, preservation, and recordation of unique archaeological resources should occur as follows: <ul style="list-style-type: none"> ○ The find should be preserved in place or left in an undisturbed state unless the Project would damage the resource. ○ When preserving in place or leaving in an undisturbed state is not possible, excavation and recovery of the find for scientific study should occur unless testing or studies already completed have adequately recovered the scientifically consequential information from and about the resource, and this determination is documented by a qualified archaeologist. • If recommended by the qualified archaeologist, the resource(s) shall be curated by a public, non-profit institution with a research interest in the material, such as the Natural History Museum of Los Angeles County or another appropriate curatorial facility for educational purposes. • Ground Disturbance Activities in the area where resource(s) were found may recommence once the identified resources are properly assessed and processed by a qualified archaeologist. <p>4.4-2(c) Zanja Madre HAER Documentation Projects within 500 feet of the currently mapped known segments of the Zanja system (see Appendix E) have increased likelihood of encountering segments of the Zanja system during construction. The Zanja system includes the Zanja Madre and its outbranching secondary Zanja segments. If possible, segments of the Zanja system are uncovered during earthwork or construction, all work shall cease within a minimum distance of 50 feet from the find until a qualified archaeologist has been retained to inspect and evaluate the</p>	

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Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
			<p>find. The qualified archaeologist may adjust this avoidance area, ensuring appropriate temporary protection measures of the find are taken while also considering ongoing construction needs in the surrounding area. Temporary staking and delineation of the avoidance area shall be installed around the find in order to avoid any disturbance from construction equipment. Ground Disturbance Activities may continue unimpeded on other portions of the site outside the specified radius.</p> <p>At a minimum, and even if avoided, should the find be determined to be related to the Zanja system, the qualified archaeologist shall prepare a memo and complete all relevant State of California Department of Parks and Recreation (DPR) DPR 523 forms documenting the find.</p> <p>If the qualified archaeologist, having evaluated the find, determines that the find retains integrity, documentation consistent with the standards and guidelines established the Historic American Engineering Record (HAER) shall be undertaken and transmitted to the Library of Congress before any alteration, demolition, construction, or removal activity may occur within the determined avoidance area. Documentation shall include narrative records, measured drawings, and photographs in conformance with HAER Guidelines. The found segments shall also be mapped using Geographic Information Systems (GIS) or 3D mapping technology in order to contribute to the existing record of the location and extent of the Zanja system as a whole. At minimum, GIS data shall include the geographic coordinates and depth of all portions of the find. All records, including geographic data, georeferenced photographs, and information about the depth of the find shall be submitted to City Planning. Report documentation and GIS files shall additionally be provided to the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton.</p> <p>In addition to HAER documentation, if determined appropriate by the qualified archaeologist, one or more of the following</p>	

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Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
			<p>specific treatments shall be developed and implemented based on potential California Register eligibility criteria or the significance of the find as a unique archaeological resource:</p> <ul style="list-style-type: none"> • Treatment Under Criterion 1: Treatment shall include interpretation of the Zanja Madre System for the public. The interpretive materials may include, but not be limited to, interpretive displays of photographs and drawings produced during the HAER documentation, signage at the Zanja Madre alignment, relocating preserved segments in a publicly accessible display, or other visual representations of Zanja alignments through appropriate means such as a dedicated internet website other online-based materials. At a minimum, the interpretive materials shall include photographs and drawings produced during the HAER documentation, and signage. These interpretive materials shall be employed as part of Project public outreach efforts that may include various forms of public exhibition and historic image reproduction. Additionally, the results of the historical and archaeological studies conducted for the Project shall be made available to the public through repositories such as the local main library branch or with identified non-profit historic groups interested in the subject matter. The interpretive materials shall be prepared at the expense of the Project applicant, by professionals meeting the Secretary of the Interior standards in history or historical archaeology. The development of the interpretive materials shall consider any such materials already available to the public so that the development of new materials would add to the existing body of work on the historical Los Angeles water system, and to this end, shall be coordinated, to the extent feasible and to the satisfaction of the Department of City Planning. The interpretive materials shall include a consideration of the Zanja Madre segment located on the Project Site in relation to the entire Zanja system. The details of the interpretive materials, including the content and format, and the timing of their preparation, shall be 	

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			completed to the satisfaction and subject to the approval of the Department of City Planning. <ul style="list-style-type: none"> • Treatment Under Criterion 2: No additional work; archival research about important persons directly associated with the construction and use of Zanja Madre would be addressed as part of HAER documentation. • Treatment Under Criterion 3: No additional work; HAER documentation is sufficient. • Treatment Under Criterion 4: No additional work; archaeological data recovery and HAER documentation are sufficient. • Treatment as a unique archaeological resource: Same as Criterion 1 treatment. 	
Human Remains	Impact 4.4-3: Would implementation of the Proposed Project disturb any human remains, including those interred outside of dedicated cemeteries?	Less than significant	No mitigation required.	Less than significant
ENERGY				
Inefficient Energy Consumption	Impact 4.5-1: Would implementation of the Proposed Project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Less than significant	No mitigation required.	Less than significant
Renewable Energy/Energy Efficiency Plans	Impact 4.5-2: Would implementation of the Proposed Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less than significant	No mitigation required.	Less than significant

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Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
GEOLOGY AND SOILS				
Earthquake Fault, Seismicity, and Seismic-Related Ground Failure	Impact 4.6-1: Would implementation of the Proposed Project directly or indirectly cause potential adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42 ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides?	No impact	No mitigation required.	No impact
Soil Erosion	Impact 4.6-2: Would implementation of the Proposed Project result in substantial soil erosion or the loss of topsoil?	Less than significant	No mitigation required.	Less than significant
Geologic Hazards / Unstable Soils	Impact 4.6-3: Would development of the Proposed Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Less than significant	No mitigation required.	Less than significant

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Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
Expansive Soil	Impact 4.6-4: Would development of the Proposed Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Less than significant	No mitigation required.	Less than significant
Septic Tanks	Impact 4.6-5: Would the Proposed Project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	No impact	No mitigation required.	No impact
Paleontological Resources	Impact 4.6-6: Would implementation of the Proposed Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Potentially significant	<p>4.6-6(a) Paleontological Resources</p> <ul style="list-style-type: none"> Retention of Qualified Paleontologist. The project applicant shall retain a Qualified Paleontologist prior to excavations. The Qualified Paleontologist shall direct all mitigation measures related to paleontological resources. A qualified professional paleontologist is defined by the Society of Vertebrate Paleontology (SVP) standards (SVP 2010) as an individual preferably with an M.S. or Ph.D. in paleontology or geology who is experienced with paleontological procedures and techniques, who is knowledgeable in the geology of California, and who has worked as a paleontological mitigation project supervisor for a least two years (SVP 2010). Paleontological Worker Environmental Awareness Program. Prior to the start of construction, the Qualified Paleontologist or their designee shall conduct a paleontological Worker Environmental Awareness Program (WEAP) training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff. Paleontological Monitoring. Full-time paleontological monitoring shall be conducted during the initial phases of ground disturbing construction activities (i.e., grading, 	Less than significant with mitigation

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			<p>trenching, foundation work) within sediments with a high paleontological sensitivity. Paleontological monitoring shall be conducted by a qualified paleontological monitor, who is defined as an individual who has experience with collection and salvage of paleontological resources and meets the minimum standards of the SVP (2010) for a Paleontological Resources Monitor. The duration and timing of the monitoring shall be determined by the Qualified Paleontologist based on the observation of the geologic setting from initial ground disturbance, and subject to the review and approval by the City of Los Angeles. If the Qualified Paleontologist determines that full-time monitoring is no longer warranted, based on the specific geologic conditions once the full depth of excavations has been reached, they may recommend that monitoring be reduced to periodic spot-checking or ceased entirely. Monitoring shall be reinstated if any new ground disturbances are required, and reduction or suspension shall be reconsidered by the Qualified Paleontologist at that time. In the event of a fossil discovery by the paleontological monitor or construction personnel, all work in the immediate vicinity of the find shall cease. A Qualified Paleontologist shall evaluate the find before restarting construction activity in the area. If it is determined that the fossil(s) is (are) scientifically significant, the Qualified Paleontologist shall complete the following conditions to mitigate impacts to significant fossil resources:</p> <ul style="list-style-type: none"> • Salvage of Fossils. If fossils are discovered, the paleontological monitor shall have the authority to halt or temporarily divert construction equipment within 50 feet of the find until the monitor and/or lead paleontologist evaluate the discovery and determine if the fossil may be considered significant. Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. Bulk matrix 	

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			<p>sampling may be necessary to recover small invertebrates or microvertebrates from within paleontologically sensitive deposits.</p> <ul style="list-style-type: none"> • Treatment of Paleontological Resources. Once salvaged, significant fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection (such as the Natural History Museum of Los Angeles County), along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the Qualified Paleontologist. • Final Paleontological Mitigation Report. Upon completion of ground disturbing activity (and curation of fossils if necessary) the Qualified Paleontologist shall prepare a final report describing the results of the paleontological monitoring efforts associated with the project. The report shall include a summary of the field and laboratory methods, an overview of the project geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) including their scientific significance, and recommendations. The report shall be submitted to the City of Los Angeles. If the monitoring efforts produced fossils, a copy of the report shall also be submitted to the designated museum repository. <p>4.6-6(b) Treatment of Paleontological Resources For discretionary projects, the City shall require that all paleontological resources identified on a project site be assessed and treated. A report shall be prepared according to current professional standards that describes the resource, how it was assessed, and disposition.</p> <p>4.6-6(c) Notification of Intent to Excavate Language For all projects not subject to 4.6-6(a) that are seeking excavation or grading permits, the Department of Building and Safety shall issue the following notice and obtain an acknowledgement of receipt of the notice from applicants:</p>	

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Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
			<ul style="list-style-type: none"> • California Penal Code Section 622.5 provides the following: “Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of archeological or historical interest or value, whether situated on private lands or within any public park or place, is guilty of a misdemeanor.” • PRC Section 5097.5 provides protection for cultural and paleontological resources, where Section 5097.5(a) states, in part, that: “No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.” • California Code of Regulations, Title 14, Section 4307 states that “no person shall remove, injure, deface or destroy any object of paleontological, archaeological, or historical interest or value.” Section 1427 “recognizes that California’s archaeological resources are endangered by urban development and population growth and by natural forces....Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of archaeological or historical interest or value, whether situated on private lands or within any public park of place, is guilty of a misdemeanor. It is a misdemeanor to alter any archaeological evidence found in any cave, or to remove any materials from a cave.” • Best practices to ensure unique geological and paleontological resources are not damaged include but are not limited to the following steps: <ul style="list-style-type: none"> ○ Prior to excavation and grading activities, a qualified paleontologist prepares a resource assessment using records from the Natural History Museum of Los Angeles County. 	

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			<ul style="list-style-type: none"> ○ If in the assessment, the soil is identified as potentially containing paleontological resources, a qualified paleontologist monitors excavation and grading activities in soils that have not been previously disturbed, to identify, record, and evaluate the significance of any paleontological finds during construction. ○ If paleontological resources are uncovered (in either a previously disturbed or undisturbed area), all work ceases in the area of the find until a qualified paleontologist has evaluated the find in accordance with federal, state, and local guidelines. ○ If fossils are discovered, a qualified paleontologist shall recover them. Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. In this case the paleontologist would have the authority to temporarily direct, divert or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner. Handline and disposition of fossils is done at the direction and guidance of a qualified paleontologist. ○ Personnel of the project would not collect or move any paleontological materials or associated materials. ○ If cleared by the qualified paleontologist, construction activity would continue unimpeded on other portions of the project site. ○ Construction activities in the area where resources were found would commence once the identified resources are properly assessed and processed by a qualified paleontologist and if construction activities were cleared by the qualified paleontologist. 	

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GREENHOUSE GASES				
Plans, Policies or Regulations	Impact 4.7-1: Whether the Proposed Project be consistent with AB 32, SB 32, SB 375 (through demonstration of conformance with the 2016–2040 RTP/SCS), the Sustainable City pLAN and GreenLA?	Less than significant	No mitigation required.	Less than significant
HAZARDS AND HAZARDOUS MATERIAL				
Hazardous Materials Transport, Use, Disposal	Impact 4.8-1: Would implementation of the Proposed Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less than significant	No mitigation required.	Less than significant
Hazardous Materials Upset or Accident	Impact 4.8-2: Would implementation of the Proposed Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Less than significant	No mitigation required.	Less than significant
Hazards within ¼ Mile of School	Impact 4.8-3: Would implementation of the Proposed Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	Potentially significant	Refer to mitigation measure 4.8-4.	Less than significant with mitigation
Hazardous Materials Sites	Impact 4.8-4: Would the Proposed Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a	Potentially significant	4.8-4(a) Database Review, Investigation, and Remediation. Prior to issuance of a grading permit, the following databases shall be consulted to determine whether or not the site to be graded is within 500 feet of an identified active hazardous material site.	Less than significant with mitigation

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Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
	significant hazard to the public or the environment?		<ul style="list-style-type: none"> • SWRCB GeoTracker database (SWRCB 2022) • DTSC EnviroStor database (DTSC 2022) • USEPA SEMS database in Envirofacts (USEPA 2021d) • DTSC Hazardous Waste Tracking System (refer to https://hwts.dtsc.ca.gov) • LAFD Certified Unified Program Agency (refer to the active, inactive, and historical inventory lists at https://www.lafd.org/fire-prevention/cupa/public-records) • Los Angeles County Fire Department Health Hazardous Materials Division (refer to the active and inactive facilities, site mitigation, and California Accidental Release Prevention inventory lists at https://fire.lacounty.gov/public-records-requests) • SCAQMD Facility Information Detail (refer to https://xapprod.aqmd.gov/find) • RCRA Small-Quantity Generator or Large-Quantity Generator (refer to the U.S. EPA Envirofacts database at https://enviro.epa.gov/index.html) • If the site is identified in the databases within 500 feet of an identified active hazardous material site, or if the site to be graded is located on a site that: <ol style="list-style-type: none"> 1. Is located in an Oil Drilling District or located on or within 50 feet of a property identified by CalGEM as having an oil well or oil field (active or inactive); 2. Was currently and/or previously designated with an industrial use class or industrial zoning, in whole or in part 3. Was previously or is currently used as a gasoline station or dry-cleaning facility, or 4. The applicant or property owner are aware or have reason to be aware that the site was previously used for an industrial use, gasoline station, or dry cleaner; and 5. The site has not been previously remediated to the satisfaction of the relevant regulatory agency/agencies 	

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			<p>for any contamination associated with the above uses or site conditions,</p> <p>The following process shall be followed prior to issuance of a grading permit:</p> <ul style="list-style-type: none"> • A Phase I ESA shall be conducted by a qualified environmental professional in accordance with current State standards/guidelines and professional standards, including the ASTM Standard Practice for Environmental Site Assessments. • If the Phase I ESA identifies a REC and/or if recommended in the Phase I ESA, a Phase II ESA (subsurface investigation) shall be conducted by a qualified environmental professional to determine whether the identified potential sources have resulted in soil, groundwater, or soil vapor contamination exceeding regulatory action levels. • If the Phase II ESA identifies contamination exceeding regulatory action levels, additional assessment, remediation, or corrective action (e.g., removal of contamination, in-situ treatment, soil capping) shall be conducted under the oversight of State and/or local agency officials (as necessary) and in full compliance with applicable State and federal laws and regulations. If remediation is determined to be necessary, the grading permit shall not be issued until the applicable regulatory agency has indicated that further remedial action is not required by issuing a No Further Action letter or that any remedial action can be implemented in conjunction with excavation and/or grading. <p>4.8-4(b) Notification of Intent to Excavate Language For all discretionary projects not subject to Mitigation Measure 4.8-4(a) that are seeking excavation or grading permits, the Department of Building and Safety shall obtain the following acknowledgement and affidavit from the applicant: No known recognized soil or groundwater contamination exceeding regulatory action levels is present on-site. If</p>	

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			contamination exceeding regulatory action levels is discovered during excavation, grading, or construction activities, the applicant and his/her/its contractors shall provide evidence of compliance with all applicable federal, state and local regulations for remediation of hazardous materials, including but not limited to notifying the appropriate oversight agency (e.g., DTSC, the Water Board, County Environmental Health) of the contamination, hiring a qualified environmental professional to conduct the necessary assessments and abatement (including soil sampling, preparing a remediation plan to adequately abate the hazardous materials, and ultimately obtaining necessary clearance letters from the oversight agency), and issuance of a No Further Action letter, if applicable, before obtaining an occupancy permit. If oversight or approval by a regulatory agency is not required, a qualified environmental professional shall provide written verification of compliance with and completion of the remediation plan, such that the site meets the applicable standards for the proposed use, which shall be maintained pursuant to appropriate proof of compliance requirements.	
Airport Plan	Impact 4.8-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the area?	No impact	No mitigation required.	No impact
Emergency Response Plans	Impact 4.8-6: Would implementation of the Proposed Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less than significant	No mitigation required.	Less than significant

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Wildland Fire	Impact 4.8-7: Would implementation of the Proposed Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires	No impact	No mitigation required.	No impact
HYDROLOGY AND WATER QUALITY				
Groundwater Quality / Discharge Requirements	Impact 4.9-1: Would implementation of the Proposed Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	Less than significant	No mitigation required.	Less than significant
Groundwater	Impact 4.9-2: Would the Proposed Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Less than significant	No mitigation required.	Less than significant
Drainage – Erosion, Runoff, Flooding	Impact 4.9-3: Would the Proposed Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river through the addition of impervious surfaces, in a manner which would: (i) Result in substantial erosion or siltation on- or off-site; (ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site (iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater	Less than significant	No mitigation required.	Less than significant

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	drainage systems or provide substantial additional sources of polluted runoff; or (iv) Impede or redirect flood flows?			
Pollutants	Impact 4.9-4: In flood hazard, tsunami, or seiche zones, would the Proposed Project risk release of pollutants due to project inundation?	Less than significant	No mitigation required.	Less than significant
Water Quality Plans and Policy Consistency	Impact 4.9-5: Would the Proposed Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Less than significant	No mitigation required.	Less than significant
LAND USE AND PLANNING				
Physically Divide a Community	Impact 4.10-1: Would implementation of the Proposed Project physically divide an established community?	No impact	No mitigation required.	No impact
Land Use Plans and Policy Consistency	Impact 4.10-2: Would implementation of the Proposed Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Less than significant	No mitigation required.	Less than significant
NOISE				
Noise Levels	Impact 4.11-1: Would implementation of the Proposed Project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<i>Permanent, stationary noise</i> – Less than significant <i>Permanent, mobile noise</i> – Significant and unavoidable	4.11-1 Project-Specific Noise Study. A Noise Study, prepared by a qualified noise expert to meet the requirements herein, shall be required for all discretionary projects in the CASP Area located within 500 feet of noise-sensitive land uses and that have one or more of the following characteristics: <ul style="list-style-type: none"> Two or more subterranean levels or 20,000 cubic yards or more of excavated material; 	<i>Permanent, stationary noise</i> – Less than significant <i>Permanent, mobile noise</i> –

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
		<i>Temporary – Significant and unavoidable</i>	<ul style="list-style-type: none"> • Construction duration (excluding architectural coatings) of 18 months or more; • Use of large, heavy-duty equipment rated 300 horsepower or greater; or • The potential for impact pile driving. <p>Noise-sensitive land uses are residences, transient lodgings, schools, libraries, churches (or other places of assembly), hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and parks. The Noise Study shall characterize sources of construction noise, quantify noise levels at noise-sensitive uses, and identify measures to reduce noise exposure. The Noise Study shall identify reasonably available noise reduction devices or techniques to reduce noise levels to acceptable levels and/or durations including through reliance on any relevant federal, state or local standards or guidelines or accepted industry practices, and in compliance with LAMC standards. Noise reduction devices or techniques shall include but not be limited to mufflers, shields, sound barriers, and time and place restrictions on equipment and activities. Each measure in the Noise Study shall identify anticipated noise reductions at noise-sensitive land uses. Project applicants shall be required to comply with all measures identified and recommended by the Noise Study and shall maintain proof that notice of, as well as compliance with, the identified measures have been included in contractor agreements.</p>	<p>Significant and unavoidable</p> <p><i>Temporary – Significant and unavoidable</i></p>
Groundborne Vibration	Impact 4.11-2: Would implementation of the Proposed Project generate excessive groundborne vibration or groundborne noise levels?	<i>Operational – Less than significant</i> <i>Temporary Construction – Significant and unavoidable</i>	<p>4.11-2(a) Vibration Control Plan</p> <p>For construction activity for discretionary projects involving heavy construction equipment (e.g., large bulldozer or excavator) within 25 feet of an extremely fragile building (non-engineered masonry) or historical resource (designated or in SurveyLA or other City recognized survey), the applicant shall prepare a Vibration Control Plan. The Vibration Control Plan requirement will also apply to use of pile drivers within 135 feet of an extremely fragile building or historical resource. The Vibration Control Plan shall be prepared by a qualified</p>	<p><i>Operational – Less than significant without mitigation</i></p> <p><i>Temporary Construction –</i></p>

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
			<p>structural engineer and shall include methods to minimize vibration, including but not limited to:</p> <ul style="list-style-type: none"> • Use of drilled piles or the use of a sonic vibratory pile driver rather than impact pile driving • Use of rubber-tired equipment rather than metal-tracked equipment • Avoiding the use of vibrating equipment when allowed by best engineering practices <p>The Vibration Control Plan shall include a pre-construction survey letter establishing baseline conditions at potentially affected extremely fragile buildings/historical resources. The survey letter shall provide a shoring design to protect the extremely fragile building/historical resource from potential damage. At the conclusion of vibration causing activities, the qualified structural engineer shall issue a follow-up letter describing damage, if any, to impacted buildings. The letter shall include recommendations for any repair, as may be necessary, in conformance with the Secretary of the Interior Standards. Repairs shall be undertaken and completed in conformance with all applicable codes including the California Historical Building Code (Part 8 of Title 24).</p> <p>A Statement of Compliance signed by the Applicant and Owner is required to be submitted to LADBS at plan check and prior to the issuance of any permit. The Vibration Control Plan, prepared as outlined above shall be documented by a qualified structural engineer, and shall be provided to the City upon request.</p> <p>4.11-2(b) Best Management Practices for Vibration</p> <p>For projects that are not required to comply with mitigation measure 4.11-2(a), the City shall notify developers of the following best management practices to reduce damage to vibration-sensitive uses:</p> <ul style="list-style-type: none"> • Impact pile drivers shall be avoided to eliminate excessive vibration levels. Drilled piles or the use of a sonic vibratory 	Significant and unavoidable

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
			pile driver are alternatives that shall be utilized where geological conditions permit their use. <ul style="list-style-type: none"> • Construction activities shall involve rubber-tired equipment rather than metal-tracked equipment. • The construction contractor shall manage construction phasing (scheduling demolition, earthmoving, and ground-impacting operations so as not to occur in the same time period), use low-impact construction technologies, and shall avoid the use of vibrating equipment when allowed by best engineering practices. 	
Private Airstrip / Airport Plan	Impact 4.11-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Proposed Project expose people residing or working in the project area to excessive noise levels?	No impact	No mitigation required.	No impact
POPULATION, HOUSING AND EMPLOYMENT				
Induce Substantial Population Growth	Impact 4.12-1: Would implementation of the Proposed Project induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	Less than significant	No mitigation required.	Less than significant
Displacement of Existing People or Housing	Impact 4.12-2: Would implementation of the Proposed Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Less than significant	No mitigation required.	Less than significant

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
PUBLIC SERVICES				
Fire Protection	Impact 4.13-1: Would the Proposed Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection?	Less than significant	No mitigation required.	Less than significant
Police Protection	Impact 4.13-2: Would the Proposed Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection?	Less than significant	No mitigation required.	Less than significant
Public Schools	Impact 4.13-3: Would the Proposed Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service or other	Less than significant	No mitigation required.	Less than significant

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
	performance objectives for public schools?			
Libraries	Impact 4.13-4: Would the Proposed Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for libraries?	Less than significant	No mitigation required.	Less than significant
RECREATION				
Existing Regional Parks or Recreation Facilities	Impact 4.14-1: Would the Proposed Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Less than significant	No mitigation required.	Less than significant
Recreational and Governmental Facilities	Impact 4.12-2: Does the Proposed Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? Impact 4.12-3: Would the Proposed Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or need for new or physically altered governmental facilities, the	Less than significant	No mitigation required.	Less than significant.

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
	construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks?			
TRANSPORTATION				
Circulation System Programs and Policy	Impact 4.15-1: Would implementation of the Proposed Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?	Less than significant	No mitigation required.	Less than significant
CEQA Guidelines	Impact 4.15-2: Would implementation of the Proposed Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	No impact	No mitigation required.	No impact
Design Feature Hazards	Impact 4.15-3: Would implementation of the Proposed Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Significant and Unavoidable impact related to freeway queuing	No feasible mitigation measures identified. Subsequent land use development projects that are seeking approval under the plan study freeway queuing and safety impacts in more detail per the Interim Guidance for Freeway Safety Analysis.	Significant and Unavoidable (related to freeway queuing)
Emergency Access	Impact 4.15-4: Would implementation of the Proposed Project result in inadequate emergency access?	Less than significant	No mitigation required.	Less than significant
TRIBAL RESOURCES				
Historical and Tribal Resources	Impact 4.16-1: Would implementation of the Proposed Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of	Potentially significant	Individual projects subject to CEQA would be required to adhere to Assembly Bill 52 and discretionary projects would be subject to mitigation measures 4.4-2(a), (b), and (c) in Section 4.4, <i>Cultural Resources</i> . Also, the following is required. 4.16-1(a) Unanticipated Discovery of Tribal Cultural Resources	Less than significant with mitigation

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
	<p>the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <ul style="list-style-type: none"> • Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or • A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe? 		<p>If a possible tribal cultural resource is uncovered during earthwork or construction related to any project that requires a permit for grading or excavation, all work shall cease within a minimum distance of 50 feet from the find until a Qualified Tribal Monitor or Archaeological Monitor has been retained to evaluate the find.</p> <p>Following discovery, the Applicant or Owner shall immediately contact all Native American tribes that have informed the City of Los Angeles they are traditionally and culturally affiliated with the geographic area of the Project, as well as the Department of City Planning, Office of Historic Resources (OHR). If a Qualified Tribal Monitor or Archaeological Monitor determines, pursuant to Public Resources Code Section 21074(a)(2), that the object or artifact appears to be a potential tribal cultural resource, in its discretion and supported by substantial evidence, the Applicant and Owner shall provide any affected tribe a reasonable period of time, not less than five business days, to conduct a site visit and make recommendations to the Applicant or Owner and OHR regarding the monitoring of future Ground Disturbance Activities and the treatment and disposition of any discovered tribal cultural resources. The Applicant or Owner shall implement the tribe's recommendations if the Qualified Tribal Monitor or Archaeological Monitor reasonably concludes such recommendations are reasonable and feasible.</p> <p>Consistent with Public Resources Code Section 21083.2, the handling, treatment, preservation, and recordation of tribal cultural resources should occur as follows:</p> <ul style="list-style-type: none"> • The find should be preserved in place or left in an undisturbed state unless the Project would damage the resource. • When preserving in place or leaving in an undisturbed state is not possible, excavation and recovery of the find for scientific study should occur unless testing or studies already completed have adequately recovered the scientifically consequential information from and about the 	

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
			<p>resource, and this determination is documented by a Qualified Tribal Monitor or Qualified Archaeologist.</p> <p>All collected artifacts and fieldwork notes, if not human remains or other mortuary objects, shall be curated at the Natural History Museum of Los Angeles County or another appropriate curatorial facility for educational purposes. If cleared by the Qualified Tribal Monitor or Archaeological Monitor, Ground Disturbance Activities may continue unimpeded on other portions of the site. Ground Disturbance Activities in the area where resource(s) were found may recommence once the identified resources are properly assessed and processed. A report that describes the resource and its disposition, as well as the assessment methodology shall be prepared by the Qualified Tribal Monitor or Archaeological Monitor, according to current professional standards and maintained pursuant to the proof of compliance requirements in Subsection I.D.6. A copy of the report shall be submitted to OHR, the South Central Coastal Information Center at California State University, Fullerton and to the Native American Heritage Commission for inclusion in its Sacred Lands File. If requested by the City, OHR may review and approve any monitoring or mitigation plan prior to implementation.</p> <p>4.16-1(b) Native American Consultation and Monitoring for Discretionary Projects</p> <p>All discretionary projects that involve ground disturbing activities in previously undisturbed soils, shall prepare a cultural resources assessment and do a record search with a study area of no less than 0.5 mile around the project area. Projects conducted in culturally and historically sensitive areas, as determined by a Qualified Archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for Archaeologist, should include a record search with a study area of no less than 1 mile around the project area.</p> <p>Notification shall be provided to California Native American tribes that are traditionally and culturally affiliated with the geographic area of the project site and have submitted a written</p>	

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
			<p>request to the Department of City Planning to be notified of projects in that area. Should projects have potential to impact cultural resources, as determined during the environmental assessment or Tribal consultation, a Cultural Resources Monitoring Program (CRMP) shall be prepared by Qualified Archaeologist, in consultation with all interested Tribes, prior to the commencement of any and all ground disturbing activities for the Project, including any archaeological testing. The CRMP shall include compliance with 4.15-1(b) and will provide details regarding the process for infield treatment of inadvertent discoveries and the disposition of inadvertently discovered non-funerary resources and shall be consistent with the treatment of unique archaeological resources in PRC 21083.2.</p> <p>4.16-1(c) Notices for Non-Discretionary Projects</p> <p>All projects that are seeking excavation or grading permits, prior to issuance of a permit for grading or excavation, the Department of Building and Safety shall issue the following notice and obtain a signed acknowledgement that the notice was received and read by the applicant and owner.</p> <ul style="list-style-type: none"> • Several federal and State laws regulate the treatment of tribal resources and make it a criminal violation to destroy those resources. These include, but are not limited to: <ul style="list-style-type: none"> ○ California Penal Code Section 622.5 provides the following: “Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of archeological or historical interest or value whether situated on private lands or within any public park or place, is guilty of a misdemeanor.” • Public Resources Code Section 5097.5(a) states, in part, that: <ul style="list-style-type: none"> ○ No person shall knowingly or willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archeological, paleontological or historic feature, 	

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
			<p>situated on public lands, except with the express written permission of the public agency having jurisdiction over the lands.</p> <ul style="list-style-type: none"> ○ California Code of Regulations, Title 14, Section 4307 states: "No person shall remove, injure, deface or destroy any object of paleontological, archeological, or historical interest or value." Section 1427 "recognizes that California's archeological resources are endangered by urban development and population growth and by natural forces...Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of archeological or historic interest or value, whether situated on private lands or within any public park or place, is guilty of a misdemeanor. It is a misdemeanor to alter any archeological evidence found in any cave, or remove any materials from a cave." ● Best practices to ensure that tribal cultural resources are not damages include but are not limited to the following steps: <ul style="list-style-type: none"> ○ A Sacred Lands File (SLF) records search shall be requested from and conducted by the California Native American Heritage Commission (NAHC) to determine whether cultural resources associated with any Native American tribe(s) with traditional lands or cultural places located within or near the Project site have been previously identified or whether the Project area is considered sensitive for the presence of tribal cultural resources. ○ All tribes listed on the NAHC's Native American Contact List included with the SLF search shall be contacted, informed of the Project, and given an opportunity to provide input. If the tribe provides substantial evidence of a potential discovery of tribal cultural resources within the Project site and requests monitoring of Project excavation, grading or other Ground Disturbance Activities, a Qualified Tribal Monitor or Archeological Monitor shall be retained. 	

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
			<ul style="list-style-type: none"> ○ A Qualified Tribal Monitor or Archeological Monitor shall observe Ground Disturbance Activities within those areas identified in the records search as sensitive for the presence of tribal cultural resources in order to identify resources and avoid potential impacts to such resources. In the event of a possible discovery of a tribal cultural resource, the Qualified Tribal Monitor or Archeological Monitor shall have the authority to temporarily halt earthwork activities within the appropriate radius of the find, as determined by the Qualified Tribal Monitor or Archeological Monitor to ensure the find or any other potential tribal cultural resources on or near the Project site is not damaged. ○ If tribal resources are uncovered (in either a previously disturbed or undisturbed area), all work should cease in the appropriate radius determined by the Qualified Tribal Monitor or Archeological Monitor and in accordance with federal, state, and local guidelines. ○ Any find shall be treated with appropriate dignity and protected and preserved as appropriate with the agreement of the Qualified Tribal Monitor or Archeological Monitor and in accordance with federal, state, and local guidelines. ○ The location of the tribal cultural resources find and the type and nature of the find should not be published beyond providing it to public agencies with jurisdiction or responsibilities related any affected tribal resources. ○ Following discovery, the applicant or owner shall immediately contact all Native American tribes that have informed the City of Los Angeles they are traditionally and culturally affiliated with the geographic area pf the Project, as well as the Department of City Planning, Office of Historical Resources (OHR). ○ The applicant or owner shall provide any affected tribe a reasonable period of time, not less than five business days, to conduct a site visit and make recommendations to the applicant or owner regarding the monitoring of 	

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
			<p>future ground disturbance activities and the treatment and disposition of any discovered tribal cultural resources.</p> <ul style="list-style-type: none"> ○ The applicant or owner shall implement the tribe's recommendations if the Qualified Tribal Monitor or Archeological Monitor reasonably concludes such recommendations are reasonable and feasible and determined to be supported with substantial evidence. ○ Consistent with Public Resources Code 21083.2, the handling, treatment, preservation, and recordation of tribal cultural resources shall occur as follows: ○ The find shall be preserved in place or left in an undisturbed state unless the Project would damage the resource. ○ When preserving in place or leaving in an undisturbed state is not possible, excavation and recovery of the find for scientific study shall occur unless testing or studies already completed have adequately recovered the scientifically consequential information from and about the resource, and this determination is documented by a Qualified Tribal Monitor or Archeological Monitor. ○ All collected artifacts and fieldwork notes, if not human remains or other mortuary objects, shall be curated at the Natural History Museum of Los Angeles County or another appropriate curator facility. ○ If cleared by the Qualified Tribal Monitor or Archeological Monitor, Ground Disturbance Activities may continue unimpeded on other portions of the site. Ground Disturbance Activities in the area where the resource(s) were found may commence once the identified resources are properly assessed and processed. ○ Personnel of the Project should not collect or move any tribal cultural resources or associated materials or publish the location of the tribal cultural resources. 	

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
UTILITIES AND SERVICES				
Wastewater Treatment	<p>Impact 4.17-1: Would implementation of the Proposed Project require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects?</p> <p>Impact 4.17-2: Would implementation of the Proposed Project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?</p>	Less than significant	No mitigation required.	Less than significant
Stormwater Drainage	<p>Impact 4.17-3: Would implementation of the Proposed Project require or result in the relocation or construction of stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects?</p>	Less than significant	No mitigation required.	Less than significant
Water Facilities and Supply	<p>Impact 4.17-4: Would implementation of the Proposed Project require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects?</p>	Less than significant	No mitigation required.	Less than significant

TABLE ES-3 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND RESIDUAL IMPACTS				
Impact Category	Checklist Threshold	Level of Impact Before Mitigation	Mitigation Measure	Level of Impact After Mitigation
Water Facilities and Supply	Impact 4.17-5: Would the Proposed Project have insufficient water supplies available to serve the project and reasonably or foreseeable future development during normal, dry and multiple dry years?	Potentially significant	A Water Supply Assessment (WSA), prepared by a qualified water expert to meet the requirements herein, shall be required and furnished to the City for inclusion in any environmental documentation for certain developments (as defined in Water Code 10912[a]) in the Project Area subject to California Environmental Quality Act. Under SB 221, approval by the City of certain residential subdivisions should require a affirmative written verification of sufficient water supplies. The WSA must identify existing water supply entitlements, water rights, or water service contracts held by the public water system, and prior years' actual water deliveries received by the public water system. The WSA must address water supplies over a 20-year period and consider normal, single-dry, and multiple-dry year conditions.	Less than significant with mitigation
Solid Waste Standards and Capacity	Impact 4.17-6: Would the Proposed Project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Less than significant	No mitigation required.	Less than significant
Solid Waste Management and Reduction Regulations	Impact 4.17-7: Would the Proposed Project not comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Less than significant	No mitigation required.	Less than significant
Electric Power, Natural Gas, or Telecommunication Facilities	Impact 4.17-8: Would implementation of the Proposed Project require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Less than significant	No mitigation required.	Less than significant

3.0 PROJECT DESCRIPTION

Consistent with the provisions of the California Environmental Quality Act (CEQA) Guidelines Section 15124, this chapter provides information regarding the Cornfield Arroyo Seco Specific Plan (CASP) Update (herein referred to as “Proposed Project” or “Project”).

This chapter is required to contain the following information: the location of the Proposed Project; a statement of project objectives; a general description of the Proposed Project’s technical, economic, and environmental characteristics; and a statement briefly describing the intended uses of the EIR. The *CEQA Guidelines* state a project description need not be exhaustive but should provide the level of detail needed for the evaluation and review of potential environmental impacts.

The Project Description is the starting point for all environmental analysis required by the State CEQA Guidelines. Section 15146 of the CEQA Guidelines states that the degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity, which is described in the EIR.

3.1 PROJECT OVERVIEW

The Proposed Project is an update of the existing CASP. The update includes new land use and zoning regulations, incentives, and boundaries, for the purpose of encouraging affordable, mixed-income, and permanent supportive housing production. The Proposed Project would supersede the text, maps, and tables of the existing CASP, and will include the adoption of necessary revisions and any other amendments necessary to implement this update, including amendments to General Plan elements (such as the Framework Element), community plans, the Los Angeles Municipal Code (LAMC) Chapter 1 and Chapter 1A, specific plans, and other City ordinances.

The Proposed Project would strengthen the existing CASP’s affordable housing requirements, including the recalibration of the CASP’s existing incentive zoning system; establish a new Community Benefits Program that incentivizes new publicly-accessible open space and community facilities; include provisions that facilitate the production of new 100% affordable housing and permanent supportive housing projects on public land; increase the zoning capacity for housing in targeted areas; and adopt a modernized zoning system based on the City’s new modular Zoning Code. The Proposed Project would also update the building form, urban design, open space, parking, conservation, performance, and sign standards of the existing CASP, including adopting standards in the new Zoning Code in lieu of those in the existing CASP, as necessary to support housing production and implement technical revisions that ensure consistency, clarity, and ease of implementation and reflect current and future demographic, regulatory, environmental, and economic conditions. The Project Area boundaries would be revised to exclude parcels that currently do not contain zoning such as RD zones within the Project Area, or to exclude peripheral open space areas adjacent to Elysian Park in the Silver Lake-Echo Park-Elysian Valley Community Plan Area. The Proposed Project would retain the existing ministerial review process for subsequent qualifying development projects.

PROJECT BACKGROUND

On June 28, 2013, the City adopted the CASP and certified its Environmental Impact Report (ENV-2009-599-EIR, SCH No. 2009031002). The CASP involved substantial revisions to portions of the Central City North, Northeast Los Angeles, and Silver Lake-Echo Park-Elysian Valley Community Plans and the establishment of a Specific Plan to guide the future development of the predominantly industrial, approximately 600-acre area. Broadly, the existing CASP includes the following:

- The designation of new mixed-use zoning districts that replace former industrial zoning, and the identification of the types and intensities of uses permitted within these districts, as well as building height, massing, and façade standards,
- The establishment of new affordable housing land use incentives,
- The designation of new open spaces and parks and the establishment of open space requirements for new developments,
- Circulation and parking standards,
- Revised street designations and standards,
- Resource conservation standards, and
- Mitigation measures for subsequent development projects.

The intent of the existing CASP is to guide the transition of a vehicular-oriented industrial and public facility area into a cluster of mixed-use, pedestrian-oriented neighborhoods. The existing CASP supports a range of housing options, new public spaces, opportunities for walking and bicycling, and the retention of land for existing industrial businesses and new clean technology businesses. Among its numerous goals, a key priority of the existing CASP is to facilitate the production and continued provision of affordable housing for Extremely Low Income and Very Low Income households.

However, since the CASP's adoption, housing production of any kind within the Project Area boundaries has been limited. Among the projects constructed, at the time of EIR preparation, all involved discretionary actions from the City Planning Commission or Area Planning Commission to deviate from the CASP, or were entitled prior to the adoption of the CASP, with less than one percent of total units reserved for low-income households. The limited supply of available housing units (0.9 percent residential vacancy rate), together with the low average household income and strong demand for housing in the greater Northeast Los Angeles area, creates growing displacement pressure for existing residents and disproportionately in communities of color.

In light of the present housing situation, and in response to a City Council Motion (Council File No. 13-0078-S2) calling for the evaluation and amendment of the Specific Plan, the City of Los Angeles is updating the CASP with the goal of further bolstering the production of affordable, mixed-income, and permanent supportive housing in the Project Area. The Proposed Project will entail updates to the CASP's zoning regulations, land use incentives, boundaries, and other key provisions to facilitate the production of housing, consistent with the underlying vision and purpose of the adopted CASP.

Project Setting and Location

The Project Area comprises the entire area within the boundaries of the existing CASP. Specifically, the Project Area is located entirely within Los Angeles City Council District One, and is generally bordered by Chinatown to the west, Lincoln Heights to the east, and Cypress Park to the north. The Project Area is approximately 600 acres (0.93 square miles) and is located within the original floodplains of the Los Angeles River and Arroyo Seco water bodies, which are part of the lower Los Angeles River Watershed.

The Project Area is predominantly developed, with transportation infrastructure being a central feature of the Project Area. Interstate 5 (I-5) and State Route-110 (SR-110) bisect the northern portion of the Project Area. Entrances and exits to and from SR-110 are located on the northern perimeter of the Project Area. Entrances and exits to I-5 are located at North Broadway/Pasadena Avenue and at Avenue 26 across from Lacy Street. Other major arterials located in the Project Area include Figueroa Street in the northern portion of the Project Area, San Fernando Road in the central portion of the Project Area, and Spring Street, Broadway Avenue, and Main Street in the southern portion of the Project Area. The Los Angeles County Metropolitan Authority (LA Metro) L Line (Gold) cuts across the northern portion of the Project Area and provides frequent access to downtown Los Angeles, northeastern sections of Los Angeles, and the cities of South Pasadena and Pasadena.

Figure 3-1 shows the regional location of the Project Area. While the Proposed Project does modify the boundaries of the CASP by excluding some parcels from the Project Area, the term “Project Area” as used in this EIR refers to that area within the current CASP boundaries as shown in **Figure 3-2**, below.

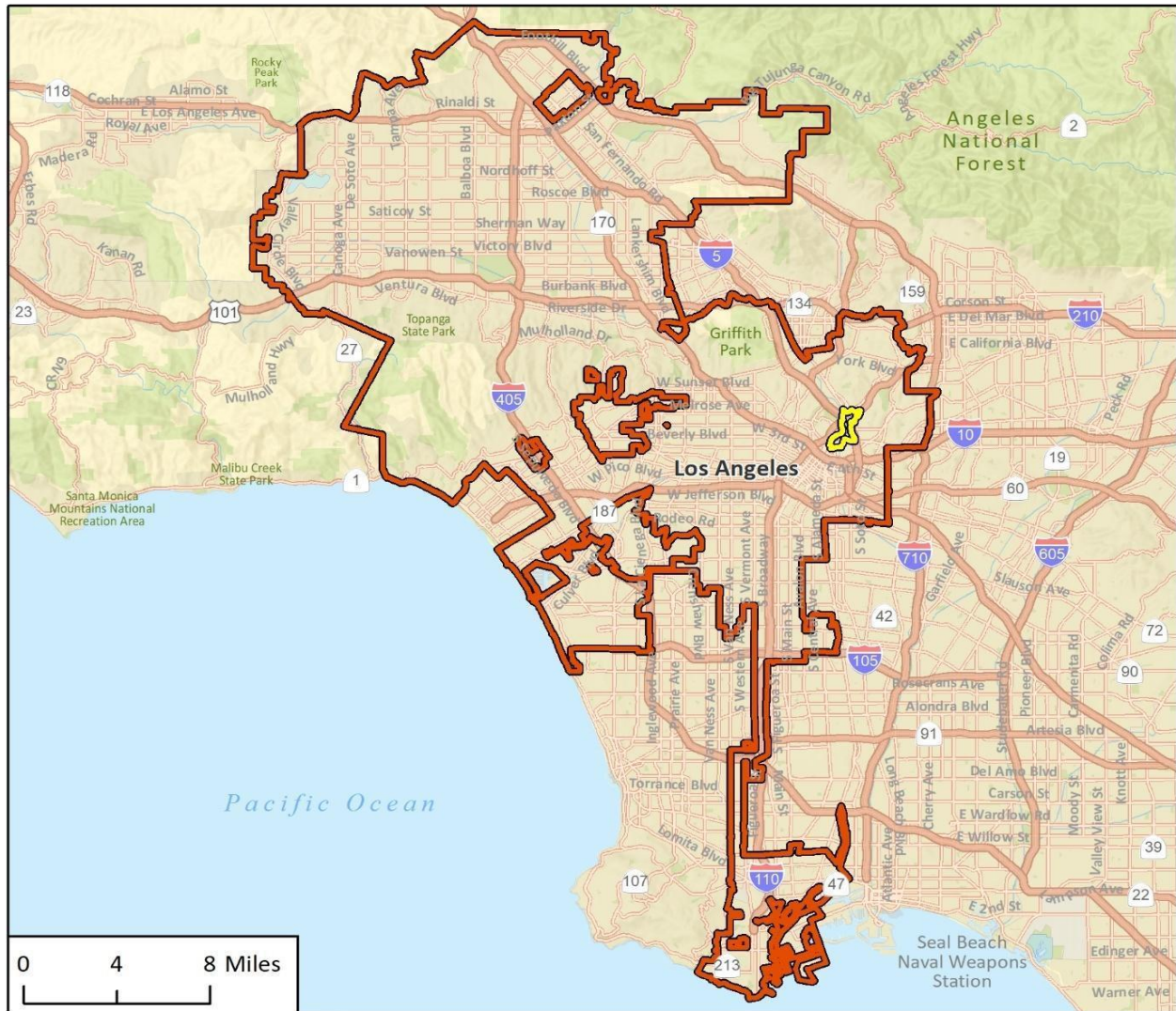
3.2 REGULATORY SETTING

SPECIFIC PLANS AND PLANNING OVERLAYS



California State law (Government Code Section 65300) requires that each city and county, including charter cities and counties, adopt a comprehensive, integrated, long-term General Plan to direct future growth and development and accommodate projected increases in population and employment. The General Plan is a fundamental policy document. It defines how a city should use and manage its physical and economic resources over time. State law requires eight General Plan Elements: land use, circulation, housing, conservation, open space, noise, safety, and environmental justice. Government Code Section 65302(a) requires the General Plan to include a land use element described as follows:

(a) A land use element that designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land. The location and designation of the extent of the uses of the land for public and private uses shall consider the identification of land and natural resources pursuant to paragraph (3) of subdivision (d). The land use element shall include a statement of the standards of population density and building intensity

Figure 3-1 Regional Location



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-  Plan Boundary
-  Los Angeles City Boundary

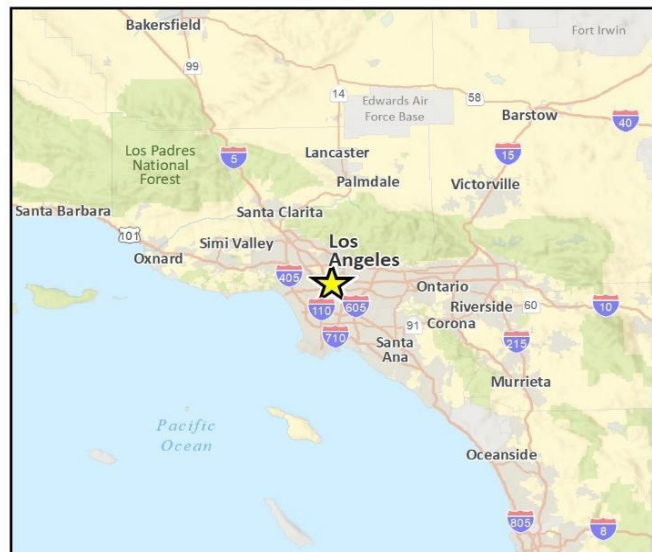
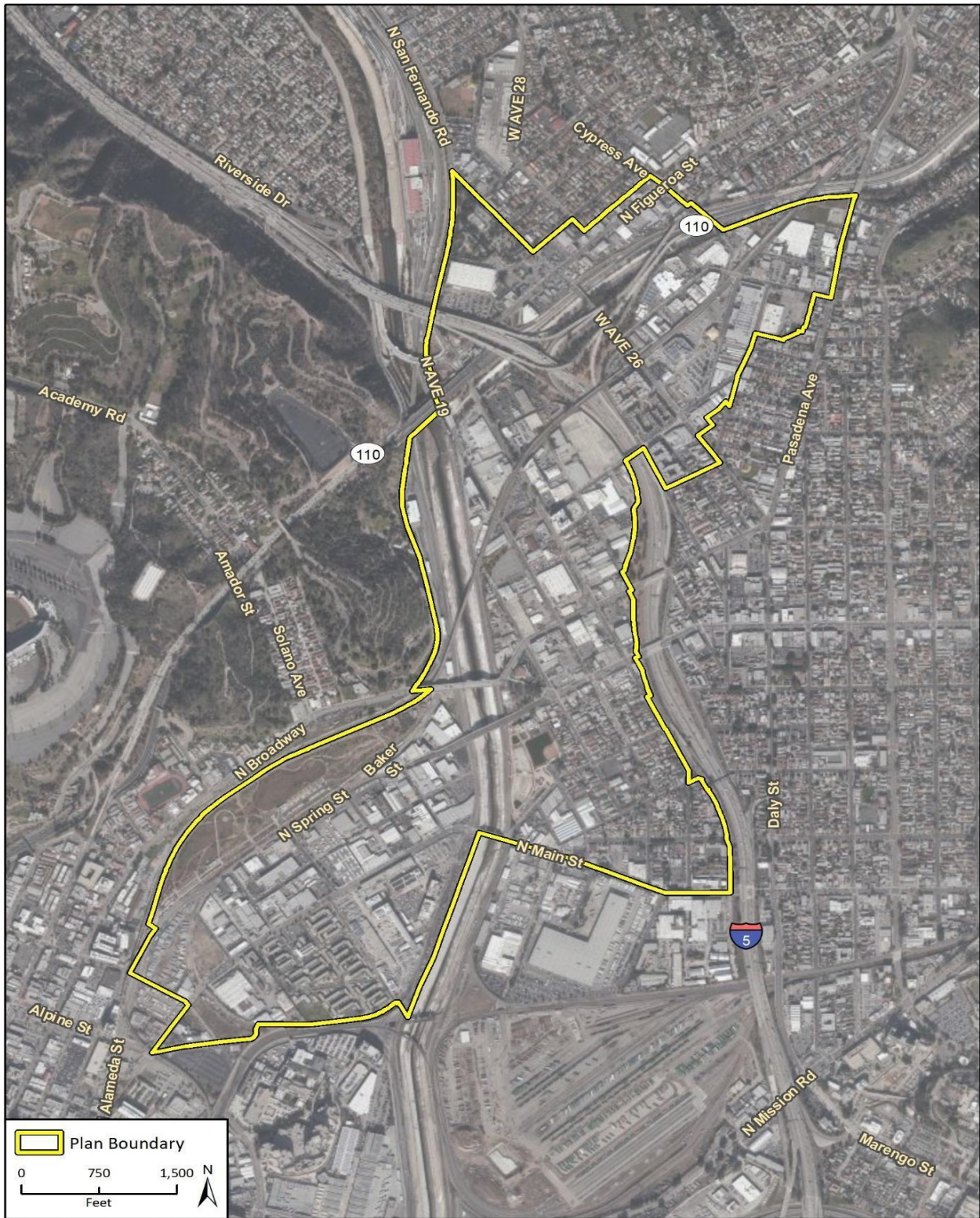


Fig. 3 Regional Location-2

Figure 3-2 Project Site Location



The State requires that the General Plan be periodically revised to reflect new conditions, community input, and technological advances.

The Los Angeles Charter also requires that the City adopt a General Plan:

Sec. 554. General Plan – Purpose and Contents.

The General Plan shall be a comprehensive declaration of goals, objectives, policies and programs for the development of the City and shall include, where applicable, diagrams, maps and text setting forth those and other features.

(a) Purposes. The General Plan shall serve as a guide for:

- (1) the physical development of the City.*
- (2) the development, correlation and coordination of official regulations, controls, programs and services; and*
- (3) the coordination of planning and administration by all agencies of the City government, other governmental bodies and private organizations and individuals involved in the development of the City.*

(b) Content. The General Plan shall include those elements required by state law and any other elements determined to be appropriate by the Council, by resolution, after considering the recommendation of the City Planning Commission.

The General Plan’s guiding document for the City of Los Angeles is the **Framework Element**, which provides *a strategy for long-range growth and development* focused around the following guiding principles:

- grow strategically.
- conserve existing residential neighborhoods.
- balance the distribution of land uses.
- enhance neighborhood character through better development standards.
- create more small parks, pedestrian districts, and public plazas.
- focus growth around transit stations.
- improve mobility and access; and
- identify a hierarchy of commercial districts and centers.

The Framework Element, adopted in 1996, establishes a long-range land use strategy to support the City’s viability and to accommodate projected growth. Framework Element policies reflect that where growth occurs, it is accommodated in a sustainable manner that protects residential neighborhoods and commercial districts, while guiding growth to higher-intensity commercial and mixed use centers that are served by transportation infrastructure. The Long-Range Land Use Diagram depicts this growth strategy with land use categories, including Neighborhood District, Community Center, Regional Center, Downtown Center, and Mixed-Use Boulevard, which reflect a conceptual relationship between land use patterns and transportation.

The Framework Element characterizes the majority of the Project Area as being adjacent to or within the Regional Center, “A focal point of regional commerce, identity and activity and containing a diversity of uses,” or the Community Center, “A focal point for surrounding residential neighborhoods and containing a diversity of uses.”

The big-picture goals established in the Framework Element are then further refined in other planning documents such as the Community Plans, the Zoning Code, and the Specific Plans. In the City of Los Angeles, the Land Use Element is composed of 35 Community Plans. The 35 Community Plans guide the physical development of neighborhoods by establishing goals and policies for land use within each Community Plan Area (CPA). The Community Plans implement, at a community level, the citywide goals and policies established in the overarching Framework Element and all other elements of the General Plan. The Project Area is within the Central City North, Northeast Los Angeles, and Silver Lake-Echo Park-Elysian Valley Community Plan Areas.

A Specific Plan, such as the CASP, is a regulatory land use ordinance that further implements the Community Plan(s), the Framework Element, and other elements of the General Plan. A Specific Plan provides by ordinance regulatory controls or incentives for the systematic execution of the General Plan and provides for public needs, convenience, and general welfare. Specific Plans allow zoning regulations to be further tailored to local areas and include various types of regulatory limitations, such as land use restrictions, maximum heights, building form and massing requirements, intensity limits, etc. Procedures for the establishment, amendment, or repeal of Specific Plans are set forth in LAMC Sections 11.5.7 and 12.32. The stated purpose of the current CASP is to “implement the Central City North, Northeast Los Angeles, and Silver Lake-Echo Park-Elysian Valley Community Plans” (CASP Chapter 1, 2013).

Built Environment of the Project Area

The Project Area comprises approximately 600 acres and roughly 1,600 assessor’s parcels in an area northeast of downtown just east of Chinatown and comprising portions of Lincoln Heights. The existing built environment within the Project Area varies as a result of different phases of development that have occurred throughout the Project Area over time. The Project Area can generally be split into four sections including a northern section, western section, central section, and eastern section. Information on historical resources in the Project Area can be found in Section 4.4, *Cultural Resources*.

Northern Section

The section north of the Arroyo Seco comprises mainly of the properties facing Figueroa Street and Avenue 26, which are largely commercial in character. Properties along Figueroa Street have seen extensive redevelopment and remodeling over the last half of the 20th century, leading to a mix of older one-story commercial buildings, a neighborhood movie theater (eventually converted to a store), gas stations, and a Googie-style diner. The former Los Angeles Railway Huron Substation is located in this section, as is the former Lawry’s California Center (now the Los Angeles River Center and Gardens).

Western Section

The section west of the Los Angeles River is characterized by blocks of industrial buildings constructed throughout the 20th century. The section along Spring Street, historically surrounded the Southern Pacific River Station, is now Los Angeles State Historic Park (the State Park). In 2005, the State Park was the site of an art project by Lauren Bon called “Not a Cornfield,” which is where the Cornfield Arroyo Seco Specific Plan gets part of its name. One of the more notable industrial buildings in the section is the Raphael Junction Block/NY Suspenders Factory, a flatiron-shaped building adjacent to the State Park. The western section also includes Los Angeles Department of Water and Power (LADWP) generating and maintenance facilities and William Mead Homes Public Housing. A rare extant section of the Zanja Madre, the main irrigation ditch that fed the early Pueblo de Los Angeles, is located just north of the State Park along the Metro L Line (Gold) alignment.

Central Section

The section between the Los Angeles River and I-5, south of Arroyo Seco is mixed in character, containing residential, commercial, and industrial uses, often adjacent to each other. Approximately five blocks on the south side of Broadway contain a concentration of late 19th and early 20th century residences, as well as the Albion Elementary School. Albion Cottages and Milagro Market are located in this small residential area. Broadway Avenue and Pasadena Avenue act as commercial corridors through the area. Industrial properties are interspersed throughout the section, but the north half of the section is particularly industrial in character.

Eastern Section

Located east of I-5 and south of Arroyo Seco, this section is largely industrial, with the exception of a few older homes left over from the original residential tract that existed before industry expanded into it. The Lincoln/Cypress L Line (Gold) stop is located in this section, which has spurred apartment and condominium development in the mid-2000s. Lacy Street is defined by a mix of historic and new buildings, including the old Columbia Mills (now Lacy Street Studios), Lacy Street Neighborhood Park, the North Central Animal Care Center, and former offices of the Cannon Electric Development Company. Other industries in the area were historically involved in metal work, from the manufacturing of brass to general fabrication of metal objects and building materials.

Growth Trends

The Proposed Project, as an update to the Specific Plan for the Project Area that is within the Central City North, Northeast Los Angeles, and Silverlake-Echo Park-Elysian Valley Community Plan Areas, plans for and guides growth and development. This section discusses how the City identifies forecasted growth in population, housing, and employment and why the Southern California Association of Governments (SCAG) is the City's primary source for current and forecasted population, housing, and employment numbers. It also describes the growth trends for the City of Los Angeles and the Project Area.

2040 Regional Transportation Plan (RTP)

Southern California Association of Governments (SCAG)

SCAG is designated as a Metropolitan Planning Organization (MPO) responsible for carrying out federal and state statutory duties within its region which encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 191 cities in an area covering more than 38,000 square miles with over 18 million residents.

Federal and state laws require SCAG to develop regional plans for transportation, growth management, hazardous waste management and air quality¹. SCAG is responsible for producing socio-economic estimates and projections at multiple geographic levels. The socio-economic estimates and projections are used for federal and state mandated long-range planning efforts, such as the Regional Transportation Plan (RTP). The RTP is a 20-year transportation plan for the region that addresses regional growth, air quality and other issues, based on an analysis of past and future regional trends.

Federal laws require that land use allocation in an RTP reflect development patterns most likely to be built in the region. While federal and state laws do not mandate consistency with the RTP, state law does require SCAG to identify and quantify housing needs for the region, prepare the Regional Housing Needs Assessment (RHNA) for all cities in its jurisdiction, and for local agencies to update their Housing Elements to plan and zone to accommodate the agency's assigned RHNA. SB 375 coordinates land use and

¹Government Code Section 65080(b)(2)(B); Part 450 of Title 23 of, and Part 93 of Title 40 of, the Code of Federal Regulations.

transportation planning to reduce greenhouse gas (GHG) emissions and, to that end, requires SCAG to prepare a Sustainable Communities Strategy (SCS) as an integral part of the RTP. SB 375 also requires the RHNA process to be consistent with an SCS, and that RHNA must be coordinated every eight years (RTP is updated every four years).¹

A function of SCAG, in preparing the RTP/SCS, is to forecast or prepare population, housing and employment projections in consultation with cities in the region. These projections are derived from a combination of sources and consider factors such as birth rates; migration rates; historical trends; household size; market and economic projections; existing and planned land uses; and consistency with relevant adopted local, regional and state land use policies and growth strategies. The development of the growth forecast is driven by collaboration between SCAG and local jurisdictions. The integration of the regional and local forecasts is achieved through joint efforts and collaboration among the various contributors.

SCAG’s 2016-2040 RTP/SCS and 2020-2045 RTP/SCS were adopted in April 2016 and September 2020, respectively. As described in further detail below, the population, housing, and employment projections of these two regional plans are consistent with each other in the Project Area. Accordingly, the City has elected to use the socio-economic estimates and projections of the 2016-2040 RTP/SCS in this EIR in order to be consistent with the City of Los Angeles Travel Demand Forecasting (TDF) Model. The current TDF Model, which was developed in the last few years as part of the City’s effort to move to vehicle miles traveled (VMT) thresholds of significance, relies on the 2016-2040 RTP/SCS. The outputs of the TDF Model are used to inform transportation, air quality, and greenhouse gas emissions analysis in this EIR.

The City has begun the process of updating the TDF Model to use 2020-2045 RTP/SCS data. However, the update is not expected to be complete by the time this EIR is published. It would not be reasonable to complete an update to the TDF Model every time the City prepares a new EIR, as the update is a significant, multi-year work product costing approximately \$400,000. The current TDF Model is the best tool the City has available to estimate VMT and conduct the required analysis. As such, the socio-economic data for the Proposed Project is derived from 2016-2040 RTP/SCS population, housing, and employment estimates, which as shown below in **Table 3-1**, and is consistent with the data from the 2020-2045 RTP/SCS.

TABLE 3-1 BASELINE YEAR (2021) SOCIO-ECONOMIC DATA ESTIMATES WITHIN THE PROJECT AREA		
	2016-2040 RTP/SCS (2021)	2020-2045 RTP/SCS (2021)
Population	6,027	6,202
Households	2,012	1,936
Employment	5,411	6,189
Source: SCAG 2016-2040 RTP/SCS and 2020-2045 RTP/SCS interpolated.		

Between the 2016-2040 RTP/SCS and 2020-2045 RTP/SCS, the population and households estimates for the baseline year (2021) differ by less than 3 percent and 4 percent, respectively. The 2016-2040 RTP/SCS estimates that baseline year employment within the Project Area is 5,411 jobs, compared to the 2020-2045 RTP/SCS’s estimate of 6,189 jobs, a difference of 14 percent. The use of the 2016-2040 RTP/SCS’s lower employment figure represents a more conservative analysis, as the EIR would be analyzing a greater

¹ Government Code Section 65080(b)(2)(B).

employment delta over the course of the Proposed Project compared to the 2020-2045 RTP/SCS's higher baseline year employment figure.

Many municipalities and government agencies (including public service providers and other City departments) rely on the same source, i.e., 2016-2040 SCAG RTP/SCS data, for purposes of planning, both for estimates of current population, housing and employment, as well as for projections of future population, housing, and employment. Use of such data is a consistent and best practice for local governments. It is also the Department of City Planning's practice to use SCAG RTP/SCS data as a benchmark or as a reference point for estimates and projections locally.

Citywide Population Growth Projections

The City of Los Angeles is approximately 478 square miles and has a population of approximately 4.1 million. The population is anticipated to increase by 12 percent from the 2021 estimate to approximately 4.6 million persons by the year 2040, according to the SCAG 2016-2040 RTP/SCS (**Table 3-2**). Every four years, SCAG prepares socioeconomic projections that are used by various City departments and agencies for their long-range planning efforts. The growth projection for the City of Los Angeles is based on several factors, including historical development trends, land values, as well as smart growth strategies to direct development to areas in proximity to rail and major bus stations, community centers and regional centers.

Geographic Planning Area	2021 Estimated Population /a/	2040 Projected Population /a/	Projected Population Growth (2021 – 2040) /a/
City of Los Angeles	4,091,000	4,609,000	518,308
South Valley	780,493	875,559	95,066
South Los Angeles	779,803	874,467	94,664
North Valley	734,546	795,498	60,952
Central	738,605	903,743	165,138
West Los Angeles	441,950	497,159	55,209
East Los Angeles	412,614	448,846	36,232
Harbor	202,680	213,603	10,923

/a/ The 2021 estimated population and the 2040 projected population are based on SCAG's 2016-2040 RTP/SCS. Due to rounding, the percentages may not add up to 100 percent.

The City's 35 CPAs are divided into seven larger geographic areas for planning administration. Each of these geographic planning areas has an Area Planning Commission that reviews certain cases located within their planning area. The Project Area is located within the Central and East Los Angeles geographies. According to the 2016-2040 RTP/SCS, the population in the Central Los Angeles geography, which includes the CPAs of Hollywood, Wilshire, Westlake, Central City, and Central City North, is anticipated to increase by approximately 165,000 by 2040. The Central Los Angeles geography represents approximately 20 percent of the anticipated population growth for the entire City by 2040 (**Table 3-3**). The following tables summarize projected population growth for the City of Los Angeles.

The population in the East Los Angeles geography, which includes the CPAs of Silver Lake-Echo Park-Elysian Valley, Northeast Los Angeles, and Boyle Heights, is anticipated to increase by approximately

36,000 by 2040. The East Los Angeles geography represents approximately 10 percent of the anticipated population for the entire City by 2040 (**Table 3-3**). The following tables summarize projected population growth for the City of Los Angeles.

TABLE 3-3 PERCENTAGE OF CITYWIDE POPULATION AND PROJECTED GROWTH			
Geographic Planning Area	% of Citywide 2021 Population /a/	% of Citywide 2040 Projected Population /a/	% Change of Citywide Projected Population Growth (2021 – 2040) /a/
City of Los Angeles	100%	100%	
South Valley	19%	19%	-
South Los Angeles	19%	19%	-
North Valley	18%	17%	-1%
Central	18%	20%	2%
West Los Angeles	11%	11%	-
East Los Angeles	10%	10%	-
Harbor	5%	5%	-

/a/ The 2021 estimated population and the 2040 projected population are based on SCAG's 2016-2040 RTP/SCS. Due to rounding, percentages may not add up to 100 percent.

The purpose of forecasting future population is to describe the likely future population based on current trends and be able to plan for and accommodate change. In general, projections help City departments to understand where current policies might lead to and determine whether those policies are leading the City towards its stated objectives consistent with federal, state, and local policies. They are also used by each City department in preparing long-range plans, such as community plan updates and infrastructure plans. DCP uses anticipated population growth, or population projections as a benchmark, to determine the level of development that is needed to accommodate this future growth. Population growth is a fundamental consideration in making long-range land use planning decisions. However, it is important to note that these projections are calculations based in part on a number of assumptions and, as with any data reliant on assumptions, projections have limitations. For example, projections are often based on recent trends that may or may not continue as conditions change and populations can fluctuate over time for various circumstances, such as the recent global pandemic or the Great Recession.

Project Area Growth Projections

The State of California requires that cities plan for changes in demographics, including housing demand, population, and employment. If growth is anticipated, each city must accommodate a share of the region’s projected growth. The Project Area represents approximately 0.20 percent of the City of Los Angeles’ total land area (one square mile out of 478 square miles) and 0.15 percent of the City’s population. Over the next few decades, population within the Project Area is anticipated to increase by approximately 27 percent by year 2040, as identified by SCAG projections in 2016-2040 RTP/SCS (see **Table 3-4**). The Proposed Project would more than accommodate SCAG’s 2040 population, housing, and employment projections based on the amount of development that is reasonably expected to occur during the life of the Specific Plan, given the Proposed Project’s zoning capacity and land use regulations.

TABLE 3-4 PROJECTED POPULATION GROWTH FOR THE PROJECT AREA						
Area	Existing Population (2021)	% of Citywide Existing Population	SCAG's 2040 Projected Population	Projected Population Growth (2021-2040)	% of Citywide 2040 Project Population	% Change in Project Population Growth (2021-2040)
City of Los Angeles	4,091,000	100%	4,609,000	518,000	100%	13%
Project Area /a/	11,000	0.3%	14,000	3,000	0.3%	27%
/a/ Includes portions of whole Transportation Assessment Zones (TAZs) outside of the Project Area. Note: Numbers are rounded to the nearest thousand. SOURCE: 2016-2040 SCAG RTP/SCS.						

CEQA requires an EIR to compare existing physical conditions (“baseline”) to the physical conditions after implementation of a project. For purposes of the CASP, which is an update to a Specific Plan, there is no expected direct effect from the Proposed Project (such as for a construction project), but there are expected indirect impacts from the reasonable anticipated development that will occur. To assess the impacts of the Proposed Project requires determining reasonable anticipated development and identifying current conditions. Both of these determinations rely in part on estimates of the current population, housing and employment, and the forecasted growth in population, housing and employment.

CEQA Guidelines Section 15125(a) requires that an EIR include a description of the physical environmental conditions in the vicinity of a project, as they exist at the time the NOP is published. This environmental setting normally constitutes the baseline physical conditions to which the lead agency compares the impacts from the project and determines the significance of impacts. The NOP for this EIR was published on April 8, 2021 (see **Appendix A**). Thus, the Draft EIR uses 2021 as the baseline for existing conditions.

CEQA generally requires an analysis of the foreseeable impacts from a project against the existing environment or baseline conditions. However, there are some exceptions to this rule where that analysis would be misleading or not provide useful information for purposes of CEQA impacts from the project, and the lead agency provides a justification for using future baselines (*Neighbors for Smart Rail v. Exposition Metro Line Const. Auth.*). In the event this EIR does not analyze the impacts of the Proposed Project against the existing environment, the alternative baseline is identified and a justification is provided for the use of the alternative baselines. A description of the methodology for analysis of impacts, including the use of alternative baselines, is included in Chapter 4 Environmental Analysis. The subject of baselines is not always established by population and housing information. The subject of the baseline is related to the particular impact area under consideration. For example, a baseline for purposes of agricultural and aesthetic impacts is related to current legal status and/or the physical condition of land in the project area (e.g., land that is designated prime farmland, a designated state scenic highway, or the presence of a valued scenic vista).

Existing Land Use Designations and Zoning

The Project Area is predominantly developed with a mix of industrial, commercial, residential, institutional, educational, and recreational uses. Industrial development is the largest sector within the Project Area, totaling approximately 3.7 million square feet of industrial space across 153 buildings. The total residential inventory in the Project Area comprised approximately 1,814 housing units. Approximately 75 percent of the Project Area’s existing housing stock (1,343 units) is multifamily development, totaling 1.3 million square feet of area, with the remaining 471 units as single-family homes.

There are five Generalized Land Use Designations within the current Project Area: Hybrid Industrial, Public Facilities, Open Space, Residential Multi-Family, and Commercial Manufacturing. Hybrid Industrial is the most common land use designation, comprising 276 acres, followed by Open Space (108 acres), Public Facilities (57 acres), Residential Multi-Family (29 acres), and Commercial Manufacturing (5 acres).

The Project Area has four zones that are unique to the Specific Plan: the Urban Innovation zone (144 acres), Urban Village zone (90 acres), and Urban Center zone (40 acres), which all correspond with the Hybrid Industrial land use designation, and the Greenway zone (74 acres), which corresponds with the Open Space designation. Other zones in the Project Area include the OS zone (34 acres), RD1.5 and RD2 zones (29 acres), PF zone (57 acres), and CM zone (5 acres).

Figure 3-3 and **Figure 3-4** show the zoning and land uses in the Plan Area under the existing CASP as originally adopted in 2013. The maximum permitted development intensity for each parcel is regulated by Floor Area Ratio (FAR) and is shown in **Figure 3-5**. Permitted uses in each zone are identified below in **Table 3-5** while use limitations for each zone are identified below in **Table 3-6**. The Proposed Project would revise the existing Specific Plan's zoning regulations to further encourage affordable housing and mixed-income housing production in the Project Area. Further discussion on the proposed amendments to the zoning and land use regulations of the Specific Plan can be found in Section 3.6, *Proposed Land Use and Zoning Changes*.

Figure 3-3 Existing Zoning

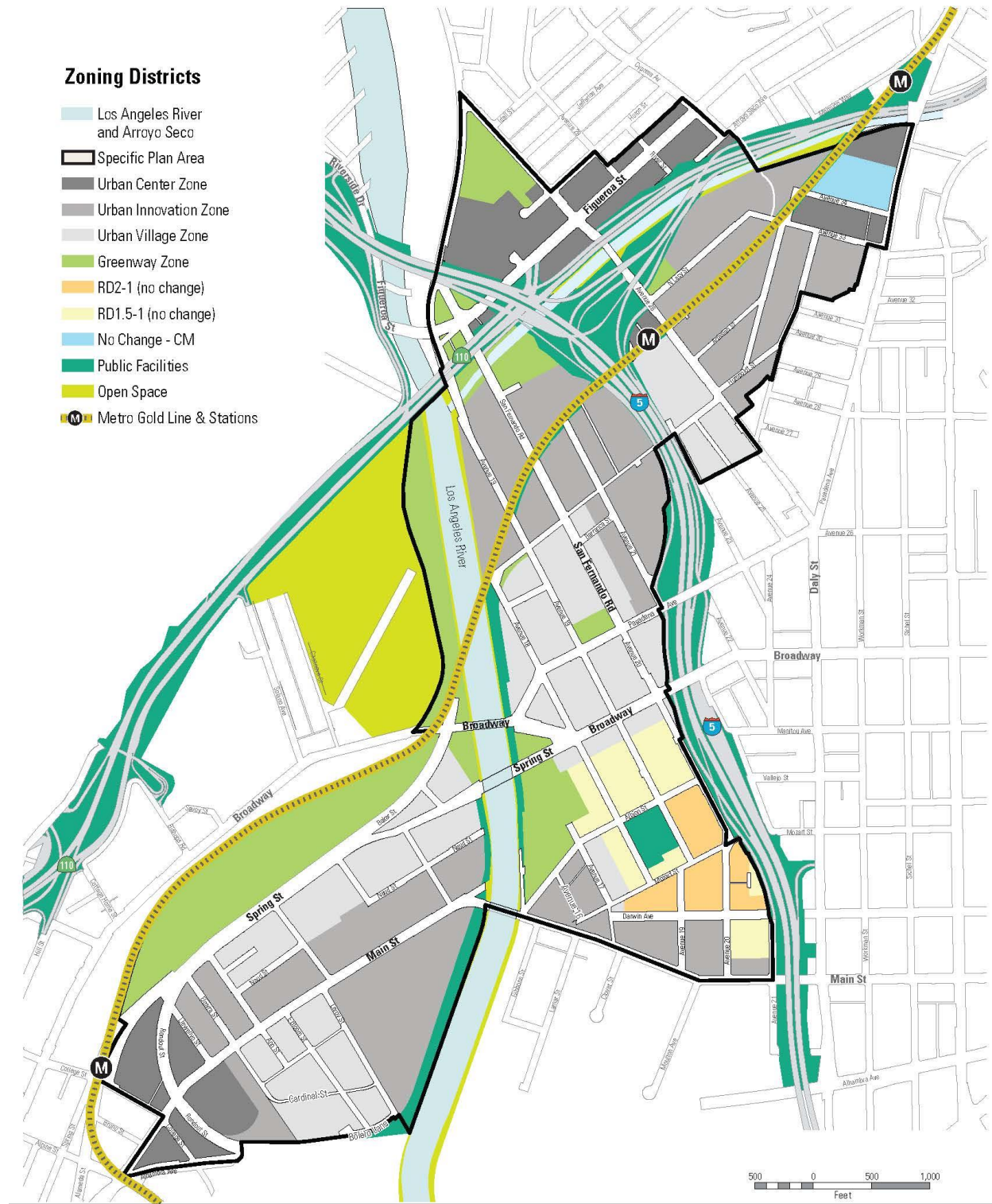


Figure 3-4 Existing Land Uses

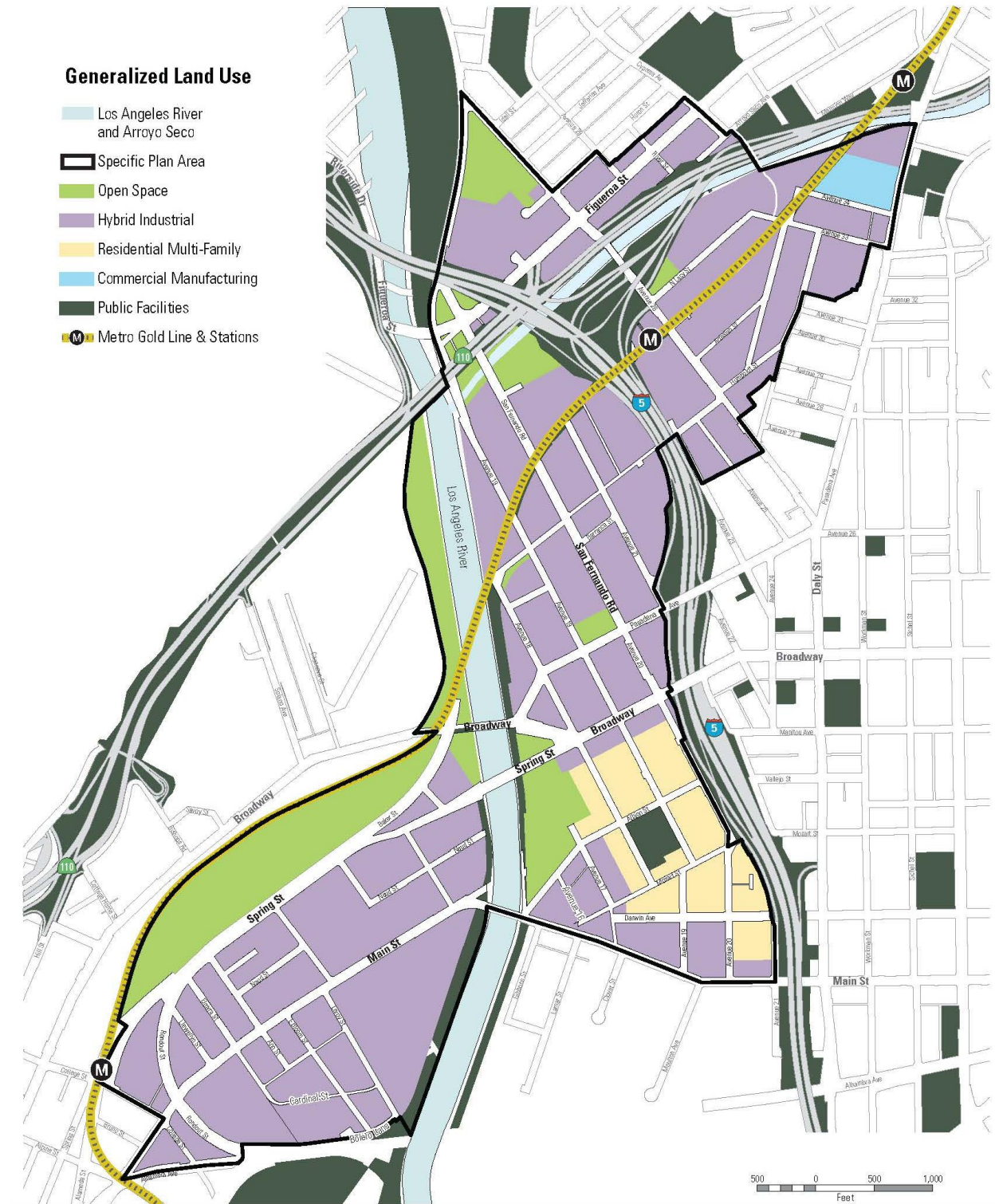


Figure 3-5 Existing FAR Map



TABLE 3-5 EXISTING PERMITTED USES				
Use Classification	Greenway	Urban Village	Urban Innovation	Urban Center
Heavy Manufacturing	No	No	No	No
Corporate Headquarters	No	Yes	Yes	Yes
Light Manufacturing and Assembly	No	Yes	Yes	Yes
Repair and Maintenance Facilities	No	Yes ²	Yes	Yes
Research and Development	No	Yes	Yes	Yes
Publishing, Motion Picture, Broadcasting	No	Yes	Yes	Yes
Trucking and Transportation Terminals	No	No	No	CUP
Urban Agriculture	No	Yes	Yes	Yes
Utilities	Yes	Yes	Yes	Yes
Warehouse, Distribution, and Storage	No	Ancillary ⁴	Yes ⁴	Yes ⁴
Waste Management and Remediation Services	No	CUP	CUP	CUP
Wholesale (including showrooms)	No	Yes	Yes	Yes
Automobile Fueling Stations	No	CUP	CUP	CUP
Commercial Office	No	Yes ¹	Ancillary	Yes ¹
Commercial Hotels	No	Yes ¹	Yes ¹	Yes ¹
Public Parking	Yes ⁶	Yes ⁶	Yes ⁶	Yes ⁶
Restaurants and Bars	Yes ^{1,3}	Ancillary ^{3,9}	Ancillary ^{3,9}	Ancillary ^{3,9}
Retail and Personal Services	Ancillary	Ancillary ¹	Ancillary ¹	Ancillary ¹
Server Farms	No	Ancillary	No	Ancillary
Residential-Multi-Family, Small Lot Subdivisions and Senior Independent Housing	No	Yes ¹	Yes ¹	Yes ¹
Residential-Single Family	No	No	No	No
Hospitals, Nursing and Residential Care Facilities	No	CUP	No	No
Entertainment, Exhibit & Cultural Facilities	Yes	Yes	Ancillary ⁸	Yes
Recreation Facilities and Spectator Sports	Yes	Yes	Ancillary	Yes
Conservation, Environmental and Social Service Organizations, Religious Institutions, and Public Facilities	Yes ⁷	Yes	Yes	Yes
Schools, Colleges, Tutoring, and Vocational Technical Training Programs	No	Yes	Yes ⁵	Yes

Footnotes for Use Classification Table

1. See Limits Table for area, FAR, and square footage limits.
2. Truck repair uses are not permitted in the Urban Village Zone
3. Free Standing Fast Food establishments are permitted with a Conditional Use Permit Pursuant to Section 12.24.W.17., except that the finding set forth in Section 12.24.W.17 (a) shall not apply.
4. Self-storage uses are limited to 50% of the Base FAR.
5. Schools, Colleges, Tutoring, and Technical Training Programs in the Urban Innovation zone are limited to Vocational Technical Training Schools or Programs.
6. Parking uses must be combined with the development of other uses, and such other uses must equal no less than a 1:1 FAR for the project site.
7. Conservations, Environmental, and Social Services uses are limited to Block 70 in the Block Numbers Map on page 3-23.
8. These uses are limited to Block 52 in the Block Numbers Map on page 3-23.
9. If the parcel is 30,000 square feet in area or less, then the Ancillary Use is permitted up to a 1:1 FAR.

TABLE 3-6 EXISTING USE LIMITATIONS				
Use Classification	Greenway	Urban Village	Urban Innovation	Urban Center
Commercial Office	N/A	65% ^a	Ancillary-(10%) ^a	65% ^a
Retail square footage limit	1,200 sf ^b	15,000 sf ^b	5,000 sf ^b	50,000 sf ^b
Retail and/or Personal Services	Only Retail uses are permitted, and they are subject to a 10% FAR limitation	20% ^a	20% ^a	20% ^a
Residential Multi-Family	N/A	90% ^{c,d}	15% ^{c,d}	15% ^{c,d}
Commercial Hotels	N/A	150 rooms	100 rooms	200 rooms
Footnote for Limits Table				
<p>a. The floor area for the use shall not exceed the allowable percentage of the site's Base FAR set forth in the Limits Table. For example, a 100,000 square foot site with a permitted 3:1 Base FAR may not be developed with a Commercial Office project that exceeds 195,000 square feet (i.e., 65% of 300,000 sf) of commercial use. The same project could include other permitted uses to maximize the permitted total floor area if desired. If a Project applicant obtains a FAR in excess of their Base FAR as a result of a Bonus Option or TFAR, then the floor area for the use shall not exceed the allowable percentage of the site's total FAR.</p> <p>b. The square footage provided is the maximum square footage permitted for each Retail establishment on the lot.</p> <p>c. The maximum floor area of Residential Multi-Family uses shall not exceed the stated percentage of the total gross floor area of all principal and Ancillary Uses combined.</p> <p>d. Only the "living" portion of a joint living and work quarter that is designed for residential purposes shall count towards the residential square footage limitation.</p>				

Existing Affordable Housing Incentives

The existing CASP has an incentive-based zoning system that grants developers additional floor area rights in exchange for reserving a portion of units for low-income households. The system seeks to capture the land value increases that result from rezoning and public investment to create public benefits such as affordable housing.

Presently, project applicants may obtain additional floor area rights by complying with the Affordable Housing Bonus Option, Strategy A or B, and/or the Community Benefit Bonus Options, as set forth below:

- **Affordable Housing Bonus Option, Strategy A:** If an applicant agrees to set aside a portion of the residential units in a project for affordable housing, then the project shall be granted a Floor Area Bonus as set forth in the following table (Table 3-7).

TABLE 3-7 FLOOR AREA BONUS TABLE - STRATEGY A*				
Affordable Level/Location	Greenway	Urban Village	Urban Innovation	Urban Center
11% of units set aside for households earning 50% of AMI or less, or 20% of units set aside for households earning 80% of AMI or less	NA	3:1	3.15:1 (The Residential portion of the Project is subject to a .6:1 FAR)	3.15:1 (The Residential portion of the Project is subject to a .6:1 FAR)
100% of units set aside for households earning 80% of AMI or less	NA	4:1	3.45:1 (The Residential portion of the Project is subject to a .9:1 FAR)	3.45:1 (The Residential portion of the Project is subject to a .9:1 FAR)
11% of units located in the River Buffer set aside for households earning 50% of AMI or less, or 20% of units located in the River Buffer set aside for households earning 80% of AMI or less	NA	2:1	1.6:1 (The Residential portion of the Project is subject to a .3:1 FAR)	1.6:1 (The Residential portion of the Project is subject to a .3:1 FAR)

TABLE 3-7 FLOOR AREA BONUS TABLE - STRATEGY A*				
Affordable Level/Location	Greenway	Urban Village	Urban Innovation	Urban Center
100% of units located in the River Buffer set aside for households earning 80% of AMI or less	NA	2:1	1.8:1 (The Residential portion of the Project is subject to a .525:1 FAR)	1.8:1 (The Residential portion of the Project is subject to a .525:1 FAR)
*Projects located in an area with a Maximum FAR of 3:1, as shown on the FAR Map, shall be limited to a 3.375:1 FAR.				

- Affordable Housing Bonus Option, Strategy B:** If an applicant agrees to set aside a portion of the residential units in a project for affordable housing, then for each square foot of affordable housing constructed, the applicant shall be granted the right to construct additional floor area above the Base FAR for the Project, as set forth in the Bonus Square Footage Table below (**Table 3-8**). One additional square foot shall be added to the bonus numbers set forth below for square footage that is used to construct affordable units containing three or more bedrooms.

TABLE 3-8 BONUS SQUARE FOOTAGE TABLE UNTIL FIVE YEARS FOLLOWING PLAN ADOPTION*			
Affordability	Affordable SF	Market SF	Total Bonus SF
Extremely-Low – Units set aside for households earning 30% of AMI or less	1	18	19
Very Low – Units set aside for households earning 50% of AMI or less	1	13	14
Low – Units set aside for households earning 80% of AMI or less	1	5	6
Five years after Plan adoption, the market square value footage is reduced by half unless the City Council legislatively acts to modify the current market square footage. The revised numbers shall not apply to Projects for which the application is deemed complete by the Department of City Planning prior to the termination of the five-year period following Plan adoption.			

Community Benefit Bonus Options: Project applicants may obtain additional Floor Area Rights by providing the following Community Benefits:

- Open Space:** A project applicant may add 3 square feet of floor area for each square foot of publicly accessible open space provided.
 - Community Facility:** A project applicant may add 6 square feet of floor area for each square foot of area provided for a Community Facility.
 - Passageway:** A project applicant may add 3 square feet of floor area for each square foot of a public passageway that extends from an adjacent street to another public right-of-way

Additionally, the existing Specific Plan sets forth a Transfer of FAR (TFAR) Program available to non-residential projects to transfer unused floor area from a Donor site to a Receiver site, up to the allowable Maximum FAR limit on a site. More details on the existing Specific Plan's zoning incentives can be found in **Appendix C, Cornfield Arroyo Seco Specific Plan (2013)**.

Existing Building Form and Urban Design Standards

The existing Specific Plan document sets forth building form and design standards to shape development in the Project Area. Several goals of the Specific Plan’s guidelines include providing spatial and proportional standards that reinforce the street as a large public outdoor room, emphasizing the public realm more than individual buildings, ensuring that development is designed with a pedestrian orientation, reinforcing the street wall with well scaled elements or structures that are sensitive to the neighborhood context, and respecting the smaller scale of adjacent low-density buildings.

Specific building form regulations for the Project Area are identified in the existing CASP and include standards such as: yard and setback regulations, street wall and massing, maximum lot coverage, building heights, and buffers. Urban design standards include requirements such as forward facing street-oriented entrances, retail oriented ground floors, transparent wall openings such as storefront windows and doors, aesthetic lighting for public spaces, and screening mechanical units and trash enclosures from public view.

Existing Open Space Standards

Enhancing and preserving Open Space in the Project Area is identified as a main goal of the existing CASP and is promoted through a variety of measures and design standards. There are currently 108 acres of open space in the Plan Area. Major open space within or adjacent to the Project Area include the Los Angeles Historic Park, Albion Riverside Park, Rio de Los Angeles State Park, Elysian Park, and Downey Park.

Open space regulations contained within the Project Area designed to achieve various goals such as: providing inviting safe and accessible public space; increasing recreational opportunities for residents, employees, and visitors; providing pedestrian linkages throughout the Project Area; encouraging community based and local food production; supporting an easy transition between indoors and outdoors; and establishing focal points and meeting places to create general visual interest and enhance the Area's image. Open space is regulated in the Plan Area through design requirements such as area requirements (minimum percent of open space per project), open space accessibility requirements, seating, landscape, trees, irrigation, fencing, and specialty design requirements such as community gardens.

Existing Parking and Access Standards

Mobility, parking, and access standards are a focal area of the existing CASP. There are several goals set forth in the existing CASP for parking and access standards including: managing and controlling parking supply and demand; increasing pedestrian, bicycle, and transit use and reducing vehicular trips to and through the Project Area; and screening parking to provide a safe, aesthetically pleasing and secure environment for pedestrians. Regulations pertaining to parking and access in the existing CASP include but are not limited to: no minimum vehicle parking requirements, electric vehicle charging stations, bicycle parking requirements, parking lot and structure design standards, vehicular access standards to public buildings, and drop-off zones.

Existing Conservation, Performance, and Sign Standards

The existing CASP sets forth conservation standards that are intended to reduce energy demand, recycle water and decrease demand for potable water, reduce waste and use of new materials, and reduce demand on natural resources. These standards apply to plumbing and plumbing fixtures, interior lighting design and operations, energy generation, heat island reduction, and pools and jacuzzies.

Additionally, the existing CASP sets forth performance standards that are intended to provide for a safe, clean, and healthy environment; minimize the effects of noise and vibration on the surrounding environment; and reduce the visual impact of utility facilities. These standards apply to building maintenance, deliveries, recycling, storage, utilities, and equipment. The existing CASP regulates signs, including a prohibition on specific sign types (animated, blinking and scrolling signs, inflatable devices, and off-site supergraphics, pole signs, roof, and window signs).

Existing Street Standards

The existing CASP establishes modified highway and street improvement standards that are intended to facilitate a multi-modal street network and build linkages to the neighboring Chinatown, Lincoln Heights, Cypress Park, Elysian and Heritage Square neighborhoods to nearby regional amenities, among its

numerous goals. The modified highway and street improvement standards are illustrated in the Street Modification Table, the Modified Street Standards Map, and Modified Street Cross-Sections illustrations, which can be found in **Appendix C**, *Cornfield Arroyo Seco Specific Plan (2013)*.

Furthermore, the existing CASP sets forth sidewalk, street lighting, street tree, street intersection design, landscaped median, and bicycle infrastructure regulations.

Mitigation Monitoring Plan

Section 21081.6 of the Public Resources Code and Section 15097 of the CEQA Guidelines require a Mitigation Monitoring or Reporting Plan (MMP) be adopted for all projects for which an Environmental Impact Report (EIR) or Mitigated Negative Declaration (MND) has been prepared.

Accordingly, the existing CASP incorporated the prior EIR Mitigation Monitoring Plan and describes the procedures for the implementation of the mitigation measures adopted for the existing CASP. The MMP for the existing CASP is anticipated to be in place through the horizon year of the existing CASP (2035) or until the CASP and EIR are updated. While the adopted CASP is a planning document, it is anticipated that development that occurs pursuant to the Plan will include the following phases: design (pre-construction), construction, and operation (post-construction both prior to and post-occupancy), and therefore some mitigation measures are tied to these phases.

Each mitigation measure is categorized by impact area, with an accompanying identification of:

- Performance Criteria/Monitoring Actions – this is the criteria that would determine when the measure has been accomplished and/or the monitoring actions to be undertaken to ensure the measure is implemented.
- The implementing agency – this is the agency or agencies that will actually undertake the measure.
- The enforcement agency and monitoring agency -- this is the agency or agencies that will monitor the measure and ensure that it is implemented in accordance with the MMP.

The MMP as it is incorporated into the existing CASP is implemented by the City of Los Angeles when individual development projects pursue a clearance implemented during project review, pursuant to Chapter 1 (Process) of the existing CASP, which can be found in **Appendix C**, *Cornfield Arroyo Seco Specific Plan (2013)*. The MMP will be updated as necessary and appropriate as part of the Proposed Project's EIR.

3.3 PROJECT OBJECTIVES

CEQA requires an EIR to include a statement of the objectives sought by a project proponent, in this case the City of Los Angeles. The statement of objectives should include the underlying purpose of the project.

Underlying Purpose of the Project

The purpose of the Proposed Project is to encourage the production of affordable, mixed-income, and permanent supportive housing in the Project Area, in a manner consistent with the underlying vision and purpose of the existing CASP, which is to implement the Central City North and Northeast Los Angeles Community Plans.

Objectives of the Proposed Project are as follows:

- Increase the production of affordable, mixed-income, and permanent supportive housing within the Project Area.
- Protect residents, especially low-income households, from indirect and direct displacement, and ensure stability of existing vulnerable communities.
- Design and regulate housing to promote health and well-being, increase access to amenities such as parks and public transit, contribute to a sense of place, foster community and belonging, and plan for a sustainable future.
- Build, operate, and maintain welcoming and accessible housing for Angelenos with unique needs, including those with disabilities, large families, older adults, and other people facing housing barriers and economic insecurity.
- Refine Plan standards, processes, and procedures to be more intuitive and transparent, with the goal of enhancing development certainty for both market-rate and affordable housing developers; and
- While reducing overall employment capacity, preserve employment areas that show a concentration of jobs, while supporting small and/or legacy businesses, local employment, and new productive uses and employment spaces, such as light industrial and general commercial uses.

3.4 PROJECT COMPONENTS

The Proposed Project would amend the text, map, and tables of the Cornfield Arroyo Seco Specific Plan (CASP or Specific Plan), including new land use and zoning regulations, incentives, and boundaries, for the purpose of encouraging affordable and mixed-income housing production. The Proposed Project would strengthen the existing CASP's affordable housing requirements, including the recalibration of the CASP's existing incentive zoning system; establish a new Community Benefits Program that incentivizes new publicly-accessible open space and community facilities; include provisions that facilitate the production of new 100% affordable housing and permanent supportive housing projects on public land; increase the zoning capacity for housing in targeted areas; and adopt a modernized zoning system based on the City's new modular Zoning Code.

The Proposed Project will include the adoption of necessary revisions and any other amendments necessary to implement this update, including amendments to General Plan elements (such as the Framework Element), Community Plans, the LAMC (Chapter 1 and Chapter 1A), and other ordinances to implement those updates.

The Proposed Project may also include additional amendments to the LAMC (Chapter 1 and Chapter 1A) and the Specific Plan to better comport the regulations of the Specific Plan to the structure and provisions of Chapter 1A. This may include moving Specific Plan provisions to Chapter 1A as part of the base zoning of the respective Community Plan, and potentially removing the Specific Plan designation, for simplicity and ease of implementation. Such amendments would not substantively change the effect of the regulations.

The proposed changes are provided in further detail below. The key components of the Proposed Project comprise of the following:

- **Updated Zoning.** The Proposed Project would accommodate additional housing capacity in the Project Area by expanding the predominantly residential Urban Village zoning designation to select parcels within the Project Area. Each of the Project Area's unique zones would be updated to permit a broader range of uses, such as 100 percent affordable housing and permanent supportive housing,

and to be more consistent with the standards and definitions of the City’s proposed new Zoning Code. A new Public Use zone would be utilized to more precisely regulate the types of uses allowed on publicly-owned land and to support the provision of community benefits. Additionally, the existing Greenway zone would be consolidated with the similar Open Space (OS) zone to reduce redundancy.

- **Updated Affordable Housing Incentives.** The Project Area’s existing zoning incentives would be restructured and recalibrated to deliver more affordable housing, while being simpler to understand and implement. The revised zoning incentives include a new Community Benefits Program that incentivizes new publicly-accessible open space and community facilities.
- **Updated Plan Boundaries.** The updated Specific Plan boundaries would exclude parcels that currently do not have CASP zoning (e.g., RD zones) to clarify the non-applicability of the Specific Plan on those parcels. The boundaries would also be modified to exclude the Greenway (Open Space) parcels adjacent to Elysian Park, which are the only parcels in the Project Area located within the Silver Lake-Echo Park-Elysian Valley Community Plan Area.
- **Updated Development Standards.** The building form, urban design, open space, parking, conservation, performance, sign, and streets standards of the Proposed Project would be updated to improve clarity and reduce redundancy.
- **Updated Administration Chapter.** The administration chapter of the Project would receive technical updates to improve ease of implementation, consistency, and clarity.
- **Updated Mitigation Monitoring Program.**

Proposed Land Use and Zoning Changes

The Proposed Project would update the existing zoning of the CASP by expanding the Urban Village zone, utilizing a new Public Use (P2) zone, and updating the use and FAR tables for existing CASP zones, as described in further detail below. The changes to the proposed zoning and land uses in the Project Area are summarized below in **Table 3-9**, while **Figure 3-6** is a map of proposed zoning under the Proposed Project.

TABLE 3-9 EXISTING AND PROPOSED ZONING				
Zone	No Project		Proposed Project	
	Area (Acres)	Percentage	Area (Acres)	Percentage
Urban Village	90	19%	132	28%
Urban Innovation	144	30%	65	14%
Urban Center	40	8%	30	6%
Greenway	74	15%	0	-%
RD1.5/RD2	29	6%	29	6%
CM	5	1%	5	1%
Open Space (OS)	35	7%	103	22%
PF	57	12%	0	0%
FWY	0	0%	40	8%
Public Use (P2)	0	0%	70	15%
C2	8	2%	8	2%
Total	483*	100%	483*	100%

* Total area shown excludes the area within public rights-of-way. The acreage per zone may not add up to the total area due to rounding.

Expansion of the Urban Village Zone

As described in Section 3.4, the existing CASP has four zones that are unique to the Project Area: Urban Innovation (mixed-use industrial), Urban Village (mixed-use residential), Urban Center (mixed-use commercial), and Greenway (open space). The Urban Village zone, which is the only Project zone that allows for predominantly residential development, comprises approximately 19 percent of land area (90 acres) among parcels within the Project Area.

One of the key objectives of the Proposed Project is to increase the production of affordable and mixed-income housing within the Project Area. The Proposed Project would increase the amount of land that is zoned Urban Village to 28 percent of land area (132 acres) among parcels within the Project Area, which is a 46 percent increase from the existing Specific Plan. This increase in Urban Village zoned land would expand where housing could be built in the Project Area and support an increase to its housing stock, while still retaining a substantial amount of land for the Specific Plan's other policy objectives, such as the preservation of open space and land for job-producing uses.

The Urban Village zone would generally be extended to two subareas of the Project Area: 1) the area west of the Los Angeles River, generally between Main Street and Naud Street, and 2) the area generally bounded by the Los Angeles River to the west, the Arroyo Seco and State Route 110 to the north, and Interstate 5 to the east. The retention and extension of the Urban Village zone would help support the production of affordable and mixed-income housing in the Project Area while also preserving existing residential uses, such as HACLA's 415-unit William Mead Homes. The analysis in the proceeding sections analyzes future buildout of the Urban Village zone coupled with the projected expansion of its boundaries to include additional sites that could include housing. The analysis in this Draft EIR evaluates the impacts of reasonably anticipated development for existing parcels including grading/site preparation, construction activity, and operation.

New Public Use District (P2)

The Proposed Project would utilize a new Public Use District (P2) to more clearly demarcate land that is publicly-owned, support the joint public and private development of community-serving uses, and allow by-right 100% affordable housing projects. Currently, 34 percent of land area (165 acres) within the Project Area is owned by a government agency, with approximately half of that land (77 acres) having an Urban Innovation, Urban Village, or Urban Center zoning designation that does not reflect the public ownership of those parcels.

The new Public Use District would allow government buildings, structures, offices, and service facilities. Other uses may be permitted based on the most permissive zoning of adjoining properties; however, such uses must be a joint public and private development approved in accordance with the discretionary processes and procedures set forth in the updated Specific Plan. In contrast to the Urban Innovation, Urban Village, or Urban Center zones, solely private developments would not be permitted.

The new Public Use District would be applied to approximately 70 acres of publicly-owned parcels within the Project Area. Not all publicly-owned properties would receive the Public Use zoning designation. For example, freeways would retain the existing Public Facilities (PF) zone designation, while parks would have an Open Space (OS) zone designation. Publicly-owned properties that are currently zoned Urban Village would keep their existing zoning.

In sum, the new Public Use zone would allow for a broader range of uses to occur on certain publicly-owned parcels, depending on the zoning of adjoining properties, but such development would require a discretionary review process and would be limited to joint public and private development. Government buildings, structures, offices, and service facilities would be allowed ministerially.

Updated Use Table for Project Area

The Proposed Project would replace the existing *Use Classification Table* and *Use Limits Table* (see **Table 3-5** and **Table 3-6**), which is proprietary to the existing CASP, with an updated use table substantially based on that of the City's proposed new Zoning Code.¹ The updated list of uses and definitions would be aligned with the proposed *Use Article* of the new Zoning Code to enhance consistency between the documents and improve ease of implementation.

While the format of the use table would change, the general uses allowed for each of the existing CASP zones would largely be unchanged. The Urban Innovation, Urban Village, and Urban Center Use Districts will continue to remain mixed-use industrial, residential, and commercial zones, respectively. However, the Proposed Project would incorporate a few changes to the use limits to further support the production of affordable and mixed-income housing.

For example, the existing Urban Village zone's limitation of multi-family residential uses to 90 percent of a development project's total floor area would be lifted, allowing for purely residential buildings in the Urban Village Use District, instead of mandating a mix of uses within the same building. The additional flexibility afforded by this change increases the feasibility of residential development, especially affordable and mixed-income housing projects.

The existing Urban Innovation and Urban Center zones also prescribe a mix of uses, limiting multi-family residential uses to no more than 15 percent of a development project's total floor area. The Proposed Project would continue to prioritize job-producing uses over residential development in these zones. However, rather than a cap on the percentage of residential uses allowed, the Proposed Project would establish a minimum Floor Area Ratio (FAR) of industrial, commercial, or other job-producing uses within a development project in the Urban Innovation and Urban Center Use District. This approach is consistent with the standards of the proposed new Zoning Code and would result in less ambiguity and greater ease of implementation compared to the existing proprietary system.

The Proposed Project would exempt 100 percent restricted affordable housing and supportive housing projects from the minimum job-producing FAR requirements of the Urban Innovation and Urban Center zones. This change would substantially increase the area where affordable and supportive housing could be built in the Project Area compared to the existing Specific Plan by allowing those uses in all three of the Project's "Urban" Use Districts: Urban Innovation, Urban Village, and Urban Center.

FAR, Height, and Density

The existing Specific Plan regulates the intensity of development through Floor Area Ratio (FAR) and building height regulations. Each parcel is assigned a Base FAR and Maximum FAR depending on the parcel's zone along with other detailed criteria. Additionally, minimum and maximum average building heights are established for each parcel in a Building Heights Map.

The Proposed Project would update the existing FAR and building height regulations to utilize a new system substantially similar to that of the *Form Article* in the new Zoning Code. Under the Proposed Project, a parcel's zoning designation would be decoupled from its FAR regulations. These changes would help to simplify implementation of the building form regulations, while retaining largely the same FAR and building height limits of the existing Specific Plan. **Table 3-10** summarizes the new Form Districts that would regulate FAR and building height under the Proposed Project, while **Figure 3-7** shows where the Form Districts would be applied to parcels within the Specific Plan:

¹See Draft Environmental Impact Report (EIR) for the Downtown Community Plan Update/New Zoning Code for Downtown Community Plan.

Figure 3-7 Proposed Project Form Districts

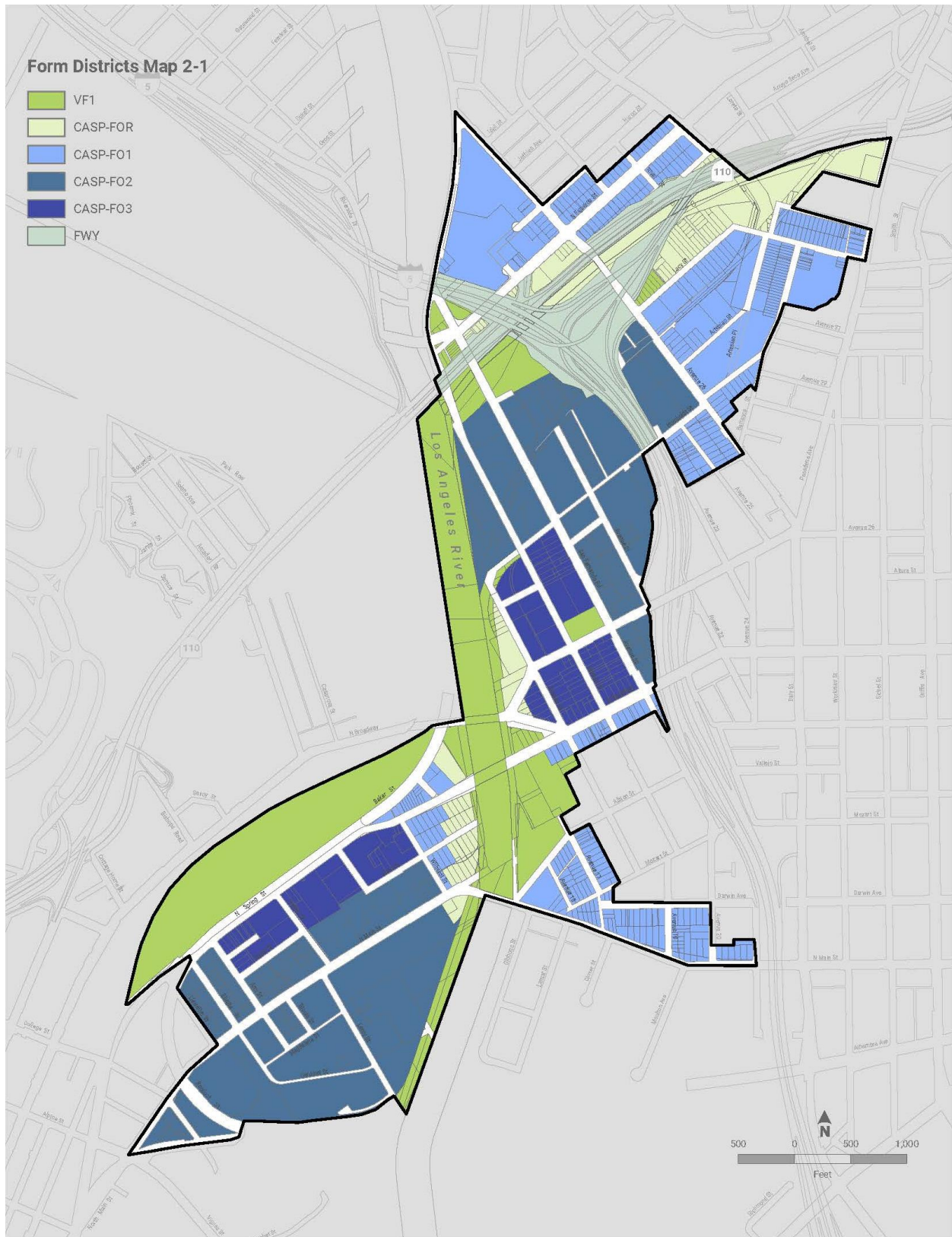


TABLE 3-10 PROPOSED FORM DISTRICTS - FAR AND HEIGHT				
Form District	Lot Coverage (Max)	Base FAR (Max)	Bonus FAR (Max)	Max Story Height
CASP-GW	25%	1.5	1.5	-
CASP-R	50%	1.5	2	5
CASP-1	85%	1.5	3	-
CASP-2	85%	1.5	4	-
CASP-3	85%	1.5	5	-

The existing Specific Plan does not regulate density by limiting the number of units allowed on a lot. The Proposed Project would continue to not regulate density in this manner and, instead, regulate building intensity through FAR and height regulations.

Reasonably Anticipated Development

The Proposed Project would continue to accommodate future growth in the Project Area, including the employment, housing, and population growth projections through the planning horizon year 2040. With implementation of the Proposed Project, the zoning designations of the Project Area would be updated to continue accommodating the population growth, housing, and employment demand projected by SCAG through the year 2040. The Proposed Project would also accommodate growth in the City consistent with the City's Framework Element policies, the SCS, and SB 375.

To assess potential environmental impacts of the Proposed Project, the reasonably anticipated development that is anticipated to occur in 2040 as a result of the Proposed Project was determined. The reasonably anticipated development of the Project Area was determined based on assumptions about the level of development that can be anticipated to occur during the life of the updated Specific Plan (through the year 2040, or approximately 20 years into the future, coincident with the adopted 2016-2040 RTP/SCS).¹ A key factor in determining reasonably anticipated development is the allocation of land and the distribution of uses to reflect the development patterns most likely to be built, or that are reasonably expected to occur. This approach is consistent with the approach used by SCAG to comply with federal laws that require RTPs to reflect development patterns most likely to be built in the region. As SCAG is a guiding precept, it is the City's responsibility while planning for the entire City in light of its Framework Element, the Sustainable Communities Strategy, and SB 375 policies, to determine whether any given specific plan or community plan should meet, exceed, or be under SCAG's expected projections for that specific plan or community plan area, and prepare a specific plan or community plan update in light of that responsibility.

The development growth assumptions for the Proposed Project, shown in **Table 3-11**, are based on the acreage of land designated for each type of function (by zone); allowable development capacity in each designation; anticipated levels of development in the life of the Proposed Project; discussion with existing public agencies; and potential development constraints.

With growth, grading is expected over the plan horizon. This grading would not occur simultaneously throughout the Project Area but is projected to occur in order to accommodate total population growth. It is reasonably anticipated that there could be up to 200,000 cubic yards of grading at any given time and for a wide range of probable construction activities which are expected to occur, such as site preparation and remediation, if necessary. Projected daily worker and truck trips with associated haul routes are also expected to increase as a result of the Proposed Project.

¹While the 2020-2045 RTP/SCS is the most recently adopted RTP/SCS, this EIR uses socioeconomic data from the 2016-2040 RTP/SCS to be consistent with the City's current Travel Demand Forecasting (TDF) model. As described in Section 2.4.3, the population, housing, and employment projections of these two regional plans are consistent with each other in the Project Area.

TABLE 3-11 REASONABLY ANTICIPATED DEVELOPMENT OF THE PROPOSED PROJECT COMPARED TO SCAG FORECAST				
	2021 Baseline /a/	Existing Plan Reasonably anticipated development /b/	Proposed Project Reasonably anticipated development /b/	SCAG 2040 Growth Forecast /c/
Housing	2,012	12,773	20,036	5,039
Population	6,027	36,021	56,501	14,444
Employment	5,411	10,005	8,263	8,797
/a/ SCAG 2016-2040 RTP/SCS interpolated to 2021, adjusted /b/ LADCP 2021 /c/ SCAG 2016-2040 RTP/SCS (includes portions of whole Transportation Assessment Zones outside of Project Area)				

Updated Affordable Housing Requirements

As described herein, the existing CASP has an incentive-based zoning system that grants developers additional floor area rights, in exchange for reserving a portion of units for low-income households. The system seeks to capture the land value increases that result from rezoning and public investment to create public benefits such as affordable housing.

The Proposed Project would update and recalibrate these incentives to deliver more affordable units, while being simpler to understand and implement. The current incentive system would be replaced with a new graduated base and bonus system (Community Benefits Program), similar to that found in the proposed new Zoning Code for the Downtown Community Plan, intended to establish a clearer set of objective standards for projects that wish to build beyond their base zoning. The proposed Community Benefits Program is separate from and may be supplemented by other affordable housing requirements or fees, such as inclusionary zoning or the Affordable Housing Linkage Fee (AHLF).

The main incentive used to garner public benefits under the Proposed Project is through floor area rights (depicted as Floor Area Ratio, or FAR). As noted, Form Districts would outline Base and Bonus FAR for each parcel. The Base FAR is available by-right. The Bonus FAR is available for projects that participate in the Community Benefits Program.

The Community Benefits Program for the Project is structured into two different levels. The scale of benefits required to achieve the bonus incentives would increase in proportion to the level of bonus development rights.

Level 1: Under Level 1, Housing Development Projects can double their permitted FAR (e.g., increase from 1.5 FAR to 3.0 FAR) in exchange for providing Restricted Affordable Units:

- Acutely-Low (households with incomes at 0-15% of Area Median Income); or
- Extremely-Low (households with incomes at 0%-30% of Area Median Income); or
- Very Low (households with incomes at 30%-50% of Area Median Income); or
- Low (households with incomes at 50%-80% of Area Median Income); or
- Moderate-for-sale (households with incomes at 80%-120% of Area Median Income).

Level 1 of the Community Benefits Program does not apply to non-housing development projects and non-housing development projects are not subject to the above affordable housing requirements to achieve

bonus development potential and can instead access bonus incentives by providing community benefits under Level 2 described below.

Level 2: Housing projects that fully exhaust Level 1 (i.e., double their FAR) can access additional development rights above Level 1 and up to the maximum Bonus FAR prescribed by the Form District, by providing Publicly Accessible Open Space, Community Facilities, or by providing more Restricted Affordable Units. Non-housing development projects must provide other community benefits (i.e., not affordable housing) to achieve the same level of bonus FAR.

Additional Affordable Housing: A project may choose to provide additional affordable housing above the required amounts in Level 1 to access additional FAR up to the maximum Bonus FAR.

Publicly Accessible Private Open Space: If a project chooses to provide publicly accessible private open space to access the available bonus development potential, it is required to allocate a percentage (depending on the zoning Form District and the amount of bonus FAR) of its overall lot area as Publicly Accessible Open Space. These spaces are required to comply with location, access, and informational sign requirements, meet design, shade, and landscaping standards and include amenities such as restrooms and drinking water fountains.

Community Facilities: If a project chooses to provide a Community Facility to access bonus development potential, it is required to set aside a minimum of 5,000 square feet and provide additional Floor Area towards a Community Facility for every additional bonus FAR. Community Facilities may be provided in the form of schools, social services, public facilities, community-serving small businesses, or daycare services. Other examples of eligible Community Facilities include public or non-profit health and counseling clinics, small business resource centers, job training centers, commissary kitchens for food vendors, cultural centers, and libraries.

To ensure that public benefits are provided on-site, the Community Benefits Program of the Proposed Project would not include the existing CASP's Transfer of Floor Area Ratio program.

The feasibility of the Program, including requirements in addition to or in excess of the Community Benefits Program described herein, was evaluated in a market analysis. The proposed system explicitly prioritizes the creation of much needed affordable housing, to make the Project Area more affordable, especially for lower-income households, in proximity to existing and anticipated jobs, amenities, services and transit resources. The system also deliberately focuses on a set menu of benefits that are most needed in the Project Area, so as not to dilute the impact of the Program. To better facilitate housing production, the Community Benefits Program is designed to be implemented through a ministerial process, and therefore, includes a predefined set of standards and requirements that qualify as community benefits under the Community Benefits Program. At this time, it is too speculative to identify which projects would participate in the Community Benefits Program, so for the purpose of this analysis it is assumed all projects on a property zoned Urban Village would access the Level 1 incentives for a FAR of 3.0 rather than the Base FAR of 1.5.

Updated Plan Boundaries

The updated Project Area boundaries would exclude parcels that currently do not have CASP zoning to clarify the non-applicability of the Specific Plan on those parcels. It would also include the removal of Greenway (Open Space) parcels adjacent to Elysian Park. The Proposed Project would exclude the following types of parcels from the Project Area:

- Existing C2-zoned properties within the Project Area.
- Existing RD1.5- and RD2-zoned properties within the Project Area.
- Existing CM-zoned parcels within the Project Area; and

- Existing GW-zoned parcels within the Project Area located within the Silver Lake-Echo Park-Elysian Valley Community Plan (i.e., part of Elysian Park).

The total land area of the Specific Plan would decrease from approximately 600 acres to approximately 550 acres (8 percent reduction) including area devoted to public rights-of-way. Properties no longer within the Specific Plan boundaries would retain their existing RD1.5, RD2, CM, or C2 zones and would not be subject to any of the regulations or review processes of the Specific Plan. The GW-zoned parcels would be rezoned as OS (Open Space) under the Silver Lake-Echo Park-Elysian Valley Community Plan. The updated Project Area boundaries are shown in **Figure 3-8**.

Updated Development Standards

As summarized below, the existing CASP sets forth building form, urban design, open space, parking, environmental conservation, performance, signage, and street standards for the Project Area. The Proposed Project would largely retain these existing standards but would update them as necessary to improve clarity and reduce redundancy, as well as to reflect current regulatory conditions. Key standards will be updated in a manner consistent with Citywide standards, including a new system of Form Districts, Frontage Districts, and Development Standards similar to that of the proposed new Zoning Code.

Building Form and Urban Design

The Proposed Project would establish new Form Districts that consolidate and update existing regulations, including lot size, building coverage, upper-story bulk, and building mass standards, in addition to the FAR and Height standards. The Proposed Project would also establish new Frontage Districts that consolidate and update existing regulations relating to setbacks, minimum ground floor and upper floor transparency, entrance location and spacing, minimum ground story height, and ground floor elevation.

Open Space

As described herein, the existing CASP establishes open space regulations to achieve various goals such as: providing inviting, safe and accessible public space; increasing recreational opportunities for residents, employees, and visitors; and providing pedestrian linkages throughout the Project Area.

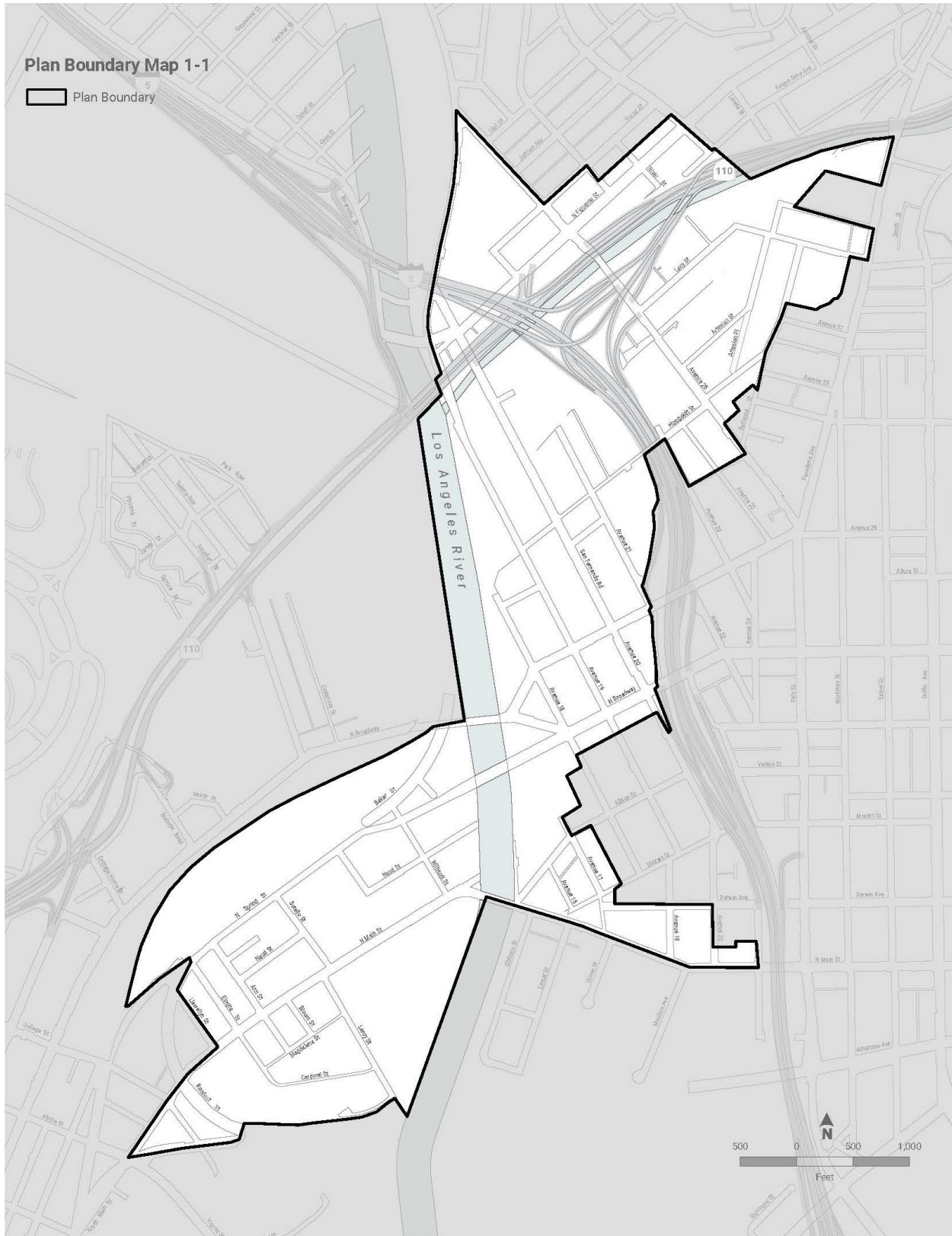
The existing open space regulations of the CASP would be updated and consolidated through new Form Districts, Frontage Districts, and Development Standards for clarity and ease of implementation, and to reflect current regulatory conditions. These new requirements include standards such as minimum lot amenity space, minimum residential amenity space, minimum frontage planting area, and frontage fence and wall types.

There are currently 108 acres of land in the Project Area with a Greenway or Open Space zoning designation, which would change to 103 acres of land under the Proposed Project due to the addition of a new Public Use (P2) zoning designation, which will be applied to publicly-owned land including certain open space parcels. Existing public open space within or adjacent to the Project Area includes the Los Angeles Historic Park, Albion Riverside Park, Rio de Los Angeles State Park, Elysian Park, and Downey Park and would not be affected by the Proposed Project. The Proposed Project would consolidate the existing Greenway zone with the similar Open Space (OS) zone to reduce redundancy.

Parking and Signage

The existing CASP establishes regulations pertaining to parking and access, including no minimum vehicle parking requirements, electric vehicle charging stations, bicycle parking requirements, parking lot and structure design standards, vehicular access standards to public buildings, and drop-off zones.

Figure 3-8 Updated Project Area Boundaries



The Proposed Project would establish a new set of Development Standards that consolidate and update the existing parking and access standards for clarity and ease of implementation, and to reflect current regulatory conditions. The new Development Standards would continue to address parking requirements, and parking structure design, as well as permitted signage. The Proposed Project would continue to not have minimum automobile parking requirements.

Conservation and Performance

The existing CASP sets forth environmental conservation standards that are intended to reduce energy demand, recycle water and decrease demand for potable water, reduce waste and use of new materials, and reduce demand on natural resources. The existing CASP also sets forth performance standards that are intended to provide for a safe, clean, and healthy environment; minimize the effects of noise and vibration on the surrounding environment; and reduce the visual impact of utility facilities.

The Proposed Project would update the environmental conservation and performance standards of the existing CASP to reflect current regulatory conditions. Existing standards that conflict with or have been superseded by more recent environmental protection measures, such as those found in the building code and/or other City ordinances, would be removed and/or updated.

Streets

The Proposed Project would retain the existing street designations as set forth in the adopted CASP and illustrated in the Street Modifications Table and Modified Street Standards Map, which can be found in **Appendix C, Adopted Cornfield Arroyo Seco Specific Plan (2013)**. No changes to the transportation network are proposed as part of the Proposed Project.

The Proposed Project's cross-section illustrations of select non-arterial streets may be updated to further enhance the pedestrian experience and build linkages to open space and other amenities. The Proposed Project would clarify the long-term implementation of sidewalk, street lighting, street tree, street intersection design, landscaped median, and bicycle infrastructure standards. Regulations that conflict with or have been superseded by more recent measures, including those from other City agencies responsible for the public right-of-way, will be removed, consolidated, and/or updated.

Updated Administrative Chapter

The administration chapter of the Proposed Project would receive technical updates to improve ease of implementation, consistency, and clarity and to reflect current regulatory conditions. The Proposed Project would further clarify the Project's relationship to the Municipal Code as well as the processes and procedures related to the Project's implementation. The Proposed Project would retain the existing ministerial review process of the existing CASP for development projects that do not reach the thresholds for Project Compliance discretionary review.

3.5 PROJECT TIMELINE AND PHASES

The Proposed Project is an update to the existing CASP that would guide development in the Project Area through 2040. The Proposed Project does not propose specific planned development, and therefore, does not include a construction schedule or phasing plan. The Proposed Project is anticipated to be adopted in 2023 with implementation starting after adoption and continuing through 2040.

3.6 REQUIRED APPROVALS

Approval of the following would be required by the City Council in order to implement the Proposed Project:

- Certification of the Project EIR; and Adoption of Amendments to the Cornfield Arroyo Specific Plan, including text and maps.
- Adoption of Amendments to the City's Zoning Map in LAMC Chapter 1 and 1A to rezone portions of the Project Area with updated zone classifications and to update the Project Area boundaries.
- Adoption of Amendments to Community Plans (Land Use Element of the General Plan), including the Central City North Community Plan, Northeast Los Angeles Community Plan, and Silver Lake-Echo Park-Elysian Valley Community Plan land use maps.
- Amendments to the General Plan Framework, Circulation Map (Appendix E), Mobility Plan and other Citywide General Plan Elements, and ordinances, as necessary; and
- Amendments to all other relevant ordinances and actions as necessary to ensure consistency of regulations and implementation of the Community Plan amendments.

Approval of the Proposed Project would not require action by any agency other than the City of Los Angeles.

4.0 ENVIRONMENTAL ANALYSIS

4.0.1 INTRODUCTION TO THE ANALYSIS

This chapter, Environmental Analysis, is the primary focus of this Draft EIR. The following Sections 4.1 to 4.17 contain discussions of the potential environmental effects of implementation of the Proposed Project. Each environmental issue is considered in a separate section, which contains a discussion of the environmental setting, the regulatory setting, the methodology, and the thresholds of significance applicable to the environmental issue being analyzed. Each section also includes the impact analyses for the Proposed Project, mitigation measures, conclusions regarding the level of significance after mitigation, and cumulative impact analyses for each of the environmental issues.

4.0.2 SCOPE OF IMPACTS

IMPACT ANALYSIS

In the following sections, the analysis considers the indirect impacts from the approval of the Proposed Project.

- 4.1 Aesthetics
- 4.2 Air Quality
- 4.3 Biological Resources
- 4.4 Cultural Resources
- 4.5 Energy
- 4.6 Geology and Soils
- 4.7 Greenhouse Gas Emissions
- 4.8 Hazards and Hazardous Materials
- 4.9 Hydrology and Water Quality
- 4.10 Land Use and Planning
- 4.11 Noise
- 4.12 Population, Housing and Employment
- 4.13 Public Services
- 4.14 Recreation
- 4.15 Transportation and Traffic
- 4.16 Tribal Cultural Resources
- 4.17 Utilities and Service Systems

4.0.3 FORMAT OF SECTIONS

The analysis of each environmental impact category is organized to include the following subsections:

EXISTING SETTING

This subsection includes a description of existing conditions in the area of potential impact under baseline conditions. CEQA Guidelines Section 15125(a) requires that an EIR include a description of the physical environmental conditions in the vicinity of a proposed project as they exist at the time the Notice of Preparation (NOP) is published. The NOP for this EIR was published on April 8, 2021. Thus, the Draft EIR uses 2021 as the baseline existing conditions.

REGULATORY FRAMEWORK

This subsection includes an identification of federal, state, and local laws, regulations, policies, plans, and in some instances, regulating agencies, that regulate, plan or have jurisdiction over the environmental area of concern.

THRESHOLDS OF SIGNIFICANCE

This subsection identifies the criteria by which the components of the Proposed Project are measured to determine if the Proposed Project would cause a substantial or potentially substantial adverse change in the existing environmental conditions.

This EIR relies upon CEQA Guidelines Appendix G thresholds as the threshold of significance unless another is specifically identified in the EIR. The City may rely on thresholds of significance adopted by regulatory agencies, such as South Coast Air Quality Management District (SCAQMD) or any others deemed appropriate by the City and supported by substantial evidence.

Discussion in both thresholds and methodology subsections found in the sections associated with each individual impact area provide further explanation of which thresholds are used. As to each environmental topic, the City has selected the thresholds that ensure as comprehensive an analysis of the Proposed Project's potential environmental impacts as possible, given the constraints of attempting to analyze a Specific Plan that will be implemented over 20 years or more.

Finally, all impact questions, except as indicated below, are interpreted to take into account the following mandatory findings of significance from CEQA Guidelines Section 15065(a):

- (1) The project has the potential to substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare or threatened species; or eliminate important examples of the major periods of California history or prehistory. [Considered in Sections 4.3, Biological Resources, and 4.4, Cultural Resources.]*
- (2) The project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals. [Considered in impact analysis in Sections 4.1 through 4.18.]*

- (3) *The project has possible environmental effects that are individually limited but cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. [Considered in the cumulative analysis in each impact Sections 4.1 through 4.18.]*
- (4) *The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly. [Considered in all impact analysis Sections 4.1 through 4.18.]*

METHODOLOGY

This subsection summarizes the methods, procedures and techniques used to estimate the impacts of the Proposed Project.

As described in the “Thresholds of Significance” discussion above, the methodology subsection also further clarifies which thresholds—Appendix G or the City thresholds or others—are used when describing the methods, procedures and techniques used to estimate the Proposed Project’s impacts. Generally, a methodology discussion notes whether the environmental impacts being analyzed identify potential impacts that are localized (e.g., population, housing, employment; land use) or would generally affect the entire Project Area, City, or region (e.g., air quality or greenhouse gas emissions). Consequently, this subsection may describe the geographic extent to which the Proposed Project could potentially affect for each environmental topic area. In some instances, where applicable, the methodology includes consideration of a broader geographic area beyond the boundaries of the Project Area or City.

IMPACTS

This subsection analyzes the effects of the Proposed Project against the baseline conditions to determine whether the Project would result in significant impacts to the environment. As discussed in prior chapters, the baseline, unless expressly provided otherwise in this EIR, is the existing conditions at the time the NOP was published.

For each significant impact or potentially significant impact identified, this subsection also recommends appropriate and reasonable mitigation measures to avoid or minimize impacts to the extent feasible. In addition, this subsection includes a discussion of whether a significant and unavoidable impact would be reduced to a less-than-significant level after mitigation or would remain significant and unavoidable.

The analysis of the Project is quantified using growth projections (i.e., housing, population, and employment numbers) for many of the impact areas. As discussed in Chapter 2, Project Description, the Project identifies and analyzes reasonably anticipated housing, population, and employment in the future.

The following terms are used to describe the level of significance of impacts, including before and after mitigation measures are imposed:

No Impact

No Impact applies where an environmental issue is evaluated, and it is determined that the Proposed Project would have no effect or impact in that category. No Impact conclusions are supported by information showing that the impact does not apply to the Proposed Project (e.g., the Project Area falls outside a fault rupture zone).

Less-Than-Significant Impact

Less-Than-Significant Impact applies where the Proposed Project would create only less than significant impacts that do not exceed the defined threshold of significance. CEQA does not require mitigation for less-than-significant impacts.

Less-Than-Significant with Mitigation Incorporated Impact

Less-Than-Significant with Mitigation Incorporated Impact applies to an impact that exceeds the defined threshold of significance, but for which mitigation is identified to reduce the impact to a less-than-significant level.

Significant and Unavoidable Impact

Significant and Unavoidable Impact applies to an impact that exceeds the defined threshold of significance and cannot be eliminated or reduced to a less-than-significant level through implementation of feasible mitigation measures.

The Impact Analysis discussion includes the following parts:

a. Discussion

Provides discussion presenting evidence that substantiates the impact conclusion.

b. Mitigation Measures

When an impact is initially identified as significant or potentially significant, feasible mitigation measures that would avoid or reduce the magnitude of impact are identified. If the impact conclusion is no impact or less than significant after the impact analysis discussion, this part is not included or is identified as not applicable.

c. Significance of Impacts/Summary of Impacts After Mitigation

This part identifies the level of significance after mitigation. If the Proposed Project would have a potentially significant impact before mitigation, a discussion will be provided to determine whether the potentially significant impact would be reduced to a less-than-significant level after mitigation or would remain significant and unavoidable.

CUMULATIVE IMPACTS

This subsection analyzes cumulative impacts associated with the Proposed Project. Pursuant to CEQA Guidelines Section 15130, an EIR shall discuss cumulative impacts of a project when its incremental effect is cumulatively considerable. “Cumulatively considerable” means that the incremental effects of the Proposed Project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. A finding of No Impact would also mean that the effect is not cumulatively considerable.

Cumulative impacts are the changes in the environment that result from the incremental impact of development of the Proposed Project and other projects with related impacts. For example, transportation impacts of two nearby projects may be insignificant when analyzed separately but could have a significant impact when analyzed together.

CEQA Guidelines Section 15130 allows that the discussion of cumulative impacts shall reflect the severity of the impacts and the likelihood of occurrence, but the discussion need not provide as much detail as is provided for the effects attributable to the project alone.

CEQA Guidelines Section 15130 allows for two approaches to study cumulative impacts: using a list of past, current and probable future projects or relying on a summary of projections (growth forecasts) from adopted local, regional or statewide plans. Because the Proposed Project is specific plan update covering a large area of the City over an approximately 20-year planning period, unless otherwise indicated, the cumulative impacts analysis in this EIR relies on the summary of projections method, utilizing the Southern California Association of Governments (SCAG) projections.

REFERENCES

This subsection identifies the sources and technical studies utilized in the preparation of this EIR. These reports are referenced throughout the document where appropriate.

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4.1 AESTHETICS

This section provides an overview of aesthetics and evaluates the impacts related with the Project Area. Topics addressed include visual character, views and vistas, scenic resources, and light and glare.

ENVIRONMENTAL SETTING

GENERAL VISUAL CHARACTER

Citywide

The City of Los Angeles is visually and aesthetically diverse. The City's physical boundaries are generally defined by the San Gabriel Mountains in the north, the Santa Susana Mountains, Santa Monica Mountains, and Pacific Ocean in the west, Pacific Ocean in the South, and Verdugo Mountains, San Rafael Hills, and San Gabriel Valley in the east. The Santa Monica Mountains and Los Angeles River bisect the City, separating the San Fernando Valley in the north from the Los Angeles metropolitan basin in the south. Generally, northern Los Angeles, specifically the San Fernando Valley, is comprised of larger areas of open space and natural elements. Central Los Angeles to the southern tip of the City is highly urbanized.

Project Area

The Project Area is located in the eastern portion of Los Angeles and a majority of the area is a Transit Priority Area (TPA), as shown on **Figure 4.1-1**, below. In particular, the Project Area is generally bordered by the neighborhoods of Chinatown to the south, Lincoln Heights to the east, Cypress Park to the north, and Elysian Park to the west. The Project Area is almost entirely urbanized and primarily characterized by a variety of high and low intensity development areas with an assortment of different development scales and a variety of visual character, including scattered parks, residential neighborhoods, commercial districts, restaurants, and industrial manufacturing facilities.

The Project Area is generally flat and does not contain substantial geographic features when compared to other areas of the City. For reference purposes, Interstate 5 (I-5) and State Route-110 (SR-110) bisect the northern portion of the Project Area, just west of the Lincoln Heights neighborhood. The visual character of the Project Area consists of urban development and streetscapes characterized by different cultural and architectural enclaves that have become iconic to the City landscape and in this particular area of the City. The existing built environment within the Project Area varies as a result of different phases of development that have occurred throughout the Project Area over time. With a majority of the Project Area encompassing industrial related land uses, the Project Area can generally be split into four sections including a northern section, western section, central section, and eastern section. Further information on the Project Area districts can be found in **Table 4.1-1**, below. General Project Area photos are provided in subsequent

Figure 4.1-1 Project Area Boundary KPOV



TABLE 4.1-1 PROJECT AREA DISTRICTS	
Western Section	The section west of the Los Angeles River is characterized by blocks of industrial buildings constructed throughout the 20th century. The section along Spring Street historically surrounded the Southern Pacific River Station, which is now Los Angeles State Historic Park. In 2005, the State Park was the site of an art project by Lauren Bon called “Not a Cornfield,” which is where the Cornfield Arroyo Seco Specific Plan gets part of its name. One of the more notable industrial buildings in the section is the Raphael Junction Block/NY Suspenders Factory, a flatiron-shaped building adjacent to the State Park. The western section also includes Los Angeles Department of Water and Power (LADWP) generating and maintenance facilities and William Mead Homes Public Housing. A rare extant section of the Zanja Madre, the main irrigation ditch that fed the early Pueblo de Los Angeles, is located just north of the State Park along the Metro L Line (Gold) alignment.
Central Section	The section between the Los Angeles River and I-5, south of Arroyo Seco is mixed in character, containing residential, commercial, and industrial uses, often adjacent to each other. Five or six blocks on the south side of Broadway Street contain a concentration of late 19th and early 20th century residences, as well as the Albion Elementary School. Albion Cottages and Milagro Market (HCM #442) are located in this small residential area. Broadway and Pasadena Avenue act as commercial corridors through the area. Industrial properties are interspersed throughout the section, but the north half of the section is particularly industrial in character. The Lincoln Heights Jail (HCM #587) is located in the Central section, as is the old Fuller Paint Company (remodeled into loft housing), and Goodwill Industries. The Brewery Art Colony, housed in the old Pabst Brewery and Edison Steam Power Plant (HCM #388), is just outside the Project Area boundaries on the south side of Main Street.
Eastern Section	Located east of I-5 and south of Arroyo Seco, this section is largely industrial, with the exception of a few old homes left over from the original residential tract that existed before industry expanded into it. The Lincoln Heights Gold Line stop is located in this section, which has spurred apartment and condominium development in recent years. Lacy Street is defined by a mix of historic and new buildings, including the old Columbia Mills (now Lacy Street Studios), Lacy Street Neighborhood Park, the North Central Animal Care Center, and former offices of the Cannon Electric Development Company. Other industries in the area were historically involved in metal work, from the manufacture of brass to general fabrication of metal objects and building materials.
Northern Section	The section north of Arroyo Seco comprises mainly the properties facing Figueroa Street and Avenue 26, which are largely commercial in character. Properties along Figueroa Street have seen extensive redevelopment and remodeling over the last half of the 20th century, leading to a mix of older one-story commercial buildings, a neighborhood movie theater (converted to a store), gas stations, and a Googie-style IHOP restaurant. The former Los Angeles Railway Huron Substation is located in this section (HCM #404), as is the former Lawry’s California Center (now the Los Angeles River Center and Gardens).

Western Section Photos

Figure 4.1-2 North Alhambra Avenue - Metro Gold Line in the Background



Figure 4.1-3 North Alhambra Avenue - Hilda L Solis Care First Village



Figure 4.1-4 1033 Alhambra Avenue – California Drop Forge Inc., a Now-Closed Metal Fabricator



Central Section Photos

Figure 4.1-5 Leroy Street and Bolero Lane – Metrolink in the Background



Figure 4.1-6 Leroy Street and Bolero Lane – William Mead Homes



Figure 4.1-7 Leroy Street and Cardinal Street – William Mead Homes



Figure 4.1-8 Mural on Leroy Street Across from William Mead Homes



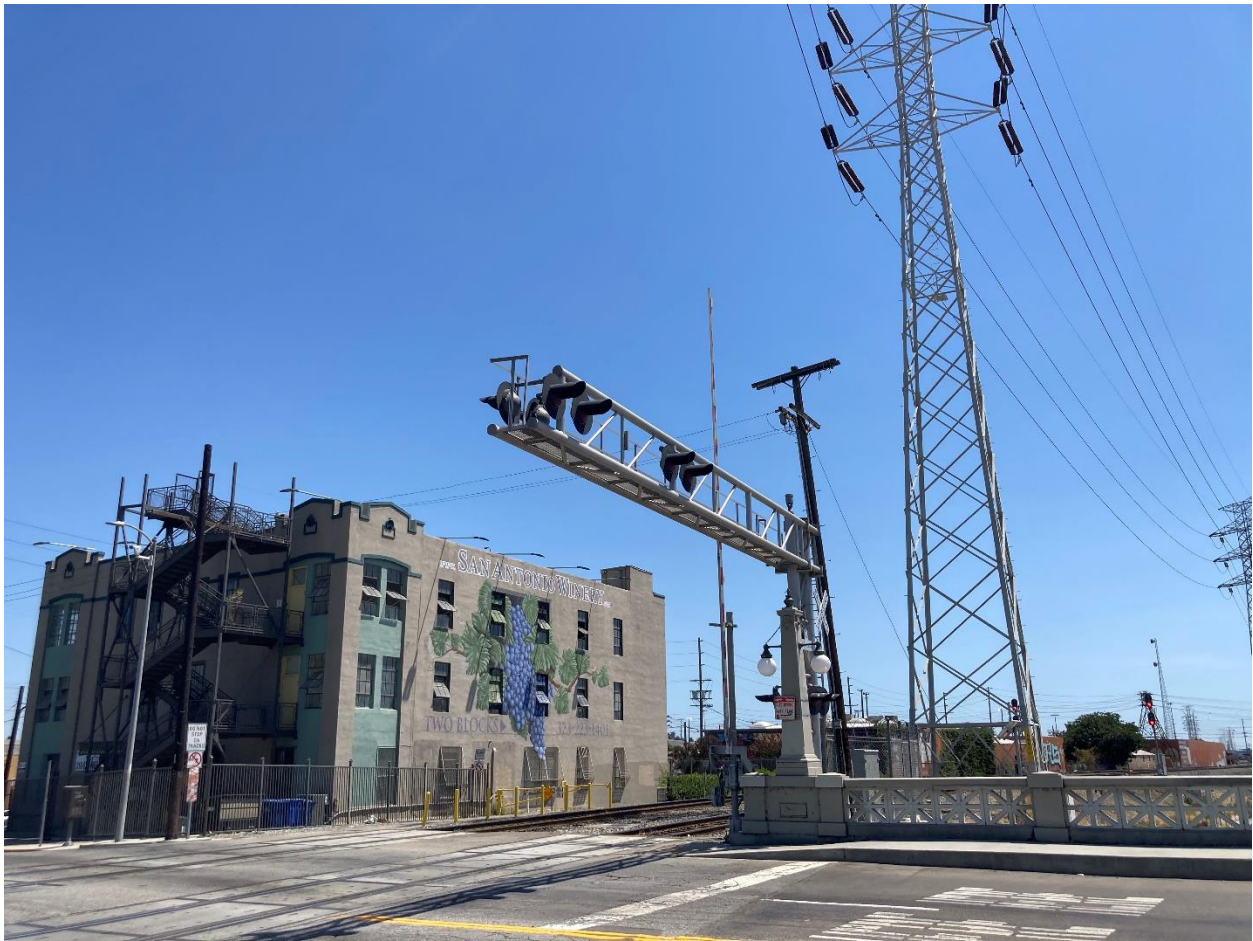
Figure 4.1-9 North Main Street and Albion Street



Figure 4.1-10 North Main Street Overlooking the LA River-



Figure 4.1-11 North Main Street



Eastern Section Photos

Figure 4.1-12 South Avenue 21 and Darwin Avenue



Figure 4.1-13 South Avenue 21 and Darwin Avenue



Figure 4-1-14 West Avenue 21 and Pasadena Avenue



Figure 4.1-15 West Avenue 21 and Pasadena Avenue



Figure 4.1-16 West Avenue 21 and Pasadena Avenue – Bridge Overlooking the Golden State Freeway

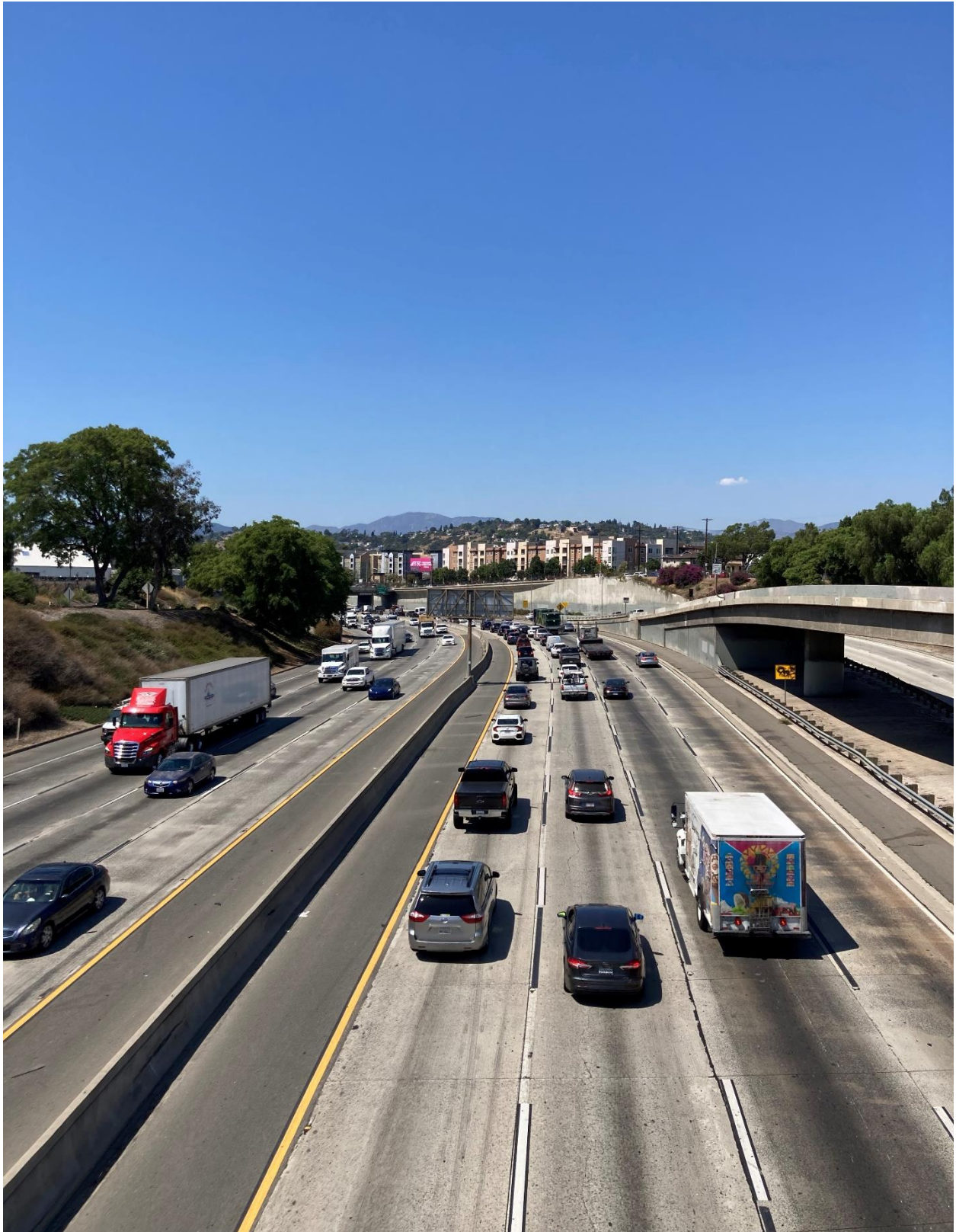


Figure 4.1-17 West Avenue 21 and Pasadena Avenue – Interstate 5 South Entrance Sign and DTLA Skyline in the Background



Northern Section Photos

Figure 4.1-18 West Avenue 26 and North San Fernando Road



Figure 4.1-19 570 West Avenue 26 – River Garden Park Entrance



Figure 4.1-20 Huron Street and West Avenue 26



SCENIC VIEWS AND VISTAS

The term “views” generally refer to visual access to, or the visibility of, a particular natural or manufactured visual resource (e.g., a prominent geologic feature or historic resource) from a given vantage point or corridor. Scenic views focus on a particular object, scene, setting, or feature of visual interest. Panoramic views, or vistas, provide visual access to a large geographic area, for which the field of view can be wide and extend into the distance. Panoramic views are usually associated with vantage points looking out over urban or natural areas that provide a geographic orientation and view not commonly available. Examples of panoramic views might include an urban skyline, a valley, a mountain range, the ocean, or other water bodies. The City’s General Plan Conservation Element defines scenic views or vistas as the panoramic public views of natural features, including views of the ocean, striking or unusual natural terrain, or unique urban or historic features. Public access to these views is typically from park lands, publicly-owned sites, and public rights-of-way.

Citywide Views and Vistas

As noted above, scenic views or vistas are the panoramic public view access to natural features, including views of the ocean, striking or unusual natural terrain, or unique urban or historic features. Public access to these views is from park lands, private and publicly owned sites, and public rights-of-way. Scenic views and vistas are located throughout the City. Some prominent scenic views and vistas in the City include Pacoima Wash, San Gabriel Mountains, Santa Susana Mountains, San Pedro’s coastal bluffs, Griffith Park, and Elysian Park.

Scenic protection provisions are contained in the community plans for the City. Some protections include height limits and building setback requirements. Some scenic highways, including the Mulholland Drive Scenic Parkway, are regulated by specific plan ordinances that contain design provisions intended to protect natural ridge tops, neighborhood visual ambience, public views, and other features.

Project Area Views and Vistas

Scenic vistas in the Project Area include the downtown skyline to the south and limited views of the San Gabriel Mountains, Elysian Park, and the hills surrounding Dodger Stadium to the west. Due to the density and relative heights of buildings and urban development throughout a majority of the Project Area, views of these vistas are largely obstructed at the ground level. Intervening buildings, street bridges, freeway overpasses, and street trees block most views of these areas. Though the Elysian Park hills and the San Gabriel Mountains are visible from several areas of the Project Area, these views are also partially obstructed by buildings, transmission towers, and electric lines. Limited views of the San Gabriel Mountains are available from the ground level along various north-south streets primarily in the northern half of the Project Area. Limited views of Elysian Park and the hills surrounding Dodger Stadium are also available at the ground level primarily at discrete vantage points in the center to southern portions of the Project Area, although intermittently interrupted by existing rolling hills and landscaping.

Publicly accessible panoramic views of the Project Area are provided from freeways in and adjacent to the Project Area as well as surrounding areas such as the Hollywood Hills and Griffith Park, due to their elevation relative to the flat nature of the Project Area. From these vistas, the intense urban development that characterizes both the low-rise commercial and residential structures of the existing Urban Innovations Subarea can be observed.

The streets, sidewalks, and freeways that traverse the Project Area generally provide views of urban development and urban streetscapes, including public views of historic buildings, parks, and iconic skyscrapers to the south and towards Downtown Los Angeles. These views are typically limited to close-

in foreground views, though some high-rise skyscrapers can be viewed from over 1-mile away at street level.

SCENIC RESOURCES

Scenic resources may include natural or urban features. Natural features can include open space; native or ornamental vegetation/landscaping; topographic or geologic features; and natural water sources. Urban features can include structures, or a collection of structures of architectural or historic significance or visual prominence; public plazas, art, or gardens; trees or landscaping protected by the City; consistent design elements along a street or within a district; pedestrian amenities; and landscaped medians or park areas. Scenic resources contribute to the aesthetic character or image of a given area.

Citywide Resources

Landforms and Geology

The City of Los Angeles has several features that contribute to its visual landscape. The Los Angeles Basin is located at the center of the mountain ranges that surround the City and County of Los Angeles. Approximately 214 of the 478 square miles within the City are comprised of hills and mountains and include portions of several mountain ranges: Santa Monica Mountains, Santa Susana Mountains, Verdugo Mountains, and San Gabriel Mountains. The Santa Monica Mountains are the most visible feature from many areas of the City (City of Los Angeles 2001).

The western boundary of the City is the coastline, characterized by sandy beaches, rocky cliffs, and open space. Another prominent feature, the Los Angeles River, bisects the northern portion of the City from the central portion; however, much of the river is channelized and concrete-lined and is not considered a scenic resource.

Open Space and Parks

The City of Los Angeles Department of Recreation and Parks (DRP) owns and operates parks and recreational facilities throughout the City. Within the City of Los Angeles there are several hundred small and large public recreational sites, including over 444 park sites (DRP 2018). The City's open spaces include the San Gabriel Mountain Range, beaches, an intricate network of rivers and trails, and 36,000 acres of park and recreation spaces, and the pedestrian paths (City of Los Angeles 2017). The City is also home to Griffith Park, one of the largest urban parks in North America. The DRP also maintains 13 lakes and 92 miles of hiking trails (DRP 2018). For additional information on parks and recreational facilities, refer to Section 4.17, *Parks and Recreation*.

Historical Resources

The City of Los Angeles is full of rich history. As of November 7, 2017, there are 1,150 historic-cultural monuments in the City of Los Angeles, including residences, government buildings, places of worship, natural elements, and parks (City of Los Angeles 2017). The City has also designated 35 Historic Preservation Overlay Zones. For additional information on historical resources, refer to Section 4.4, *Cultural Resources*.

Scenic Highways

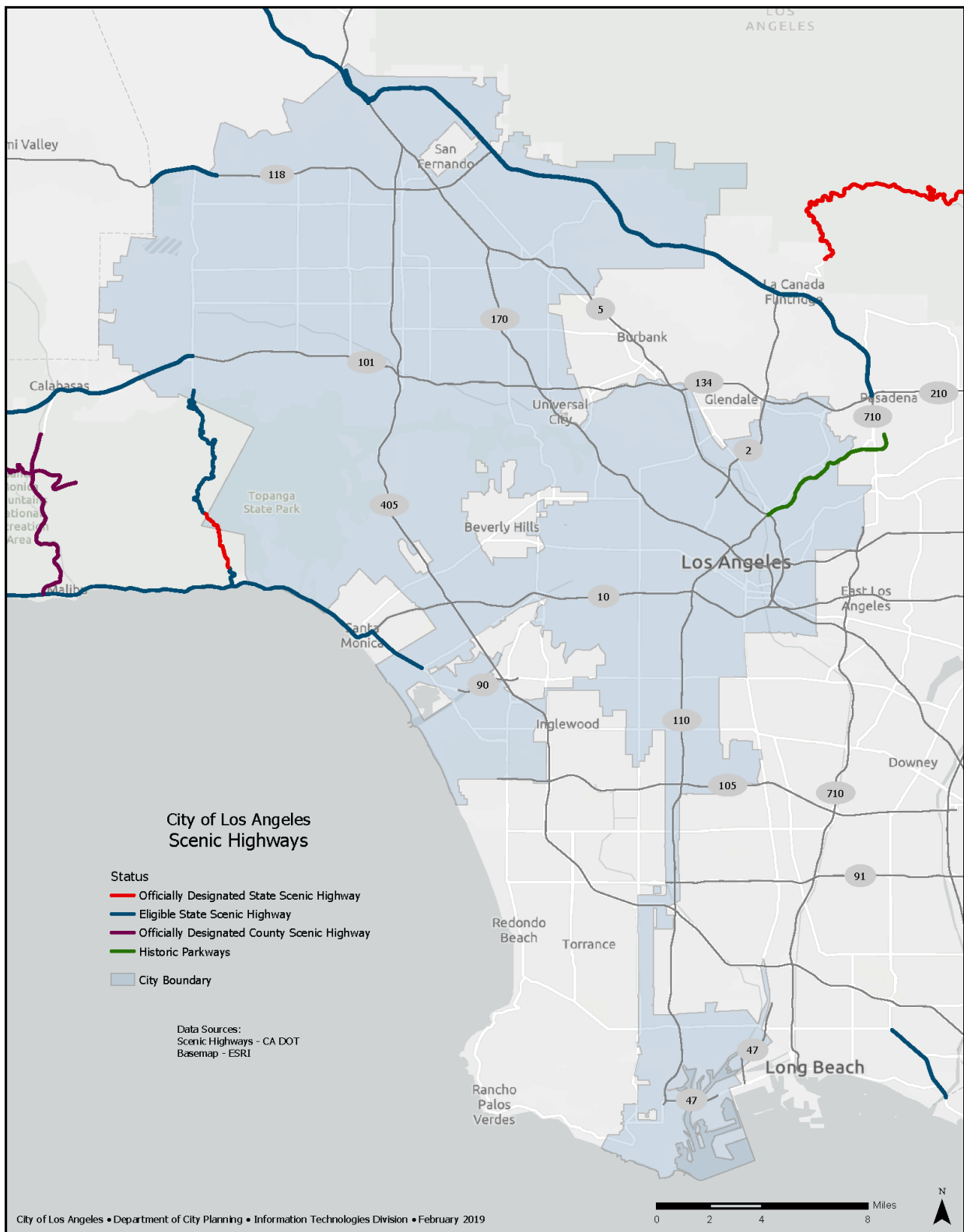
State scenic highways are designated by Caltrans. Although the Mobility Plan 2035 identifies a number of state scenic highways, the official Caltrans list of state scenic highways is available online. The only officially designated state scenic highway that crosses through the City is a small portion of a 3.5-mile segment of Topanga Canyon Boulevard (State Route 27), which was designated a state scenic highway in

2017. State Route 27 is in the western portion of the Palisades Highlands community, approximately 20 miles from the Project Area. Several eligible state scenic highways pass through portions of Los Angeles, including Interstate-5 from Interstate 210 to the northern City limit, U.S. Route 101 from Topanga Canyon Boulevard to the western City limit, State Route 118 from De Soto Avenue to the western City limit, Interstate 210 from Interstate-5 to the eastern City limit, State Route 1 from Venice Boulevard to the City boundary adjacent to Santa Monica, and State Route 1 north of Interstate 10. There are no designated or eligible state scenic highways located in the Specific Plan Area.

In addition to Caltrans designated state scenic highways, the City designates certain corridors within City highways or byways for preservation of their scenic resources, including noteworthy medians, access to notable viewsheds, or dramatic passes. There are approximately 60 designated scenic highways and byways in the Mobility Plan 2035, with one designated highway, the Arroyo Seco Parkway, located in the Plan Area.

The Arroyo Seco Parkway is a National Civil Engineering Landmark, a National Scenic Byway, and one of two California Historic Parkways, as shown in **Figure 4.1-21**, below. Additional information related to the Arroyo Seco Parkway is provided below under the Project Area resources subsection.

Figure 4.1-21 State and County Scenic Highways



Project Area Resources

Landforms and Geology

A majority of the land surface in the Project Area is urbanized and developed with a range of residential, commercial, industrial, cultural, and open space uses, most of which are paved which limits the extent of exposed surface soils. Geologic units in the Los Angeles region include Tertiary sedimentary bedrock formations overlain by older and younger surficial sediments, primarily alluvium and older alluvium consisting of gravel and sand (City of Los Angeles 1996).

Open Space and Parks

The Project Area contains small scattered open space areas. Most are located within the northern portion, just south of the Interstate 5 Freeway in addition to other smaller city parks scattered throughout the Project Area. The following is a more comprehensive list of existing and planned parks in the Project Area, as well as various outdoor green gathering spaces:

- Albion Riverside Park
- River Garden Park
- Radio Hills Garden
- Lacy Street Neighborhood Park
- Ed P. Reyes River Greenway
- Downey Recreation Center
- LA State Historic Park (the Cornfields)

The Los Angeles River and its associated tributaries and flood plains are also considered prominent topographic and open space features in the City. The River generally defines the center of the Project Area. However, as discussed, the portion of the Los Angeles River within the Project Area is channelized, concrete-lined, and generally not used for public recreation. The areas of the river used for recreation zones are located on Broadway and Casanova Street and are only open for limited periods of time during the year for specific activities.

Historical Resources

As discussed in Section 4.4, *Cultural Resources*, the SurveyLA historic resources survey program provides a comprehensive list of all historical resources within this area of Los Angeles based on the findings of the *Cornfield Arroyo Seco Specific Plan Historic Resources Survey*. According to the SurveyLA Report, the Project Area contains several individually eligible historical resources.

Of the approximately 1,600 unique parcels within the CASP survey area, 50 were digitally photographed and entered into the FiGSS database. Each of the surveyed properties was assigned a California Historical Resources status code according to level of significance. Of this number, 23 properties appeared to meet SurveyLA eligibility criteria under one or more themes and were recorded on the appropriate DPR forms. **Table 4.1-2** provides additional examples of historical resources within the Project Area and their respective historical context as provided in the SurveyLA Report (SurveyLA 2011):

TABLE 4.1-2 EXAMPLES OF CORNFIELD ARROYO SECO HISTORICAL RESOURCES	
Context	Historical Resource
Commercial Development (1850-1980)	Multifamily Property (1905) – 227, 229, and 231 Avenue 19
	Industrial Loft (1924- 1954) – 1250 N. Main Street
	Residence/deli (1898-1926) – 510 Avenue 17; 1801 N. Main Street
Public and Private Institutional Development (1850-1980)	Municipal Power Plant (1946– 2000) – 1630 N. Main Street
	Oil Co. Office (1914) – 1727 N. Spring Street
	School (1937) — 322 S. Avenue 18
Entertainment Industry (1928)	Arroyo Theatre (1928) – 3232 N. Figueroa Street

The Project Area contains some of the oldest developed areas of Los Angeles (SurveyLA 2011). This area contains designated resources from the late 19th and early-20th centuries. Most of the Project Area is characterized by residential and commercial use zones in which many historical industrial buildings are distributed throughout, such as the Municipal Power Plant. Also, the Standard Oil Company of California buildings on North Spring Street served as sales department and provided industrial facilities for one of the most powerful corporations in the world. Rockefeller’s Standard Oil of California was one of the “seven sisters” that ran the oil industry during the 20th century and later became Chevron Corporation. Today, the building provides a window to Los Angeles’ past and serve as symbols of the industries that allowed the city to grow.

See Section 4.4, *Cultural Resources*, for a more detailed list of historical resources within the Project Area. To note, there are no Historic Preservation Overlay Zones (HPOZs) in the Project Area

Scenic Highways

No State-designated scenic highways or scenic parkways (or proposed scenic highways or parkways) are located in the Project Area and no state-designated scenic highways provide views of the Project Area (Caltrans 2011). The nearest state-designated historic scenic parkway is the portion of the 110 Freeway bounded by the Interstate 210 freeway to the north and the I-5 Freeway to the south that intersects the Project Area. Views of the Project Area from the Historic Parkway are obstructed by the hills of Elysian Park near Dodger Stadium to the west of the Project Area.

According to the City’s Mobility Plan 2035, City-designated scenic highways should be either: 1) arterial streets or state highways that traverse areas of natural scenic quality in undeveloped or sparsely developed areas of the City; or 2) arterial streets that traverse urban areas of cultural, historical, or aesthetic value which merit protection and enhancement (City of Los Angeles 2016). Scenic highways have special controls for protection and enhancement of scenic resources. Scenic Highway Guidelines (for those designated scenic highways for which there is no adopted scenic corridor plan) are given in Appendix B of the City’s Mobility Plan 2035. The portion of Stadium Road between the I-5 freeway and California SR-110 at the western boundary of the Project Area is the only City-designated scenic highway that the Mobility Element identifies near the Project Area. This road runs along the eastern and southern boundary of Dodger Stadium near Elysian Park, but outside of the Project Area. Views from this road near Dodger Stadium are generally obstructed by adjacent residential development and tree-lined banked hillsides. Views from the road at the closest point to the Project Area are primarily of urban development in the Lincoln Heights subarea to the east and across SR-110 and minimal areas just north of Chinatown.

Landscaped Parkways and Roadway Medians

A majority of the streets in the Project Area are heavily trafficked arterials, and generally do not contain significant landscaping or landscaped medians. The Arroyo Seco Parkway is the only official parkway that travels into or through the Project Area. The Arroyo Seco Parkway (SR-110) runs northeasterly from the four-level interchange with the 101 Freeway just outside of downtown Los Angeles to East Glenarm Street in Pasadena. It is a National Civil Engineering Landmark, a National Scenic Byway, and one of two California Historic Parkways, the other being State Route 163 through Balboa Park in San Diego (Caltrans 2011). Since 2011 the Arroyo Seco Parkway and its associated features have been listed in the National Register of Historic Places as the Arroyo Seco Parkway Historic District. However, only the portion of the Parkway north of the Interstate 5 Freeway is designated as a state scenic and historic parkway. Views from the Arroyo Seco Parkway are primarily of adjacent low- and mid-rise industrial and residential urban development.

Urban Visual Character

While scenic vistas encompass long-range views and often emphasize large-scale natural features, views are also affected by their more immediate visual surroundings. Local aesthetics, typically found on a neighborhood level, also contribute to the urban visual character of the Project Area. Development densities and types, distinctive neighborhoods and commercial districts, recognizable architectural elements, prominent public institutions/landmarks, and other elements all contribute to the City's aesthetic quality.

As previously described, development in the Project Area primarily consists of centrally focused industrial related land with interspersed residential land uses that are scattered with pockets of open space parks and commercial areas. Structures in the Project Area range from low-rise, one- to two-story, to several stories in height situated within the residential Urban Village and Urban Innovation zones along I-5 in the eastern portion of the Project Area.

LIGHT AND GLARE

Citywide

The character of the City is highly diverse and consists of various levels of urbanization. As discussed above, the northern portion of the City encompasses more open spaces and is generally less intensely developed and the central to southern portion of the City is highly urbanized. As such, the intensity of lighting depends on the location within the City and can vary from low intensity of nighttime illumination near suburban and equestrian areas to high intensity in high-density urban areas.

Throughout the City, there are currently more than 210,000 streetlights that provide illumination for City roadways and sidewalk areas. All lighting installed in the City is required to meet National Lighting levels that provide visibility and reduce sky glow and glare (City of Los Angeles 2018). Sources of light throughout the City also include floodlights at sports fields or arenas, residences, airports, electronic billboards, and vehicles traveling on roads and freeways.

Existing conditions information for glare cannot be summarized at the citywide level as conditions depend on site specific conditions and vary widely throughout the City.

Project Area

Light

Given the nature of high-density urban development, most of the Project Area is characterized by moderate to high intensities of nighttime illumination. Nighttime lighting is necessary to provide and maintain safe,

secure, and attractive environments. However, lighting has the potential to produce spillover light and glare and, if designed incorrectly, could be considered unattractive or could be annoying or obtrusive to residents. Light that falls beyond the intended area is referred to as nighttime spillover light or light trespass. Nighttime spillover light can adversely affect light sensitive uses at nighttime, especially residences.

Throughout the Project Area, a high level of ambient nighttime light exists as is characteristic of downtown urban environments. Nighttime artificial lighting sources include street, securing, and wayfinding outdoor lighting; vehicle headlights; illuminated pole signs used for advertisements; interior building illumination; lighted buildings; and lighted graphic signs. These artificial lighting sources result in high ambient nighttime light levels near all areas of the Project Area due to the close proximity of commercial development and night life amenities near residential land uses. Moderate levels of ambient nighttime lighting characterize the Project Area due to the more limited use of exterior lighting in low-rise manufacturing and commercial developments. Streetlights are located throughout the entirety of the Project Area. Existing street lights are on approximately 40-foot-tall street light poles at street intersections and 25- to 30-foot-tall streetlights along sidewalks.

Ambient light levels or illumination is measured in foot-candles (fc). A fc is a unit of measure or the intensity of light falling in one square foot of surface area equal to one lumen per square foot. **Table 4.1-3** describes the foot-candle (fc) range of various types of light.

TABLE 4.1-3 FOOT-CANDLE VALUES OF COMMON LIGHT SOURCES	
Illumination Source	Foot-Candles (LUX/FX)
Full Daylight	1,000
Full Moon	0.1
Office Lighting	70-150
Street Lighting	0.6-1.6
<i>SOURCE: City of Los Angeles, Department of Public Works Bureau of Street Lighting Design Standards and Guidelines, 2007.</i>	

As viewed from surrounding locations, the nighttime lighting environment in the Project Area varies. Bright luminaries and surfaces of the Project Area can be viewed from considerable distance by specific receptors, such as freeways and high-rise structures. Nighttime lighting is lowest in the residential areas of the Project Area near Dodger Stadium, Elysian Park, and the far eastern edges of Lincoln Heights.

Glare

Glare is a common phenomenon in Southern California primarily due to the occurrence of a high number of days per year with direct sunlight and the highly urbanized nature of the region, resulting in a large concentration of reflective surfaces. Daytime glare can result from sunlight reflecting off glass, other structural fixtures of buildings, and windshields of parked and moving vehicles within the roadways in the Project Area. Although a majority of existing structures throughout the Project Area are composed of non-reflective materials, such as concrete, stucco, brick, and plaster, a few buildings that may contain glass on their exterior façade. Nighttime glare can occur from a variety of light sources including street lights and lighting of commercial and residential structures.

SHADE AND SHADOWS

Shading refers to the effect of shadows cast upon adjacent areas. The consequences of shadows upon land uses may be positive, including cooling effects during warm weather, or negative such as the loss of natural light necessary for solar energy purposes or the loss of warming influences during cool weather. Shadows are cast in a clockwise direction from west/northwest to east/northeast from approximately 7:00 a.m. to 3:00 p.m. or later depending on the time of the year: Summer Solstice (June 21), Spring/Fall Equinoxes

(March 20 and September 22), and Winter Solstice (December 21). Generally, the shortest shadows are cast during the Summer Solstice and then grow increasingly longer until the Winter Solstice. During the Winter Solstice, the sun appears lower in the sky and shadows are at their maximum coverage lengths. Shadows cast during the Winter Solstice represent the greatest potential shade and shadow impacts.

Citywide

Shadow effects depend on several factors, including local topography, the height and massing of buildings, and existing uses. However, existing conditions regarding shade and shadows cannot be summarized at the citywide level as they depend on site specific conditions and vary widely throughout the City.

Project Area

Shadow effects depend on several factors, including local topography, the height and massing of buildings, and existing uses. Due to the relatively dense arrangement of existing commercial, industrial, and residential buildings within the developed portions of the Project Area, shadow effects already exist in the Project Area. Shading provided by existing development in the Project Area can restrict access to sunlight but can also provide welcome cooling in an area frequently characterized by high temperatures. Mid-rise buildings cast longer shadows than low-rise buildings. Within the Project Area, taller buildings are generally located in the center near existing industrial land uses, and the effects of shadows cast in this area affecting public spaces where people gather for long periods, such as parks and open spaces, are minimal.

REGULATORY FRAMEWORK

STATE

Senate Bill 743 (SB 743)

On September 2013, Governor Brown signed into law SB 743, which instituted changes to the California Environmental Quality Act (CEQA) when evaluating environmental impacts of projects in areas served by transit. While the focus of SB 743 is to address how transportation impacts are evaluated, it also limits the extent to which aesthetic impacts are evaluated under CEQA. SB 743 (Public Resources Code [PRC] Section 21099 (d)(1)) exempts development projects located in Transit Priority Areas (TPAs), from review of aesthetic impacts under CEQA. Specifically, this bill states that aesthetic impacts of a residential, mixed-use residential, or employment center project on an infill site within a TPA shall not be considered significant impacts on the environment. Therefore, aesthetic impacts within a TPA are considered less than significant in environmental analyses. A TPA is defined as an area within one-half mile of a major transit stop that is existing or planned.

California Department of Transportation (Caltrans) State Scenic Highways

California's Scenic Highway Program was created by the Legislature in 1963. Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. State laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260 through 263. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. Caltrans defines a State Scenic Highway as any freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality. Eligibility for designation as a State Scenic Highway is based on vividness, intactness, and unity of the roadway. The status of a proposed State Scenic Highway changes from eligible to officially-

designated when the local governing body applies to Caltrans for scenic highway approval, adopts a Corridor Protection Program, and receives notification from Caltrans that the highway has been officially designated a State Scenic Highway. There are no designated state scenic highways in the City of Los Angeles, including the Project Area.

LOCAL

City of Los Angeles General Plan Framework, Conservation Element, and Mobility Plan 2035

The Framework Element planning policies regarding urban form, neighborhood design and the conservation of open space and other scenic resources, described in Section 1.1 of Chapter 1, *Introduction and Community Profile*, are intended to improve community and neighborhood livability in the City of Los Angeles. Framework Element Open Space and Conservation policies seek to conserve resources and use open space to enhance community and neighborhood character in the City.

The Conservation Element (adopted in 2001) includes a discussion of the existing landforms and scenic vistas in the City of Los Angeles. Objectives, policies, and programs included in this element are intended to ensure the protection of natural terrain and landforms, unique site features, scenic highways, and panoramic public views as City staff and decision-makers consider future land use development and infrastructure projects.

The Mobility Plan 2035 (adopted in 2016) provides an inventory of City-designated scenic highways. Scenic highways depicted in the City have special controls for protection and enhancement of scenic resources. The Mobility Plan 2035 includes Scenic Highway Guidelines for those designated scenic highways for which there is no adopted scenic corridor plan.

Objectives, policies, and programs included in the General Plan Framework, Conservation Element and Mobility Plan 2035 are intended to ensure the protection of natural terrain and landforms, unique site features, scenic highways, and panoramic public views as City staff and decision-makers consider future land use development and infrastructure projects. Applicable goals, objectives, and policies of these General Plan elements are shown in **Table 4.1-4**. See Section 4.8, *Land Use and Planning*, for a discussion of land use consistency for the proposed Project.

TABLE 4.1-4 RELEVANT GENERAL PLAN AESTHETICS GOALS, OBJECTIVES, AND POLICIES	
General Plan Framework	
Goal 5A	A livable City for existing and future residents and one that is attractive to future investment. A City of interconnected, diverse neighborhoods that builds on the strengths of those neighborhoods and functions at both the neighborhood and citywide scales.
Objective 5.1	Translate the Framework Element's intent with respect to citywide urban form and neighborhood design to the community and neighborhood levels through locally prepared plans that build on each neighborhood's attributes, emphasize quality of development, and provide or advocate "proactive" implementation programs.
Policy 5.1.1	Use the Community Plan Update process and related efforts to define the character of communities and neighborhoods at a finer grain than the Framework Element permits.
Objective 5.2	Encourage future development in centers and in nodes along corridors that are served by transit and are already functioning as centers for the surrounding neighborhoods, the community or the region.
Policy 5.2.1	Designate centers and districts in locations where activity is already concentrated and/or where good transit service is or will be provided.

TABLE 4.1-4 RELEVANT GENERAL PLAN AESTHETICS GOALS, OBJECTIVES, AND POLICIES	
Policy 5.2.2	<p>Encourage the development of centers, districts, and selected corridor/boulevard nodes such that the land uses, scale, and built form allowed and/or encouraged within these areas allow them to function as centers and support transit use, both in daytime and nighttime. Additionally, develop these areas so that they are compatible with surrounding neighborhoods, as defined generally by the following building characteristics:</p> <ul style="list-style-type: none"> • Buildings in neighborhood districts generally should be low rise (one- to two-stories), compatible with adjacent housing, and incorporate the pedestrian-oriented design elements defined in Policies 5.8.1 and 3.16.1 - 3.16.3. They should also be located along sidewalks with appropriate continuous storefronts. • Buildings in community centers generally should be two to six stories in height, with the first several stories located along the sidewalk. They should also incorporate the pedestrian-oriented elements defined in policy 5.8.1. Either housing or office space may be located above the ground floor storefronts. • The built form of regional centers will vary by location. In areas, such as Wilshire and Hollywood Boulevards, buildings will range from low- to mid-rise buildings, with storefronts situated along pedestrian-oriented streets. Regional centers should contain pedestrian-oriented areas and incorporate the pedestrian-oriented design elements defined in Policies 5.8.1 and 3.16.1 – 3.16.3. • Buildings located at activity nodes along mixed-use boulevards generally shall have the same characteristics as either neighborhood districts or community centers, depending on permitted land use intensities. Housing over ground floor storefronts or in place of commercial development shall be encouraged along mixed-use boulevards.
Objective 5.5	Enhance the livability of all neighborhoods by upgrading the quality of development and improving the quality of the public realm.
Policy 5.5.3	Formulate and adopt building and site design standards and guidelines to raise the quality of design citywide.
Policy 5.5.4	Determine the appropriate urban design elements at the neighborhood level, such as sidewalk width and materials, street lights and trees, bus shelters and benches, and other street furniture.
Policy 5.5.6	Identify building and site design elements for commercial or mixed-use streets in centers that may include: the height above which buildings must step back; the location of the building base horizontal articulation; and other design elements.
Policy 5.5.7	Promote the undergrounding of utilities throughout the City's neighborhoods, districts, and centers.
Objective 5.6	Conserve and reinforce the community character of neighborhoods and commercial districts not designated as growth areas.
Policy 5.6.1	Revise community plan designations as necessary to conserve the existing urban form and community character of areas not designated as centers, districts, or mixed-use boulevards.
Objective 5.7	Provide a transition between conservation neighborhoods and their centers.
Policy 5.7.1	Establish standards for transitions in building height and for on-site landscape buffers.
Objective 5.8	Reinforce or encourage the establishment of a strong pedestrian orientation in designated neighborhood districts, community centers, and pedestrian-oriented subareas within regional centers, so that these districts and centers can serve as a focus of activity for the surrounding community and a focus for investment in the community.
Policy 5.8.1	<p>Buildings in pedestrian-oriented districts and centers should have the following general characteristics:</p> <ul style="list-style-type: none"> • An exterior building wall high enough to define the street, create a sense of enclosure, and typically located along the sidewalk; • A building wall more-or-less continuous along the street frontage; • Ground floor building frontage designed to accommodate commercial uses, community facilities, or display cases; • Shops with entrances directly accessible from the sidewalk and located at frequent intervals; • Well-lit exteriors fronting on the sidewalk that provide safety and comfort commensurate with the intended nighttime use, when appropriate;

TABLE 4.1-4 RELEVANT GENERAL PLAN AESTHETICS GOALS, OBJECTIVES, AND POLICIES	
	<ul style="list-style-type: none"> • Ground floor building walls devoted to display windows or display cases; • Parking located behind the commercial frontage and screened from view and driveways located on side streets where feasible; • Inclusion of bicycle parking areas and facilities to reduce the need for vehicular use; and • The area within 15 feet of the sidewalk may be an arcade that is substantially open to the sidewalk to accommodate outdoor dining or other activities.
Policy 5.8.2	<p>The primary commercial streets within pedestrian-oriented districts and centers should have the following characteristics:</p> <ul style="list-style-type: none"> • Sidewalks: 15-17 feet wide (see illustrative street cross-sections). • Mid-block medians (between intersections): landscaped where feasible. • Shade trees, pruned above business signs, to provide a continuous canopy along the sidewalk and/or palm trees to provide visibility from a distance. • Pedestrian amenities (e.g., benches, pedestrian-scale lighting, special paving, window boxes, and planters).
Policy 5.8.4	Encourage that signage be designed to be integrated with the architectural character of the buildings and convey a visually attractive character.
Conservation Element	
Land Form & Scenic Vista Objective	Protect and reinforce natural and scenic vistas as irreplaceable resources and for the aesthetic enjoyment of present and future generations.
Land Form & Scenic Vista Policy	Continue to encourage and/or require property owners to develop their properties in a manner that will, to the greatest extent practical, retain significant existing land forms (e.g., ridge lines, bluffs, unique geologic features) and unique scenic features (historic, ocean, mountains, unique natural features) and/or make possible public view or other access to unique features or scenic views.
Mobility Plan 2035	
Objective 11	Preserve and enhance access to scenic resources and regional open space.
Policy 11.1	Designate scenic highways and scenic byways which merit special consideration for protection and enhancement of scenic resources.
Policy 11.2	Provide for protection and enhancement of views of scenic resources along or visible from designated scenic highways through implementation of guidelines set forth in this 2035 Mobility Plan.
Policy 11.3	Consider aesthetics and scenic preservation in the design and maintenance of designated scenic highways and of those scenic byways designated in Community Plans.
Policy 11.4	Establish Scenic Corridor Plans, where appropriate, which set forth corridor boundaries and development controls in harmony with each corridor's specific scenic character.
Plan for a Healthy LA	
Policy 2.2	Promote a healthy built environment by encouraging the design and rehabilitation of buildings and sites for healthy living and working conditions, including promoting enhanced pedestrian-oriented circulation, lighting, attractive and open stairs, healthy building materials and universal accessibility using existing tools, practices, and programs.
Policy 3.3	Continue to support the implementation of the Los Angeles River Revitalization Master Plan to create a continuous greenway of interconnected parks and amenities to extend open space and recreational opportunities.
Policy 3.4	Promote opportunities for physical activity for users of all ages and abilities by continuing to improve the quality of existing park and open space facilities and creating recreation programs that reflect the city's rich diversity and local community needs.
<p>SOURCE: City of Los Angeles, <i>The Citywide General Plan Framework: An Element of the City of Los Angeles General Plan, re-adopted 2001</i>; City of Los Angeles, <i>Conservation Element of the City of Los Angeles General Plan, adopted 2001</i>; City of Los Angeles General Plan, <i>Mobility Plan 2035: An Element of the General Plan, adopted 2015</i>.</p>	

OVERLAY PLANS WITHIN THE PROJECT AREA

The following discussion pertains to communities and neighborhoods in the Project Area.

City of Los Angeles Planning and Zoning Code and Building Regulations

LAMC Chapter 1 contains the Planning and Zoning Code, and Chapter 9 contains Building Regulations. The purpose of the Planning and Zoning Code is to designate and regulate the location, use, height and size of buildings. The Planning and Zoning Code regulates the aesthetics and visual quality of development projects. It includes development regulations specific to each zone and also addresses parking, landscaping, land form protection, lighting, and a number of other topics that influence the aesthetics of a development project. The Planning and Zoning Code also includes design regulations that seek to affect the physical alteration of streets, intersections, alleys, pedestrian walkways, and landscaping.

The following LAMC Sections regulate issue areas pertaining to the aesthetics of development in the City of Los Angeles. Those sections from Chapter 1 of the LAMC referenced below will be carried over to Chapter 1A of the LAMC (the New Zoning Code); although the regulations may be modified to meet the structure of the New Zoning Code, they would meet the intent of these existing regulations.

Lighting

Chapter 1, Article 2, Sec. 12.21 A5(k). All lights used to illuminate a parking area shall be designed, located and arranged so as to reflect the light away from any streets and any adjacent premises.

Chapter 1, Article 7, Sec. 17.08C. Plans for street lighting system shall be submitted to and approved by the Bureau of Street Lighting.

Chapter 9, Article 3, Sec. 93.0117. No exterior light source may cause more than two foot-candles (21.5 lux) of lighting intensity or generate direct glare onto exterior glazed windows or glass doors; elevated habitable porch, deck, or balcony; or any ground surface intended for uses such as recreation, barbecue or lawn areas or any other property containing a residential unit or units.

Chapter 9, Article 1, Section 91.6205 (K)4. Signs are prohibited if they contain flashing, mechanical and strobe lights in conflict with the provisions of Section 80.08.4 and 93.6215 of this code.

Chapter 9, Article 1, Section 91.6205M. No sign shall be arranged and illuminated in such a manner as to produce a light intensity of greater than three foot-candles above ambient lighting, as measured at the property line of the nearest residentially zoned property

Land Form Preservation

Chapter 1, Article 7, Section 17.50-E. Establishes slope-density regulations which restrict density on the basis of the calculated average of the ungraded slopes at selected contours within a parcel that is proposed for divisions of land

Chapter 1, Article 2, Section 12.21-A.17. Establishes the hillside overlay zone within which restricted densities and other requirements for neighborhood and environmental compatibility apply.

City of Los Angeles Baseline Hillside Ordinance

The Baseline Hillside Ordinance is part of the City's Planning and Zoning Code and applies to all properties zoned R1, RS, RE (9, 11, 15, 20, and 40), and RA and are designated as Hillside Area in the Department of City Planning Hillside Area Map, as defined in LAMC Section 12.03. It designates and regulates the

setback, height, and size of residential buildings in the Hillside Area. Its purpose is to limit the scale of development within the residential zoned parcels within the hillside.

Los Angeles Administrative Code (LAAC) Cultural Heritage Ordinance (Section 22.171)

The provisions of the Cultural Heritage Ordinance are codified in Division 22, Chapter 9, Article 1 of the LAAC, commencing with Section 22.171. The Ordinance created a Cultural Heritage Commission and criteria for designating Historic-Cultural Monuments (HCM). HCMs, along with all other historically significant resources, are considered scenic resources. The designation of a historic building as an HCM requires that the resource be considered when analyzing the aesthetic impacts of a project and delays demolition by up to a year. See Section 4.4, *Cultural Resources* for a discussion of this Ordinance.

City of Los Angeles Historic Preservation Overlay Zone (HPOZ) Ordinance

In addition to the designation of individual sites as HCMs, the City of Los Angeles also has a separate ordinance and procedure for the designation of historic districts, or HPOZ. This Ordinance, which is found in LAMC Chapter I, Article 2, Section 12.20.3, is intended to recognize, preserve, and enhance buildings, structures, landscaping, natural features, and areas within the City having historic, architectural, cultural, or aesthetic significance in the interest of the health, economic prosperity, cultural enrichment, and general welfare of the people. See Section 4.4, *Cultural Resources* for a discussion of this Ordinance.

City of Los Angeles Tree and Shrub Preservation Ordinance

Protected trees are considered aesthetic resources. The City of Los Angeles adopted an ordinance for the Preservation of Protected Trees (Ordinance No. 177,404; LAMC Chapter IV, Article 6) which became law on April 23, 2006. The ordinance protects the following tree species:

- All native Oak tree species (*Quercus* spp), but excluding the Scrub Oak (*Quercus dumosa*)
- Western Sycamore (*Platanus racemosa*)
- California Bay (*Umbellularia californica*)
- California Black Walnut (*Juglans californica*)

The ordinance applies to trees that are four inches or greater in diameter at 4.5 feet above ground, and on any lot size. Protected tree removal requires a removal permit by the City of Los Angeles Department of Public Works (LADPW). Ordinance-protected trees on private property and streets rights-of-way are protected by the City's Tree Preservation Ordinance; therefore, any act that may cause the failure or death of a protected tree requires inspection by the Los Angeles Department of Public Works (LADPW) Urban Forestry Division. In the event that the LADPW approves a tree removal, replacement of the tree is required with at least two trees of a protected variety.

City of Los Angeles Citywide Design Guidelines

The City of Los Angeles has created Citywide Design Guidelines to carry out the common design objectives that maintain neighborhood form and character for residential, commercial, and industrial uses. The guidelines are intended for developers, architects, and advisory and decision-making bodies when evaluating development projects. Specific design regulations relating to individual communities can be found in the Community Plan Urban Design Chapter of each of the City's 35 Community Plans or special zoning designations, such as Specific Plans, Community Design Overlay Districts, designated historic properties, and historic districts. The Citywide Design Guidelines applies to all areas of the City, but it is particularly applicable to those areas within the City that do not currently have adopted design guidelines. In cases where the Citywide Design Guidelines conflict with a provision in a Community Plan Urban

Design Chapter or a special zoning designation, the Community Plan's specific requirements would prevail. The previous sentence is stated verbatim in each of the three Citywide Design Guidelines (Residential, Commercial, and Industrial) in a section called "Relationship Between the General Plan, Zoning Code, Citywide Guidelines, and Community-Specific Design Guidelines."

Clean Up Green Up Supplemental Use District

In 2016, the City Council approved Ordinance #184246 to establish a Clean Up Green Up Supplemental Use District within Boyle Heights, as well as other areas of the City. The Clean Up Green Up Ordinance establishes "green zones" to reduce cumulative health impacts resulting from incompatible land uses, establish a citywide Conditional Use for asphalt manufacturing and refinery facilities, and increase the notification requirement for projects within a surface mining district. The Clean Up Green Up Ordinance also includes provisions that impact aesthetics such as applicable standards regarding lighting, building heights, and landscaping.

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the State CEQA Guidelines, the Proposed Project would have a significant impact related to aesthetics if it would:

- Have a substantial adverse effect on a scenic vista (Threshold 4.1-1)
- Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway (Threshold 4.1-2)
- In a non-urbanized area, substantially degrade the existing visual character quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality (Threshold 4.1-3)
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area (Threshold 4.1-4)

METHODOLOGY

This impact discussion considers impacts from inside and outside the Project Area where the visual resources identified in the existing setting may be affected by the Proposed Project. This impact section analyzes impacts from reasonably anticipated development of the Proposed Project.

As shown in **Figure 4.1-1**, above, the majority of the Project Area is located within Transit Priority Areas (TPAs). TPAs are defined as areas within 0.5-mile of a major transit stop. As discussed previously, under SB 743, residential, mixed-use, and employment center projects in a TPA are exempt from aesthetic impacts analysis. Most development that is reasonably foreseeable in the TPAs of the Proposed Project would be residential, mixed use, or an employment center and would, therefore, as a matter of law, not have aesthetic impacts under CEQA. Aesthetics is provided here for informational purposes only. Notwithstanding the relevant language of SB 743 codified at PRC Section 21099(d), SB 743 does not expressly apply to planning projects. Therefore, to be conservative, this EIR will consider aesthetic impacts from the implementation of the Proposed Project in all of the Project Area, including TPAs and including from development that would qualify for SB 743 exemption.

The evaluation of aesthetic impacts is a subjective exercise, both in identifying valued aesthetic resources and identifying impacts to valued aesthetic resources. Considerations for determining impacts under the various categories of aesthetic resources and impact thresholds are discussed below.

Scenic Vistas/Obstruction of Views

For the purposes of the CEQA analysis, impacts to views typically consist of the loss or obstruction of a valued public view (e.g., scenic vista, particularly a panoramic view of areas that have visual interest, or iconic structure), or changes in the character of the viewshed that detract from a valued public view, such as the elimination or obstruction of natural and/or man-made features that were formerly part of a valued viewshed. The assessment method identifies whether such viewpoints exist within the Project Area and whether the content of the view would be adversely affected by the Project Area diminishment of a scenic vista would occur if the Proposed Project would introduce buildings or development that contrast enough with a visually interesting view, so that the content and quality of the view is permanently affected. The loss of a private view would not be an impact for purposes of this analysis. The City does not protect private views. The loss of private views from development is expected in an urban environment.

Visual Character

The concept of visual character is not explicitly defined in the CEQA Guidelines. In this aesthetics discussion, potential visual character impacts are assessed based on industry-accepted definitions of visual character. Visual character can be defined in terms of the overall impression formed by the relationship between perceived visual elements of the built, urban environment.

Elements contributing to the impression of the character of an area include the following:

- Height and mass of proposed buildings compared to existing development.
- The compatibility between uses and activities with the built environment.
- The quality of the public realm, including roadways, sidewalks, plazas, parks, and street furniture.
- The nature and quality of landscaping that is visible to the general public.
- The relationship between built and unbuilt space, or building “coverage.”; and
- The presence of shade/shadows

Impacts to the visual character of an area generally relate to the removal of features with aesthetic value, the introduction of contrasting urban features into a local area, and the degree to which the elements of the Proposed Project detract from the visual character of an area.

Although the threshold of significance in Appendix G focuses on whether the Proposed Project conflicts with applicable zoning and other regulations governing scenic quality for urbanized areas, as the City is changing the applicable zoning with the Proposed Project, the analysis in this impact assessment will analyze whether the Proposed Project would be expected to degrade the existing visual character or quality of public view of the Project Area and its surrounding area for the Proposed Project.

Light and Glare

Light and glare impacts are typically associated with outdoor artificial light during the evening and nighttime hours. Glare may also be a daytime occurrence caused by the reflection of sunlight or artificial light from highly polished surfaces, such as window glass and reflective building cladding materials, and may interfere with the safe operation of a motor vehicle on adjacent streets. In this aesthetics discussion,

light and glare impacts are assessed qualitatively based on anticipated future development as well as applicable City regulations pertaining to acceptable levels and sources of light and glare.

PROJECT IMPACTS

Threshold 4.1-1	Have a substantial adverse effect on a scenic vista
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Impact 4.1-1 **Proposed Project:** The Proposed Project would allow for greater development density and intensity throughout the Project Area. However, the Project Area is already highly-developed and lacks major identified scenic resources. In addition, future development would not block views of scenic resources from identified public view locations. Impacts to scenic vistas would be *less than significant*.

Project Impact

As identified in the Existing Setting section, the Project Area is generally not an area from which views of scenic vistas are readily available. Scenic vistas in the Project Area include limited views of the San Gabriel Mountains, Elysian Park areas to the west, and the hills surrounding Dodger Stadium. However, these vistas are largely obstructed at the ground level due to the Project Area’s dense urban development, flat topography, lower elevation, and varying building heights. Most views are obstructed by intervening buildings, street bridges, freeway overpasses, and street trees. Due to the close proximity of mid-rise structures and the distance from the nearest mountains (approximately half mile), scenic views of natural resources are generally not available at the ground level.

Publicly accessible panoramic views of the Project Area are available from surrounding areas, including freeways and portions of Griffith Park and Dodger Stadium. These views include intense urban development that characterizes low-rise commercial and industrial structures and mid-rise structures within the industrial center core of the Project Area. As shown in Photo 1 of **Figure 4.1-21**, above, views of the Project Area from Elysian Park are primarily of low to mid-rise industrial buildings. Development further east of this area is obstructed or not visible due to smaller building heights, which would house of majority of the residential zoned land uses.

The Proposed Project would generally retain the same allowable building heights and FAR as the existing Specific Plan (maximum FAR ranging from 3:1 to 5:1). The permitted FAR would continue to allow for the development of low- to mid-rise structures within areas with the Hybrid Industrial general plan land use designation. However, in general, increases in building height would not obstruct public views of scenic resources or vistas because structures would not block existing views along public rights-of-way and views of urban streetscapes would not be substantially altered. Furthermore, the Proposed Project would not alter existing street alignments such that existing views would become blocked. Construction would largely involve infill development in already developed areas and preservation of open space areas and historical structures would be prioritized. Furthermore, each land use designation would contain specific form districts that regulate the permitted height of structures. Consequently, any change to the existing views of scenic vistas from the Project Area due to future development would be incremental since these views are already largely obstructed by existing development. Any changes to existing views of urban streetscapes would also be incremental since most existing streetscape views are limited to close-foreground views and are relatively unaffected by any increased building height.

New structures reasonably expected from the Proposed Project would be visible from publicly accessible vantage points outside of the Project Area, including the Elysian Hills, surrounding freeways, and portions of Griffith Park. However, this development would only add to the existing urban character of Los Angeles. As discussed previously, the only Project Area features that are visible from these vistas are the existing mixed-use structures that may be present within the Project Area; other resources further to the east are not

visible. Therefore, the addition of more structures would not block views of any identified scenic resources but, rather, would contribute to the existing urban skyline that characterizes this particular area of Los Angeles from other areas of the City.

Lastly, the Proposed Project includes standards and regulations consistent with the Framework Element’s policies that are intended to protect scenic vistas. These regulations include District Boundary Transition standards that regulate the upper-story bulk of buildings. Framework Policies 5.5.6, 5.5.7, and 5.7.1 aim to protect scenic vistas by encouraging the use of step-backs in heights for higher floors of buildings, promoting the use of underground utilities, and establishing standards for transitions in heights of buildings. Based on the above and the fact that the Proposed Project will not detrimentally impact any protected scenic vista, the Proposed Project has no conflict with the Conservation and Framework Element.

Overall, although the Proposed Project would result in new structures that have greater heights and density than what currently exists in the Project Area, the new building heights and density would not result in the loss or obstruction of scenic vistas available from public vista points. Impacts to scenic vistas would be *less than significant*.

Mitigation Measures

None required for the Proposed Project.

Threshold 4.1-2	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway
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Impact 4.1-2 **Proposed Project:** There are no State scenic highways in the Project Area. Therefore, the Proposed Project would have *no impact* on scenic resources within a state scenic highway.

Project Impact

The Palisades Highlands community contains a portion of State Route 27 is the only State designated highway in the City, well outside the Project Area. A portion of the Arroyo Seco Parkway through the northeastern portion of the City is a National Civil Engineering Landmark, a National Scenic Byway, and one of two California Historic Parkways. However, only the portion of the Parkway north of the Interstate 5 Freeway outside of the Project Area is designated as a state scenic and historic parkway. Only the southernmost portion of the parkway enters the Project Area near Dodger Stadium and the 101 freeway/110 freeway interchange, and this portion of the Parkway is not designated as scenic or historic.

From the southern boundary of the Project Area, views from the non-designated portions of the Parkway include intermittent partial views of historic buildings such as Los Angeles City Hall and other high-rise structures to the south, as trees, hills, and vegetation obstruct views to the east and west. Views from the Parkway are primarily of adjacent low- and mid-rise commercial and residential urban development. The Proposed Project largely retain the existing CASP’s maximum FARs, which may see the future development of new structures with heights greater than today. However, this would not substantially degrade the overall views of the area. It is not expected that any impacts to the Parkway would occur from the Proposed Project.

Because there are no state scenic highways in the Project Area, the Proposed Project would have *no impact* to scenic resources within a state scenic highway.

Mitigation Measures

None required for either the Proposed Project.

Threshold 4.1.3	If the project is in a non-urbanized area, would the project substantially degrade the existing visual character quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality, or where it proposes to change the applicable zoning and other regulations governing scenic quality, would it degrade the visual character of the project area and its surrounding area?
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Impact 4.1-3 **Proposed Project:** Reasonably anticipated development from the Proposed Project would alter the visual character of portions of the Project Area, including changes in building height and massing and associated increases in shadows/shading. However, development would be consistent with the goals and policies of the General Plan Framework and changes would likely benefit and generally enhance the visual character of the Project Area. The overall impact to the visual character of the Project Area would be *less than significant*.

Plan Impact

Reasonably anticipated development from the Proposed Project would involve increased building heights and development intensities and would provide a greater mix of uses in the Project Area through updated zoning designations that are intended to foster a greater mix of uses beyond that which already exist within the Project Area, in particular, residential uses. While the proposed zoning designations may allow for a change in the existing visual character, development patterns would be consistent with the 2016-2040 RTP/SCS because the Proposed Project would focus development and improvements around employment centers and transit-served areas. **Figure 4.1-22** shows the general layout of the proposed zoning designations. Changes to visual character within the Project Area would result primarily from increased building densities through the implementation of the Proposed Project. As previously discussed, the Project Area is currently characterized by high-density urban development with a wide range in building heights across the various subareas and districts and a highly industrial environment. Reasonably anticipated development from the Proposed Project, as directed by the proposed zoning changes would increase the height, scale, and density of buildings and other structures in the Project Area. Such changes would represent a change in the visual character of some areas. However, future development would likely benefit and improve the visual character and quality in some of these areas or would simply increase the number of midrise buildings in areas that already contain such structures. New development would be designed with contextual form and frontage regulations, to be compatible with existing visual character. The Proposed Project would also include standards to encourage location of parking underground and require screening or wrapping with active uses, when located above ground which would enhance the visual quality of the Plan Area. Additionally, as discussed in Section 4.4, *Cultural Resources*, it is possible that future development within the Project Area could result in demolition and/or significant alteration to some historical resources that are found within the Project Area. Implementation of the Proposed Project could contribute to the loss of historical resources in the Project Area. In particular, the existing visual character of the Project Area and its adjacent communities is varied in terms of building ages, uses, heights, and massing. While individual buildings may be impacted, future development is not expected to substantially degrade this varied visual character related to historic resources.

Aside from residential uses, future reasonably anticipated development from the Proposed Project elsewhere in the Project Area would be industrial uses and, as a result, would be visually consistent with such adjacent existing uses. Further, more broadly, the Proposed Project would include building design regulations to address factors that influence the visual character in the Plan Area including building

orientation, building scale, height and massing, parking, building façade/frontage, and landscaping. Specifically, form and frontage districts in the Proposed Project would set limits for building height, step-backs, and massing, across the new proposed land use designations to help provide cohesive height and bulk transitions across future structures within the Project Area.

As discussed in Existing Setting, shadow effects already exist in the Plan Area, especially in areas with taller buildings. With implementation of the Proposed Project, new buildings could be built up to 5:1 Floor Area Ratio (FAR). The new buildings could potentially increase shade effects along public spaces, such as public rights-of-way (i.e., sidewalks and roadways) or parks. These shade effects are characteristics that are commonly found in an urban environment. The increased shade effects also can be considered beneficial, particularly during warmer seasons and sunny days, by providing cooling and cover from high heat days. Additionally, shade effects could make an urban environment more pedestrian friendly. Thus, the potential increase in shade and shadows are not expected to substantially degrade the existing visual character or quality of the Project Area. Overall, implementation of the Proposed Project is anticipated to enhance the visual character of the Project Area.

The Proposed Project would largely retain the existing building form regulations and standards of the existing CASP, including a similar Floor Area Ratio (FAR). For example, the Proposed Project would set forth a Base FAR of 1.5 for most properties, with a maximum Bonus FAR ranging from 2.0 to 5.0 depending on the Form District in which the property is located. By comparison, the existing CASP has a Maximum FAR generally ranging from 1.8 to 6.0, which is similar to the Proposed Project. Whereas the existing CASP regulates building heights by establishing both a minimum building height and maximum average building height, the Proposed Project would regulate building intensity through FAR instead, with targeted story limitations for sensitive areas near the Los Angeles River and Arroyo Seco, and upper-story bulk regulations for properties adjacent to existing lower-intensity residential neighborhoods. With the above said, it should be noted that any comparison of existing plan to proposed plan is for informational purposes and not impact analysis as CEQA requires impact analysis to consider existing physical conditions to future plan conditions.

Conclusion

The Proposed Project would not conflict with applicable zoning or other regulations governing visual quality or substantially degrade the existing visual character or of public views of the Project Area or surrounding area and impacts would be *less than significant*.

Mitigation Measures

Mitigation is not required for changes in visual character. See Section 4.4, *Cultural Resources*, for mitigation measures for historical resource impacts.

Threshold 4.1.4	Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area
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Impact 4.1-4 **Proposed Project:** Reasonably anticipated development from the Proposed Project could introduce new sources of light and glare in the Project Area. However, development in a majority of the Project Area already incurs high levels of nighttime lighting and glare, such that any additional effects would be incremental. In addition, future development would comply with applicable regulations regarding permitted lighting and glare. The impact from light and glare would be *less than significant*.

Project Impact

Lighting

A high level of ambient nighttime light is common to urbanized areas within the Project Area due to the high development intensity throughout the Project Area. A majority of the Project Area experiences high levels of ambient nighttime lighting from sources including exterior mounted building lights, vehicle headlights, safety lights, streetlights and streetlamps, illuminated signs, and interior building lights. Nighttime lighting levels are lower in the residential areas at the eastern end of the Project Area near Lincoln Heights.

Reasonably anticipated development from the Proposed Project would result in increased development density, intensity, and building heights throughout a majority of the Project Area. With these increases, it could be reasonably anticipated that illumination from new development (security lighting, parking lot lighting, ornamental lighting, pedestrian scale lights, lighting from ground floor storefronts and signs) would increase illumination. Where reasonably anticipated development would occur as the result of implementation of the Proposed Project, it could be anticipated that lighting would be increased at mid-

block for pedestrian safety, security, and ornamental lighting. In addition, it could be anticipated that future development under the Proposed Project, particularly development projects of substantial scale, would result in the introduction of lighting in areas where currently lighting levels are low or where lighting levels along sidewalks is interrupted by darkened or shadowed areas. However, as a majority of the Project Area under the Proposed Project would be characterized by industrial, commercial, and civic development uses that already incur high ambient levels of nighttime lighting, any additional lighting from new development would be incremental. Residential uses in these areas, which are considered light-sensitive, would be exposed to high nighttime lighting levels, however as these areas currently incur high nighttime lighting from existing surrounding commercial development, light impacts would not substantially increase.

All future Project Area development would be required to adhere to the lighting provisions of the LAMC to reduce potential impacts from light as well as new lighting provisions proposed as part of the Proposed Project. The LAMC contains specific regulations with respect to lighting. LAMC Section 12.21 A.5(k) (amended by Ordinance No. 171,858) that all lights used to illuminate parking areas shall be designed, located and arranged so as to reflect the light away from any street and any adjacent premises. Additionally, any new lighting would be designed to conform to applicable standards including LAMC Sections 93.0117, which pertains to outdoor lighting affecting residential property (no more than two foot-candles of lighting intensity from a light source is allowed on adjacent residential property). In addition, General Plan Framework Policies 5.5.3, 5.5.4, and 5.8.1 call for the formulation of building and site design standards, determination of appropriate urban design elements, and lighting commensurate with intended nighttime use. Adherence to these standards on all new development in the Project Area would reduce lighting impacts to a *less than significant* level.

Glare

Glare is a common phenomenon in the Project Area primarily due to the occurrence of a high number of days per year with direct sunlight and the highly urbanized nature of the region. The majority of existing structures in the Project Area are comprised of non-reflective materials such as concrete, wood, stucco and plaster. However, some structures consist of considerable amounts of reflective floor-to-ceiling glass windows. Reasonably anticipated development from the Proposed Project would be generally consistent with the level of reflective surfaces on existing development and would comply with LAMC Chapter 9, Article 3, Section 93.0117 and Chapter 9, Article 1, Section 91.6205M, for light and glare affecting residential uses. These standards prohibit the use of highly reflective or deeply tinted glass. Adherence to applicable standards on all new development in the Project Area would reduce glare impacts to a *less than significant* level.

Mitigation Measures

None required for either the Proposed Project.

CUMULATIVE IMPACTS

The geographic area to analyze cumulatively considerable aesthetic impacts includes the entire City of Los Angeles and immediately surrounding areas.

Scenic Vistas

Cumulative impacts to scenic vistas would result if citywide development would block scenic views within the Los Angeles Basin, such as views of the San Gabriel Mountains or the Pacific Ocean or affect scenic resources in or near the city. Some prominent scenic views and vistas in the City include San Gabriel Mountains, San Pedro's coastal bluffs, Griffith Park, and Elysian Park. Scenic vistas that provide panoramic views of the Downtown urban skyline and other urban development outside of the Project Area are provided

from such locations as the Hollywood Hills, adjacent freeways, and Griffith Park. While implementation of the Proposed Project and other citywide development would alter views of the City by allowing new development with building or greater mass and height than what currently exists, such development would not block views of scenic resources from these vistas. Cumulative development generally would not create additive effects to individual view locations since view changes would be location specific and because future development is not expected to directly alter scenic resources such as the mountains or ocean. As such, the incremental effects of the Proposed Project on scenic vistas would not be cumulatively considerable. Cumulative impacts from the Proposed Project to Scenic Vistas would be *less than significant*.

Scenic Resources – Scenic Highways

Future development in Los Angeles would incrementally alter visual conditions citywide, including within the viewsheds of state scenic highways in the City. These include State Route 27 from Pacific Coast Highway (PCH or State Route 1) to Mulholland Drive, Interstate 5 from Interstate 210 to the northern City limit, U.S. Route 101 from Topanga Canyon Boulevard to the western City limit, State Route 118 from De Soto Avenue to the western City limit, Interstate 210 from Interstate 5 to the eastern City limit, State Route 1 from Venice Boulevard to the City boundary adjacent to Santa Monica, and State Route 1 north of Interstate 10. However, it is not anticipated that new development would fundamentally change views from these highways or block views of any identified visual resources. Overall, the Proposed Project would not contribute to any cumulative aesthetic impacts along that parkway or any other scenic highway. As such, the incremental effects of the Proposed Project on scenic resources would not be cumulatively considerable. Cumulative impacts to scenic resources from the Proposed Project would be *less than significant*.

Visual Character

Impacts to visual character are location-specific. Consequently, changes to the visual character of one area of the City would not alter the visual character of other neighborhoods or otherwise have additive effects on the visual character of another neighborhood. As such, although development across the City may collectively alter the visual character of many Los Angeles communities and neighborhoods, cumulative impacts to visual character would not occur. Shade and shadow impacts are also location-specific; therefore, although development across the City may increase shadows in specific locations, shadows would be limited to the immediate area of each new development and development in one community or neighborhood would not add to shadow impacts in another community or neighborhood. Cumulative shadow impacts would not occur.

As discussed under Impact 4.1-3, implementation of the Proposed Project is expected to generally improve the visual character of the Project Area by replacing underutilized and vacant parcels, such as parking lots, with new development that is consistent with Proposed Project standards. This would remove lower-quality visual character features from the Project Area. For the above reasons and because the Proposed Project would ensure that new development meets certain standards that would enhance visual character, the incremental effects of the Proposed Project would not be cumulatively considerable. As such, there would be *no significant cumulative impacts* to visual character of the Project Area and citywide from implementation of the Proposed Project.

Light and Glare

Light and glare levels vary considerably throughout Los Angeles, but light levels are generally consistent with that associated with urban and suburban environments. The incremental increase in light and glare associated with future development throughout the City would not be expected to substantially alter overall citywide light/glare conditions. In addition, impacts related to light and glare are location-specific. Consequently, incremental changes to light or glare conditions that may result from an individual

development project in one area of the City would not alter light or glare conditions in other neighborhoods or otherwise have additive effects to citywide or regional light/glare levels.

A majority of the nearby communities are generally separated by distance, topography, the Los Angeles River, and/or major freeways. Consequently, although implementation of the Proposed Project may incrementally increase lighting levels, light and glare increases on adjacent areas and the city would be limited, due to a variety of barriers to light propagation, including buildings in the Plan Area.

The Project Area is an already urbanized and characterized by high levels of light and glare. Therefore, as discussed under Impact 4.1-4, the addition of new development would not dramatically change overall light or glare conditions in the Project Area. Nearby communities are generally separated from the Project Area by distance and, in some cases, by topography, the Los Angeles River, and/or major freeways and buildings in the Project Area. Consequently, although Project Area wide development may incrementally increase lighting levels, the effects of the Proposed Project on light and glare conditions on the adjacent communities and citywide would be limited, since, as noted above, a variety of barriers to light propagation (including buildings) are present in the area. Further, as discussed above, all future development in the Project Area and throughout the City would continue to adhere to existing and proposed LAMC light and glare standards. Future development in other areas of the City would be required to comply with City lighting standards. Based on the above information, the incremental effects of the Proposed Project on light and glare conditions would not be cumulatively considerable. Cumulative impacts to light and glare would be *less than significant*.

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4.2 AIR QUALITY

This section examines the degree to which the Proposed Project may result in significant adverse changes to air quality. Both short-term construction emissions occurring from activities, such as grading and haul truck trips, and long-term effects related to the ongoing operation of individual development projects are discussed in this section. The analysis focuses on air pollution from two perspectives: daily emissions and pollutant concentrations. “Emissions” refer to the actual quantity of pollutant measured in pounds per day (ppd). “Concentrations” refer to the amount of pollutant material per volumetric unit of air and are measured in parts per million (ppm), parts per billion (ppb), or micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

The potential for the Proposed Project to conflict with or obstruct implementation of the applicable air quality plan, to violate an air quality standard or contribute substantially to an existing or projected air quality violation, to result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment, or to expose sensitive receptors to substantial pollutant concentrations are also discussed. Air quality data utilized in the preparation of this section is included as Appendix E to this Draft Environmental Impact Report (EIR).

ENVIRONMENTAL SETTING

AIR POLLUTANTS

Los Angeles is located in the South Coast Air Basin (SCAB), named so because its geographical formation is that of a basin, with the surrounding mountains trapping the air and its pollutants in the valleys below. The SCAB includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. The regional climate within the SCAB is considered to be semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The air quality in the SCAB is primarily influenced by a wide range of emissions sources – such as dense population centers, heavy vehicular traffic, and industry – and weather.

The general region lies in the semi-permanent high-pressure zone of the eastern Pacific Ocean, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The SCAB experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The SCAB is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of its perimeter.

The SCAB basin experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the Pacific high. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. This phenomenon is observed in mid to late afternoons on hot summer days. Winter inversions frequently break by midmorning.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino counties. In the winter, the greatest pollution problem is the accumulation of carbon monoxide (CO) and nitrogen oxides (NO_x) due to

low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_x to form photochemical smog.

Air pollutant emissions in the SCAB are generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point sources and area sources. Point sources occur at an identified location and are usually associated with manufacturing and industry. Examples of point sources are boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and produce many small emissions. Examples of area sources include residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products, such as barbecue lighter fluid and hair spray. Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, race cars, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when fine dust particles are pulled off the ground surface and suspended in the air during high winds.

Both the federal and state governments have established ambient air quality standards for outdoor concentrations of various pollutants in order to protect public health and welfare. These pollutants are referred to as “criteria air pollutants” as a result of the specific standards or criteria that have been adopted for them. Federal and state ambient air quality standards (AAQS) have been set at levels considered safe to protect public health, including the health of “sensitive” populations, such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

Criteria Air Pollutants

The federal Clean Air Act (CAA) requires the United States Environmental Protection Agency (USEPA) to set National Ambient Air Quality Standards (NAAQS) for maximum allowable concentrations of six "criteria" pollutants in outdoor air. The six pollutants are CO, lead (Pb), ground-level ozone (O₃), nitrogen dioxide (NO₂), particulate matter (respirable particulate matter [PM₁₀] and fine particulate matter [PM_{2.5}]), and sulfur dioxide (SO₂). The standards are set at a level that protects public health with an adequate margin of safety for six common air pollutants (also known as "criteria air pollutants"). In addition, toxic air contaminants (TAC) are a concern in the SCAB. The characteristics of each of these pollutants are briefly described below.

Ozone

O₃ is a highly oxidative unstable gas, produced by a photochemical reaction (triggered by sunlight) between NO_x and reactive organic gas (ROG)/volatile organic compounds (VOC)¹. VOC are composed of non-methane hydrocarbons (with some specific exclusions), and NO_x is composed of different chemical combinations of nitrogen and oxygen, mainly nitric oxide and NO₂. NO_x is formed during the combustion of fuels, while VOC are formed during combustion and evaporation of organic solvents. As a highly reactive molecule, O₃ readily combines with many different components of the atmosphere. Consequently, high levels of O₃ tend to exist only while high VOC and NO_x levels are present to sustain the O₃ formation process. Once the precursors have been depleted, O₃ levels rapidly decline. Because these reactions occur on a regional rather than local scale, O₃ is considered a regional pollutant. Groups most sensitive to O₃

¹ CARB defines VOC and ROG similarly as, “any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate,” with the exception that VOC are compounds that participate in atmospheric photochemical reactions. For the purposes of this analysis, ROG and VOC are considered comparable in terms of mass emissions, and the term VOC is used in this EIR.

include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors (USEPA 2022a). Depending on the level of exposure, O₃ can

- cause coughing and sore or scratchy throat;
- make it more difficult to breathe deeply and vigorously and cause pain when taking a deep breath;
- inflame and damage the airways;
- make the lungs more susceptible to infection;
- aggravate lung diseases such as asthma, emphysema, and chronic bronchitis; and/or
- increase the frequency of asthma attacks.

Carbon Monoxide

CO is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. In urban areas, such as the Project Area, automobile exhaust accounts for the majority of CO emissions. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike O₃, motor vehicles operating at slow speeds are the primary source of CO in the SCAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections. Other sources of CO include the incomplete combustion of petroleum fuels at power plants and fuel combustion from wood stoves and fireplaces during the winter. When CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease. People with heart disease have restricted blood flow which results in a lack of oxygen to the heart muscle. These people are especially vulnerable to the effects of CO when exercising or under increased stress when the heart needs more oxygen than usual. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina (USEPA 2021a).

Nitrogen Dioxide

NO₂, is a nitrogen oxide compound that is produced by the combustion of fossil fuels, such as in internal combustion engines (both gasoline and diesel powered), as well as point sources, especially power plants. Of the seven types of NO_x compounds, NO₂ is the most abundant in the atmosphere. As ambient concentrations of NO₂ are related to traffic density, commuters in heavy traffic areas, such as urban areas like the Project Area, may be exposed to higher concentrations of NO₂ than those indicated by regional monitors. NO₂ is a reactive, oxidizing gas and an acute irritant capable of damaging cell linings in the respiratory tract. Such exposures over short periods can aggravate respiratory diseases, particularly asthma, leading to respiratory symptoms (such as coughing, wheezing or difficulty breathing), and increase hospital admissions and visits to emergency rooms. Longer exposures to elevated concentrations of NO₂ may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. People with asthma, as well as children and the elderly are generally at greater risk for the health effects of NO₂ (USEPA 2021b). NO₂ absorbs blue light and causes a reddish brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of O₃/smog and acid rain.

Particulate Matter

PM₁₀ and PM_{2.5}, consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter, respectively. Some sources of particulate matter, like pollen and windstorms, are naturally occurring. However, in populated areas like the Project Area, most particulate matter is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities. PM₁₀ can cause increased respiratory disease, lung damage, cancer, premature death, reduced visibility, surface soiling. For PM_{2.5}, short-term exposures (up to 24-hours duration) have been associated with respiratory

issues such as acute bronchitis and asthma attacks. In addition, PM_{2.5} can cause premature mortality, increased hospital admissions for heart or lung issues, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases (California Air Resources Board [CARB] 2022a).

Sulfur Dioxide

SO₂ is included in a group of highly reactive gases known as “oxides of sulfur.” The largest sources of SO₂ emissions are from fossil fuel combustion at power plants (73 percent) and other industrial facilities (20 percent). Smaller sources of SO₂ emissions include industrial processes such as extracting metal from ore and burning fuels with a high sulfur content by locomotives, large ships, and off-road equipment. Short-term exposures to SO₂ can harm the human respiratory system and make breathing difficult. People with asthma, particularly children, are sensitive to these effects of SO₂ (USEPA 2021b).

Lead

Lead is a metal found naturally in the environment, as well as in manufacturing products. The major sources of lead emissions historically have been mobile and industrial. However, due to the USEPA’s regulatory efforts to remove lead from gasoline, atmospheric Pb concentrations have declined substantially over the past several decades. The most dramatic reductions in Pb emissions occurred with the permanent phase-out of leaded gasoline, controls on emissions on emissions of Pb compounds through EPA’s air toxics program, and other national and state regulations. The result was a decrease of airborne Pb concentrations by 98 percent between 1980 and 2005 (USEPA 2022c). As a result of phasing out leaded gasoline, metal processing is currently the primary source of Pb emissions. The highest Pb level in the air is generally found near Pb smelters. Other stationary sources include waste incinerators, utilities, and Pb-acid battery manufacturers. Pb can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and cardiovascular system depending on exposure. Pb exposure also affects the oxygen-carrying capacity of the blood. The Pb effects most likely encountered in current populations are neurological in children. Infants and young children are susceptible to Pb exposures, contributing to behavioral problems, learning deficits, and lowered IQ (USEPA 2021c).

Toxic Air Contaminants

TACs are a diverse group of air pollutants that may cause or contribute to an increase in deaths or serious illness, or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. One of the main sources of TACs in California is diesel engine exhaust that contains solid material known as diesel particulate matter (DPM). More than 90 percent of DPM is less than one micron in diameter (about 1/70th the diameter of a human hair) and thus is a subset of PM_{2.5}. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs (CARB 2022b).

TACs commonly associated with gasoline dispensing stations include the organic compounds of benzene, toluene, and xylene. In particular, benzene is a known human carcinogen and can result in short-term acute and long-term chronic health impacts (USEPA 2022d). Between 1990 and 2005, benzene in California’s air was reduced by over 75 percent due to implementation of control technologies, such as vapor recovery systems, and reductions of benzene levels in gasoline (CARB 2005). Today, gasoline dispensing facilities account for a relatively small fraction of total benzene emissions. However, near source exposure resulting from gasoline dispensing facilities, particularly very high throughput retail or wholesale facilities, can result in elevated health risks to nearby sensitive receptors.

TACs are different than criteria pollutants because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., long duration) and acute (i.e., severe but of short duration) adverse effects on human health.

EXISTING CONDITIONS

Citywide (Regional) Air Quality

Ambient air quality is determined primarily by the type and number of pollutants emitted into the atmosphere, as well as the size, topography, and meteorological conditions of a geographic area. The SCAB has low mixing heights and light winds, which help to accumulate air pollutants. Exhaust emissions from mobile sources generate the majority of VOC, CO, NO_x, and SO_x both in the SCAB generally and specifically the Los Angeles County portion of the SCAB. Area-wide sources generate the most airborne particulates (i.e., PM₁₀ and PM_{2.5}) in both the SCAB and Los Angeles County. Measurements of ambient concentrations of criteria pollutants are used by the USEPA and CARB to assess and classify the air quality of each air basin, county, or, in some cases, a specific urbanized area. The classification is determined by comparing actual monitoring data with national and state standards. If a pollutant concentration in an area is lower than the standard, the area is classified as being in “attainment.” If the pollutant concentration exceeds the standard, the area is classified as a “non-attainment” area. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated “unclassified.”

The USEPA and CARB use different standards for determining whether the SCAB is in attainment. Under the California Clean Air Act (CCAA) the State has developed the California ambient air quality standards (CAAQS), which are generally more stringent than the NAAQS. In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. Federal and State standards are summarized in **Table 4.2-1**. The attainment status for the Los Angeles County portion of the SCAB with regard to the NAAQS and CAAQS are shown in **Table 4.2-2**.

TABLE 4.2-1 AMBIENT AIR QUALITY STANDARDS			
Air Pollutant	Average Time	State Standard	Federal Standard
Ozone (O ₃)	1-Hour	0.09 ppm	-
	8-Hour	0.07 ppm	0.07 ppm
Carbon Monoxide (CO)	1-Hour	20.0 ppm	35.0 ppm
	8-Hour	9.0 ppm	9.0 ppm
Nitrogen Dioxide (NO ₂)	1-Hour	180 ppb	100 ppb
Sulfur Dioxide (SO ₂)	1-Hour	250 ppb	75 ppb
	24-Hour	40 ppb	140 ppb
Sulfates (SO ₄)	24-Hour	25 µg/m ³	-
Fine Particulate Matter (PM _{2.5})	24-Hour	-	35 µg/m ³
	Annual Arithmetic Mean	12 µg/m ³	12 µg/m ³ (Primary) 15 µg/m ³ (Secondary)
Respirable Particulate Matter (PM ₁₀)	24-Hour	50 µg/m ³	150 µg/m ³

TABLE 4.2-1 AMBIENT AIR QUALITY STANDARDS

Air Pollutant	Average Time	State Standard	Federal Standard
Lead (Pb)	30-Day Average	1.5 µg/m ³	-
	Calendar Quarter	-	1.5 µg/m ³ (for certain areas)
	Rolling 3-Month Average	-	0.15 µg/m ³
NOTES: ppm = parts per million; ppb = parts per billion; µg/m ³ = microgram per cubic meter. SOURCE: CARB 2016			

TABLE 4.2-2 ATTAINMENT STATUS FOR THE COUNTY OF LOS ANGELES

Pollutant	CAAQS	NAAQS
Ozone (1-Hour)	Nonattainment	N/A
Ozone (8-Hour)	Nonattainment	Nonattainment (Extreme)
Carbon Monoxide (1-Hour and 8-Hour)	Attainment	Attainment (Maintenance)
Nitrogen Dioxide (1-Hour)	Attainment	Attainment (Maintenance)
Nitrogen Dioxide (Annual)	Attainment	Attainment (Maintenance)
Sulfur Dioxide (1-Hour)	Attainment	Pending – Expect Unclassified/Attainment
Sulfur Dioxide (24-Hour)	Attainment	Unclassified/Attainment
PM _{2.5} (24-Hour)	N/A	Nonattainment (Serious)
PM _{2.5} (Annual)	Nonattainment	Nonattainment (Serious)
PM ₁₀ (24-Hour)	Nonattainment	Attainment (Maintenance)
PM ₁₀ (Annual)	Nonattainment	N/A
Lead	Attainment	Nonattainment (Partial)
SOURCE: CARB 2020, USEPA 2022e, SCAQMD 2016.		

Citywide Sensitive Receptors

There is a strong connection between health risk and the proximity of the source of air pollution. Local jurisdictions have the responsibility for determining land use compatibility for sensitive receptors. A sensitive receptor is a person in the population who is particularly susceptible to health effects due to exposure to an air contaminant. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. CARB has identified the following population groups who are most likely affected by air pollution: children less than 14 years of age, adults over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. Land uses where these population groups are likely to spend a substantial amount of time are considered sensitive receptors. According to the South Coast Air Quality Management District (SCAQMD), sensitive receptors include the following (SCAQMD 2005):

- Schools, playgrounds and childcare centers
- Long-term health care facilities
- Rehabilitation centers
- Convalescent centers
- Hospitals

- Retirement homes
- Residences

Project Area Air Quality

The SCAQMD divides the SCAB into 38 source receptor areas (SRAs), wherein 38 monitoring stations operate to monitor the various concentrations of air pollutants in the region. The Proposed Project includes areas located in SRA 1, which covers a portion of Central Los Angeles County. SCAQMD's Los Angeles-North Main Street air monitoring station collects ambient air quality data for SRA 1. This station monitors emission levels of O₃, NO₂, PM₁₀, and PM_{2.5}. **Table 4.2-3** identifies the federal and State ambient air quality standards for the relevant air pollutants, along with the ambient pollutant concentrations that were measured between 2019 and 2021, the most current data available.

According to air quality data from SCAQMD's Los Angeles-North Main Street monitoring station shown in **Table 4.2-3**, ozone concentrations did exceed the national 1-hour standard once in 2020. In addition, concentrations exceeded the state 1-hour standard for 15 days between 2020 and 2021. Ozone concentrations also exceeded the national and State 8-hour standards for 26 days between 2019 and 2021. PM₁₀ concentrations did not exceed the national 24-hour standard between 2019 and 2021; however, concentrations exceeded the State 24-hour standard for 63 days during the same time period. PM_{2.5} concentrations exceeded the national 24-hour standard for 26 days between 2019 and 2021. Concentrations of NO₂ and CO did not exceed national or State standards between 2019 and 2021. SO₂ is not monitored within the SCAB; therefore, it is not reported in the analysis. SCAQMD also operates and maintains an air monitoring network for TACs. The Multiple Air Toxics Exposure Study (MATES-V) program measured concentrations of 19 key compounds, including both gases and particulates, at 10 fixed sites throughout the Basin (SCAQMD 2021). The monitoring study was accompanied by a computer modeling exercise in which the SCAQMD estimated the risk of cancer from breathing toxic air pollution throughout the region based on emissions and weather data. MATES-V found that the population-weighted average air toxics cancer risk for the SCAB using multiple-pathway factors is 454 in a million. The MATES V risk in the SCAB is estimated to be 55 percent lower than the corresponding risk during the MATES IV period (997 in-a-million for multiple pathway risk). Much of the air toxics cancer risk reduction was due to the 51 percent reduction of diesel particle emissions between 2012 and 2018. Los Angeles County continues to have the highest air toxics cancer risk in the SCAQMD jurisdiction, which includes Orange, Riverside, and San Bernardino counties. Although the single highest grid cell is the one encompassing the Los Angeles International Airport (LAX), there are several grid cells in the ports area that are above 900-in-a-million for air toxics cancer risk (SCAQMD 2021).

TABLE 4.2-3 SUMMARY OF AMBIENT AIR QUALITY IN THE PROJECT AREA			
Air Pollutants Monitored Within SRA 1 (Central Los Angeles Area)	Year		
	2019	2020	2021
Ozone (O₃)			
Maximum 1-hour concentration measured	0.093 ppm	0.185 ppm	0.099 ppm
Number of days exceeding previous National 0.124 ppm 1-hour standard	0	1	0
Number of days exceed State 0.09 ppm 1-hour standard	0	14	1
Maximum 8-hour concentration measured	0.080 ppm	0.118 ppm	0.085 ppm
Number of days exceeding National and State 0.07 ppm 8-hour standard	2	22	2

TABLE 4.2-3 SUMMARY OF AMBIENT AIR QUALITY IN THE PROJECT AREA			
Carbon Monoxide (CO)			
Maximum 1-hour concentration measured	2.0 ppm	2.1 ppm	2.0 ppm
Number of days exceeding State 20 ppm 1-hour standard	0	0	0
Nitrogen Dioxide (NO₂)			
Maximum 1-hour concentration measured	69.7 ppb	61.8 ppb	77.8 ppb
Number of days exceeding State 180 ppb 1-hour standard	0	0	0
Annual Average	18 ppb	18 ppb	18 ppb
Does measured annual average exceed National 100 ppb annual average standard?	No	No	No
Does measured annual average exceed State 30 ppb annual average standard?	No	No	No
Suspended Particulates (PM₁₀)			
Maximum 24-hour concentration measured	93.9 µg/m ³	185.2 µg/m ³	138.5 µg/m ³
Number of days exceeding National 150 µg/m ³ 24-hour standard	0	0	0
Number of days exceed State 50 µg/m ³ 24-hour standard	15	34	14
Annual Arithmetic Mean (AAM)	23 µg/m ³	33.1	26
Does measured AAM exceed National 150 µg/m ³ AAM standard?	No	No	No
Does measured AAM exceed State 20 µg/m ³ AAM standard?	Yes	Yes	Yes
Fine Particulates (PM_{2.5})			
Maximum 24-hour concentration measured	43.5 µg/m ³	175.0 µg/m ³	61.0 µg/m ³
Number of days exceeding National 35.0 µg/m ³ 24-hour standard	1	12	13
Annual Arithmetic Mean (AAM)	10.8 µg/m ³	15 µg/m ³	14.8 µg/m ³
Does measured AAM exceed National 15 µg/m ³ AAM standard?	Yes	No	No
Does measured AAM exceed State 12 µg/m ³ AAM standard?	Yes	Yes	Yes
NOTES:			
ppm = parts per million;			
ppb = parts per billion;			
µg/m ³ = micrograms per cubic meter;			
n/a = data not available or not collected by the District.			
SOURCE: CARB 2023a, 2023b			

CASP Sensitive Receptors

The Project Area currently contains a mix of industrial, commercial, residential, and institutional uses. Residential uses are presently found throughout the Project Area, often adjacent to non-residential uses, including the 415-unit William Mead Housing in the southwest portion of the Project Area; single-family, duplex, and multi-family dwellings between Albion Park and Interstate 5 in the southeast portion of the Project Area; and multi-family residential buildings near the Metro L Line Lincoln/Cypress Station. Additional sensitive receptors within the Project Area include kindergarten through 12th grade schools, such as Albion Elementary School, and Alliance Susan & Eric Smidt Technology High School. These areas are described in detail in Section 4.10, *Land Use and Planning*, and illustrated on **Figure 4.10-1**. As described in Section 4.13, *Public Services*, there are also four LAUSD schools and 14 parks and recreational facilities in the Project Area.

REGULATORY FRAMEWORK

Federal, State, and Local land use and planning laws, Regulations, and adopted plans applicable to the Proposed Project are summarized below.

FEDERAL

Federal Clean Air Act

The Federal Clean Air Act (CAA) was enacted in 1970 and has been amended numerous times in subsequent years, with the most recent amendments occurring in 1990.² The CAA is the comprehensive federal law that regulates air emissions in order to protect public health and welfare.³ The USEPA is responsible for the implementation and enforcement of the CAA, which establishes federal National Ambient Air Quality Standards (NAAQS), specifies future dates for achieving compliance, and requires the USEPA to designate areas as attainment, nonattainment, or maintenance. The CAA also mandates that each state submit and implement a State Implementation Plan (SIP) for each criteria pollutant for which the state has not achieved the applicable NAAQS. The SIP includes pollution control measures that demonstrate how the standards for those pollutants will be met. The sections of the CAA most applicable to land use development projects include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions).⁴

Title I requirements are implemented for the purpose of attaining NAAQS for criteria air pollutants. **Table 4.2-5**, South Coast Air Basin Attainment Status, shows the NAAQS currently in effect for each criteria pollutant. The Air Basin fails to meet national standards for O₃ and PM_{2.5} and, therefore, is considered a federal “non-attainment” area for these pollutants.

Title II pertains to mobile sources, which includes on-road vehicles (e.g. cars, buses, motorcycles) and non-road vehicles (e.g. aircraft, trains, construction equipment). Reformulated gasoline and automobile pollution control devices are examples of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have been strengthened in recent years to improve air quality. For example, the standards for NO_X emissions have been lowered substantially and the specification requirements for cleaner burning gasoline are more stringent.

The NAAQS, and the CAAQS for the California criteria air pollutants (discussed below), have been set at levels considered safe to protect public health, including the health of sensitive populations and to protect public welfare.

² 42 United States Code §7401 et seq. (1970).

³ United States Environmental Protection Agency, Summary of the Clean Air Act, <https://www.epa.gov/laws-regulations/summary-clean-air-act>. Accessed February 2023

⁴ United States Environmental Protection Agency, Clean Air Act Overview, Clean Air Act Table of Contents by Title, Last Updated January 3, 2017, <https://www.epa.gov/clean-air-act-overview/clean-air-act-text>. Accessed February 2023. As shown therein, Title I addresses nonattainment areas and Title II addresses mobile sources.

TABLE 4.2-4 SOUTH COAST AIR BASIN ATTAINMENT STATUS

Pollutant	Averaging Period	Federal Standard ^{a,b}	California Standard ^{a,b}	South Coast Air Basin Attainment Status ^c	
				Federal Standard ^d	California Standard ^d
Ozone (O ₃)	1-hour	—	0.09 ppm (180 µg/m ³)	—	Non-Attainment
	8-hour	0.070 ppm (137 µg/m ³)	0.07 ppm (137 µg/m ³)	Non-Attainment (Extreme)	Non-Attainment
Respirable Particulate Matter (PM ₁₀)	24-hour	150 µg/m ³	50 µg/m ³	Attainment	Non-Attainment
	Annual	—	20 µg/m ³		
Fine Particulate Matter (PM _{2.5})	24-hour	35 µg/m ³	—	Non-Attainment (Serious)	Non-Attainment
	Annual	12 µg/m ³	12 µg/m ³		
Carbon Monoxide (CO)	1-hour	35 ppm (40 mg/m ³)	20 ppm (23 mg/m ³)	Attainment	Attainment
	8-hour	9 ppm (10 mg/m ³)	9.0 ppm (10 mg/m ³)		
Nitrogen Dioxide (NO ₂)	1-hour	0.10 ppm (188 µg/m ³)	0.18 ppm (339 µg/m ³)	Attainment	Attainment
	Annual	0.053 ppm (100 µg/m ³)	0.030 ppm (57 µg/m ³)		
Sulfur Dioxide (SO ₂)	1-hour	0.075 ppm (196 µg/m ³)	0.25 ppm (655 µg/m ³)	Unclassified/ Attainment	Attainment
	3-hour	0.5 ppm (1,300 µg/m ³)	—		
	24-hour	—	0.04 ppm (105 µg/m ³)		
	Annual	—	—		
Lead (Pb)	30-day average	—	1.5 µg/m ³	Partial Non- Attainment	Attainment
	Rolling 3-month average	0.15 µg/m ³	—		
Sulfates	24-hour	—	25 µg/m ³	—	Attainment
Hydrogen Sulfide (H ₂ S)	1-hour	—	0.03 ppm (42 µg/m ³)	—	Unclassified

ppm = parts per million by volume
 µg/m³ = micrograms per cubic meter

^a An ambient air quality standard is a concentration level expressed in either parts per million or micrograms per cubic meter and averaged over a specific time period (e.g., 1 hour). The different averaging times and concentrations are meant to protect against different exposure effects. Some ambient air quality standards are expressed as a concentration that is not to be exceeded. Others are expressed as a concentration that is not to be equaled or exceeded.

^b Ambient Air Quality Standards based on the 2022 AQMP (Air Quality Management Plan).

^c "Attainment" means that the regulatory agency has determined based on established criteria, that the Air Basin meets the identified standard. "Non-attainment" means that the regulatory agency has determined that the Air Basin does not meet the standard. "Unclassified" means there is insufficient data to designate an area, or designations have yet to be made.

^d California and Federal standard attainment status based on SCAQMD's 2016 AQMP and 2018 updates from CARB.

<https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>. ^e An attainment re-designation request is pending.

Sources: United States Environmental Protection Agency, NAAQS Table, <https://www.epa.gov/criteria-air-pollutants/naaqs-table>. Accessed February 2023.

CARB, Ambient Air Quality Standards May 4, 2016, <https://ww3.arb.ca.gov/research/aaqs/aaqs2.pdf>. Accessed February 2023.

STATE

California Clean Air Act

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the State to achieve and maintain the CAAQS by the earliest practicable date. The California Air Resources Board (CARB), as part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and State air pollution control programs within California. In this capacity, CARB conducts research, sets the CAAQS, compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hair spray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

California Code of Regulations

The California Code of Regulations (CCR) is the official compilation and publication of regulations adopted, amended or repealed by state agencies pursuant to the Administrative Procedure Act. The CCR includes regulations that pertain to air quality emissions. Specifically, Section 2485 in Title 13 of the CCR states that the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location. In addition, Section 93115 in Title 17 of the CCR states that operations of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emissions standards.

State Programs for Toxic Air Contaminants

The California Air Toxics Program is an established two-step process of risk identification and risk management to address potential health effects from exposure to toxic substances in the air. In the risk identification step, CARB and OEHHA determine if a substance should be formally identified, or “listed,” as a TAC in California. In the risk management step, CARB reviews emission sources of an identified TAC to determine whether regulatory action is needed to reduce risk. Based on results of that review, CARB has promulgated a number of Airborne Toxic Control Measures (ATCMs), both for stationary and mobile sources, including On-Road and Off-Road Vehicle Rules. These ATCMs include measures such as limits on heavy-duty diesel motor vehicle idling and emission standards for off-road diesel construction equipment in order to reduce public exposure to DPM and other TACs. These actions are also supplemented by the AB 2588 Air Toxics “Hot Spots” program and SB 1731, which require facilities to report their air toxics emissions, assess health risks, notify nearby residents and workers of significant risks if present, and reduce their risk through implementation of a risk management plan. SCAQMD has further adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates new or modified facilities, and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities.

Diesel Risk Reduction Program

CARB identified particulate emissions from diesel-fueled engines as TACs in August 1998. Following the identification process, the ARB was required by law to determine if there is a need for further control, which moved us into the risk management phase of the program. CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and the Vehicles and the Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines. The Diesel Advisory Committee approved these documents on September 28, 2000, paving the way for the next step in the

regulatory process: the control measure phase. During the control measure phase, specific statewide regulations designed to further reduce DPM emissions from diesel-fueled engines and vehicles have and continue to be evaluated and developed. The goal of each regulation is to make diesel engines as clean as possible by establishing state-of-the-art technology requirements or emission standards to reduce DPM emissions.

REGIONAL

Southern California Association of Governments

SCAG is a council of governments for Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. As a regional planning agency SCAG serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that improve air quality. The 2022 Air Quality Management Plan (AQMP) incorporates the population growth projections contained within SCAG's 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), or Connect SoCal. The 2020 RTP/SCS was developed through a four-year planning process to update population, housing and employment data as well as transportation strategies for the region through the horizon year of 2045 (SCAG 2020). The 2020 RTP/SCS is discussed in greater detail in Section 4.7, Greenhouse Gases.

South Coast Air Quality Management District

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the SCAB. To that end, the SCAQMD, a regional agency, works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments, and cooperates actively with all State and federal government agencies. The SCAQMD develops rules and regulations, establishes permitting requirements, inspects emissions sources, monitors air quality, and provides regulatory enforcement through such measures as educational programs, monitors or fines, when necessary. The SCAQMD is responsible for developing programs to reduce emissions from stationary, mobile, and indirect sources to meet national and state AAQS. It has responded to this requirement by preparing a series of AQMP.

Air Quality Management Plan and RTP/SCS

To meet the NAAQS and CAAQS, the SCAQMD has adopted a series of air quality management plans (AQMPs), which serve as a regional blueprint to develop and implement an emission reduction strategy that will bring the area into attainment with the standards in a timely manner. The most significant air quality challenge in the Air Basin is to reduce NO_x emissions sufficiently to meet the 2037 ozone standard deadline for the non-Coachella Valley portion of the South Coast Air Basin, as NO_x plays a critical role in the creation of ozone. The 2022 AQMP includes strategies to ensure the SCAQMD does its part to further the Air District's ability to meet the 2015 federal ozone standards. The district would need to reduce emissions of NO_x by 67 percent beyond what is required by the adopted rules and regulations in 2037 to meet the 2015 federal ozone standard (SCAQMD 2022). The 2022 AQMP builds on the measures already in place from the previous AQMPs and includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technology, best management practices, co-benefits from existing programs, incentives, and other CAA measures to meet the 8-hour ozone standard. Since NO_x emissions also lead to the formation of PM_{2.5}, the NO_x reductions needed to meet the ozone standards will likewise lead to improvement of PM_{2.5} levels and attainment of annual PM_{2.5} standards (SCAQMD 2017).⁵

⁵ Estimates are based on the inventory and modeling results and are relative to the baseline emission levels for each attainment year (see Final 2016 AQMP for detailed discussion).

The SCAQMD's strategy to meet the NAAQS and CAAQS distributes the responsibility for emission reductions across federal, State, and local levels and industries. The majority of these emissions are from heavy-duty trucks, ships, and other State and federally regulated mobile source emissions that are beyond SCAQMD's control. The 2022 AQMP is composed of stationary and mobile source emission reductions from traditional regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile source strategies, and reductions from federal sources, which include aircraft, locomotives, and ocean-going vessels. These strategies are to be implemented in partnership with the CARB and USEPA. The district will not meet the standard without significant federal action. In addition to federal action, the 2022 AQMP relies on substantial future development of advanced technologies to meet the standards, including the transition to zero and low emission technologies. Of the needed NO_x emissions reductions, 46 percent will come from federal actions, 34 percent from CARB actions, and 20 percent will come directly from SCAQMD actions (SCAQMD 2022).

The AQMP also incorporates the transportation strategy and transportation control measures from SCAG's 2020-2045 RTP/SCS Plan (Connect SoCal) (SCAG 2020). SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial counties, and addresses regional issues relating to transportation, the economy, community development, and the environment. SCAG coordinates with various air quality and transportation stakeholders in southern California to ensure compliance with the federal and State air quality requirements. Pursuant to California Health and Safety Code Section 40460, SCAG has the responsibility of preparing and approving the portions of the AQMP relating to the regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. SCAG is required by law to ensure that transportation activities "conform" to, and are supportive of, the goals of regional and State air quality plans to attain the NAAQS. Connect SoCal includes transportation programs, measures, and strategies generally designed to reduce vehicle miles traveled (VMT), which are contained in the AQMP. The SCAQMD combines its portion of the AQMP with those prepared by SCAG (SCAQMD 2022). Connect SoCal and Transportation Control Measures, included as Appendix IV-C of the 2022 AQMP, are based on SCAG's Connect SoCal.

The 2022 AQMP forecasts the 2037 emissions inventories "with growth" based on SCAG's Connect SoCal. The region is projected to see a 12 percent growth in population, 17 percent growth in housing units, 11 percent growth in employment, and 5 percent growth in VMT between 2018 and 2037. Despite regional growth in the past, air quality has improved substantially over the years, primarily due to the effects of air quality control programs at the local, State, and federal levels (SCAQMD 2022).

SCAQMD Air Quality Guidance Documents. The SCAQMD published the CEQA Air Quality Handbook (approved by the AQMD Governing Board in 1993) to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. The CEQA Air Quality Handbook provides standards, methodologies, and procedures for conducting air quality analyses. However, the SCAQMD is currently in the process of replacing the CEQA Air Quality Handbook with the Air Quality Analysis Guidance Handbook. While this process is underway, the SCAQMD has provided supplemental guidance on the SCAQMD website.

The SCAQMD has also adopted land use planning guidelines in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, which considers impacts to sensitive receptors from facilities that emit TAC emissions. SCAQMD's siting distance recommendations are the same as those provided by CARB (e.g., a 500-foot siting distance for sensitive land uses proposed in proximity to freeways and high-traffic roads, and the same siting criteria for distribution centers and dry cleaning facilities). The SCAQMD's document introduces land use-related policies that rely on design and distance parameters to minimize emissions and lower potential health risk. SCAQMDs guidelines are voluntary initiatives recommended for consideration by local planning agencies.

The SCAQMD has published a guidance document called the *Final Localized Significance Threshold Methodology* for CEQA evaluations that is intended to provide guidance when evaluating the localized effects from mass emissions during construction or operation of a project. The SCAQMD adopted additional guidance regarding PM_{2.5} emissions in a document called *Final Methodology to Calculate Particulate Matter (PM)_{2.5} and PM_{2.5} Significance Thresholds*. The latter document has been incorporated by the SCAQMD into its CEQA significance thresholds and *Final Localized Significance Threshold Methodology*.

The SCAQMD has also developed programs to attain and maintain the NAAQS and CAAQS. These include air quality rules and regulations for stationary sources, area sources, point sources, and certain mobile source emissions. The SCAQMD is also responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases. All projects within SCAQMD jurisdiction are subject to SCAQMD rules and regulations, including, but not limited to the following:

- **Rule 401 Visible Emissions** – This rule prohibits an air discharge that results in a plume that is as dark as or darker than what is designated as No. 1 Ringelmann Chart by the United States Bureau of Mines or of such opacity as to obscure an observer’s view for an aggregate of three minutes in any one hour.
- **Rule 402 Nuisance** – This rule prohibits the discharge of “such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of people or the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.”
- **Rule 403 Fugitive Dust** – This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the project property line, restricts the net PM₁₀ emissions to less than 50 micrograms per cubic meter (µg/m³) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Mitigation measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers and/or ceasing all activities. Finally, a contingency plan may be required if so determined by the USEPA.
- **Rule 1113 Architectural Coatings** – This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories. This rule limits VOCs in architectural coatings used in the SCAQMD jurisdiction. These limits are application-specific and are updated as availability of low-VOC products expands.
- **Rule 1138 – Control of Emissions from Restaurant Operations** - This rule specifies PM and VOC emissions and odor control requirements for commercial cooking operations that use chain-driven charbroilers to cook meat.
- **Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters** - This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_x emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.
- **Rule 1168 Adhesive and Sealant Applications** – This rule reduces emissions of VOCs and eliminates emissions of chloroform, ethylene dichloride, methylene chloride, perchlorethylene, and trichloroethylene from the application of adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, or any other primers.

- **Rule 1186 – PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations -** This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM10 emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).**Regulation XIII New Source Review –** This regulation contains Rules 1300 through 1325, which set forth pre-construction review requirements for new, modified, or relocated facilities, to ensure that the operation of such facilities does not interfere with progress in attainment of the NAAQS, and that future growth within SCAQMD is not unnecessarily restricted. The specific air quality goal of this regulation is to achieve no net increases from new or modified permitted sources of nonattainment air contaminants or their precursors.
- **Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities -**This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.
- **Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines -** This rule applies to stationary compression ignition (CI) engines greater than 50 brake horsepower and sets limits on emissions and operating hours. In general, new stationary emergency standby diesel-fueled engines greater than 50 brake horsepower are not permitted to operate more than 50 hours per year for maintenance and testing.
- **Rule 2305 Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program -** The WAIRE Program has compliance and reporting requirements for warehouse owners and operators to reduce nitrogen oxide and diesel emissions from the goods movement industry, help meet federal air quality standards and improve public health. It applies to warehouses that have at least 100,000 square feet of indoor floor space in single building. WAIRE was adopted May 7, 2021 by the South Coast Air Quality Management District. Under WAIRE, owners are required to submit information about their buildings and tenants. Warehouse operators are required to earn a specific number of points every year through a menu-based point system, based on the number of truck trips made to and from the warehouse. Mitigation fees may be paid as an option. The compliance program is being phased in based on the size of a warehouse, starting in 2022 with warehouses that are larger than 250,000 square feet; 2023 for warehouses between 150,000 square feet and 250,000 square feet; and 2024 for warehouses between 100,000 square feet and 150,000 square feet.

LOCAL

City of Los Angeles General Plan Air Quality Element

The *Air Quality Element of the City of Los Angeles General Plan* (City Air Quality Element), adopted on November 24, 1992, sets forth the goals, objectives and policies that guide the City in the implementation of its air quality improvement programs and strategies. The City Air Quality Element acknowledges that numerous efforts are underway at the regional, county and city levels addressing clean air concerns and that coordination of these various efforts and the involvement of the area’s residents are crucial to the achievement of state and federal AAQS.

The City’s Air Quality Element acknowledges the interrelationships among transportation and land use planning in meeting the City’s mobility and clean air goals. Mutually reinforcing strategies need to be developed which work to reduce the use of single occupant vehicles and which work to reduce vehicle trips and vehicle miles traveled (VMT).

The City Air Quality Element establishes six goals:

- Good air quality in an environment of continued population growth and healthy economic structure;
- Less reliance on single-occupant vehicles with fewer commute and non-work trips;
- Efficient management of transportation facilities and system infrastructure using cost-effective system management and innovative demand-management techniques;
- Minimize impacts of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation and air quality;
- Energy efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels and the implementation of conservation measures including passive measures such as site orientation and tree planting; and
- Citizen awareness of the linkages between personal behavior and air pollution and participation in efforts to reduce air pollution.

The City is also responsible for the implementation of transportation control measures as outlined in the AQMP. Through capital improvement programs, the City can fund infrastructure that contributes to improved air quality by requiring such improvements as bus turnouts as appropriate, installation of energy-efficient streetlights, and synchronization of traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation measures.

Plan for a Healthy Los Angeles

The *Plan for a Healthy Los Angeles*, adopted by the City Council on March 31, 2015, lays the foundation to create healthier communities for all residents in the City. As an element of the General Plan, it provides high-level policy vision, along with measurable objectives and implementation programs, to elevate health as a priority for the City's future growth and development. With a focus on public health and safety, the *Plan for a Healthy Los Angeles* provides a roadmap for addressing the most basic and essential quality-of-life issues: safe neighborhoods, a clean environment (i.e., improved ambient and indoor air quality), the opportunity to thrive, and access to health services, affordable housing, and healthy and sustainably produced food.

Safety Element

The updated Safety Element, adopted by the City Council on November 24, 2021, includes an objective and policies to address climate change, including air quality.

TABLE 4.2-5 CITY OF LOS ANGELES SAFETY ELEMENT	
Objective 1.2	Confront the global climate emergency by setting measurable targets for carbon reduction that are consistent with the best available methods and data, center equity and environmental justice, secure fossil free jobs, and foster broader environmental sustainability and resiliency.
Policy 1.2.1	Environmental Justice. In keeping with the Plan for a Healthy LA, build a fair, just and prosperous city where everyone experiences the benefits of a sustainable future by correcting the long running disproportionate impact of environmental burdens faced by low income families and communities of color.
Policy 1.2.2	Renewable Energy. Aggressively pursue renewable energy sources, transitioning away from fossil based sources of energy and toward 100% renewable energy sources.
Policy 1.2.6	Mobility. In keeping with the Mobility Plan, build a comprehensive and integrated transportation network that changes how Angelenos get around and reduces car dependency.
Policy 1.2.7	Zero Emissions Vehicles. In keeping with the Mobility Plan, work toward zero emissions transportation and goods movement and increases zero emissions infrastructure including charging.
Policy 1.2.8	Industrial Emissions and Air Quality Monitoring. In keeping with the Air Quality Element, ensure that every Angeleno can breathe clean, healthy air by addressing air pollution from all sources, with a particular emphasis on prioritizing the health and wellbeing of overburdened families and delivering environmental justice.
Policy 1.2.11	Urban Ecosystem and Resilience. In keeping with the Conservation and Open Space Elements, create a more temperate biodiverse city with more green space for people and habitat.
Policy 1.2.13	Lead by Example. Leverage government owned properties and publicly-driven investments to realize broader climate change goals.
Source: City of Los Angeles, Safety Element, 2021.	

Los Angeles Green Plan

The City has begun to address the issue of global climate change by publishing *Green LA, An Action Plan to Lead the Nation in Fighting Global Warming* (LA Green Plan). This document outlines the goals and actions the City has established to reduce the generation and emission of GHGs from both public and private activities. According to the LA Green Plan, the City is committed to the goal of reducing emissions of CO₂ to 35 percent below 1990 levels. To achieve this, the City will:

- Increase the generation of renewable energy;
- Improve energy conservation and efficiency; and
- Change transportation and land use patterns to reduce dependence on automobiles.

The LA Green Plan is discussed in greater detail in Section 4.7, *Greenhouse Gases*

City of Los Angeles Green Building Code

In December 2010, the Los Angeles City Council adopted various provisions of the CalGreen Code as part of Ordinance No. 181,480, thus codifying certain provisions of the CalGreen Code as the new Los Angeles Green Building Code (LA Green Building Code). As a result of continuing updates to the CalGreen Code, the City adopted the City of Los Angeles has adopted the 2019 California Green Building Standards Code, with amendments. The adoption is noted in Ordinance 186488, January 22, 2021. The LA Green Building Code applies to the construction of every new building, every new building alteration with a permit valuation of over \$200,000, and every building addition unless otherwise noted. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) non-residential and high-rise residential buildings; and (3) additions and alterations to non-residential and high-rise residential buildings.

City of Los Angeles Clean Up Green Up Ordinance

The City of Los Angeles adopted a Clean Up Green Up Ordinance (Ordinance Number 184,245) on April 13, 2016, which among other provisions, includes provisions related to ventilation system filter efficiency in mechanically ventilated buildings. This Ordinance added Sections 95.314.3 and 99.04.504.6 to the Los Angeles Municipal Code (LAMC) and amended Section 99.05.504.5.3 to implement building standards and requirements to address cumulative health impacts resulting from incompatible land use patterns. Section 99.04.504.6, which became effective June 4, 2016, mandates that regularly occupied areas in mechanically ventilated buildings within 1,000 feet of a freeway be provided with air filtration media for outside and return air that meet a Minimum Efficiency Report Value (MERV) of 13. This Ordinance requires that these filters be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual. The only exception to Section 99.04.504.3 applies to existing mechanical equipment. Additionally, Section 99.05.504.3 states that regularly occupied areas in all mechanically ventilated buildings shall be provided with air filtration media for outside and return air that meets a MERV of 8. An exception is provided for existing mechanical equipment and for new ventilation units meeting certain 2013 California Energy Code requirements. These additions to the LAMC are designed to address cumulative health impacts in highly polluted areas resulting from incompatible land use patterns within the City of Los Angeles.

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the Proposed Project's air quality impacts would be significant if the Proposed Project would:

- Conflict with or obstruct implementation of the applicable air quality plan (Threshold 4.2-1)
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (Threshold 4.2-2)
- Expose sensitive receptors to substantial pollutant concentrations (Threshold 4.2-3)
- Result in other emissions (such as those leading to odor) adversely affecting a substantial number of people (Threshold 4.2-4)

Specific quantitative thresholds used to define these general CEQA thresholds are discussed below.

SCAQMD Thresholds

The SCAQMD has developed specific CEQA regional and localized significant thresholds (LSTs) to assess air quality impacts associated with individual development projects. The regional and local construction significance thresholds for individual projects in the Project Area are shown in **Table 4.2-4**. The regional thresholds apply throughout the Proposed Project, while LSTs vary depending on the air monitoring areas, or source receptor areas, in which a development project is located.

LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities and have been developed for NO_x, CO, PM₁₀, and PM_{2.5}. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into

consideration ambient concentrations in each SRA, distance to the sensitive receptor, and project size. LSTs have been developed for emissions within construction areas up to five acres in size.

The Proposed Project is located entirely within SRA 1, Central Los Angeles. Due to the density of development in the Project Area, the LST values for SRA 1 are some of the most protective in the SCAB for regulating localized emissions and preventing exposure of sensitive receptors to substantial pollutant concentrations. The LST values for development projects with lot sizes from less than one acre up to five acres in SRA 1 are displayed in the table. As appropriate, analysis of individual projects in the Project Area must address the appropriate threshold based on the size of the project site and the proximity of sensitive receptors. **Table 4.2-6** presents the LST values for development sites within 25 meters of sensitive receptors, the most conservative thresholds.

The regional operational significance thresholds for individual projects throughout Los Angeles, including the Project Area, are shown in **Table 4.2-7**. These quantitative thresholds are considered when making a significance determination using the State CEQA Guidelines Appendix G thresholds, above, as appropriate. Localized analyses of on-site emissions associated with individual projects are typically limited to industrial and commercial land uses that involve considerable on-site heavy duty vehicle traffic or employ stationary sources of substantial air pollutant emissions.

The SCAQMD is also tasked with managing exposure of sensitive receptors to air toxics and health risk. According to SCAQMD methodology, health effects from carcinogenic air toxics are described in terms of individual cancer risk. “Individual Cancer Risk” is the likelihood that a person continuously exposed to concentrations of TACs over a 70-year lifetime will contract cancer based on the use of standard risk assessment methodology. The SCAQMD has stated that the incremental cancer risk should not exceed 10 persons in one million, and the chronic and acute risks should not exceed a calculated Hazard Index value of 1.0. The SCAQMD quantitative thresholds are considered when making a significance determination based on the State CEQA Guidelines Appendix G thresholds, above, as appropriate.

TABLE 4.2-6 SCAQMD DAILY CONSTRUCTION EMISSIONS THRESHOLDS				
Criteria Pollutant¹	Regional Threshold (Pounds Per Day)	On-Site Localized Thresholds for SRA-1 (Pounds Per Day)²		
		1 Acre	2 Acres	5 Acres
Volatile Organic Compounds (VOC)	75	-	-	-
Nitrogen Oxides (NO _x)	100	41 ³	60 ³	89 ³
Carbon Monoxide (CO)	550	680	1,048	1,861
Sulfur Oxides (SO _x)	150	-	-	-
Respirable Particulates (PM ₁₀)	150	5	8	16
Fine Particulates (PM _{2.5})	55	2 ⁴	4 ⁴	6 ⁴

NOTE: ROG = reactive organic gases, CO = carbon monoxide, NO_x = nitrogen oxides, SO_x = sulfur oxides, SO₂ = sulfur dioxide, PM₁₀ = particulate matter 10 microns in diameter or less, PM_{2.5} = particulate matter 2.5 microns or less in diameter.

¹The SCAQMD has adopted a significance threshold of three (3) pounds per day for lead (Pb). Reasonably expected construction projects from the Proposed Project would not include sources of lead emissions, and a discussion of air quality impacts from lead emissions is excluded from the air quality impact analyses.

²Localized significance thresholds are based on a 25-meter receptor distance because most of the Project Area is densely developed.

³The screening criteria for NO_x were developed based on the 1-hour NO₂ CAAQS of 0.18 ppm. Subsequently to publication of the SCAQMD’s guidance the U.S. EPA has promulgated a 1-hour NO₂ NAAQS of 0.100 ppm. This is based on a 98th percentile value, which is more stringent than the CAAQS. Because SCAQMD’s LSTs have not been updated to address this new standard, to determine if project emissions would result in an exceedance of the 1-hour NO₂ NAAQS, an approximated LST was estimated to evaluate the federal 1-hour NO₂ standard. The revised LST threshold is calculated by scaling the NO₂ LST for by the ratio of 1-hour NO₂ standards (federal/state) (i.e., NO_x lbs/day * (0.10/0.18) = new lbs/day).

⁴The screening criteria for PM_{2.5} were developed based on an Annual CAAQS of 15 mg/m³. Subsequently to publication of the SCAQMD’s guidance the annual standard was reduced to 12 mg/m³. Because SCAQMD’s LSTs have not been updated to address this new standard, to determine if project emissions would result in an exceedance of the annual PM_{2.5} CAAQS, an approximated LST was estimated. The revised LST threshold is calculated by scaling the PM_{2.5} LST for by the ratio of 24-hour PM_{2.5} standards (federal/state) (i.e., PM_{2.5} lbs/day * (12/15) = new lbs/day).

SOURCE: SCAQMD 2009, 2019.

TABLE 4.2-7 SCAQMD DAILY OPERATIONAL EMISSIONS THRESHOLDS				
Criteria Pollutant¹	Regional Threshold (Pounds Per Day)	On-Site Localized Thresholds for SRA-1 (Pounds Per Day)²		
		1 Acre	2 Acres	5 Acres
Volatile Organic Compounds (VOC)	55	-	-	-
Nitrogen Oxides (NO _x)	55	41 ³	60 ³	89 ³
Carbon Monoxide (CO)	550	680	1,048	1,861
Sulfur Oxides (SO _x)	150	-	-	-
Respirable Particulates (PM ₁₀)	150	2	2	4
Fine Particulates (PM _{2.5})	55	1 ⁴	2 ⁴	2 ⁴

NOTE: ROG = reactive organic gases, CO = carbon monoxide, NO_x = nitrogen oxides, SO_x = sulfur oxides, SO₂ = sulfur dioxide, PM₁₀ = particulate matter 10 microns in diameter or less, PM_{2.5} = particulate matter 2.5 microns or less in diameter.

¹SCAQMD has adopted a significance threshold of three (3) pounds per day for lead. The operation of reasonably anticipated development from the Proposed Project would not include sources of lead emissions, and a discussion of air quality impacts from lead emissions is excluded from the air quality impact analyses.

²Localized significance thresholds are based on a 25-meter receptor distance because most of the Project Area is density developed.

³The screening criteria for NO_x were developed based on the 1-hour NO₂ CAAQS of 0.18 ppm. Subsequently to publication of the SCAQMD's guidance the U.S. EPA has promulgated a 1-hour NO₂ NAAQS of 0.100 ppm. This is based on a 98th percentile value, which is more stringent than the CAAQS. Because SCAQMD's LSTs have not been updated to address this new standard, to determine if project emissions would result in an exceedance of the 1-hour NO₂ NAAQS, an approximated LST was estimated to evaluate the federal 1-hour NO₂ standard. The revised LST threshold is calculated by scaling the NO₂ LST for by the ratio of 1-hour NO₂ standards (federal/state) (i.e., NO_x lbs/day * (0.10/0.18) = new lbs/day).

⁴The screening criteria for PM_{2.5} were developed based on an Annual CAAQS of 15 mg/m³. Subsequently to publication of the SCAQMD's guidance the annual standard was reduced to 12 mg/m³. Because SCAQMD's LSTs have not been updated to address this new standard, to determine if project emissions would result in an exceedance of the annual PM_{2.5} CAAQS, an approximated LST was estimated. The revised LST threshold is calculated by scaling the PM_{2.5} LST for by the ratio of 24-hour PM_{2.5} standards (federal/state) (i.e., PM_{2.5} lbs/day * (12/15) = new lbs/day).

SOURCE: SCAQMD 2009; 2019.

METHODOLOGY

Air quality impacts resulting from implementation of the Proposed Project are assessed at a programmatic level because information on specific development projects is not known for the Project Area as a whole. The SCAQMD *CEQA Air Quality Handbook* states that the air quality assessment should be as comprehensive as possible at a programmatic level. In the absence of SCAQMD programmatic thresholds, the EIR evaluates broad air quality impacts and examines the Proposed Project's consistency with the 2022 AQMP. Consistency with this plan would ensure compliance with regional and local air quality goals. The analysis also broadly examines temporary construction emissions, long-term operational emissions, localized pollutant concentrations, TACs, and odors. Common sources of construction emissions include heavy-duty off-road construction equipment exhaust, fugitive dust, and architectural coatings. Sources of operational emissions include the use of consumer products, motor vehicle trips attracted to or generated by a land use, and on-site combustion of natural gas. The VMT estimate used in the emissions analysis is based on projections provided by Fehr and Peer for the Proposed Project (Fehr and Peers 2022). The Proposed Project does not include any stationary sources of lead emissions. Therefore, implementation of the Proposed Project would not result in substantial emissions of lead, and this pollutant is not discussed further in this analysis. A best-effort approach to disclose all reasonably foreseeable impacts based on available information is used consistent with the requirements of CEQA.

The baseline for analysis used in this section and throughout this EIR is the existing condition. This is the same baseline that has been used in the City's most recent community plan EIRs, including the Downtown Los Angeles Community Plan EIR, the West Adams and South/Southeast Los Angeles Community Plan EIRs, as well as the SCAG 2016-2040 RTP/SCS Program EIR, and the latest 2020-2045 RTP/SCS EIR. The use of the existing conditions as the CEQA baseline is reasonable based on these precedents *Development Assumptions*

Table 4.2-8 summarizes the land use assumptions used in the California Emissions Estimator Model (CalEEMod):

TABLE 4.2-8 CALEEMOD LAND USE ASSUMPTIONS			
Land Use Categories	Existing (2021)	2040 (No Project)	2040 (With Project)
Residential – Mid-Rise Apartments ¹	2,012 units	12,773	20,036 units
Retail – Strip Mall ²	898,321 square feet	3,877,426 square feet	3,908,109 square feet
Commercial – Government Office Building	327,487	846,246	607,941
Industrial – Industrial Park	4,049,585	8,556,485	6,146,957
¹ Proposed Project is expected to add both affordable and market-rate apartment units between a building height of three to seven floors. ² The amount of commercial/retail square footage is based on SCAG's Employment Density Study and the Proposed Project's existing and estimated future buildout job forecast for the area. The average for all commercial land use types in Los Angeles County is 420 square feet per employee. Sources: SCAG 2001, SCAG 2016			

Construction Assumptions

Construction emissions were estimated for equipment exhaust emissions and truck trips for a number of example individual construction projects using CalEEMod, version 2022.1. Equipment emission factors in CalEEMod are based on CARB data. Equipment was assumed to operate for eight hours per day. Truck emission factors in CalEEMod are from EMFAC2021 and trucks were assumed to travel 40 miles per day, with a one-way distance of 20 miles to the disposal site. Fugitive dust and architectural coating emissions are qualitatively discussed because it would be speculative to quantify lot acreage and the size of buildings to be coated. To estimate construction emissions, example individual construction project scenarios were developed with varying equipment usage and hauling truck trip intensity. The scenarios were not associated with a specific land use and include generalized assumptions regarding construction scheduling and practices, except for fugitive dust control through site watering twice a day to reflect compliance with SCAQMD Rule 403. These example projects account for four scales of intensity with respect to equipment usage and truck trips, as itemized below.

- Two (2) pieces of heavy-duty equipment, 10 construction workers, and 25 truck trips per day
- Four (4) pieces of heavy-duty equipment, 20 construction workers, and 50 truck trips per day
- Eight (8) pieces of heavy-duty equipment, 40 construction workers, and 100 truck trips per day
- Ten (10) pieces of heavy-duty equipment, 50 construction workers, and 150 truck trips per day

These equipment inventories and truck volumes are representative of a reasonable range of construction activity intensity for individual projects based on previous development in Los Angeles. Maximum daily regional and localized emissions were quantified for these construction scenarios and assessed in the context of the SCAQMD significance thresholds. The analysis of reasonably expected construction projects from the Proposed Project assumes a baseline of zero for daily criteria pollutant emissions, which is extremely conservative given that there are generally multiple large and small construction projects going on in the City and Project Area at any given time.

As discussed in the Regulatory Framework, SCAQMD's Rule 403, Fugitive Dust, is a control requirement for preventing, mitigating and controlling the release of airborne particulate matter emissions from earth moving activities. It is mandatory for all construction projects in the SCAB to comply with Rule 403 or face violations that would incur fines. Specific Rule 403 control requirements include, but are not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil

binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site, and maintaining effective cover over exposed areas. Compliance with Rule 403 would reduce PM_{2.5} and PM₁₀ emissions associated with construction activities by approximately 61 percent (SCAQMD 2007). New construction would also be subject to VOC emission limits for architectural coatings, adhesives and sealants in the City’s 2017 Los Angeles Green Building Code. In addition, SCAQMD Rules 1113 and 1168 establish VOC limits to control emissions from the application of architectural coatings, adhesives, and sealants.

Operational Assumptions

Operational emissions, estimated using CalEEMod, would be comprised of mobile source emissions, energy emissions, and area source emissions. Area source emissions are generated by landscape maintenance equipment, consumer products, and architectural coating. Default CalEEMod assumptions for natural gas fireplaces were used to estimate hearth emissions from the Proposed Project. Emissions attributed to energy use include electricity and natural gas consumption for space and water heating. Energy use emissions were calculated according to the methodology explained in Appendix C of the CalEEMod User Guide, Version 2022.1. The energy use estimates account for the 2019 Building Energy Efficiency Standards (Title 24). This is a conservative assumption since the energy use estimates do not account for potential energy efficiency measures required by subsequent Title 24 updates in 2022, 2025, and 2028. Mobile source emissions were estimated using vehicle activity data presented in Section 4.15, *Transportation and Traffic*, and vehicle emission rates from CARB’s EMFAC2017 model. **Table 4.2.9** shows vehicle trips and VMT for the 2021 existing condition and the 2040 Proposed Project conditions. Although the reasonably anticipated development would reduce average VMT and daily trips per service population, the total amount of VMT and vehicle trips would increase in the project area.

TABLE 4.2.9 VEHICLE ACTIVITY DATA (DAILY) FOR THE PROPOSED PROJECT				
Activity	Existing (2021)	No Project (2040)	With Project (2040)	Project (2040) vs. Existing (2021) ¹
CASP VMT	328,439	841,339	983,961	+655,522 (200%)
CASP Daily Trips	41,323	125,638	155,383	+114,060 (276%)
CASP VMT per Service Population	28.7	18.3	15.2	-13.5 (-47%)
CASP Daily Trips per Service Population	3.6	2.7	2.4	-1.2 (-34%)

VMT = Vehicle Miles Traveled
¹ Quantities may not sum due to independent rounding.
 Source: Fehr & Peers 2022

Concurrent Construction and Operations

There is no comprehensive timeline for the construction of individual projects within the CASP area through the horizon year of 2040, and it is not possible to estimate the rate of redevelopment over such a long timeframe. Similar to what is already occurring within the Project Area under existing and ongoing conditions, sources of air pollutant emissions involved in the construction of individual projects would be active while operational emissions are continuously occurring. The City cannot reasonably anticipate if growth would be linear or sporadic between 2022 and 2040. Given the uncertainty of year-to-year growth, interim year emissions analyses are unlikely to yield reasonably accurate portrayal of emissions prior to 2040. It would also be inappropriate to consider construction emissions in combination with ongoing operational emissions, as the SCAQMD air quality significance thresholds were derived separately and the SCAQMD handbook explicitly states that operational emissions begin when construction is completed. It would not serve the goal of providing an informational document to combine hypothetical construction projects with operational emissions in an interim emissions scenario, nor is this approach standard practice

for air quality impacts assessments under CEQA. Without a robust understanding of project details including the schedules under which individual projects would be constructed, the exercise of combining construction and operational emissions would not bolster the disclosure of air quality impacts.

PROJECT IMPACTS

Threshold 4.2-1	Conflict with or obstruct implementation of the applicable air quality plan
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Impact 4.2-1 **Proposed Project:** The Proposed Project would generate growth that is consistent with the 2020-2045 RTP/SCS and 2022 AQMP. As a result, the Proposed Project would not conflict with and obstruct implementation of the 2020-2045 RTP/SCS or the 2022 AQMP. Thus, impacts related to population growth under the Proposed Project would be *less than significant*.

As discussed in the Regulatory Framework, the overall strategy for the 2022 AQMP is designed to meet applicable federal and state requirements, including attainment of ambient air quality standards (SCAQMD 2022). The focus of the AQMP is to demonstrate attainment of the federal 2015 8-hour Ozone ambient air quality standard by August 2038 for “extreme” nonattainment areas and August 2033 for “severe” nonattainment areas. The AQMP provides base year emissions and future baseline emission projections that provide a snapshot of future air quality conditions, including the effects from already adopted rules and regulations. In doing so, the AQMP relies upon the most recent planning assumptions and the best available information, including CARB’s mobile source emission factors for the on-road mobile source emissions inventory; CARB’s in-use fleet inventory for the off-road mobile source emission inventory; the latest point source inventory; updated area source inventories; and SCAG’s forecast growth assumptions based on the RTP/SCS.

The 2022 AQMP was adopted in December 2022 and represents the most updated regional blueprint for achieving federal air quality standards and clean air (SCAQMD 2022). The 2022 AQMP adapts previously conducted regional air quality analyses to account for the recent unexpected drought conditions and presents a approach to demonstrate attainment of the 2015 8-hour ozone NAAQS for the SCAB. Directly applicable to reasonably anticipated development expected from the Proposed Project, the 2022 AQMP proposes robust NO_x reductions from residential and commercial appliances, commercial cooking, and commercial space heating. Individual development projects throughout Los Angeles will be required to comply with existing and new regulatory measures set forth by the SCAQMD.

Project Impact

The air quality plans applicable to the Proposed Project are the 2020-2045 RTP/SCS and the 2022 AQMP. As mentioned in the Regulatory Framework, the primary objectives of the RTP/SCS that are aimed at reducing air pollution consist of adding density in proximity to transit stations and encouraging mixed-use development and active transportation. A detailed review of the Proposed Project’s consistency with the 2020-2045 RTP/SCS is provided in sections 4.7, *Greenhouse Gases*, 4.10, *Land Use and Planning*, and 4.15, *Transportation and Traffic*. As discussed in these sections, the Proposed Project is consistent with goals and policies of the 2020-2045 RTP/SCS.

The 2022 AQMP was prepared to accommodate growth, to reduce the high levels of pollutants in areas under the jurisdiction of SCAQMD, to improve the region’s air quality, and to minimize the impact on the economy. Consistency with the AQMP can be assessed by determining how a project accommodates increases in population or employment. The population and employment assumptions used by SCAQMD to estimate regional emissions in the AQMP are obtained from SCAG forecasts for cities and unincorporated areas within the SCAQMD’s jurisdiction. As discussed in Section 2, *Project Description*, the Department of City Planning uses SCAG forecasts as a benchmark when updating plans. While the

Proposed Project is expected to result in population and housing exceeding SCAG forecasts for the Project Area, it would not result in growth exceeding SCAG citywide projections for 2040. The City has discretion in how it allocates growth across the City to meet other objectives and has historically allocated more growth to the Project Area than SCAG, consistent with the City's General Plan Framework. Reasonably expected growth from the Proposed Project would not exceed the SCAG 2040 population or employment projections for the City as a whole. Therefore, the Proposed Project would not exceed the assumptions in the AQMP.

Further, as discussed in Section 4.12, *Population and Housing and Employment*, the Proposed Project would not induce significant population growth, although it would serve to accommodate predicted growth in appropriate locations near existing transportation infrastructure, as encouraged in the RTP/SCS (SCAG 2020). Because the Proposed Project would increase reasonably anticipated development in the CASP area in a way that would be consistent with citywide growth forecasts, it would not exceed the assumptions in the AQMP.

As discussed in section 4.7, *Greenhouse Gases*, and 4.10, *Land Use and Planning*, the Proposed Project would be consistent with applicable goals of the 2020-2045 RTP/SCS. Specifically, the Proposed Project would incentivize new development opportunities around existing transit systems; direct growth to transit hubs and corridors; encourage mixed-use development; and encourage a variety of mobility options, such as making streets walkable to promote pedestrian-friendly environments. These objectives are consistent with the 2020-2045 RTP/SCS and the AQMP, as well as the City's General Plan Framework Element and Air Quality Element. Thus, the Project's reasonably anticipated development would not exceed the 2020 RTP/SCS and AQMP growth projections; therefore, impacts related to conflicting with or obstructing implementation of the applicable air quality plans under the Proposed Project would be *less than significant*.

Mitigation Measures

No mitigation measures are required.

Significance After Mitigation

Less than Significant

Threshold 4.2-2	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard
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Impact 4.2-2 **Proposed Project:** Reasonably anticipated development from the Proposed Project would result in construction emissions of NO_x to potentially exceed SCAQMD regional significance threshold, and SCAQMD local significance thresholds for NO_x, PM₁₀, and PM_{2.5}. Furthermore, reasonable anticipated development from the Proposed Project would result in operational emissions of VOC, NO_x, CO, PM₁₀, and PM_{2.5} that exceed SCAQMD regional thresholds. These exceedances would constitute a considerable net increase of PM₁₀, PM_{2.5} and ozone precursor (NO_x and VOC) emissions in the SCAB. Proposed Project features and proposed mitigation measures would reduce impacts to the maximum extent feasible, but emissions would remain above thresholds. Therefore, Proposed Project impacts associated with construction emissions (NO_x, PM₁₀, and PM_{2.5}) and operational emissions (VOC, NO_x, CO, PM₁₀ and PM_{2.5}) would be *significant and unavoidable*.

Project Impact

Construction Emissions

Table 4.2-10 shows the estimated average daily construction emissions associated with the four sample construction activity scenarios described under *Methodology*. These scenarios are representative of construction activity intensities for residential and commercial development in the Project Area.

Results of the emissions modeling demonstrate that daily emissions of NO_x from heavy-duty diesel equipment and trucks during construction activities could exceed the SCAQMD regional thresholds under reasonably expected circumstances for projects that involve the use of eight pieces of equipment and 100 heavy truck trips per day or more.

TABLE 4.2-10 ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS						
Example Scenarios – Daily Activity¹	Pounds Per Day					
	VOC	NO_x	CO	SO_x	PM₁₀	PM_{2.5}
2 Heavy-Duty Equipment, 25 Truck Trips	2	28	21	<1	7	4
4 Heavy-Duty Equipment, 50 Truck Trips	5	55	42	<1	14	8
8 Heavy-Duty Equipment, 100 Truck Trips	10	110	83	<1	29	16
10 Heavy-Duty Equipment, 150 Truck Trips	12	142	105	<1	37	20
<i>Regional Significance Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Threshold Exceedance?	No	Yes	No	No	No	No

NOTE: VOC: volatile organic compound; NO_x: nitrogen oxides; CO: carbon monoxide; SO_x: sulfur oxides; PM₁₀: particulate matter measuring 10 microns in diameter or less; PM_{2.5}: particulate matter measuring 2.5 microns in diameter or less

¹Equipment exhaust was estimated using CalEEMod and 8 hours of operation per day. Truck emissions were estimated using CalEEMod and a trip length of 40 miles.

SOURCE: See Appendix E for modeling results and assumptions.

Although not reflected in **Table 4.2-10**, maximum daily VOC emissions may vary greatly depending on the area of coatings applied in a given day; and as such, even smaller projects may have potential to exceed SCAQMD regional thresholds. Health effects of VOCs may include eye, nose, throat irritation, headaches, loss of coordination, nausea, damage to liver, kidney, and central nervous system. The SCAQMD has also published Rules 1113 and 1186 that limit VOC content in architectural coating applications. VOC content limits for architectural coatings substantially reduces the likelihood that off-gassing emissions from

painting, finishing, and paving activities would exceed applicable SCAQMD air quality significance thresholds.

Based on all of the above, construction activity under the Proposed Project would be a potentially significant **impact** related to regional construction emissions.

Localized Construction Emissions

As discussed under Significance Thresholds, the SCAQMD has also developed specific LSTs to assess construction and operational air quality impacts associated with individual development projects. The LST values are specific to the SRA in which an individual project is located and based on proximity to the nearest sensitive receptor(s). A localized construction analysis would be speculative given the lack of a construction location and construction activities under the Proposed Project. However, it is reasonable to assume that some individual projects in the Project Area would involve construction activity adjacent to sensitive receptors (e.g., residences and schools).

As a conservative exercise, maximum daily emissions from on-site exhaust sources during construction activities were quantified and compared to LST values for individual construction projects in the Project Area. **Table 4.2-11** compares emissions from these hypothetical construction scenarios to the applicable LSTs. Under certain circumstances, unmitigated equipment emissions combined with fugitive dust emissions associated with the construction of future development occurring under the Proposed Project could potentially exceed the LSTs for NO_x, PM₁₀ and PM_{2.5}. Fugitive dust emissions would be reduced through compliance with SCAQMD Rule 403 for activities requiring earthwork and material movement, such as demolition, grading, and excavation.

TABLE 4.2-11 ESTIMATED MAXIMUM DAILY ON-SITE CONSTRUCTION EMISSIONS				
Example Scenarios – Daily Activity¹	Pounds Per Day²			
	NO_x	CO	PM₁₀	PM_{2.5}
2 Heavy-Duty Equipment	23	19	1	1
4 Heavy-Duty Equipment	46	37	2	2
8 Heavy-Duty Equipment	92	74	4	4
10 Heavy-Duty Equipment	116	93	5 ³	5
<i>SRA 1 Local Significance Threshold</i>	<i>41⁴</i>	<i>680</i>	<i>5</i>	<i>2⁵</i>
Threshold Exceedance?	Yes	No	Yes	Yes
<p>NOTE: VOC: volatile organic compound; NO_x: nitrogen oxides; CO: carbon monoxide; SO_x: sulfur oxides; PM₁₀: particulate matter measuring 10 microns in diameter or less; PM_{2.5}: particulate matter measuring 2.5 microns in diameter or less</p> <p>¹Equipment exhaust was estimated using CalEEMod and 8 hours of operation per day. Truck emissions were estimated using CalEEMod and a trip length of 40 miles. Some numbers may not add up precisely due to rounding considerations.</p> <p>²Emissions reported include on-site exhaust emissions only.</p> <p>³Emissions for PM₁₀ were 5.21 pounds per day but rounded down to 5 pounds per day.</p> <p>⁴The screening criteria for NO_x were developed based on the 1-hour NO₂ CAAQS of 0.18 ppm. Subsequently to publication of the SCAQMD's guidance the U.S. EPA has promulgated a 1-hour NO₂ NAAQS of 0.100 ppm. This is based on a 98th percentile value, which is more stringent than the CAAQS. Because SCAQMD's LSTs have not been updated to address this new standard, to determine if project emissions would result in an exceedance of the 1-hour NO₂ NAAQS, an approximated LST was estimated to evaluate the federal 1-hour NO₂ standard. The revised LST threshold is calculated by scaling the NO₂ LST for by the ratio of 1-hour NO₂ standards (federal/state) (i.e., NO_x lbs/day * (0.10/0.18) =new lbs/day).</p> <p>⁵The screening criteria for PM_{2.5} were developed based on an Annual CAAQS of 15 mg/m³. Subsequently to publication of the SCAQMD's guidance the annual standard was reduced to 12 mg/m³. Because SCAQMD's LSTs have not been updated to address this new standard, to determine if project emissions would result in an exceedance of the annual PM_{2.5} CAAQS, an approximated LST was estimated. The revised LST threshold is calculated by scaling the PM_{2.5} LST for by the ratio of 24-hour PM_{2.5} standards (federal/state) (i.e., PM_{2.5} lbs/day * (12/15) =new lbs/day).</p> <p>SOURCE: See Appendix E for modeling results and assumptions.</p>				

Based on the above, implementation of the Proposed Project could result in a *potentially significant impact* related to localized construction emissions of NO_x, PM₁₀, and PM_{2.5} due to equipment exhaust emissions.

Operational Emissions

Reasonably expected future development from the Proposed Project would generate long-term regional air pollutant emissions, which would result from mobile sources (motor vehicle exhaust) and area sources, such as consumer products and natural gas combustion. Emissions from motor vehicle exhaust were estimated using VMT data for existing conditions (2021), the future without project conditions, (2040 without the Proposed Project), and future with project conditions (2040 with the Proposed Project). Impact analysis is based on comparing existing conditions to future with project conditions. Future without project is provided for information and not for impact analysis. **Table 4.2.9** under *Methodology* shows the estimated regional daily VMT associated with all vehicle trips having origins or destinations in the Project Area for the aforementioned conditions. While total daily VMT would increase from existing conditions to 2040 with Proposed Project conditions, per service population VMT would decrease from 28.7 to 15.2 (see Section 4.15, *Transportation and Traffic*). The increase in VMT can be attributed to regional growth, as well as the increases in households and employment in the Project Area resulting from implementation of the Proposed Project, which are described in Section 4.12, *Population, Housing, and Employment*.

Operation of the Proposed Project would generate criteria air pollutant emissions associated with area sources (e.g., architectural coatings, consumer products, and landscaping equipment), energy sources (i.e., use of natural gas for space and water heating), and mobile sources (i.e., vehicle trips to and from the project site). The Proposed Project would increase residential, commercial, industrial, and public facilities land uses for the 2040 reasonably anticipated development.. Operational emissions were based on the reasonably anticipated development for the Proposed Project. As discussed above, the 2040 without Proposed Project was included for informational purposes and was not relied on for impact analysis or conclusions. **Table 4.2-12** presents existing and buildout year estimates of the residential units, commercial, industrial, and public facility square footages within the Project Area.

TABLE 4.2-12 PROJECT AREA LAND USE SUMMARY				
Scenario	Residential Units	Commercial Reasonably Anticipated Development (sf)	Industrial Reasonably Anticipated Development (sf)	Public Facility Reasonably Anticipated Development (sf)
2040 With Proposed Project	20,036	3,908,109	6,146,957	607,941
2040 Without Proposed Project	12,773	3,877,426	8,556,485	846,246
Existing Conditions	2,012	898,321	4,049,585	372,487
SOURCE: SCAG 2021. sf = square feet				

Mobile vehicle trip data and reasonably anticipated development estimates presented in **Table 4.2.9** and **Table 4.2-12**, respectively, were used to generate estimates of daily regional emissions. **Table 4.2-13** shows regional emissions under Existing Conditions, in 2040 without the Proposed Project, and in 2040 with the Proposed Project.

While emissions from mobile sources are generally expected to decrease over time as a result of statewide emissions reductions measures, the anticipated ambient growth in residential housing and commercial land use would result in increased use of consumer products and natural gas. As shown in **Table 4.2-13**, NO_x and CO would exceed the regional thresholds with reasonably anticipated development from the Proposed Project. The Proposed Project would increase area and energy source emissions when compared to existing

conditions. Area emissions would increase through the use of consumer products, which is the predominant contributor to operational VOC emissions. The use of consumer products varies by land use type and is typically analyzed on a project-specific scale. When compared to existing conditions, future development in the Project Area, as detailed in **Table 4.2-13**, could result in daily emissions of VOC that would exceed the SCAQMD regional significance thresholds due to heavily expanded use of consumer products. In addition, reasonably anticipated development from the Proposed Project could result in daily emissions of PM₁₀ and PM_{2.5} from area sources and mobile sources (brake and tire wear) that would exceed the SCAQMD regional significance thresholds. However, CARB continually applies increasingly stringent regulations on sources of ozone precursors and particulate matter statewide, and it is likely that the emissions presented in this document represent conservative estimates of emissions from reasonably anticipated development. Nevertheless, for purposes of this analysis, impacts related to regional operational emissions associated with the Proposed Project did not include any assumptions for increased stringent standards for non-mobile source emissions and the Proposed Project emissions for PM_{2.5}, PM₁₀, CO, NO_x and VOC are considered *potentially significant*.

TABLE 4.2-13 ESTIMATED OPERATIONAL EMISSIONS BY SOURCE						
Scenario	Daily Emissions (Pounds/Day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Existing Conditions						
Mobile Sources	166	156	1,444	3	89	17
Area Sources	223	33	357	<1	3	3
Energy Sources	2	30	23	<1	2	2
Total	391	219	1,824	3	94	22
2040 Without Project						
Mobile Sources	256	159	1,942	5	225	42
Area Sources	777	311	1,433	2	25	26
Energy Sources	5	88	61	1	7	7
2040 With Project						
Mobile Sources	313	191	2,300	6	263	49
Area Sources	892	314	1,734	2	125	26
Energy Sources	5	92	56	1	7	7
Total	1,210	597	4,090	9	395	82
Net Daily Emissions²						
Change from Existing Conditions	819	378	2,266	6	301	60
<i>SCAQMD Regional Significance Threshold</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Threshold Exceeded?	Yes	Yes	Yes	No	Yes	Yes
<small>1 Note the 2040 Without Proposed Project scenario is included for informational purposes, and not for impact analysis or conclusions. 2 Net emissions refer to the difference between Proposed Project and existing conditions; negative values expressed in parentheses. SOURCE: See Appendix E for model results.</small>						

Operational LST emissions were not quantified in this analysis since project-level data was not included for the Proposed Project. In addition, each individual project would vary in size and distance to sensitive receptors, which affects the applicable threshold each individual project would be tie to for on-site emissions. Therefore, it would be speculative to estimate localized on-site emissions for operational activity. Project-level developments for the Proposed Project under CEQA would implement and be evaluated against the operational LST thresholds.

Mitigation Measures

4.2-2 Construction Emissions Reduction

The City shall require all projects that involve construction-related activity to comply with the following and require the developers to notify any contractors, and include in any agreements with contractors and subcontractors, the following, or equivalent, best management practices in construction specifications:

AQ1-1: Dust Control Compliance with SCAQMD Rule 403

a. Applicability Threshold

Any Project whose construction activities involve the use of construction equipment and require a permit from City of Los Angeles Department of Building and Safety.

b. Standard

Consistent with SCAQMD Rule 403, best available dust control measures shall be implemented during Ground Disturbance Activities and active construction operations capable of generating dust.

AQ1-2: Equipment

a. Applicability Threshold

Any Project whose construction activities involve the use of construction equipment and require a permit from LADBS.

b. Standard

Maintain construction equipment in good, properly tuned operating condition, as specified by the manufacturer, to minimize exhaust emissions. Documentation demonstrating that the equipment has been maintained in accordance with the manufacturer's specifications shall be maintained per the proof of compliance requirements in Subsection I.D.6 of the Environmental Protection Measures Handbook.

All construction equipment shall achieve emissions reductions that are no less than what could be achieved by a Tier 3 diesel emissions control strategy for a similarly sized engine as defined by California Air Resources Board regulations.

AQ1-3: Vehicle Idling Limit and Notification Signs

a. Applicability Threshold

Any Project whose construction activities involve the use of construction vehicles and require a permit from LADBS.

b. Standard

Vehicle idling during construction activities shall be limited to five minutes as set forth in the California Code of Regulations, Title 13, Section 2449. Signs shall be posted in areas where they will be seen by vehicle operators stating idling time limits.

AQ1-4: Non-Diesel Fueled Electrical Power

a. Applicability Threshold

Any Project whose construction activities involve the use of construction equipment and require a permit from LADBS.

b. Standard

Electricity from power poles rather than temporary gasoline or diesel-powered generators shall be used To the Extent Available and Feasible.

AQ1-5: Emissions Standards for Off-Road Construction Equipment Greater than 50 Horsepower

a. Applicability Threshold

Any Project whose construction activities involve the use of construction equipment, require a permit from LADBS, and involve at least 5,000 cubic yards of on-site cut/fill on any given day.

b. Standard

All off-road diesel-powered construction equipment equal to or greater than 50 horsepower shall meet the U.S. Environmental Protection Agency's (USEPA) Tier 4 emission standards during construction, or use alternative fuels (such as compressed natural gas, liquid petroleum gas, unleaded gasoline, or electricity.). Operators shall maintain records of all off-road equipment associated with Project construction to document that each piece of equipment used meets these emission standards per the proof of compliance requirement in Subsection I.D.6.

In lieu of compliance with the above requirement, an air quality study prepared in accordance with the SCAQMD's Air Quality Handbook may be provided by the Applicant or Owner demonstrating that Project construction activities would not exceed the SCAQMD's regional and localized construction thresholds.

AQ1-6: Use of Low Polluting Fuels

a. Applicability Threshold

Any Project whose construction activities involve the use of construction equipment, require a permit from LADBS, and involve at least 5,000 cubic yards of on-site cut/fill on any given day.

b. Standard

Construction equipment less than 50 horsepower shall use low polluting fuels (i.e., compressed natural gas, liquid petroleum gas, unleaded gasoline, or electricity).

In lieu of compliance with the above requirement, an air quality study prepared in accordance with the SCAQMD's Air Quality Handbook may be provided by the Applicant or Owner demonstrating that Project construction activities would not exceed the SCAQMD's regional and localized construction thresholds.

AQ1-7: Emission Standards for On-Road Haul Trucks

a. Applicability Threshold

Any Project whose construction activities involve the use of construction equipment, require a permit from LADBS, and involve more than 90 round-trip haul truck trips on any given day for demolition debris and import/export of soil.

b. Standard

Construction haul truck operators for demolition debris and import/export of soil shall use trucks that meet the California Air Resources Board's (CARB) 2010 engine emissions standards at 0.01 g/bhp-hr of particulate matter (PM) and 0.20 g/bhp-hr of nitrogen oxides (NO_x) emissions. Operators shall maintain records of all trucks associated with Project construction to document that each truck used meets these emission standards per the proof of compliance requirements in Subsection I.D.6 of the Environmental Protection Measures Handbook.

In lieu of compliance with the above requirement, an air quality study prepared in accordance with the SCAQMD's Air Quality Handbook may be provided by the Applicant or Owner demonstrating that Project construction activities would not exceed the SCAQMD's regional and localized construction thresholds.

AQ1-8: Routes for On-Road Haul Trucks

a. Applicability Threshold

Any Project whose construction activities involve the use of construction vehicles and require a permit from LADBS.

b. Standard

Construction contractors shall reroute construction trucks away from congested streets or Sensitive Uses, as feasible. The burden of proving that compliance is infeasible shall be upon the Applicant or Owner. Where avoiding Sensitive Uses and congested streets altogether is infeasible, routing away from Sensitive Uses shall be prioritized over routing away from congested streets.

Significance After Mitigation

Construction Emissions

As indicated above, construction projects with more than eight heavy duty pieces of equipment on-site and operating 8 hours per day and over 100 daily truck trips would be expected to exceed SCAQMD regional threshold for NO_x and SCAQMD LSTs for NO_x, PM₁₀, and PM_{2.5}.

Mitigation Measure 4.2-2 would reduce regional and local emissions generated by various construction activities, including equipment operation, truck trips, and painting. For construction impacts, the use of Tier 4 equipment would result in a 50 to 90 percent reduction in NO_x and PM emissions from diesel-powered off-road construction equipment relative to Tier 3 engines, which are typically used as the industry standard. Requiring engines meeting Tier 4 emissions standards is becoming more common as the equipment is more widely available and would reduce emissions for some construction projects that would otherwise have significant impacts based on SCAQMD thresholds to a less than significant level. Los Angeles County Metropolitan Transportation Authority (LACMTA, or "LA Metro") already requires the use of Tier 4 engines in all their construction projects. However, on-road heavy-duty haul trucks are not regulated under the same off-road emissions standards and the City cannot feasibly require all construction-related on-road trucks operating within City limits to adhere to more stringent engine emissions standards.

Specific reduction in emissions below the SCAQMD significance thresholds cannot be demonstrated in the absence of specific project details to assess. It is reasonable to assume that construction activities for a development project in the Project Area could generate emissions that would exceed the significance thresholds despite Mitigation Measure 4.2-2. Therefore, the Proposed Project is considered to result in a ***significant and unavoidable*** regional and localized construction impact related to violating an air quality standard and/or contributing substantially to an existing or projected air quality violation.

Therefore, after mitigation, construction related emissions for NO_x, PM₁₀, and PM_{2.5} would remain ***significant and unavoidable***.

Operational Emissions

With respect to long-term operational impacts, the Proposed Project's focus on mixed use and transit-oriented development would generally minimize per capita emissions associated with vehicle trips, as described above. Adherence to the City's green building standards on all new development, as described in detail in Section 4.5, Energy, would minimize emissions associated with energy use. In addition, removing

fireplaces, utilizing low VOC coating, and implementing solar panels could reduce emissions associated with operational activity. Individual projects would comply with the latest iteration of Title 24, which would implement more efficient appliances from its predecessor version. Additional feasible mitigation beyond these Proposed Project features and citywide standards is not available.

No feasible mitigation measures are available to reduce long-term VOC, NO_x, CO, PM₁₀, and PM_{2.5} emissions associated with implementation of the Proposed Project to below SCAQMD thresholds. The VOC content of consumer products manufactured, distributed, sold, and used within the Project Area is regulated at the State level, and there is no jurisdictional authority to enforce consumer products VOC content within the Project Area. No feasible mitigation measures are available to reduce long-term VOC emissions associated with implementation of the Proposed Project to below SCAQMD thresholds. Impacts related to operational emissions under the Proposed Project would remain *significant and unavoidable*.

Associated Health Effects (Sierra Club v. County of Fresno)

The Court in *Sierra Club v. County of Fresno* held that projects with significant air quality impacts need to “relate the expected adverse air quality impacts to likely health consequences or explain why it is not feasible at the time of drafting to provide such an analysis, so that the public may make informed decisions regarding the costs and benefits of the project.” Based on the above analysis and conclusions, the Proposed Project is expected to result in significant unavoidable impacts from construction emissions for NO_x, PM_{2.5}, and PM₁₀, and from operational emissions for NO_x, VOC, CO, PM_{2.5} and PM₁₀.

There is no established pathway to accurately quantify ozone-related health impacts caused by NO_x or VOC emissions from relatively small projects. The SCAQMD does not explicitly define “relatively small project;” however, it is assumed that the Specific Plan would be considered a relatively small project in the scheme of the overall Basin. SCAQMD acknowledges that it may be feasible to analyze air quality related health impacts for projects on a regional scale with very high emissions of NO_x and VOCs, where impacts are regional. The example SCAQMD provided in its amicus brief in the *Sierra Club v. County of Fresno* decision was for proposed Rule 1315, which authorized various newly-permitted sources to use offsets from the District’s “internal bank” of emission reductions. The CEQA analysis accounted for essentially all of the increases in emissions due to new or modified sources in the District between 2010 and 2030, or approximately 6,620 pounds per day of NO_x and 89,947 pounds per day of VOC, to expected health outcomes from ozone and particulate matter (e.g., 20 premature deaths per year and 89,947 school absences in the year 2030 due to ozone). Accordingly, in this case it would not be feasible to directly correlate project emissions of VOC or NO_x with specific health impacts from ozone. Further, SCAQMD’s amicus brief notes that ozone formation is not linearly related to emissions. Therefore, ozone impacts vary depending on the location of the emissions, the location of other precursor emissions, meteorology, and seasonal impacts, and because ozone is formed later and downwind from the actual emission. Lead agencies that use SCAQMD’s thresholds of significance may determine that a project would have a significant air quality impact and must apply all feasible mitigation measures; however, it would not be able to precisely correlate the project to quantifiable health impacts, unless the emissions are sufficiently high to use a regional modeling program, which is not the case for the Project Area.

With respect to PM_{2.5}, although CARB has a methodology that can predict expected mortality for large amounts of PM_{2.5}, this methodology is not suited for small projects and may provide unreliable results due to a variety of uncertainties, such as the representativeness of the population used in the methodology, as well as the specific source of PM and the corresponding health impacts. The use of this methodology for small source could result in unreliable findings and would not provide meaningful information. As such, it is not appropriate for the Proposed Project.

While a number of models and tools are available to quantify emissions, these models are limited by a number of factors in determining health impacts of individual development and infrastructure projects as

well as local plan-level projects. The USEPA currently performs health impact assessments (HIAs) using the Community Multiscale Air Quality model for pollutant transport modeling and Environmental Benefits Mapping and Analysis Program - Community Edition (BENMAP-CE) for health impact calculations. However, these models are designed to estimate health impacts over a large scale (e.g., city-wide, state-wide). In addition, the CMAQ model requires inputs such as regional sources of pollutants and global meteorological data, which are not readily accessible. Other general limitations of the current suite of models include not being able to model concentrations or dispersion of pollutants, the unsuitability of regional models in providing accurate results for local-level plans or individual projects, and limitations on being able to correlate concentrations to related health effects.

As noted in the *Public Health Effects and Sierra Club v. County of Fresno* White Paper, “For local plans or projects that exceed any identified SCAQMD air quality threshold, City EIR documents are able to identify and disclose generalized health effects of certain air pollutants but are currently limited and are unable to establish an accurate connection between any local plan or project and a particular health effect. At this time, it is infeasible for City EIRs to directly link a plan or project’s significant air quality impacts with a specific health effect. A number of factors contribute to this uncertainty, including the regional scope of air quality monitoring and planning, technological limitations for accurate modeling at a local plan- or project-level, and the intrinsically complex nature between air pollutants and health effects in conjunction with local environmental variables.”

Threshold 4.2-3	Expose sensitive receptors to substantial pollutant concentrations.
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Impact 4.2-3 **Proposed Project:** Construction under the Proposed Project may expose sensitive receptors to substantial pollutant concentrations. Implementation of Mitigation Measure 4.2-2 and adherence to existing regulations would minimize exposure to substantial pollutant concentrations. Operational emissions would not expose sensitive receptors to substantial pollutant concentrations. This impact would be *less-than significant with mitigation* for construction and *less than significant* for operation.

Project Impact

Regarding health risks from existing emissions sources, the California Supreme Court ruling in *California Building Industry Association vs. Bay Area Air Quality Management District* (December 17, 2015) held that “agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project’s future users or residents. But when a proposed project’s risks exacerbate those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project’s impact on the environment – and not the environment’s impact on the project – that compels an evaluation of how future residents or users could be affected by exacerbated conditions.”

Construction

The greatest potential for exposure to substantial pollutant concentrations and TAC emissions during construction would be diesel particulate emissions associated with heavy duty equipment operations and truck traffic. Diesel exhaust causes health effects from both short-term or acute exposures, and long-term chronic exposures. The type and severity of health effects depends upon several factors including the amount of chemical exposure and the duration of exposure. Acute exposure to diesel exhaust may cause irritation to eyes, nose, throat and lungs, and some neurological effects, such as lightheadedness. Acute exposure may also elicit a cough or nausea as well as exacerbated asthma. Chronic exposure to diesel exhaust in experimental animal inhalation studies has shown a range of dose-dependent lung inflammation and cellular changes in the lung and immunological effects. Based upon human and laboratory studies,

there is considerable evidence that diesel exhaust is a carcinogen. Human epidemiological studies demonstrate an association between diesel exhaust exposure and increased lung cancer rates in occupational settings. As discussed under Impact 4.2-2, construction-related emissions of particulates (PM₁₀ and PM_{2.5}) generated primarily by diesel fuel combustion would potentially exceed SCAQMD thresholds.

The specific locations of future construction activity in the Project Area are not currently known. The construction health risk analysis here and under Impact 4.2-2 is speculative given the lack of a construction location and construction activities.

However, a review of several published EIRs for the largest development projects recently analyzed in the City did not show any significant impacts resulting from construction related to TACs. For example, none of the following recently reviewed projects had significant impacts from construction related TACs:

- Olympia Project: 1.84 million new square feet, occupying a whole city block, and 284,000 cubic yards of soil export (Los Angeles 2018a);
- 2134 Violet Street Project: 569,448 square feet, involving a whole City block, with 239,000 cubic yards of soil export (Los Angeles 2020a);
- Crossroads Project: 1.4 million square feet in Hollywood Plan Area, 647,753 cubic yards of soil export (Los Angeles 2017);
- Times Mirror: 1.5 million square feet on 3.6-acre city block, involving 37-story tower and a 53-story tower, and export of 364,000 cubic yards of soil (Los Angeles 2019); and
- 5th and Hill: 260,689 square feet on .38-acre site, involving 53-story building, with 25,092 cubic yards of soil export (Los Angeles 2018b).

The only City EIR that was identified that found a potential impact related to TACs under a conservative worst-case scenario was the 6220 Yucca Project, which involved demolition of an existing structure and construction of 210 multi-family residential units, 136 hotel rooms and approximately 12,570 square feet of commercial/restaurant uses on a 1.16-acre site, with export 120,000 cubic yards of soil. The EIR found that impacts would be less than significant with mitigation (Los Angeles 2020b). The mitigation is substantially similar to mitigation measure 4.2-2, as it relates to using Tier 4 equipment. Based on the above, it is not foreseeable that projects in the Project Area would have significant impacts related to TACs. The only project identified with potential significant impacts relied on a conservative measurement but found that application of standard mitigation reduced to less than significant. Any project that is as large as the 6220 Yucca Project would be subject to Site Plan review and would be required to undergo project level environmental review.

Notwithstanding the above, to be conservative, it is concluded that the Proposed Project could potentially result in substantial pollutant concentrations during construction activities. As a result, this impact would be ***potentially significant***.

Operation

Residential and commercial land uses are not considered land uses that generate substantial TAC emissions based on review of the air toxic sources listed in SCAQMD's and CARB's guidelines. It is expected that quantities of hazardous TACs generated on-site (e.g., cleaning solvents, paints, landscape pesticides, etc.) for the types of proposed residential and commercial land uses would be below thresholds warranting further study under the California Accidental Release Program. The industrial land use for the reasonably anticipated development would be light industrial facilities that do not generate substantial air toxics stated in SCAQMD and CARB's guidelines. However, the use of toxic compounds by an industrial facility would be strictly regulated through the SCAQMD permitting process, which requires detailed health risk

assessments, when applicable. In addition, the use of generators or emergency generators would be permitted through SCAQMD, which would not generate substantial air toxins. New industrial sources of emissions are subject to SCAQMD Rule 1401, New Source Review of Toxic Air Contaminants. This Rule specifies limits for maximum individual cancer risk, cancer burden, and noncancer acute and chronic hazard index from new permit units, relocations, or modifications to existing permit units that emit toxic air contaminants. Compliance with the SCAQMD permitting process and Regulation XIV would ensure that equipment associated with new industrial facilities would not generate TAC emissions exceeding the SCAQMD standards or adversely affect sensitive land uses. In addition, new discretionary development in the Project Area would be required to comply with PRC Section 21151.8, which requires assessment of hazardous pollutants within 0.25 miles of a new elementary or secondary school. This legal requirement within the PRC protects staff and students at new schools from significant health risks from exposure to TACs. Because the project would not include substantial TAC sources and is consistent with CARB and SCAQMD guidelines, it would not result in the exposure of off-site sensitive receptors to significant amounts of carcinogenic or toxic air contaminants. Impacts would be *less than significant*.

CO Hotspots

Another pollutant for which land development, and in particular increased traffic congestion, can potentially create impacts is CO. Elevated CO levels can occur at roadway intersections that experience high traffic volumes and high levels of engine idling. Historically, mobile source-related CO concentrations at high-volume (e.g., congested) intersections have been linked to health concerns according to USEPA and SCAQMD. According to the *2004 Revision to the California State Implementation Plan for Carbon Monoxide*, requirements for cleaner vehicles, equipment, and fuels have cut peak CO levels in half since 1980 despite growth (CARB 2004). However, with cleaner technologies, automobile emissions of CO have steadily declined over the years and in 2001, the SCAB met both the federal and state 8-hour CO standards at all monitoring stations for the first time. CO attainment was also demonstrated in the 2003 AQMP and the region has remained in attainment of CO standards ever since. The busiest intersection evaluated in 2003 was that at Wilshire Boulevard and Veteran Avenue (located outside the Project Area), which has a daily traffic volume of approximately 100,000 vehicles per day. The 2003 1-hour concentration for this intersection was 4.6 ppm, which indicates that the most stringent 1-hour CO standard (20.0 ppm) would likely not be exceeded until the daily traffic at the intersection exceeded more than 400,000 vehicles per day (Los Angeles 2016). With implementation of the Proposed Project, 155,383 daily vehicle trips are expected within the Project Area. There are no intersections in the Project Area that would experience daily trip volumes exceeding 400,000 vehicles per day (Fehr & Peer 2022). Furthermore, the Proposed Project has no potential to generate localized CO concentrations at intersections that exceed state CO standards. Impacts related to CO standards would therefore be *less than significant*.

Mitigation Measures

Proposed Project

Construction

Mitigation Measure 4.2-2.

Significance After Mitigation

Construction

Mitigation Measure 4.2-2 would reduce TAC emissions generated by construction activities, including equipment operation. For example, Tier 4 engines with horsepower ratings between 175 and 750 generate 90 percent less exhaust emissions, including diesel particulate matter, than Tier 2 or 3 engines (Los Angeles

2020b). Imposition of Mitigation Measure 4.2-2 would reduce impacts to *less than significant with mitigation*.

Operation

Less than significant without mitigation.

Threshold 4.2-4	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people
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Impact 4.2-4 **Proposed Project:** The Proposed Project’s reasonably anticipated development for residential and commercial uses are not typically associated with odor complaints in the Project Area. Any light industrial uses would be subject to development standards, including buffer and screening requirements, to ensure compatibility with surrounding uses, and therefore would not result in exposure to off-site sensitive receptors. The Proposed Project includes standards for new buildings that would insulate against odor issues. Therefore, this impact would be *less than significant*.

Project Impact

Construction Odors

Potential sources that could emit odors during construction activities include equipment exhaust and paving and painting activities. Such odors are localized, generally confined to the immediate area surrounding a construction site and transitory in nature. In addition, odors associated with construction activities are not those typically associated with odor complaints. Construction activities in the Project Area would utilize typical construction techniques, and the odors would be typical of most construction sites and temporary in duration. Construction activity would not cause a significant odor nuisance reasonably anticipated development for the Proposed Project would not result in any other emissions that could adversely affect a substantial number of people. Therefore, impacts related to construction odors under the Proposed Project would be *less than significant*.

Operational Odors

According to the SCAQMD *CEQA Air Quality Handbook*, land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding. Residential and commercial development are not included in this list. The light industrial uses are subject to development standards, including buffer and screening requirements, to ensure compatibility with surrounding uses; heavy industrial uses would not be permitted. The Proposed Project’s development would comply with Mitigation Measure Human Health Hazard in the CASP and City of LA Municipal Code Section 521.09, Noxious or Offensive Odors, code to prevent offensive odors from on-site activities to surrounding properties or the public. In addition, the Proposed Project would not generally promote the development of land uses inconsistent with those already existing in the CASP Area. On-site trash receptacles would have the potential to create adverse odors. Consistent with the Mayor’s Clean Streets LA Program, trash receptacles would be located and maintained in a manner that promotes odor control and would not result in substantially adverse odor impacts. Restaurant uses that may generate odors would be similar to existing uses within the Project Area and would be subject to the provisions of SCAQMD Rule 402 related to the prevention of public nuisance odors affecting a substantial number of people. Therefore, impacts related to operational odors under the Proposed Project would be *less than significant*.

Mitigation Measures

No significant impact related to odor has been identified; therefore, mitigation is not required for the Proposed Project.

CUMULATIVE IMPACTS

As discussed in subsection 4.2.2, *Environmental Setting*, the SCAB includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. Cumulative projects would include any reasonably anticipated development in the Basin for regional air quality impacts, as well as reasonably anticipated development in the Project Area for localized air quality impacts. Air pollutant emissions in the SCAB are primarily generated by stationary and mobile sources.

AQMP Consistency

discussed in *Regulatory Framework* the SCAQMD is responsible for developing programs to reduce emissions from stationary, mobile, and indirect sources to meet national and state AAQS. The most recent of these programs is the 2022 AQMP. The 2022 AQMP represents a thorough analysis of existing and potential regulatory control options, includes available, proven, and cost-effective strategies, and seeks to achieve multiple goals in partnership with other entities promoting reductions in GHG emissions and toxic risk, as well as efficiencies in energy use, transportation, and goods movement.

AQMP consistency is discussed under Impact 4.2-1. As discussed therein, the Proposed Project's reasonably anticipated growth would not conflict with the 2020-2045 RTP/SCS. The AQMP was prepared to accommodate growth, to reduce the high levels of pollutants within areas under the jurisdiction of the SCAQMD, and to minimize the impact on the economy. Consistency with the AQMP is assessed by determining how a project accommodates increases in population or employment. The population and employment assumptions used by the SCAQMD to estimate regional emissions in the AQMP are obtained from SCAG projections for cities and unincorporated areas in the SCAQMD's jurisdiction. The Proposed Project would facilitate population growth not exceeding the SCAG population forecasts for the City as a whole. Therefore, implementation of the Proposed Project **would not conflict with the AQMP and would not contribute to a cumulatively considerable impact.**

Air Quality Standards

In order to assess cumulative impacts of emissions, the SCAQMD recommends that projects be evaluated to determine whether they would be consistent with AQMP performance standards and project-specific emissions thresholds. In the case of the Proposed Project, air pollutant emissions would be considered to be cumulatively considerable if the new sources of emissions exceed SCAQMD project-specific emissions thresholds. The cumulative context for consideration of most air quality impacts is the SCAB. The context for localized significance thresholds is within 1,500 feet of the project site per SCAQMD LST guidance, as health risks generally decrease by about 90 percent at 1,500 feet from the emission source (SCAQMD 2017).

As discussed under Impact 4.2-2, construction activities could result in significant impacts related to regional and localized emissions, along with TAC concentrations. Because construction activities are of limited duration and in a limited area, it is unlikely that construction currently underway would overlap with reasonably expected construction from the Proposed Project. However, without a specific construction schedule, timing and emission levels cannot be accurately estimated. Therefore, reasonably expected construction from the Proposed Project has the potential to be cumulatively considerable. Implementation of Mitigation Measure 4.2-2 would reduce regional and local emissions generated by various construction activities, including equipment operation, truck trips, and painting. However, it is possible that construction

activities associated with individual development projects citywide could generate emissions that would exceed the significance thresholds despite incorporation of Mitigation Measure 4.2-2. Because the SCAQMD indicates that projects that have significant impacts at a project level must also be determined to be significant at a cumulative level, this would result in a significant and unavoidable cumulative impact related to regional emissions of NO_x and localized emissions of NO_x, PM₁₀, and PM_{2.5}, along with TAC concentrations. In addition, operational emissions of VOCs, NO_x, CO, PM₁₀, and PM_{2.5} would potentially exceed SCAQMD thresholds and substantially contribute to cumulative long-term air quality impacts. Thus, the incremental effect of the Proposed Project related to construction activity and operation would be cumulatively considerable and cumulative impacts would be *significant and unavoidable*.

Operational Toxic Air Contaminants and CO Hotspots

As indicated under Impact 4.2-3, the Proposed Project would not result in localized CO concentrations that exceed SCAQMD CO significance thresholds. In addition, residential, commercial, and light industrial land uses are not considered land uses that generate substantial TAC emissions based on review of the air toxic sources listed in SCAQMD's and CARB's guidelines. Therefore, operational impacts on TAC and CO would be *less than significant*.

Odor

The Proposed Project's reasonably anticipated development for residential and commercial land uses are not typically associated with odor complaints. Any light industrial uses would be subject to development standards, including buffer and screening requirements, to ensure compatibility with surrounding uses. Heavy industrial uses are not permitted under the Proposed Project. While construction activity can emit odors, construction activity has not been identified as a source of odor complaints. Accordingly, future development occurring under the Proposed Project would not cause a construction-related odor nuisance. On-site trash receptacles would have the potential to create adverse odors. Consistent with the Mayors Clean Streets LA Program, trash receptacles would be located and maintained in a manner that promotes odor control. Cumulative impacts from Proposed Project related to odors is *less than significant*.

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4.3 BIOLOGICAL RESOURCES

This section assesses potential impacts to biological resources. Topics addressed in this section include habitats and sensitive species; Significant Ecological Areas (SEAs); wetlands, streams, rivers, and riparian habitat; wildlife movement; Habitat Conservation Plans (HCPs); and other applicable plans, policies, and ordinances related to biological resources.

ENVIRONMENTAL SETTING

The City of Los Angeles (City) encompasses approximately 478 square miles and is surrounded by the San Gabriel Mountains to the north, the Santa Susana Mountains, Santa Monica Mountains, and Pacific Ocean to the west, the Pacific Ocean to the south, and the Verdugo Mountains, San Rafael Hills, and San Gabriel Valley to the east. Approximately 214 of 478 square miles in the City encompass hills and mountains that provide habitat for wildlife. Generally, open space is located in the northern portion of the City and the central and southern portions are highly urbanized. The City is also bisected by the channelized Los Angeles River (River).

The Cornfield Arroyo Seco Plan (CASP or “Project Area”) is approximately 600 acres (0.93 square miles) and is predominantly developed, with transportation infrastructure being a central feature of the Project Area. Interstate 5 (I-5) and State Route-110 (SR-110) bisect the northern portion of the Project Area. Entrances and exits to and from SR-110 are located on the northern perimeter of the Project Area. Entrances and exits to I-5 are located at North Broadway/Pasadena Avenue and at Avenue 26 across from Lacy Street. Other major arterials located in the Project Area include Figueroa Street in the northern portion, San Fernando Road in the central portion, and Spring Street in the southern portion. The Project Area is fully urbanized, and generally lacks native biological habitat. The Los Angeles River and Arroyo Seco, as well as small portions of parks and open space, trees, and minor urban landscaping, are the only sources of biological habitat in and around the Project Area.

SENSITIVE SPECIES AND HABITATS

Sensitive Natural Communities are plant communities listed with a high State rarity or threat ranking by the California Department of Fish and Wildlife (CDFW). Special-status species are sufficiently rare plant or animal species that are designated as endangered, threatened, candidate, or as some other special status, by federal, state, or local agencies, or by one or more collaborating conservation organizations, such as The California Native Plant Society (CNPS) and require special consideration or protection as a result. CDFW’s special-status species lists and the California Natural Diversity Database (CNDDDB) were consulted to determine whether any sensitive species could occur in the Project Area. CDFW’s Special Vascular Plants, Bryophytes, and Lichens List and Special Animals List are compilations of special-status plant and animal species, their designation, as well as any special considerations (e.g., only nesting individuals or specific populations protected) that are updated at least yearly. CNDDDB is a computerized inventory of status and locations of rare plants, animals, and communities that CDFW and/or the U.S. Fish and Wildlife Service (USFWS) have identified as rare, threatened, or endangered, or otherwise considered species of special concern in California.

Table 4.3-1 details special-status animal species and plant species listed on the CNDDDB that have been identified in the Project Area.

Table 4.3-1 lists ten special-status animals that have historical records in the CNDDDB from the Project Area, the oldest of which dates back as far as 130 years. Of those, two species have the Federal and State-listed status of endangered: least Bell’s vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*). The most recent records for least Bell’s vireo and southwestern willow flycatcher in the Project Area occurred in 1894 and 1897, respectively. Both species are presumed to be extirpated from the Project Area (i.e., no longer in existence in the area). The bank swallow (*Riparia riparia*) is listed as state-threatened. The bank swallow was last observed in the Project Area in 1894 and is listed as extirpated in the Project Area. None of the other species are federal- or state-listed. There are six animal Species of Special Concern: the western mastiff bat (*Eumops perotis californicus*), burrowing owl (*Athene cunicularia*), big free-tailed bat (*Nyctinomops macrotis*), western spadefoot (*Spea hammondi*), Southern California legless lizard (*Anniella stebbinsi*), and American badger (*Taxidea taxus*). Hoary bat (*Lasiurus cinereus*) has no federal or state listing but is included with these species because of its inclusion in the CNDDDB. No special-status animal species have been sighted in the Project Area in the last 38 years.

Table 4.3-1 lists three plant species with historical occurrences in the Project Area, the oldest of which dates back 120 years. The plant species are listed as rare, threatened, or endangered by the CNPS, and have varying degrees of threatened severity in the state of California. Greata’s aster (*Symphoyotrichum greatae*) is not very threatened, prostrate vernal pool navarretia (*Navarretia prostrata*) is seriously threatened, and Salt Spring checkerbloom (*Sidalcea neomexicana*) is moderately threatened. All three plant species are listed as possibly extirpated and none have been documented from the Project Area in the last 91 years.

TABLE 4.3-1 SPECIAL-STATUS PLANT AND ANIMAL SPECIES OCCURRING IN THE PROJECT AREA						
Scientific Name	Common Name	Habitat	Federal Status ¹	State Status ²	CDFW ³	Rare Plant Rank ⁴
Plants						
<i>Symphoyotrichum greatae</i>	Greata’s aster	Chaparral, cismontane woodland, broadleaved upland forest, lower montane coniferous forest, riparian woodland. Mesic canyons. 335-2015 m.	None	None	n/a	1B.3
<i>Navarretia prostrata</i>	prostrate vernal pool navarretia	Coastal scrub, valley and foothill grassland, vernal pools, meadows and seeps. Alkaline soils in grassland, or in vernal pools. Mesic, alkaline sites. 3-1235 m.	None	None	n/a	1B.1
<i>Sidalcea neomexicana</i>	Salt Spring checkerbloom	Playas, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub. Alkali springs and marshes. 0-1530 m.	None	None	n/a	2B.2
Animals						
<i>Anniella stebbinsi</i>	Southern California legless lizard	Generally south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County.	None	None	SSC	n/a

TABLE 4.3-1 SPECIAL-STATUS PLANT AND ANIMAL SPECIES OCCURRING IN THE PROJECT AREA

Scientific Name	Common Name	Habitat	Federal Status ¹	State Status ²	CDFW ³	Rare Plant Rank ⁴
<i>Spea hammondi</i>	western spadefoot	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands.	None	None	SSC	n/a
<i>Riparia riparia</i>	bank swallow	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	None	Threatened	None	n/a
<i>Athene cunicularia</i>	burrowing owl	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	None	None	SSC	n/a
<i>Vireo bellii pusillus</i>	least Bell's vireo	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Endangered	Endangered	None	n/a
<i>Empidonax traillii extimus</i>	southwestern willow flycatcher	Riparian woodlands in Southern California.	Endangered	Endangered	None	n/a
<i>Taxidea taxus</i>	American badger	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	None	None	SSC	n/a
<i>Nyctinomops macrotis</i>	big free-tailed bat	Low-lying arid areas in Southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	None	None	SSC	n/a
<i>Lasiurus cinereus</i>	hoary bat	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	None	None	None	n/a

TABLE 4.3-1 SPECIAL-STATUS PLANT AND ANIMAL SPECIES OCCURRING IN THE PROJECT AREA

Scientific Name	Common Name	Habitat	Federal Status ¹	State Status ²	CDFW ³	Rare Plant Rank ⁴
<i>Eumops perotis californicus</i>	western mastiff bat	Many open, semi-arid to arid, habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	None	None	SSC	n/a
<p>NOTES</p> <p>¹ United States legal status under the Federal Endangered Species Act.</p> <p>² State of California legal status.</p> <p>³ California Department of Fish and Wildlife designation and applies to animals only. SSC = species of special concern.</p> <p>⁴ California Native Plant Society rare plant rank status applies to plants only. 1B.1 = rare, threatened or endangered in California and elsewhere; seriously threatened in California. 1B.2 = rare, threatened or endangered in California and elsewhere; fairly threatened in California. 1B.3 = rare, threatened or endangered in California and elsewhere; not very threatened in California. 2B.2 = rare, threatened or endangered in California but more common elsewhere; moderately threatened in California.</p> <p>n/a is not applicable</p> <p>SOURCE: California Department of Fish and Wildlife, California Natural Diversity Database (CNDDDB), https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data, September 2017.</p>						

Habitat types in the Project Area include urban developments, landscaped parks and other open spaces, and the Los Angeles River. No HCPs or Natural Community Conservation Plans (NCCPs) occur within the Project Area.

SIGNIFICANT ECOLOGICAL AREAS

Significant Ecological Areas (SEAs) are officially designated areas within Los Angeles County with irreplaceable biological resources. They are ecologically important land and water systems that support valuable habitat for plants and animals, and are often integral to the preservation of rare, threatened, or endangered species and the conservation of biological diversity.

There are no designated SEAs in the Project Area. The closest SEAs are Griffith Park to the northwest of the Project Area and the Puente Hills SEA to the east of the Project Area. Both of these SEAs occur more than 5 miles from the Project Area.

WETLANDS, STREAMS, AND RIPARIAN HABITATS

Wetlands are transitional lands between water and land systems where the water table is usually at or near the surface or the land is covered by shallow water, e.g., marshes and bogs. Riparian areas are those plant communities adjacent to and affected by surface or ground water of perennial or ephemeral water bodies such as rivers, streams, lakes, ponds, or other drainages. Wetlands and riparian vegetation provide a range of functions, such as water quality maintenance, flood control, bank stabilization, groundwater replenishment, and food, cover, and water for a diversity of wildlife species. Riparian vegetation and wetlands may also serve as stopover points for migrating birds. During the 20th century an estimated 95 percent of the wetlands along the Los Angeles coast disappeared, largely due to water being diverted by flood control and drainage systems, development of wetlands, encroachment, water contamination, and other impacts associated with urbanization.

A wetland is an area of land that is either inundated or saturated with surface or groundwater during a sufficient enough time period to support vegetation adapted for life in saturated soil conditions. Riparian areas are those plant communities adjacent to and dependent upon surface or groundwater, usually adjacent to rivers, streams, lakes, ponds, or other drainages. Wetlands and riparian vegetation provide many valuable functions, such as water quality maintenance, flood control, bank stabilization, groundwater replenishment, and food, cover, and water sources for a diversity of wildlife, for both residents and migratory species.

According to the USFWS National Wetlands Inventory, the only wetland areas in the Project Area are the Los Angeles River and Arroyo Seco. The portions of the Los Angeles River and Arroyo Seco in the Project Area are classified as Low Perennial Riverine with stretches of the River and Arroyo Seco containing artificial substrate (i.e., concrete) bottom that does not support riparian vegetation. Other portions of the River within the Project Area have an unconsolidated bottom that contains 25 percent cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30 percent. The portions of the Los Angeles River and Arroyo Seco within the Project Area have potential to support limited riparian vegetation.

WILDLIFE CORRIDORS

Wildlife corridors are land segments that connect two or more large habitat areas and provide a habitat for movement of animals between those areas. They encourage protection and health of animal populations by enabling access to food, cover and water resources, and broader animal interchange for healthy species propagation and exchange of genetic material. Corridors can consist of several discontinuous areas such as wetlands, roadside vegetation, or small open spaces that act as stepping-stones across a larger uninhabitable landscape. However, they are often linear in nature such as riparian corridors, ridgelines, or powerline rights-of-way. Loss of corridors especially impacts large carnivores that need extensive territory for survival. As freeways and other barriers block corridors and as habitats shrink, large animals are forced from the city or are unable to survive.

The Project Area is entirely urbanized, and no Essential Connectivity Areas or Natural Landscape Blocks identified in the California Essential Habitat Connectivity Project (Spencer et al. 2010) are present in the Project Area. However, the Project Area does contain Natural Areas Smaller than 2,000 acres and the Los Angeles River is a Potential Riparian Connection that runs through the Project Area and could facilitate wildlife movement. Coyotes are known to use the Los Angeles River and may use it as a connector both to urban areas that supply food (i.e., trash and small pets) and shelter, as well as to more natural areas such as Elysian Park and Griffith Park.

HERITAGE TREES AND ORDINANCE-PROTECTED TREES AND SHRUBS

Heritage trees are individual trees of any size or species that are specially designated by the Los Angeles Department of Recreation and Parks (DRP) as “heritage” because of their historical, commemorative, or horticultural significance. Nominations are generally made by DRP staff members or community members. The City of Los Angeles online GIS mapper, NavigateLA, provides an inventory of all heritage trees on City park and recreation center properties.

As discussed below under *Regulatory Framework*, native Oak, Western or California Sycamore, California Bay, Southern California Black Walnut, toyon, and Mexican elderberry are protected by City Ordinance. Removal of these species requires a permit and replacement of lost trees or shrubs.

Per the NavigateLA mapper discussed above, ten heritage trees have been identified in the Project Area. All ten trees are located around the Downey Playground and Recreation Center and include six Canary Island date palms (*Phoenix canariensis*), two lavender trumpet trees (*Tabebuia avellanadae*), one camphor

tree (*Cinnamomum camphora*), and one California fan palm (*Washingtonia filifera*) (**Figure 4.3-1**). Additional protected trees could also be present on individual public and private properties throughout the Project Area.

REGULATORY FRAMEWORK

There are several plans, regulations, and programs that include policies, requirements, and guidelines regarding Biological Resources at the federal, state, and local levels. As described below, these plans, guidelines, and laws include the following:

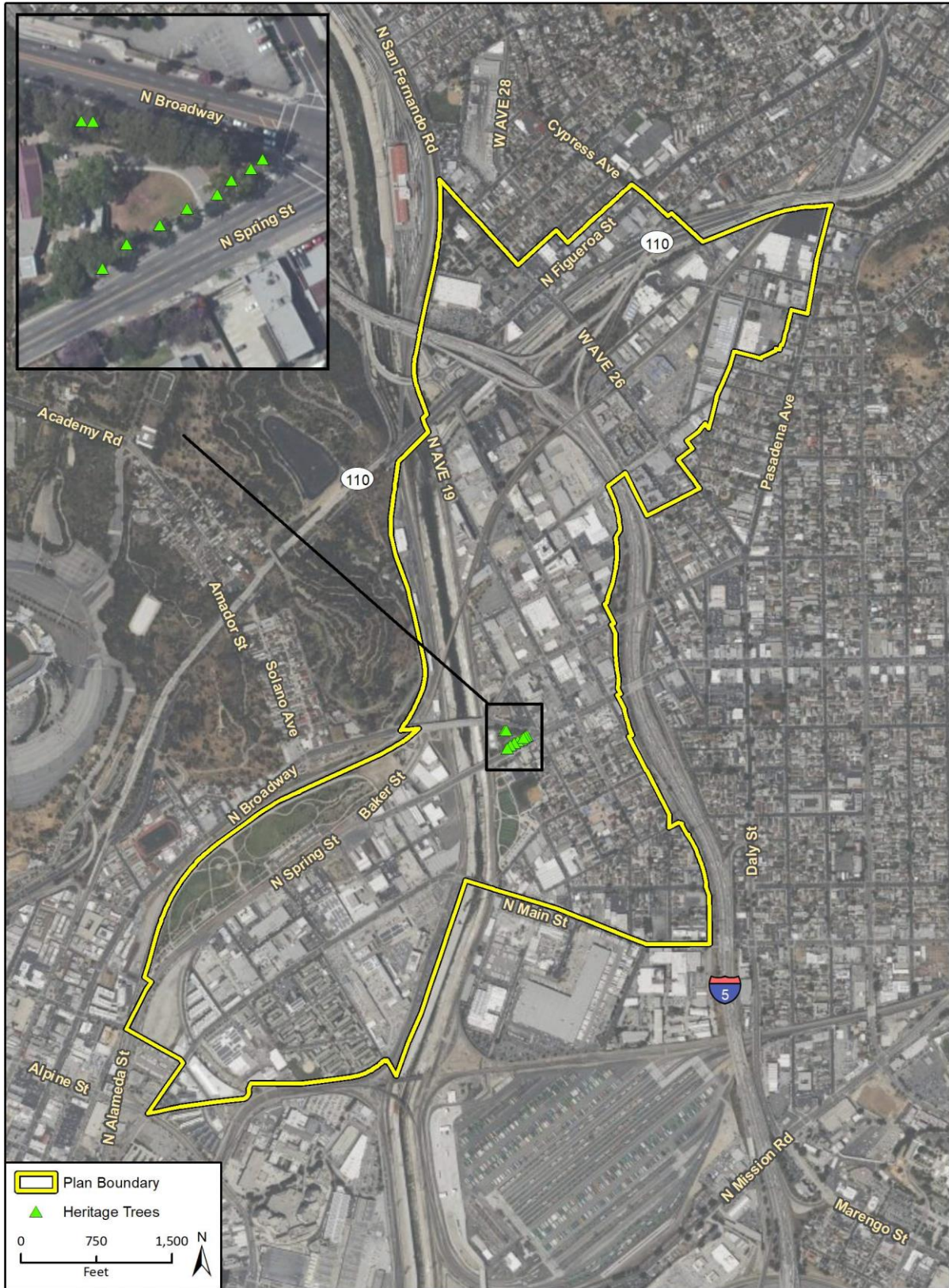
- Federal Endangered Species Act
- Migratory Bird Treaty Act
- California Endangered Species Act
- California Migratory Bird Protection Act
- California Native Plant Protection Act
- Porter-Cologne Water Quality Control Act
- California Fish and Wildlife Code - Fully Protected Species and Species of Special Concern
- Fish and Wildlife Code Sections 3503 and 3513
- City of Los Angeles Municipal Code – Protected Trees and Shrubs
- City of Los Angeles Framework Element
- City of Los Angeles Conservation Element
- Los Angeles River Revitalization Master Plan
- River Implementation Overlay
- City of Los Angeles Stormwater Pollution Control Measures for Development Planning and Construction Activities Ordinance
- City of Los Angeles General Plan Open Space Element
- Heritage Trees

FEDERAL

National Environmental Policy Act

The National Environmental Policy Act (NEPA) was signed into law on January 1, 1970, and was one of the first laws written that established the broad national framework for protecting our environment. NEPA's basic policy is to assure that all branches of the federal government give proper consideration to the environment prior to undertaking any major federal action that significantly affects the environment. NEPA requirements are invoked when airports, buildings, military complexes, highways, parkland purchases, and other federal activities are proposed, including activities by state or local governments

Figure 4.3-1 Heritage Trees



using federal monies. Environmental Assessments (EAs) and Environmental Impact Statements (EISs), which are assessments of the likelihood of impacts from alternative courses of action, are required from all Federal agencies and are the most visible NEPA requirements.¹

NEPA requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions. Regulations are codified annually in the *U.S. Code of Federal Regulations* (CFR). Title 40: Protection of Environment is the section of the CFR that deals with EPA's mission of protecting human health and the environment.² Title I of NEPA contains a Declaration of National Environmental Policy. This policy requires the federal government to use all practicable means to create and maintain conditions under which man and nature can exist in productive harmony.

Section 102 in Title I of the Act requires federal agencies to incorporate environmental considerations in their planning and decision-making through a systematic interdisciplinary approach. Specifically, all federal agencies are to prepare detailed statements assessing the environmental impact of and alternatives to major federal actions significantly affecting the environment. These statements are commonly referred to as Environmental Impact Statements (EIS) and Environmental Assessments (EA). The role of a federal agency in the NEPA process depends on the agency's expertise and relationship to the proposed action. The agency carrying out the federal action is responsible for complying with the requirements of NEPA. In some cases, there may be more than one federal agency involved in the proposed action. In this situation, a lead agency is designated to supervise the preparation of the environmental analysis. Federal agencies, together with state, tribal or local agencies, may act as joint lead agencies.³

Clean Water Act Section 404 and 401

Pursuant to Section 404 of the Clean Water Act, the Army Corps of Engineers (ACOE) and the United States Environmental Protection Agency (EPA) regulate the discharge of dredged and/or fill material into “waters of the United States” Navigable waters means waters of the United States, including the territorial seas. Waters of the United States means: (1) Jurisdictional waters. For purposes of the Clean Water Act, 33 U.S.C. 1251 et seq. and its implementing regulations, subject to the exclusions in paragraph (2) of this section, the term “waters of the United States” means: (i) The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide; (ii) Tributaries; (iii) Lakes and ponds, and impoundments of jurisdictional waters; and (iv) Adjacent wetlands.⁴ The term “wetlands” (a subset of waters of the United States) is defined in 33 Code of Federal Regulations (CFR) 328.3(b) as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”

Section 401 of the Clean Water Act requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification that the discharge will comply with applicable effluent limitations and water quality standards. The certification must be obtained from the state in which the discharge originates or would originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the affected waters at the point where the discharge originates or would originate. A certification obtained for the construction

¹ U.S. Environmental Protection Agency, *Summary of the National Environmental Policy Act*, 2021. Available online at: <https://www.epa.gov/laws-regulations/summary-national-environmental-policy-act>, accessed on May 17, 2022.

² U.S. Environmental Protection Agency, *Laws and Regulations*, 2022. Available online at: <https://www.epa.gov/laws-regulations/regulations>, accessed on May 17, 2022.

³ U.S. Environmental Protection Agency, *What is the National Environmental Policy Act?*, 2021. Available online at: <https://www.epa.gov/nepa/what-national-environmental-policy-act>, accessed on May 17, 2022.

⁴ *Federal Register*, Volume 85, Number 77, 2020. Available online at: https://www.epa.gov/sites/production/files/2020-01/documents/navigable_waters_protection_rule_prepublication.pdf, accessed on May 10, 2022.

of any facility must also pertain to the subsequent operation of the facility. Responsibility for the protection of water quality in California rests with the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs). The agency with jurisdiction over projects in the City of Los Angeles is the Los Angeles Regional Water Quality Control Board.

U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers (USACE) has primary federal responsibility for administering regulations that concern waters and wetlands in the Project area. In this regard, USACE acts under two statutory authorities, the Rivers and Harbors Act (33 U.S.C., Sections 9 and 10), which governs specified activities in navigable waters, and the Clean Water Act (Section 404), which governs specified activities in waters of the United States, including wetlands and special aquatic sites. Wetlands and non-wetland waters (e.g., rivers, streams, and natural ponds) are a subset of waters of the United States and receive protection under Section 404 of the Clean Water Act. USACE has primary federal responsibility for administering regulations that concern waters and wetlands in the project area under statutory authority of the Clean Water Act (Section 404). In addition, the regulations and policies of various federal agencies mandate that the filling of wetlands be avoided to the maximum extent feasible. USACE requires obtaining a permit if a project proposes placing structures within navigable waters and/or alteration of waters of the United States.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) requires that federal agencies consult with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service and State wildlife agencies for activities that affect, control, or modify waters of any stream or bodies of water, in order to minimize the adverse impacts of such actions on fish and wildlife resources and habitat. This consultation is generally incorporated into the process of complying with Section 404 of the Clean Water Act, NEPA or other federal permit, license, or review requirements.

Marine Mammal Protection Act

The Marine Mammal Protection Act of 1972, and as amended, establishes federal responsibility for the protection and conservation of marine mammal species by prohibiting the harassment, hunting, capture, or killing of any marine mammal. The primary authority for implementing the act belongs to the United States Fish and Wildlife Service and National Marine Fisheries Service.⁵

Federal Noxious Weed Act

Federal Noxious Weed Act - Public Law 93-629 (7 U.S.C. 2801 et seq.; 88 Stat. 2148), enacted January 3, 1975, established a Federal program to control the spread of noxious weeds. The Secretary of Agriculture was given the authority to designate plants as noxious weeds by regulation, and the movement of all such weeds in interstate or foreign commerce was prohibited except under permit. The Secretary was also given authority to inspect, seize and destroy products, and to quarantine areas if necessary to prevent the spread of such weeds. The Secretary was also authorized to cooperate with other Federal, State and local agencies, farmers associations and private individuals in measures to control, eradicate, or prevent or retard the spread of such weeds.⁶

⁵ U.S. Fish & Wildlife Service, *Marine Mammal Protection Act*, 16 U.S.C. 1361-1407. Available online at: <https://www.fws.gov/international/laws-treaties-agreements/us-conservation-laws/marine-mammal-protection-act.html>, accessed on May 10, 2022.

⁶ U.S. Fish & Wildlife Service, *Federal Noxious Weed Act*, P.L. 93-629. Available online at: <https://fws.gov/law/federal-noxious-weed-act>, accessed on May 17, 2022.

Federal Endangered Species Act

The federal Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.), provides the regulatory framework for the protection of plant and animal species (and their associated critical habitats), which are formally listed, proposed for listing, or candidates for listing as endangered or threatened under the ESA. The ESA has four major components: (1) provisions for listing species; (2) requirements for consultation with the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service; (3) prohibitions against “taking” of listed species; and (4) provisions for permits that allow an incidental “take.”⁷

The USFWS implements the ESA through a program that identifies and provides for protection of various species of fish, wildlife, and plants deemed to be in danger of or threatened with extinction. As part of this regulatory act, ESA provides for designation of critical habitat, defined in ESA Section 3(5)(A) as specific areas within the geographical range occupied by a species where physical or biological features “essential to the conservation of the species” are found and that “may require special management considerations or protection.” Critical habitat may also include areas outside the current geographical area occupied by the species that are nonetheless “essential for the conservation of the species.” The ESA also requires preparation of recovery plans for listed species.

Section 7 of the ESA requires federal agencies to aid in the conservation of listed species, and to ensure that the activities of federal agencies will not jeopardize the continued existence of listed species or adversely modify designated critical habitat. During the CEQA review process, the USFWS and the National Marine Fisheries Service are each given the opportunity to comment on the potential of a project to impact listed plants and animals to ensure adequate protection of listed species that may be affected by the project.

Migratory Bird Treaty Act

All migratory bird species that are native to the United States or its territories are protected under the federal Migratory Bird Treaty Act (MBTA). The MBTA prohibits any person unless permitted by regulations, to “pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention...for the protection of migratory birds...or any part, nest, or egg of any such bird” (16 U.S. Code 703). The list of migratory birds protected by the MBTA includes nearly all bird species native to the United States. The statute was extended in 1974 to include parts of birds, as well as eggs and nests. Thus, it is illegal under the MBTA to take (including killing, capturing, selling, trading, and transport) protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service.⁸ Activities that result in removal or destruction of an active nest (a nest with eggs or young being attended by one or more adults) would violate the MBTA. While destruction of a nest by itself is not prohibited under the MBTA, nest destruction that results in the unpermitted take of migratory birds or their eggs, is illegal and fully prosecutable under the MBTA.

⁷ The California Endangered Species Act defined the term “take” as follows: “to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill, Fish & Game Code, §86.” California Department of Fish & Wildlife, *Threatened and Endangered Species*, available online at: <https://wildlife.ca.gov/Conservation/CESA>, accessed on May 17, 2022. Federal Endangered Species Act defines a “take” as follows: “Harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” 16 U.S.C., §1532 (19). U.S. Fish & Wildlife Service, *Endangered Species Act*, 16 U.S.C. 1531-1544. Available online at: <https://www.fws.gov/law/endangered-species-act>, accessed on May 17, 2022.

⁸ U.S. Fish & Wildlife Service, *Migratory Bird Treaty Act of 1918*. Available online at: <https://www.fws.gov/birds/policies-and-regulations/laws-legislations/migratory-bird-treaty-act.php>, accessed on May 17, 2022.

With respect to nesting birds, although the MBTA does not itself provide specific take avoidance measures, the United States Fish and Wildlife Service and California Department of Fish and Wildlife, over time, have developed a set of measures sufficient to demonstrate take avoidance, included during construction activities, which include conducting brush removal, tree trimming, building demolition and/or construction, or grading activities outside of the nesting season. California Department of Fish and Wildlife biologists have defined the nesting season as February 15 through August 31 (January 15 to August 31 for raptors). If other timing restrictions make it impossible to avoid the nesting season, prior to issuance of a grading, construction or building permit including demolition permit, the following measures are required as described below:

- Vegetation removal activities shall be scheduled outside the nesting season (September 1 to February 14 for songbirds; September 1 to January 14 for raptors) to avoid potential impacts to nesting birds. This includes vegetation removal associated with on-going fuel modification activities.
- Any construction activities or fuel modification activities that occur during the nesting season (February 15 to August 31 for songbirds; January 15 to August 31 for raptors) shall require that all suitable habitats be thoroughly surveyed for the presence or absence of nesting birds by a qualified biologist monitor (i.e., a professional biologist with a minimum of two years of avian survey experience or equivalent) before the commencement of clearing. If any active nests are detected, a buffer of at least 300 feet (500 feet for raptors), or as determined appropriate by the qualified biologist monitor, shall be delineated, flagged, and avoided until the nesting cycle is complete as determined by the qualified biologist monitor.

STATE

California Department of Fish and Wildlife

Stream and Riparian Habitat

Pursuant to California Fish and Game Code Section 1600, CDFW has authority over all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state, and requires any person, state or local governmental agency, or public utility to notify the CDFW before beginning any activity that would “substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake” that supports fish or wildlife resources.

A stream is defined as a “body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (California Code of Regulations, Title 14 §1.72). A Lake or Streambed Alteration Agreement may be required for any proposed project that would result in an adverse impact to a river, stream, or lake. CDFW jurisdiction typically extends to the top of the bank and out to the outer edge of adjacent riparian vegetation if present. However, CDFW can take jurisdiction over a body of flowing water and the landform that conveys it, including water sources and adjoining landscape elements that are byproducts of and affected by interactions with flowing water without regard to size, duration, or the timing of flow.⁹

⁹ California Department of Fish & Wildlife, *Water Rights*, 2022. Available online at: <https://wildlife.ca.gov/Conservation/Watersheds/Water-Rights>, accessed on May 18, 2022.

Special-Status Wildlife Protection

Special Animal

Special-status wildlife species are those species included on the CDFW “Special Animals” list.¹⁰ “Special Animal” is a general term that refers to all of the taxa the CNDDDB is interested in tracking, regardless of their legal or protection status. The CDFW considers the taxa on this list to be those of greatest conservation need. The species on this list generally fall into one or more of the following categories:

- Officially listed or proposed for listing under the state and/or federal Endangered Species Acts.
- State or federal candidate for possible listing.
- Taxa that meet the criteria for listing, even if not currently included on any list, as described in
- Section 15380 of the California Environmental Quality Act Guidelines.
- Taxa considered by the Department to be a Species of Special Concern.
- Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical vulnerable stage in their life cycle that warrants monitoring.
- Populations in California that may be on the periphery of a taxon’s range but are threatened with extirpation in California.

CDFW Species of Special-Concern

A Species of Special Concern (SSC) is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria.

- Is extirpated from the State or, in the case of birds, is extirpated in its primary season or breeding role
- Is listed as Federally-, but not State-, threatened or endangered; meets the State definition of threatened or endangered but has not formally been listed
- Is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status
- Has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status

It is the goal and responsibility of CDFW to maintain viable populations of all native species. To this end, CDFW has designated certain vertebrate species as SSC because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating SSCs is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long-term viability. Not all SSCs have declined equally; some species may be just starting to decline, while others may have already reached the point where they meet the criteria for listing as a threatened or endangered under state and/or federal endangered species acts.

¹⁰ California Natural Diversity Database (CNDDDB). California Department of Fish and Wildlife. Special Animals List 2021. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline>, accessed 11/22/2021.

Special-Status Plant Protection

Special Plant

“Special Plants” is a broad term used to refer to all the plant taxa inventoried by the CDFW’s CNDDDB, regardless of their legal or protection status. Special Plants include vascular plants as well as high priority bryophytes (mosses, liverworts, and hornworts) and lichens. Special Plant taxa are species, subspecies, or varieties that fall into one or more of the following categories. Not all plants within each category are necessarily tracked as Special Plants but these categories are often used as a starting point when determining which plants are tracked by the CNDDDB:

- Officially listed by California or the Federal Government as Endangered, Threatened, or Rare;
- A candidate for state or federal listing as Endangered, Threatened, or Rare;
- Taxa listed in the California Native Plant Society’s Inventory of Rare and Endangered Plants of California;
- Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the California Environmental Quality Act (CEQA) Guidelines; these taxa may indicate “None” under listing status, but note that all California Rare Plant Rank 1 and 2 and some Rank 3 and 4 plants may fall under Section 15380 of CEQA;
- Taxa that are biologically rare, very restricted in distribution, or declining throughout their range but not currently threatened with extirpation;
- A Bureau of Land Management, U.S. Fish and Wildlife Service, or U.S. Forest Service Sensitive Species/Species of Conservation Concern;
- Population(s) in California that may be peripheral to the major portion of a taxon’s range but are threatened with extirpation in California; and
- Taxa closely associated with a habitat that is declining in California at a significant rate (e.g., wetlands, riparian, vernal pools, old growth forests, desert aquatic systems, native grasslands, valley shrubland habitats).

California Fish and Game Code Section 1600

Under sections 1600 et. seq. of California Fish and Game Code, CDFW regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife and requires a Streambed Alteration Agreement for such activities. The CDFW issues a Streambed Alteration Agreement with any necessary mitigation to ensure protection of the State’s fish and wildlife resources. The CDFW has jurisdiction over riparian habitats associated with watercourses.

California State Water Resources Control Board/Regional Water Quality Control Board

The California State Water Resources Control Board (SWRCB) and the RWQCB maintain regulatory responsibility for management of wetlands and waterbodies in California and may review wetland delineations in concert with the USACE under Section 401 of the Clean Water Act.

Together the SWRCB and Los Angeles RWQCB have jurisdiction over “waters of the State,” (WOS) which are defined as any surface water or groundwater, including saline waters, within the boundaries of the state. The SWRCB or local RWQCB have not established regulations for field determinations of waters of the state except for wetlands currently. The RWQCB are affected by or shares USACE jurisdiction unless

isolated conditions or ephemeral waters are present. Each local RWQCB may delineate their jurisdictions of waters of the State differently based on current interpretations of jurisdiction.

Procedures for defining RWQCB jurisdiction pursuant to the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* went into effect May 28, 2020. The SWRCB define an area as wetland if, under normal circumstances:

- (i) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both;
- (ii) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and
- (iii) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The SWRCB's Implementation Guidance for the Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State (2020), states that waters of the U.S. and waters of the State should be delineated using the standard USACE delineation procedures, taking into consideration that the methods shall be modified only to allow for the fact that a lack of vegetation does not preclude an area from meeting the definition of a wetland.

NatureServe Element Ranking for Plants

The CNDDDB uses a ranking methodology maintained and periodically revised by NatureServe. It includes a Global rank (G rank), describing the rank for a given taxon over its entire distribution and a State rank (S rank), describing the rank for the taxon over its state distribution. For subspecies and varieties, there is also a "T" rank describing the global rank for the subspecies or variety. The next section of this document details the criteria used to assign element ranks, from G1 to G5 for the Global rank and from S1 to S5 for the State rank, as described below:

- G1 - Critically imperiled; at very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
- G2 - Imperiled; at high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
- G3 - Vulnerable; at moderate risk of extinction or elimination due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
- G4 - Apparently secure; at fairly low risk of extinction or elimination due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
- G5 - Secure; at very low risk of extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats
- S1 - Critically imperiled; at very high risk of extirpation in the jurisdiction due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.
- S2 - Imperiled; at high risk of extirpation in the jurisdiction due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
- S3 - Vulnerable; at moderate risk of extirpation in the jurisdiction due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
- S4 - Apparently secure; at a fairly low risk of extirpation in the jurisdiction due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.

- S5 - Secure; at very low or no risk of extirpation in the jurisdiction due to a very extensive range, abundant populations or occurrences, with little to no concern from declines or threats.

California Rare Plant Ranks

The California Rare Plant Rank (CRPR) status applies to plants only. The CRPRs are a ranking system originally developed by the CNPS to better define and categorize rarity in California's flora. All plants tracked by the CNDDDB are assigned to a CRPR category. These categories are:

- 1A Presumed extirpated in California and either rare or extinct elsewhere
- 1B Rare or Endangered in California and elsewhere
- 2A Presumed extirpated in California, but more common elsewhere
- 2B Rare or Endangered in California, but more common elsewhere
- 3 Plants for which we need more information – Review list
- 4 Plants of limited distribution – Watch list

In addition, the CRPR use a decimal-style threat rank. The threat rank is an extension added onto the CRPR and designates the level of threats by a 1 to 3 ranking with 1 being the most threatened and 3 being the least threatened. Most CRPRs read as 1B.1, 1B.2, 1B.3, etc. Note that some Rank 3 plants do not have a threat code extension due to difficulty in ascertaining threats for these species. Rank 1A and 2A plants also do not have threat code extensions since there are no known extant populations of the plants in California.

Natural Community Conservation Act

The Natural Community Conservation Act (NCCA) (CFG Chapter 10, Division 3, Sections 2800 et seq.) was enacted in 1991. NCCA is administered by CDFW. The goal of this Act is to identify and secure habitat areas for protection of biodiversity. Habitat areas are identified by CDFW, and plans are prepared for habitat protection. When a development project is proposed, a determination is made concerning the potential impacts of the project on biodiversity and the best means of avoiding or mitigating them. NCCA allows local, state, or federal agencies to enter into agreements with public and private entities to implement a "natural community conservation plan" (NCCP); e.g., habitat and species protection within a specified geographic area. Participation in an NCCP does not exempt a development project from CEQA. Mitigation measures pursuant to CEQA may, as an alternative, include participation in an NCCP to reduce the burden for on-site mitigation.

Sensitive Vegetation Communities

Sensitive vegetation communities are natural communities and habitats that are either unique, of relatively limited distribution in the region, or of particularly high wildlife value. These resources have been defined by federal, state, and local conservation plans, policies, or regulations. The CDFW ranks such vegetation communities as "threatened" or "very threatened" and keeps records of their occurrences in the California Natural Diversity Database (CNDDDB). Sensitive vegetation communities are also identified by the CDFW on its List of California Natural Communities Recognized by the CNDDDB. Impacts to these vegetation communities and habitats identified in local or regional plans, policies, regulations, or by federal or state agencies must be considered and evaluated under CEQA.¹¹

¹¹ California Department of Fish & Wildlife, *Natural Communities*. Available online at: <https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities>, accessed on May 10, 2022.

Habitat Conservation Plans

HCPs, designated under the federal Endangered Species Act Section 10(a)(1)(B), are federal planning documents designed to conserve the ecosystems upon which listed species depend, ultimately contributing to their recovery. HCPs provide a “take permit” when a project will affect a species identified as listed, non-listed or eligible under the act and detail how those impacts will be minimized or mitigated, and how the HCP is to be funded.¹² No HCPs are located in the Project Area.

California Endangered Species Act

Under the California Endangered Species Act, the California Department of Fish and Wildlife (CDFW) is responsible for maintaining a list of threatened and endangered species (California Department of Fish and Game Code Section 2070).¹³ The CDFW also maintains a list of candidate species, which are species formally under review for addition to either the list of endangered species or the list of threatened species.

The California Endangered Species Act prohibits the take of plant and animal species that the California Fish and Game Commission has designated as either threatened, rare, or endangered in California. “Take” in the context of this regulation means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill a listed species (California Fish and Game Code Sections 86 and 2080). The take prohibitions also apply to candidates for listing under the California Endangered Species Act. However, Section 2081 of the act allows the department to issue permits for the minor and incidental take of species by an individual or permitted activity listed under the act.

In accordance with the requirements of the California Endangered Species Act, an agency reviewing a project within its jurisdiction must determine if any state-listed endangered, rare, threatened, or candidate species could be present in the project area. The agency also must determine if the project could have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any project that could affect any state-listed endangered, rare, threatened, or candidate species.

California Migratory Bird Protection Act

Assembly Bill 454 (AB 454), the California Migratory Bird Protection Act, which expires on January 20, 2025, makes unlawful the taking or possession of any migratory nongame bird designated in the federal MBTA before January 1, 2017, any additional migratory nongame bird that may be designated in the federal act after that date, or any part of those migratory nongame birds, except as provided by rules and regulations adopted by the United States Secretary of the Interior under the federal act before January 1, 2017, or subsequent rules or regulations adopted pursuant to the federal act, unless those rules or regulations are inconsistent with the Fish and Game Code.

¹² U.S. Fish and Wildlife Service, *Habitat Conservation Plans: Overview*. Available online at: <http://www.fws.gov/endangered/what-we-do/hcp-overview.html>, accessed May 13, 2022.

¹³ *The commission shall establish a list of endangered species and a list of threatened species. The commission shall add or remove species from either list if it finds, upon the receipt of sufficient scientific information pursuant to this article, and based solely upon the best available scientific information, that the action is warranted. (Amended by Stats. 2018, Ch. 329, Sec. 4. (SB 473) Effective January 1, 2019.) State of California, Senate Bill No. 473 – Chapter 329, September 2018. Available online at: https://leginfo.ca.gov/faces/billPdf.xhtml?bill_id=201720180SB473&version=20170SB47391CHP, accessed on May 18, 2022.*

California Native Plant Protection Act

The California Native Plant Society (CNPS) maintains a list of special-status plant species based on collected scientific information. Designation of these species by CNPS has no legal status or protection under federal or state endangered species legislation. CNPS designations are defined as List 1A (plants presumed extinct); List 1B (plants rare, threatened, or endangered in California and elsewhere); List 2 (plants rare, threatened, or endangered in California, but more numerous elsewhere); List 3 (plants about which more information is needed – a review list); and List 4 (plants of limited distribution - a watch list). In general, plants appearing on CNPS List 1A, 1B, or 2 meet the criteria of Section 15380 of the CEQA Guidelines; thus, substantial adverse effects to these species would be considered significant. Additionally, plants constituting CNPS List 1A, 1B, or 2 meet the definitions of California Department Fish and Game Code Section 1901 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act).

Porter-Cologne Water Quality Control Act

Waters of the State are defined by the Porter-Cologne Water Quality Control Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The RWQCB protects all waters in its regulatory scope but has special responsibility for isolated wetlands and headwaters. These water bodies have high resource value, are vulnerable to filling, and may not be regulated by other programs, such as Section 404 of the Clean Water Act. Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program, which regulates discharges of dredged and fill material under Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact waters of the State are required to comply with the terms of the State Water Quality Certification Program. If a proposed project does not require a federal license or permit but does involve activities that may result in a discharge of harmful substances to waters of the State, the RWQCB has the option to regulate such activities under its State authority in the form of Waste Discharge Requirements or Certification of Waste Discharge Requirements.

California Fish and Wildlife Code - Fully Protected Species and Species of Special Concern

The classification of “fully protected species” was the CDFW’s initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The California Fish and Wildlife Code Sections (fish at Section 5515, amphibians and reptiles at Section 5050, birds at Section 3511(b), and mammals at Section 4700) dealing with “fully protected” species state that these species “may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species,” although take may be authorized for necessary scientific research. This language makes the “fully protected” designation the strongest and most restrictive regarding the “take” of these species. In 2003, the California Fish and Wildlife Code sections dealing with fully protected species were amended to allow the CDFW to authorize takings resulting from recovery activities for state-listed species.

Species of “special concern” are broadly defined as animals not listed under the FESA or CESA, but that are nonetheless of concern to the CDFW because they are declining at a rate that could result in listing or because they historically occurred in low numbers and known threats to their persistence currently exist.¹⁴ This designation is intended to result in special consideration for these animals by the CDFW, land

¹⁴ California Department of Fish & Wildlife, *Species of Special Concern*. Available online at: <https://wildlife.ca.gov/Conservation/SSC>, accessed May 17, 2022.

managers, consulting biologists, and others, and is intended to focus attention on the species to help avert the need for listing under FESA and CESA, and recovery efforts that might ultimately be required. This designation is also intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they may require consideration under CEQA during project review if they meet the definition of endangered, rare, or threatened species in CEQA Guidelines Section 15380, which is not limited to listed species.

Fish and Wildlife Code Sections 3503 & 3513

According to Section 3503 of the California Fish and Game Code it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird (except English sparrows (*Passer domesticus*) and European starlings (*Sturnus vulgaris*)). Section 3503.5 specifically protects birds in the orders Falconiformes and Strigiformes (birds-of-prey). Section 3513 essentially overlaps with the Migratory Bird Treaty Act (MBTA), prohibiting the take or possession of any migratory non-game bird. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered a “take” by the CDFW. The same procedures identified above to avoid a violation of the federal Migratory Bird Treaty Act are recognized by the CDFW to avoid a take in violation of these provisions.

LOCAL

Los Angeles City Fire Department (LAFD) Brush Clearance Requirements

According to Chapter 49 of the California Fire Code (Section 4906.3), which regulates hazardous vegetation and fuel management:

Hazardous vegetation and fuels around all applicable buildings and structures shall be maintained in accordance with the following laws and regulations:

- **Public Resources Code, Section 4291.** “Maintain defensible space of 100 feet from each side and from the front and rear of the structure.... The amount of fuel modification necessary shall take into account the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure.”
- **California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 3, Section 1299** (see guidance for implementation "General Guideline to Create Defensible Space"). “(A) Dead and dying woody surface fuels and aerial fuels shall be removed. Loose surface litter, normally consisting of fallen leaves or needles, twigs, bark, cones, and small branches, shall be permitted to a maximum depth of three inches (3 in.). (B) Cut annual grasses and forbs down to a maximum height of four inches (4 in.). (C) All exposed wood piles must have a minimum of ten feet (10 ft.) of clearance, down to bare mineral soil, in all directions.”
- **California Code of Regulations, Title 19, Division 1, Chapter 1, Subchapter 1, Section 3.07.** “(1) Maintain around and adjacent to such building or structure a firebreak made by removing and clearing away, for a distance of not less than 30 feet on each side thereof or to the property line, whichever is nearer, all flammable vegetation or other combustible growth. This section does not apply to single specimens of trees, ornamental shrubbery, or similar plants which are used as ground cover, if they do not form a means of rapidly transmitting fire from the native growth to any building or structure. (2) Maintain around and adjacent to any such building or structure additional fire protection or firebreak made by removing all bush, flammable vegetation, or combustible growth which is located from 30 feet to 100 feet from such building or structure or to the property line, whichever is nearer, as may be required by the enforcing agency if he finds that, because of

extra hazardous conditions, a firebreak of only 30 feet around such building or structure is not sufficient to provide reasonable fire safety. Grass and other vegetation located more than 30 feet from such building or structure and less than 18 inches in height above the ground may be maintained where necessary to stabilize the soil and prevent erosion.”

These codes require fuel management and maintenance of defensible space, particularly in Very High Fire Hazard Severity Zones as well as adjacent to existing structures. The codes do not provide exceptions to fuel modification requirements for the purposes of maintaining habitat around protected trees or sensitive habitat. These requirements for fuel management include trees, as well as shrubs and grasses.

City of Los Angeles Municipal Code – Protected Trees and Shrubs

Native species of oak (*Quercus* sp., except scrub oak [*Q. dumosa*]), Southern California black walnut (*Juglans californica*), California bay laurel (*Umbellularia californica*) and western sycamore (*Platanus racemosa*) trees at least four inches in diameter (cumulative for multi-trunked trees) at 4.5 feet above the ground level at the base of the tree (or “diameter-at-breast height,” or DBH) are protected in the City under Ordinance No. 177,404, which became effective April 23, 2006. On December 11, 2020, the City adopted Ordinance No. 186,873, extending protection status to include two native shrub species, the Mexican Elderberry (*Sambucus mexicana*) and Toyon (*Heteromeles arbutifolia*) shrubs and amending provisions of Sections 12.21, 17.02, 17.05, 17.06, 17.51, 46.00, 46.01, 46.02, 46.03, 46.04, and 46.06 of the Los Angeles Municipal Code (LAMC).

Section 17.05 of the LAMC prohibits, without a permit, the removal of any regulated protected tree including “acts which inflict damage upon root systems or other parts of the tree...” and requires replacement of all regulated protected trees that are removed on at least a four-to-one basis with trees that are of a protected variety. Replacement trees must be at least 15 gallons or larger, measure one inch or more in diameter at a foot above the base, and measure at least seven feet in height from the base. The size and number of replacement trees shall approximate the value of the tree to be replaced. A protected tree shall only be replaced by other protected tree varieties and shall not be replaced by shrubs, and similarly, a protected shrub shall only be replaced by other protected shrub varieties and shall not be replaced by trees, to the extent feasible as determined by the Advisory Agency, Board of Public Works (Board), or certified arborist. Further, when replacing more than two protected trees or shrubs, the permit at issue must be considered at a full public hearing of the Board. The City also requires preparation of a report by a tree expert identifying protected on-site trees, impacts to trees related to grading and construction, and mitigation measures for impacts to protected trees. However, native trees that have been planted as part of a tree planting program are exempt from this Ordinance and are not considered protected.

City of Los Angeles Framework Element

The Citywide General Plan Framework Element (Framework Element) establishes the conceptual basis for the City’s General Plan. The Framework Element sets forth a comprehensive Citywide long-range growth strategy and defines Citywide policies regarding land use, housing, urban form and neighborhood design, open space and conservation, economic development, transportation, infrastructure and public services. Chapter 6, Open Space and Conservation, of the City’s Framework Element identifies goals, objectives, and policies for the City relative to biological resources. As shown in Table 4.3-2, Objective 6.1 of the Open Space and Conservation Chapter of the City’s Framework Element specifies the protection of “the City’s natural settings from the encroachment of urban development, allowing for the development, use, management, and maintenance of each component of the City’s natural resources to contribute to the sustainability of the region.” Policy 6.1.2 requires the coordination of “City operations and development policies for the protection and conservation of open space resources, by ... preserving habitat linkages, where feasible, to provide wildlife corridors and to protect natural animal ranges.”

City of Los Angeles Conservation Element

The Conservation Element adopted in 2001 (Los Angeles, City of. 2001a), contains policies related to the identification and protection of sensitive plant, animal species, significant ecological areas (SEAs) and other resources. State law recognizes that state requirements regarding the content of one element may overlap the requirements of another. As allowed by State law, Los Angeles has opted to incorporate natural open space agricultural and other open space features of the State’s open space requirements into the Conservation Element, which primarily addresses preservation, conservation, protection, and enhancement of the city’s natural resources.

State law intends that conservation elements address "conservation, development, and utilization of natural resources including water and hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources." State general plan legislation was amended (1995) to require that preparation of the water portion of the general plan address water and land reclamation, water (including ocean) pollution, regulation and use of land in stream beds, erosion, watershed protection, flood control and rock, sand and gravel resources. Open space, as defined by the California Government Code (Section 65560), is "any parcel or area of land or water that essentially is unimproved and devoted to an open-space use," including:

- preservation of natural resources, e.g., preservation of flora and fauna (animal habitats), bird flyways, ecologic and other scientific study areas, watershed;
- managed production of resources, e.g., recharge of ground water basins or containing mineral deposits that are in short supply;
- outdoor recreation, e.g., beaches, waterways, utility easements, trails, scenic highway corridors; and/or public health and safety, e.g., flood, seismic, geologic or fire hazard zones, air quality enhancement.¹⁵

TABLE 4.3-2 RELEVANT GENERAL PLAN FRAMEWORK ELEMENT BIOLOGICAL RESOURCES GOALS, OBJECTIVES, AND POLICIES	
Goal/Objective/Policy	Goal/Objective/Policy Description
Framework Element	
Goal 6A	An integrated Citywide/regional public and private open space system that serves and is accessible by the City's population and is unthreatened by encroachment from other land uses
Objective 6.1	Protect the City's natural settings from the encroachment of urban development, allowing for the development, use, management, and maintenance of each component of the City's natural resources to contribute to the sustainability of the region.
Policy 6.1.1	Consider appropriate methodologies to protect significant remaining open spaces for resource protection and mitigation of environmental hazards, such as flooding, in and on the periphery of the City, such as the use of tax incentives for landowners to preserve their lands, development rights exchanges in the local area, participation in land banking, public acquisition, land exchanges, and Williamson Act contracts.
Policy 6.1.2	Coordinate City operations and development policies for the protection and conservation of open space resources, by: <ul style="list-style-type: none"> • Encouraging City departments to take the lead in utilizing water re-use technology, including graywater and reclaimed water for public landscape maintenance purposes and such other purposes as may be feasible.

¹⁵ City of Los Angeles, *Conservation Element of the City of Los Angeles General Plan, at p.I-2, 2001*. Available online at: https://planning.lacity.org/odocument/28af7e21-ffdd-4f26-84e6-dfa967b2a1ee/Conservation_Element.pdf, accessed on May 17, 2022.

TABLE 4.3-2 RELEVANT GENERAL PLAN FRAMEWORK ELEMENT BIOLOGICAL RESOURCES GOALS, OBJECTIVES, AND POLICIES	
Goal/Objective/Policy	Goal/Objective/Policy Description
	<ul style="list-style-type: none"> Preserving habitat linkages, where feasible, to provide wildlife corridors and to protect natural animal ranges; and Preserving natural viewsheds, whenever possible, in hillside and coastal areas.
Policy 6.1.3	Reassess the environmental importance of the County of Los Angeles designated Significant Ecological Areas (SEAs) that occur within the City of Los Angeles and evaluate the appropriateness of the inclusion of other areas that may exhibit equivalent environmental value.
Policy 6.1.4	Conserve, and manage the undeveloped portions of the City's watersheds, where feasible, as open spaces which protect, conserve, and enhance natural resources.
Policy 6.1.5	Provide for an on-site evaluation of sites located outside of the targeted growth areas, as specified in amendments to the community plans, for the identification of sensitive habitats, sensitive species, and an analysis of wildlife movement, with specific emphasis on the Framework Element's Technical Background Report and Environmental Impact Report.
Policy 6.1.6	Consider preservation of private land open space to the maximum extent feasible. In areas where open space value determines the character of the community, development should occur with special consideration of these characteristics.
Policy 6.1.7	Encourage an increase of open space where opportunities exist throughout the City to protect wild areas such as the Sepulveda Basin and Chatsworth Reservoir.
Conservation Element – Endangered Species	
Policy 1	Continue to require evaluation, avoidance, and minimization of potential significant impacts, as well as mitigation of unavoidable significant impacts of sensitive animal and plant species and their habitats and habitat corridors relative to land development activities.
Policy 2	Continue to administer city-owned and managed properties so as to protect and/or enhance the survival of sensitive plant and animal species to the greatest practical extent.
Policy 3	Continue to support legislation that encourages and facilitates protection of endangered, threatened, sensitive and rare species and their habitats and habitat corridors.
Conservation Element – Habitat	
Policy 1	Continue to identify significant habitat areas, corridors, and buffers and to take measures to protect, enhance and/or restore them.
Policy 2	Continue to protect, restore, and/or enhance habitat areas, linkages, and corridor segments, to the greatest extent practical, within City owned or managed sites.
Policy 3	Continue to work cooperatively with other agencies and entities in protecting local habitats and endangered, threatened, sensitive, and rare species.
Policy 4	Continue to support legislation that encourages and facilitates protection of local native plant and animal habitats.
SOURCE: City of Los Angeles. 2021b. The Citywide General Plan Framework, An Element of the City of Los Angeles General Plan, originally adopted 1996, re-adopted 2001; City of Los Angeles, City of Los Angeles General Plan Conservation Element, adopted 2001.	

Los Angeles River Revitalization Master Plan

The City of Los Angeles adopted the Los Angeles River Revitalization Master Plan (LARRMP) in 2007 with the goal of restoring the ecological and hydrological functioning of the River, through the recreation of a riparian habitat corridor in the channel, and through the removal of concrete walls where feasible. This would help restore a continuous, functioning riparian ecosystem that supports vegetation as well as birds and mammals, and developing fish passages, fish ladders, and riffle pools.

Development and implementation of the LARRMP would maintain the River as a resource that provides flood protection and opportunities for recreational and environmental enhancement, as well as intend to improve the aesthetics of the region, enrich the quality of life for residents, and help sustain the economy of the region. Goals of the plan include:

- Establishing environmentally sensitive urban design guidelines, land use guidelines, and development guidelines for the River zone that would create economic development opportunities to enhance and improve River-adjacent communities by providing open space, housing, retail spaces such as restaurants and cafes, educational facilities, and places for other public institutions.
- Improving the environment, enhancing water quality, improving water resources, and improving the ecological functioning of the River
- Providing public access to the River
- Providing significant recreation space and open space, new trails, and improve natural habitats to support wildlife
- Preserving and enhancing the flood control features of the River
- Fostering growth in community awareness of the River, and pride in the River

River Implementation Overlay

The River Implementation Overlay (RIO) is a citywide zoning ordinance (No. 183,145) that applies to properties in close proximity to the Los Angeles River. Per Section 13.17(a), the purposes of the ordinance include but are not limited to: supporting the goals of the LARRMP, contributing to the environmental and ecological health of the City's watersheds, and providing a native habitat and supporting local species. Specific references are made in the ordinance to the LARRMP's native landscaping guidelines.

City of Los Angeles Stormwater Pollution Control Measures for Development Planning and Construction Activities Ordinance

Through LAMC Section 64.72, the City of Los Angeles has established Low Income Development (LID) practices and standards that aim to mitigate stormwater pollution and maximize open, green, and pervious areas on all new developments or redevelopments. The LID Ordinance requires developments of any kind to comply with the Development Best Management Practices Handbook. It also requires all development to be designed to manage and capture stormwater runoff to the maximum extent feasible. Suggested practices, in priority order, include infiltration, evapotranspiration, and capture and use, treated through high-removal-efficiency biofiltration/biotreatment systems.

City of Los Angeles General Plan Open Space Element

The Open Space Element of the General Plan includes goals, objectives, policies, and programs directed towards the regulation of publicly and privately owned lands both for the benefit of the public, and for the protection of individuals from the misuse of these lands. The Open Space Element provides guidance and general policies for the conservation and preservation of open space¹⁶ areas containing the City's environmental resources including air and water.

¹⁶ City of Los Angeles- Department of City Planning, *Open Space Plan*, at p.1. 1973. City Plan Case No. 24533. Available online at: https://planning.lacity.org/Code_Studies/GeneralElement/openspaceelement.pdf; accessed May 17, 2022.

Heritage Trees

The City of Los Angeles maintains an inventory of trees with historical, commemorative, or horticultural significance that the City intends to maintain and preserve on City properties, including parks. Heritage trees are not required to be one of the protected tree types covered by the Tree Preservation Ordinance. The list of heritage trees is maintained by the City of Los Angeles Department of Recreation and Parks (DRP).

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on the questions in Appendix G of the CEQA Guidelines. Biological resource impacts that may result from implementation of the Proposed Project would be significant if the Project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service (Threshold 4.3-1)
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service (Threshold 4.3-2)
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (Threshold 4.3-3)
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites (Threshold 4.3-4)
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (Threshold 4.3-5)
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (Threshold 4.3-6)

METHODOLOGY

This section outlines the methodology for evaluating impacts to biological resources, including sensitive natural communities and special-status species. For purposes of this analysis, “special-status species” include:

- Plants and wildlife species listed as rare, threatened, or endangered under the ESA or the CESA
- Species that are candidates for listing under federal or state law
- Species designated by the USFWS as Proposed or Candidates for listing and/or species designated as Species of Special Concern by CDFW
- Species protected by the federal Migratory Bird Treaty Act
- Species identified as rare, threatened, or endangered by the California Native Plant Society (CNPS)

- Any other species that may be considered endangered or rare pursuant to CEQA Guidelines Section 15380(b)

The analysis of biological resource impacts was based on review of applicable biological resource databases, plans, and policies, as described in the Environmental Setting, as well as review of aerial photography such as Google Earth and aforementioned online database mappers. Impacts to biological resources could include the direct take of a species or the removal or disturbance of habitats from future development or more indirect delayed or secondary effects from future development, such as fragmentation, pollination interruption, plant and wildlife dispersal interruption, increased risk of fire, and increased invasion of non-native animals and plants that out-compete natives.

The impact area studied in this analysis considered potential impacts to biological resources in the CASP (including all open space areas), and portions of the Los Angeles River and Arroyo Seco within and immediately adjacent to the Project Area. With the exception of migratory birds, urban parcels within and adjacent to the CASP are not expected to contain special-status species or sensitive natural communities.

PROJECT IMPACTS

Threshold 4.3-1	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service
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Impact 4.3-1 **Proposed Project:** The Project Area is urbanized and lacks suitable habitat that would support special-status plant or animal species; therefore, the potential to adversely affect endangered and special-status plant and animal species would be low. However, a variety of bird species protected by the MBTA are adapted to human activity and may utilize existing trees and shrubs for nesting or foraging. Temporary direct and indirect impacts from the Proposed Project include the removal or degradation (e.g., excessive noise, dust, or light) of this habitat. The following mitigation measures and regulatory requirements would ensure that temporary impacts to special-status species, such as the burrowing owl, which have been known to nest in manmade objects, and migratory birds would be *less than significant with mitigation*.

Project Impact

As shown in **Table 4.3-2**, there are ten special-status animals and three special status plants that have been reported from the Project Area. Of the identified species, none have been sighted in over 38 years in the Project Area. Three animal species are identified as endangered or threatened by the CDFW and/or USFWS, and six animal species are identified as Species of Special Concern. Three plant species are identified as having a CRPR of 1 or 2. The Proposed Project's potential impact on these sensitive species is discussed below.

The Proposed Project would not foreseeably result in modification of any portions of the Los Angeles River or Arroyo Seco because the Proposed Project does not include components that would affect the existing use, zoning, or land use designation of the Los Angeles River or Arroyo Seco. The segments of the Los Angeles River and Arroyo Seco located in the Project Area contain limited riparian or other habitat for plant or animal species, as it is channelized and located in an urban environment. Zoning updates as part of the Proposed Project include the expansion of the Open Space 1 (OS1) zone along the Los Angeles River and Arroyo Seco, while the existing Public Facilities zoning around the remaining sections of the Los

Angeles River within the Project Area would remain unchanged. The future introduction of riparian habitat into the Project Area is discussed in Impact 4.3-2.

Threatened and Endangered Animal Species

According to the CNDDDB, the most recent records for the endangered southwestern willow flycatcher (*Empidonax traillii extimus*) and least Bell's vireo (*Vireo bellii pusillus*) in the Project Area occurred in 1894 and 1897, respectively. Both species are presumed to be extirpated from the Project Area. The habitat for the southwestern willow flycatcher is riparian woodlands, which the Project Area does not contain. Impacts to the southwestern willow flycatcher are not likely to occur as a result of the Proposed Project. The habitat for least Bell's vireo is generally low riparian in vicinity of water or in dry river bottoms. The Project Area does not contain suitable riparian habitat. As such, impacts to the least Bell's vireo would not occur as a result of Project implementation. The bank swallow was last observed in the Project Area in 1894 and is listed as extirpated in the Project Area. The habitat for this species is primarily riparian and other lowland habitats west of the desert. The Project Area does not contain suitable riparian or lowland habitat. As such, impacts to bank swallow would not occur as a result of Project implementation. Areas upstream of the Project Area where more extensive riparian habitat is present do not contain recent occurrences of these species. Therefore, there would be **no impact** to threatened or endangered animal species as part of the proposed project.

Although there are no records in the CNDDDB for monarch butterfly (*Danaus plexippus* pop. 1, Federal Candidate), there have been several observations documented in iNaturalist. No observations of roosting trees in the Project Area have been documented in either the CNDDDB or iNaturalist. Impacts to this species would be **less than significant**.

Species of Special Concern

The Species of Special Concern that have been historically sighted in the Project Area include the burrowing owl, western spadefoot, Southern California legless lizard, American badger, big free-tailed bat, and western mastiff bat. According to CNDDDB, all six species are presumed to be extant in the Project Area. The burrowing owl was last documented in the Project Area in 1921, and the habitat includes open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. However, this species has been known to frequent disturbed areas and an iNaturalist record from 2018 occurs less than two miles from the Project Area. Western spadefoot was last documented in the Project Area in 1921, and the habitat includes grasslands, but can be found in valley-foothill hardwood woodlands. Southern California legless lizard was last documented in the Project Area in 1964 and occurs in sandy or loose loamy soils under sparse vegetation. American badger habitat includes drier open stages of most shrub, forest, and herbaceous habitats with friable soils. The CNDDDB occurrence date within Project Area for the American badger is Unknown. The western mastiff bat was last documented in the Project Area in 1990. Its habitat is defined as open and semi-arid to arid, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. The big free-tailed bat was last documented in the Project Area in 1985, and habitat includes high cliffs and rocky outcroppings, which are used for roosting sites. The areas in which these six species were historically found are developed today with urban uses. The Project Area does not provide ideal or even marginal habitat for any of these species, although, burrowing owls have been known to nest in manmade objects such as pipes and riprap. However, due to the high level of disturbance in the Project Area, this species still has a low potential to occur. These species have a low potential to occur; however, if present in the Project Area, impacts would be **potentially significant**.

Rare Plant Species

Rare plant species that have been historically sighted in the Project Area include prostrate vernal pool navarretia (*Navarretia prostrata*), Salt Spring checkerbloom (*Sidalcea neomexicana*), and Greata's aster (*Symphyotrichum greatae*). All three plant species are possibly extirpated in the Project Area due to lack of suitable habitat and recent observations. The habitat for the prostrate vernal pool navarretia includes coastal scrub, grasslands, vernal pools, and meadows, and the species was last observed in the Project Area in 1907. The habitats for Salt Spring checkerbloom and Greata's aster include chaparral and coniferous forest, and the species was last observed in the Project Area in 1902 and 1932, respectively. Based on the type of habitat and quality of habitat for these species, all three plant species have a CNDDDB Occurrence Rank of None within the Project Area. There is *no impact*.

Migratory Birds

Project Area development could involve construction activity during the bird nesting season, which is generally from March 1 through August 31, and begins as early as February 1 for raptors. Much of the Project Area is highly urbanized and lacking trees likely to contain active bird nests. However, many bird species are now adapted to human disturbance and may nest throughout the Project Area. As such, tree trimming or removal as well as removal of vacant structures in the Project Area would have the potential to disturb any active nests, which could constitute a violation of the federal MBTA and/or the CFGC. In addition to direct impacts to nesting birds, temporary, indirect impacts including excessive noise or dust could affect birds and other wildlife using the Los Angeles River and Arroyo Seco. Therefore, impacts to active bird nests would be *potentially significant*.

Although the CEQA Guidelines do not identify the need to analyze environmental impacts from the Proposed Project on non-special status species, in light of a recent court decision in 2023, and out of an abundance of caution, we have included the following discussion. This is not intended to establish a precedent to include similar analyses in subsequent CEQA documents.

Temporary impacts, both direct and indirect from individual projects covered by the Proposed Project, include the removal or degradation (e.g., excessive noise or dust) of habitat (both nesting and foraging) for various wildlife species. Trees removed would not only reduce the amount of nesting habitat but also available perches and food for foraging. CDFW's comments on the Notice of Preparation identified wading bird habitat as a potential issue. The Proposed Project will not directly impact the Los Angeles River and Arroyo Seco; therefore, wading bird habitat will not be impacted. Due to the generally short-term nature of these impacts, the existing ongoing disturbances associated with urban development, the inclusion and protection of Open Space in the Proposed Project's design requirements, as well as the replacement of native habitats (i.e., River Area Planting native landscaping requirements under the Proposed Project and the planned Metro LA River Path), the Proposed Project is not anticipated to impact wildlife, including special status species. However, out of an abundance of caution, based on the above-described court decision regarding wildlife and implementing a conservative approach, there is a possibility that the Proposed Project may result in impacts to non-special status species wildlife for construction noise and dust. Using this conservative approach, the Proposed Project has the potential to cause significant impacts to wildlife and these impacts would be *potentially significant*.

Mitigation Measures

Mitigation Measure 4.3-1 and 4.3-2 below would address impacts related to the potential disturbance of special-status species. Additionally, Mitigation Measure AQ1-1 would reduce impacts from fugitive dust and Mitigation Measures 4.11-1 and 4.11-2 would reduce impacts from construction noise.

4.3-1 Biological Resources Assessment

For individual projects that will include disturbance of vegetation, trees, structures, or other areas where biological resources could be present, a qualified biologist shall be retained by the applicant to conduct an initial site assessment. The assessment will include a review of the California Natural Diversity Database (CNDDB) and iNaturalist maps to determine where sightings have occurred or habitats for nesting birds, or bat species have previously been identified. A site assessment survey may be required for sites that are in proximity to areas where habitats for nesting birds or bat species occur. Species-specific surveys may be required for sites that contain suitable habitats for nesting birds or bat species.

Mitigation Measures 4.3-2(a) and 4.3-2(b) below would address impacts related to the potential disturbance of active bird nests.

4.3-2(a) Pre-Construction Bird Nest Surveys and Avoidance

For projects in the Project Area, a pre-construction survey for nesting bird, including ground nest birds, shall be conducted no more than ten days prior to initiation of ground disturbance and vegetation removal activities for any grading or construction activity initiated during the bird nesting season (February 1 – August 31).

The nesting bird pre-construction survey shall be conducted on foot by a qualified biologist and shall include a 100-foot buffer around the construction site. If nests are found, an avoidance buffer (dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary. All construction personnel shall be notified as to the existence of the buffer zone and to avoid entering the buffer zone during the nesting season. No ground disturbing activities or vegetation removal shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist on the basis that the encroachment will not be detrimental to an active nest. A Statement of Compliance signed by the Applicant and Owner is required to be submitted to LADBS at plan check and prior to the issuance of any permit. Any survey, report, construction monitoring, and implementation of protective measures conducted shall be documented by a qualified biologist and shall be provided to the City upon request. Best management practices (BMPs) to avoid disturbing nesting birds, including burrowing owls, during construction include visually check all sections of pipe or other construction materials for the presence of wildlife before moving and capping or elevating the ends of all pipes or similar construction materials while storing to prevent wildlife from entering them.

4.3-2(b) Notification

All project applicants will be notified of and shall include on their plans an acknowledgement of the requirement to comply with the federal MBTA and CFGC to not destroy active bird nests and of best practices recommended by qualified biologist to avoid impacts to active nests, including checking for nests prior to construction activities during February 1-August 31 and what to do if an active nest is found, including inadvertently during grading or construction activities. Such best practices shall include giving an adequate construction and grading buffer to avoid the active nest during construction.

Significance After Mitigation

Implementation of the above mitigation measures would reduce potential impacts to special-status species such as the burrowing owl and active bird nests to a *less-than-significant* level by ensuring that active nests are identified and avoided, as necessary. Additionally, Mitigation Measure AQ1-1 would reduce impacts from fugitive dust and Mitigation Measures 4.11-1 and 4.11-2 would reduce impacts from construction noise. Therefore, impacts would *be less than significant with mitigation*.

Threshold 4.3-2	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service
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Impact 4.3-2 **Proposed Project:** No riparian or sensitive natural communities are in or adjacent to the Project Area. As such, Plan implementation would have a *less than significant impact* with respect to natural communities.

Project Impact

There are no riparian habitats or sensitive natural communities located in the Project Area. In addition, there are no Significant Ecological Areas (SEAs) located in the Project Area. Although the Los Angeles River contains portions of riparian habitat located along the banks in some portions throughout the City, there are no riparian habitats in the Project Area. The Project Area does contain some vegetation, including algal blooms, along the portions of the River with an unconsolidated bottom. However, this vegetation is sparse and weedy, based on observations of the top bank during a reconnaissance survey, and would not be delineated as riparian.

The Los Angeles River Revitalization Master Plan proposes to enhance and create riparian habitat along the sides of the River, which could occur in the Project Area. A long-term goal of the River Master Plan is to restore the ecological and hydrological functioning of the River, through the recreation of a riparian habitat corridor within the channel, and through the removal of concrete walls where feasible. This would help restore a continuous, functioning riparian ecosystem that supports vegetation as well as birds and mammals, and developing fish passages, fish ladders, and riffle pools (City of Los Angeles 2007).

The Proposed Project does not include any development on the Los Angeles River or Arroyo Seco and development in the vicinity of the River or Arroyo Seco would be separated by the new Open Space and existing Public Facility zoning. Therefore, the Proposed Project would not interfere with implementation of the Los Angeles River Revitalization Master Plan. Since no riparian or sensitive communities currently exist, impacts would be *less than significant*.

Mitigation Measures

No significant impacts have been identified; therefore, mitigation is not required for the Proposed Project.

Threshold 4.3-3	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
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Impact 4.3-3 **Proposed Project:** Implementation of the Proposed Project would not result in an adverse effect to the Los Angeles River or Arroyo Seco and no other wetlands are located in or adjacent to the Project Area. However, indirect impacts could result from excessive dust generated by developments occurring in the vicinity of the Los Angeles River and Arroyo Seco. Impacts to wetlands would be *less than significant with mitigation incorporated*.

Project Impact

According to the USFWS National Wetlands Inventory, the only wetlands in the Project Area are the Los Angeles River, which runs along the western edge and through the center of the Project Area boundary, and the Arroyo Seco, which runs through the northern boundary of the Project Area (USFWS 2022). The portions of the Los Angeles River and Arroyo Seco in the Project Area are classified as Low Perennial Riverine, with stretches of the River and Arroyo Seco containing artificial substrate bottom and the remainder being unconsolidated bottom. Reasonably anticipated development from the Proposed Project would not directly affect the Los Angeles River or Arroyo Seco. However, direct impacts to wetlands could occur from stormwater runoff and temporary, indirect impacts could result from excessive dust generated by developments occurring in the vicinity of the Los Angeles River and Arroyo Seco.

The Los Angeles River Revitalization Master Plan includes goals of improving water quality, and creating and restoring habitat within and adjacent to the River. These restoration goals intend to ensure that any growth directly adjacent to the River would improve and not degrade existing conditions. Any development that would occur in areas in the vicinity of the River or Arroyo Seco would be required to adhere to the Proposed Project's new Form District regulations, which require that any building be set back a minimum distance of 50 feet from the River or Arroyo Seco, as well as new River Area Planting requirements and Development Standard Rules set forth in the new Zoning Code to not disturb the River or Arroyo Seco, or otherwise conflict with the goals of the River Revitalization Master Plan. As described in Section 4.9, *Hydrology and Water Quality* of this Draft EIR, the City's Stormwater and Urban Runoff Pollution Control Ordinance would require future development in the Project Area to comply with the Standard Urban Stormwater Mitigation Plan (SUSMP) requirements, which require the inclusion of Best Management Practices in a project's design to prevent, control and reduce stormwater pollutants, if applicable; integrate LID practices and standards for stormwater pollution mitigation; and maximize open, green, and pervious space on all development consistent with the City's landscape ordinance and other related requirements to ensure that construction does not violate any water quality standards or discharge requirements or otherwise substantially degrade water quality that could affect downstream waterways including the River. Implementation of the Proposed Project would not have an adverse effect to the Los Angeles River or Arroyo Seco and no other wetlands are located in or adjacent to the Project Area. However, indirect impacts from excessive dust generated by developments occurring in the vicinity of the Los Angeles River and Arroyo Seco could be *potentially significant*.

Mitigation Measures

Mitigation Measure AQ1-1 in section 4.2 *Air Quality* would address impacts related to fugitive dust.

Significance After Mitigation

The inclusion of Mitigation Measure AQ1-1 would reduce potential impacts from fugitive dust. Implementation of the above mitigation measures would reduce potential impacts to wetlands to a *less-than-significant* level by ensuring that fugitive dust is avoided.

Threshold 4.3-4	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites
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Impact 4.3-4 **Proposed Project:** The Los Angeles River and Arroyo Seco serve as wildlife corridors in the Project Area. No portion of the Proposed Project would alter the Project Area's concrete-lined portion of the River or Arroyo Seco in any way, including allowing development that could impede wildlife movement along its course. Additionally, future development would be subject to outdoor lighting and glare standards, native landscaping requirements, and river setback standards. Impacts would be *less than significant*.

Project Impact

As discussed in the Environmental Setting, the Project Area is completely developed and does not contain any Essential Connectivity Areas or Natural Landscape Blocks. The Project Area does contain Natural Areas Smaller than 2,000 acres and, the Los Angeles River and Arroyo Seco are Potential Riparian Connections that run through the Project Area and could facilitate wildlife movement. However, no portion of the Proposed Project would alter the Project Area's concrete-lined portion of the River or Arroyo Seco in any way, including allowing development that could impede wildlife movement along its course. In addition, future development along the Los Angeles River and Arroyo Seco would follow all adjacency buffers, outdoor lighting and glare standards, and river setback standards within the Proposed Project. These include new River Area Planting native landscaping requirements, a river setback requirement, and additional lighting standards when along a Special River Lot Line, which for example limit outdoor lighting to no greater than 0.01 horizontal footcandles 15 feet beyond the site. Therefore, impacts would be *less than significant*.

Mitigation Measures

No significant impacts have been identified; therefore, mitigation is not required for the Proposed Project.

Threshold 4.3-5	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
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Impact 4.3-5 **Proposed Project:** The City will comply with the goals, policies and programs of the General Plan Framework, Conservation Element, and the Los Angeles River Revitalization Master Plan in all of its discretionary actions and approvals, and future development resulting from the Proposed Project will comply with the City's Tree Preservation Ordinance; therefore, the Proposed Project will not conflict any local policies or ordinances. Impacts will be *less than significant*.

Project Impact

As discussed in **Table 4.3-3** below, the Proposed Project would not conflict with goals, policies, and programs of the General Plan Framework or the City Conservation Element. Reasonably anticipated development from the Proposed Project would include infill development in an urban area and, therefore,

would not interfere with natural resources or degrade the sustainability of natural resources in the region. The Proposed Project would not disrupt existing open space or encroach upon any natural settings. As discussed under Impact 4.3-2, any development that would occur in areas in the vicinity of the River or Arroyo Seco would be required to adhere to the Form District regulations, which require that any building be set back a minimum distance of 50 feet from the River, as well as new River Area Planting requirements and Development Standards set forth in the New Zoning Code in order to not disturb the River or otherwise conflict with the goals of the Los Angeles River Revitalization Master Plan.

TABLE 4.3-3 PROJECT CONSISTENCY WITH RELEVANT GENERAL PLAN FRAMEWORK ELEMENT BIOLOGICAL RESOURCES GOALS, OBJECTIVES, AND POLICIES	
Goal/Objective/Policy	Consistency
Framework Element	
<p>Goal 6A An integrated Citywide/regional public and private open space system that serves and is accessible by the City's population and is unthreatened by encroachment from other land uses.</p>	<p>Consistent The Proposed Project encompasses the Cornfield Arroyo Seco Specific Plan area in Los Angeles, an urban area that lacks substantial open spaces. Reasonably anticipated development from the Proposed Project would not adversely affect planned private or public open spaces. To the contrary, the Project encourages the preservation and enhancement of existing parks as well as the revitalization of adjacent segments of the Los Angeles River in accordance with the River Revitalization Master Plan.</p>
<p>Objective 6.1 Protect the City's natural settings from the encroachment of urban development, allowing for the development, use, management, and maintenance of each component of the City's natural resources to contribute to the sustainability of the region.</p>	<p>Consistent By facilitating infill development in the Project Area and focusing new development in an already urban portion of Los Angeles, the Proposed Project would help relieve pressure for encroachment of urban development into areas containing natural resources to accommodate projected growth.</p>
Conservation Element – Habitat	
<p>Policy 1 Continue to identify significant habitat areas, corridors, and buffers and to take measures to protect, enhance and/or restore them.</p>	<p>Consistent The Project Area encompasses an urban area that generally lacks native biological habitat. By facilitating development in an already urbanized area, the Proposed Project would avoid potential impacts to habitat areas and corridors. In addition, any development that would occur in areas adjacent to the river would be required to adhere to the development standards set forth in the new Zoning Code in order to not disturb the Los Angeles River or otherwise conflict with the goals of the River Revitalization Master Plan, which seeks to improve water quality, create and restore habitat within and adjacent to the river. Future development along the Los Angeles River and Arroyo Seco would follow all adjacency buffers, outdoor lighting and glare standards, and river setback standards within the Proposed Project. These include new River Area Planting native landscaping requirements, a river setback requirement, and additional lighting standards when along a Special River Lot Line.</p>
<p>Policy 2 Continue to protect, restore, and/or enhance habitat areas, linkages and corridor segments, to the greatest extent practical, within City owned or managed sites.</p>	<p>Consistent The Project Area is in an urban area of Los Angeles that generally lacks native biological habitat. By facilitating development in an already urbanized area, the Proposed Project would avoid potential impacts to habitat areas and corridors.</p>

TABLE 4.3-3 PROJECT CONSISTENCY WITH RELEVANT GENERAL PLAN FRAMEWORK ELEMENT BIOLOGICAL RESOURCES GOALS, OBJECTIVES, AND POLICIES	
<p>Policy 3 Continue to work cooperatively with other agencies and entities in protecting local habitats and endangered, threatened, sensitive, and rare species.</p>	<p>Not Applicable This policy is aimed at working with other entities to protect habitats, which is not the specific purpose of the Proposed Project. Nevertheless, as noted above, reasonably anticipated development from the Proposed Project would include infill development, thus relieving pressure for encroachment of urban development into areas containing natural resources.</p>
<p>Policy 4 Continue to support legislation that encourages and facilitates protection of local native plant and animal habitats.</p>	<p>Not Applicable This policy is aimed at support for legislation that would protect native plant and animal habitats, which is not the specific purpose of the Proposed Project. Nevertheless, as noted above, reasonably anticipated development from the Project would include infill development, thus relieving pressure for encroachment of urban development into areas containing natural resources.</p>
<p>SOURCE: City of Los Angeles. 2001b. The Citywide General Plan Framework, An Element of the City of Los Angeles General Plan, originally adopted 1996, re-adopted 2001; City of Los Angeles, City of Los Angeles General Plan Conservation Element, adopted 2001.</p>	

It is illegal in the City of Los Angeles to remove or fatally harm protected trees and shrubs without issuance of a permit by the Los Angeles Department of Public Works (LADPW). As discussed above, DRP identifies heritage trees in the City, although heritage trees are not protected unless they are one of the protected species included in the Tree Preservation Ordinance. There are 10 heritage trees documented in the Project Area. Future development occurring in the Project Area is not expected to impact these heritage trees since these trees are located on public property and DRP is responsible for the maintenance and protection of heritage trees from injury.

Some ordinance-protected trees may be located on private property and in street rights-of-way. The number of protected trees within the Project Area is unknown. Per Protected Tree and Shrub Regulation 4(a), in the event that the LADPW approves a protected tree removal, replacement of the tree would be required with at least four trees of a protected variety (Ordinance No. 186,873). The Proposed Project does not include any components that would preclude implementation of or alter these policies or procedures. Thus, implementation of the Proposed Project would not conflict with any local policies or ordinances protecting biological resources, including protected trees. Therefore, impacts related to local policies or ordinances protecting biological resources would be *less than significant*.

Mitigation Measures

No significant impacts have been identified; therefore, mitigation is not required for the Proposed Project.

Threshold 4.3-6	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.
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Impact 4.3-6 **Proposed Project:** The Proposed Project would not conflict with any adopted Habitat Conservation Plans (HCPs), Natural Community Conservation Plans (NCCPs), or other approved local, regional, or state plans because no such plans apply to the Project Area. Thus, there would be *no impact*.

Project Impact

There are no HCPs located in or near the Project Area. There are no NCCPs or other local, regional, or state HCPs in or near the Project Area. The closest NCCP (Palos Verdes NCCP) and HCP (Orange County Transportation Authority HCP) are both located more than five miles from the Project Area.

Implementation of the Proposed Project does not have the potential to conflict with adopted HCPs, NCCPs, or other approved local, regional, or state HCPs because the Project Area is not subject to any such plans. Thus, there would be *no impact*.

Mitigation Measures

No significant impacts have been identified; therefore, mitigation is not required for the Proposed Project.

CUMULATIVE IMPACTS

The geographic area to analyze cumulatively considerable biological resource impacts includes the Project Area and immediately adjacent areas that could be indirectly affected.

Sensitive Species and Habitats, including Riparian Habitats

Development in the Project Area and the immediately surrounding area, generally would not affect sensitive plant or animal species since Los Angeles is largely urbanized and the General Plan Framework and other policy documents primarily emphasize infill development in already urbanized areas that lack native biological habitats. Isolated individual projects within and surrounding the Project Area may adversely affect sensitive species and habitats, but such impacts would be addressed on a case-by-case basis as part of project-level environmental reviews. Cumulative impacts would not be significant. Moreover, as discussed under Impacts 4.3-1 through 4.3-3, because the Project Area is completely urbanized, implementation of the Proposed Project would not contribute to any cumulative impacts to sensitive species or habitats.

Trees located throughout the Project Area could potentially support migratory birds. As discussed previously, the MBTA protects migratory avian species, including sensitive species. Compliance with the MBTA throughout the City would ensure that cumulative impacts to migratory birds would not be significant. Mitigation Measures 4.3-1(a) and 4.3-1(b) have been included in this EIR as an added precaution to provide additional requirements to ensure compliance with federal and state requirements. These mitigation measures along with the MBTA would ensure that future development in the Project Area would not contribute to cumulatively considerable impacts related to bird nest disturbance.

Based on the above information, cumulative impacts to sensitive species and habitats could occur; however, the incremental contribution of the Proposed Project to sensitive species and habitats would not be cumulatively considerable and cumulative impacts related to sensitive species and habitats would be *less than significant*.

Wildlife Movement

As discussed under Impact 4.3-4, the Project Area encompasses the Los Angeles River and Arroyo Seco, which serve as wildlife movement corridors; therefore, the Project Area serves to encourage wildlife movement as opposed to deter it. Project Area development generally would not disrupt wildlife movement because future development in the Project Area would primarily focus on infill development where wildlife corridors are not present. Nevertheless, developments in Natural Areas Smaller than 2,000 acres may have the potential to affect wildlife movement. Based on this information, the incremental contribution of the Proposed Project would not be cumulatively considerable and cumulative impacts related to wildlife movement would be *less than significant*.

Heritage Trees and Other Protected Trees

The City's Tree Preservation Ordinance provides protection for four tree species and two shrub species citywide, as previously discussed. All future development in the Project Area would also be subject to these

existing ordinances and regulations. Compliance with the Tree Preservation Ordinance would ensure that there would be no net loss of protected trees or shrubs. Based on this information, the incremental effect of the Proposed Project is not cumulatively considerable and cumulative impacts related to Tree Preservation Ordinance and other local policies would be *less than significant*.

Habitat and Natural Community Plans

As discussed under Impact 4.3-6, no portion of the City or Project Area is subject to a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Thus, cumulative impacts related to such plans would not occur and the incremental contribution of the Proposed Project would not be cumulatively considerable and the Project would have *no cumulative impact* related to Habitat and Natural Community Plans.

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4.4 CULTURAL RESOURCES

This section provides an overview of cultural resources and evaluates impacts associated with the Proposed Project. Topics addressed include historical and archaeological resources, as well as human remains.

CULTURAL SETTING

INDIGENOUS HISTORY

Numerous chronological sequences have been devised to aid in understanding cultural changes in southern California. Building on early studies and focusing on data synthesis, Wallace (1955; 1978) developed a prehistoric chronology for the southern California coastal region that is still widely used today and is applicable to near-coastal and many inland areas, including the current project site. Four periods are presented in Wallace's prehistoric sequence: Early Man, Milling Stone, Intermediate, and Late Prehistoric. Although Wallace's (1955) synthesis initially lacked chronological precision due to a paucity of absolute dates (Moratto 1984), this situation has been alleviated in recent years by the compilation of thousands of radiocarbon dates obtained by southern California researchers (Byrd and Raab 2007). Several revisions have been made to Wallace's (1955) synthesis using radiocarbon dates and projectile point assemblages (e.g., Koerper and Drover 1983; Mason and Peterson 1994; Koerper et al. 2002).

Horizon I - Early Man (ca. 10,000 – 6000 BCE)

When Wallace defined the Horizon I (Early Man) period in the mid-1950s, there was little evidence of human presence on the southern California coast prior to 6000 BCE. Archaeological work in the intervening years has identified numerous pre-8000 Before Common Era (BCE) sites, both on the mainland coast and the Channel Islands (e.g., Erlandson 1991; Johnson et al. 2002; Moratto 1984; Rick et al. 2001). The earliest accepted dates for occupation in the region are from two of the northern Channel Islands, located off the coast of Santa Barbara. On San Miguel Island, Daisy Cave clearly establishes the presence of people in this area about 10,000 years ago (Erlandson 1991). On Santa Rosa Island, human remains have been dated from the Arlington Springs site to approximately 13,000 years ago (Johnson et al. 2002).

Recent data from Horizon I sites indicate the economy was a diverse mixture of hunting and gathering, with a major emphasis on aquatic resources in many coastal areas (e.g., Jones et al. 2002) and on Pleistocene lakeshores in eastern San Diego County (see Moratto 1984). Although few Clovis-like or Folsom-like fluted points have been found in southern California (e.g., Dillon 2002; Erlandson et al. 1987), it is generally thought the emphasis on hunting may have been greater during Horizon I than in later periods. Common elements in many sites from this period, for example, include leaf-shaped bifacial projectile points and knives, stemmed, or shouldered projectile points, scrapers, engraving tools, and crescents (Wallace 1978). Subsistence patterns shifted around 6000 BCE coincident with the gradual desiccation associated with the onset of the Altithermal climatic regime, a warm and dry period that lasted for about 3,000 years. After 6000 BCE, a greater emphasis was placed on plant foods and small animals.

Horizon II - Milling Stone (6000–3000 BCE)

The Milling Stone Horizon of Wallace (1955, 1978) and Encinitas Tradition of Warren (1968) (6000 to 3000 BCE) are characterized by subsistence strategies centered on collecting plant foods and small animals. Food procurement activities included hunting small and large terrestrial mammals, sea mammals, and birds; collecting shellfish and other shore species; near-shore fishing with barbs or gorges; the processing of yucca

and agave; and the extensive use of seed and plant products (Kowta 1969). The importance of the seed processing is apparent in the dominance of stone grinding implements in contemporary archaeological assemblages, namely milling stones (metates and slabs) and handstones (manos and mullers). Milling stones occur in large numbers for the first time during this period and are more numerous still near the end of this period. Recent research indicates Milling Stone Horizon food procurement strategies varied in both time and space, reflecting divergent responses to variable coastal and inland environmental conditions (Byrd and Raab 2007).

Milling Stone Horizon sites are common in the southern California coastal region between Santa Barbara and San Diego, and at many inland locations (e.g., Langenwalter and Brock 1985; Sutton 1993; True 1958). Wallace (1955, 1978) and Warren (1968) relied on several key coastal sites to characterize the Milling Stone period and Encinitas Tradition, respectively. These include the Oak Grove Complex in the Santa Barbara region, Little Sycamore in southwestern Ventura County, Topanga Canyon in the Santa Monica Mountains, and La Jolla in San Diego County. The well-known Irvine site (CA-ORA-64) has occupation levels dating between ca. 6000 and 4000 BCE (Drover et al. 1983; Macko 1998).

Stone chopping, scraping, and cutting tools made from locally available raw material are abundant in Milling Stone/Encinitas deposits. Less common are projectile points, which are typically large and leaf-shaped, and bone tools such as awls. Items made from shell, including beads, pendants, and abalone dishes, are generally rare. Evidence of weaving or basketry is present at a few sites. Kowta (1969) attributes the presence of numerous scraper-planes in Milling Stone sites to the preparation of agave or yucca for food or fiber. The mortar and pestle, associated with pounding foods such as acorns, were first used during the Milling Stone Horizon (Wallace 1955, 1978; Warren 1968).

Cogged stones and discoidals are diagnostic Milling Stone period artifacts, and most specimens have been found at sites dating between 4000 and 1000 BCE (Moratto 1984). The cogged stone is a ground stone object with gear-like teeth on its perimeter. Discoidals are similar to cogged stones, differing primarily in their lack of edge modification. Discoidals are found in the archaeological record subsequent to the introduction of the cogged stone. Cogged stones and discoidals are often purposefully buried and are found mainly in sites along the coastal drainages from southern Ventura County southward, with a few specimens inland at Cajon Pass, and heavily in Orange County (Dixon 1968:63; Moratto 1984). These artifacts are often interpreted as ritual objects (Eberhart 1961; Dixon 1968), although alternative interpretations (such as gaming stones) have also been put forward (e.g., Moriarty and Broms 1971).

Characteristic mortuary practices of the Milling Stone period or Encinitas Tradition include extended and loosely flexed burials, some with red ochre, and few grave goods such as shell beads and milling stones interred beneath cobble or milling stone cairns. “Killed” milling stones, exhibiting holes, may occur in the cairns. Reburials are common in the Los Angeles County area, with north-oriented flexed burials common in Orange and San Diego counties (Wallace 1955, 1978; Warren 1968).

Koerper and Drover (1983) suggest Milling Stone period sites represent evidence of migratory hunters and gatherers who used marine resources in the winter and inland resources for the remainder of the year. Subsequent research indicates greater sedentism than previously recognized. Evidence of wattle-and-daub structures and walls has been identified at several sites in the San Joaquin Hills and Newport Coast area (Mason et al. 1991, 1992, 1993; Koerper 1995; Strudwick 2005; Sawyer 2006), while numerous early house pits have been discovered on San Clemente Island (Byrd and Raab 2007). This architectural evidence and seasonality studies suggest semi-permanent residential base camps were relocated seasonally (de Barros 1996; Koerper et al. 2002; Mason et al. 1997) or permanent villages from which a portion of the population left at certain times of the year to exploit available resources (Cottrell and Del Chario 1981).

Horizon III - Intermediate (3000 BCE – CE 500)

Following the Milling Stone Horizon, Wallace's Intermediate Horizon and Warren's Campbell Tradition in Santa Barbara, Ventura, and parts of Los Angeles counties, date from approximately 3000 BCE to CE 500 and are characterized by a shift toward a hunting and maritime subsistence strategy, along with a wider use of plant foods. The Campbell Tradition (Warren 1968) incorporates David B. Rogers' (1929) Hunting Culture and related expressions along the Santa Barbara coast. In the San Diego region, the Encinitas Tradition (Warren 1968) and the La Jolla Culture (Moriarty 1966; Rogers 1939; 1945) persist with little change during this time.

During the Intermediate Horizon and Campbell Tradition, there was a pronounced trend toward greater adaptation to regional or local resources. For example, an increasing variety and abundance of fish, land mammal, and sea mammal remains are found in sites along the California coast during this period. Related chipped stone tools suitable for hunting are more abundant and diversified, and shell fishhooks become part of the tool kit during this period. Larger knives, a variety of flake scrapers, and drill-like implements are common during this period. Projectile points include large side-notched, stemmed, and lanceolate or leaf-shaped forms. Koerper and Drover (1983) consider Gypsum Cave and Elko series points, which have a wide distribution in the Great Basin and Mojave deserts between ca. 2000 BCE and CE 500, to be diagnostic of this period. Bone tools, including awls, were more numerous than in the preceding period, and the use of asphaltum adhesive was common.

Mortars and pestles became more common during this period, gradually replacing manos and metates as the dominant milling equipment. Hopper mortars and stone bowls, including steatite vessels, appeared in the tool kit at this time as well. This shift appears to correlate with the diversification in subsistence resources. Many archaeologists believe this change in milling stones signals a shift away from the processing and consuming of hard seed resources to the increasing importance of the acorn (e.g., Glassow et al. 1988; True 1993). It has been argued that mortars and pestles may have been used initially to process roots (e.g., tubers, bulbs, and corms associated with marshland plants), with acorn processing beginning at a later point in prehistory (Glassow 1997) and continuing to European contact.

Characteristic mortuary practices during the Intermediate Horizon and Campbell Tradition included fully face-down or face-up flexed burials, oriented toward the north or west (Warren 1968). Red ochre was used commonly, and abalone shell dishes were found infrequently. Interments sometimes occurred beneath cairns or broken artifacts. Shell, bone, and stone ornaments, including charmstones, were more common than in the preceding Encinitas Tradition. Some later sites include Olivella shell and steatite beads, mortars with flat bases and flaring sides, and a few small points. The broad distribution of steatite from the Channel Islands and obsidian from distant inland regions, among other items, attest to the growth of trade, particularly during the latter part of this period. Recently, Byrd and Raab 2007 (220–221) have suggested the distribution of Olivella grooved rectangle beads marks “a discrete sphere of trade and interaction between the Mojave Desert and the southern Channel Islands.”

Horizon IV- Late Prehistoric Horizon (CE 500–Historic Contact)

In the Late Prehistoric Horizon (Wallace 1955; 1978), which lasted from the end of the Intermediate (ca. CE 500) until European contact, there was an increase in the use of plant food resources in addition to an increase in land and sea mammal hunting. There was a concomitant increase in the diversity and complexity of material culture during the Late Prehistoric, demonstrated by more classes of artifacts. The recovery of a greater number of small, finely worked projectile points, usually stemless with convex or concave bases, suggests an increased usage of the bow and arrow rather than the atlatl (spear thrower) and dart for hunting. Other items include steatite cooking vessels and containers, the increased presence of smaller bone and shell circular fishhooks, perforated stones, arrow shaft straighteners made of steatite, a variety of bone tools,

and personal ornaments made from shell, bone, and stone. There is also an increased use of asphalt for waterproofing and as an adhesive.

Many Late Prehistoric sites contain beautiful and complex objects of utility, art, and decoration. Ornaments include drilled whole Venus clam (*Chione* spp.) and drilled abalone (*Haliotis* spp.). Steatite effigies become more common, with scallop (*Pecten* spp. and *Argopecten* spp.) shell rattles common in middens. Mortuary customs are elaborate and include cremation and interment with abundant grave goods. By CE 1000, fired clay smoking pipes and ceramic vessels began to appear at some sites (Drover 1971, 1975; Meighan 1954). The scarcity of pottery in coastal and near-coastal sites implies ceramic technology was not well developed in the area, or that ceramics were obtained by trade with neighboring groups to the south and east. The lack of widespread pottery manufacture is usually attributed to the high quality of tightly woven and watertight basketry which functioned in the same capacity as ceramic vessels.

During this period, there was an increase in population size accompanied by the advent of larger, more permanent villages (Wallace 1955). Large populations and, in places, high population densities are characteristic, with some coastal and near-coastal settlements containing as many as 1,500 people. Many of the larger settlements were permanent villages in which people resided year-round. The populations of these villages may have also increased seasonally.

In Warren's (1968) cultural ecological scheme, the period between CE 500 and European contact is divided into three regional patterns. The Chumash Tradition is present mainly in the region of Santa Barbara and Ventura counties; the Takic or Numic Tradition is present in the Los Angeles, Orange, and western Riverside counties region; and the Yuman Tradition is present in the San Diego region. The seemingly abrupt changes in material culture, burial practices, and subsistence focus at the beginning of the Late Prehistoric period are thought to be the result of a migration to the coast of peoples from inland desert regions to the east. In addition to the small triangular and triangular side-notched points similar to those found in the desert regions in the Great Basin and Lower Colorado River, Colorado River pottery and the introduction of cremation in the archaeological record are diagnostic of the Yuman Tradition in the San Diego region. This combination suggests a strong influence from the Colorado Desert region.

In Los Angeles, Orange, and western Riverside counties, similar changes (introduction of cremation, pottery, and small triangular arrow points) are thought to be the result of a Takic migration to the coast from inland desert regions. This Takic or Numic Tradition was referred to formerly as the "Shoshonean wedge" or "Shoshonean intrusion" (Warren 1968). This terminology, originally used to describe an Uto-Aztecan language group, is generally no longer used to avoid confusion with ethnohistoric and modern Shoshonean groups who spoke Numic languages (Heizer 1978; Shipley 1978:). Modern Gabrieliño/Tongva in this region are considered the descendants of the prehistoric Uto-Aztecan, Takic-speaking populations who settled along the California coast during this period or perhaps somewhat earlier.

For further discussion on the ethnographic history of the Gabrieliño/Tongva people in the Project Area, see Section 4.16, *Tribal Cultural Resources*.

POST-CONTACT

The following citywide history is largely summarized from the following SurveyLA-produced reports, accessible online via the links below.

- Historic Resources Survey Report Central City Community Plan Area (Architectural Resources Group 2016); <https://planning.lacity.org/preservation-design/survey-la-results-central-city>
- Historic Resources Survey Report Central City North Community Plan Area (Historic Resources Group 2016); <https://planning.lacity.org/preservation-design/survey-la-results-central-city-north>

The history of the Project Area as presented below is excerpted from a 2011 historic resources survey of the Project Area, produced for the City, accessible online via the following link:

- Historic Resources Survey Cornfield Arroyo Seco Specific Plan Area City of Los Angeles Los Angeles County, California (LSA 2011): https://planning.lacity.org/odocument/69e7fc7f-101f-4488-8c92-48d1059120b0/Cornfield_Arroyo_Seco_Specific_Plan_Historic_Resources_Survey_-_2011.pdf

Citywide History

Europeans first entered the area that now comprises the City of Los Angeles in 1769, as part of a Spanish expedition led by Gaspar de Portola. By 1779, colonial authorities selected a site along the Los Angeles River, then called Rio de Porciúncula, as the site for a pueblo. Los Angeles was established in 1781 by a contingent of 44 settlers. Long a local center of the hide and tallow trade, the pueblo remained frontier outpost through the period of Mexican rule (1821-1848). When the United States assumed possession of California at the end of the Mexican-American War of 1846-48, Los Angeles was small city of about 1,500 residents, though this figure may not reflect the pueblo's Native American population. A limited degree of development followed the influx into California during the Gold Rush era. By the 1860s, the city had become a center of the state's burgeoning cattle industry. Local development remained agricultural in character through much of the rest of the nineteenth century, with dairying and citrus farming vying for predominance in the regional economy.

The late nineteenth century was a period of rapid growth and economic change for the city. A turning point in the history of Los Angeles came in 1876, with the opening of a Southern Pacific (SP) rail line connecting the city to San Francisco and, by extension, the Transcontinental Railroad. This connection with the eastern United States—augmented by the completion of the Atchison, Topeka and Santa Fe (ATSF) Railway's transcontinental line in 1885—paved the way for a late nineteenth-century population boom and an accompanying wave of industrialization. A city of 102,000 by 1900, Los Angeles was transformed from a small, isolated agricultural community into Southern California's principal industrial hub by the end of the century, a fact that seemed to belie the city's reputation as a peaceful resort town. Mutually reinforcing expansions of the city's population and its industrial base fueled rapid urbanization outside the historic core. Residential neighborhoods began growing in the southern and western areas of the city, while a large industrial district started to take shape east of downtown, centered on the SP and ATSF depot and warehouse facilities. The lure of economic opportunity helped to secure the city's cosmopolitan character by the turn of the twentieth century. Several ethnic enclaves—including Chinatown, Little Tokyo, and Little Italy—formed in older districts in and near the historic pueblo in the nineteenth and early twentieth centuries.

Los Angeles' phenomenal pace of growth continued through the first half of the twentieth century. The construction of the Pacific Electric Railway and other commuter rail lines starting in the late nineteenth century facilitated the spread of suburban communities, both within the city limits and in independent bedroom communities throughout the Los Angeles Basin. Another factor in the city's continuing growth was the 1913 opening of the Los Angeles Aqueduct. This effort spearheaded by Water Department Superintendent William Mulholland secured a vital supply of Owens Valley water for the Los Angeles area. The Great Migration of African Americans following World War I transformed southeastern Los Angeles and adjacent communities, as transplants from the South settled in racially segregated neighborhoods in these areas. By the late 1920s, the Los Angeles area possessed a large and growing population, improved port facilities at San Pedro Bay, and a burgeoning oil industry. This combination of factors awakened Eastern manufacturers to the area's advantages as a location for West Coast branch factories, including those of major automakers and food processing firms. In turn, the same set of conditions led Federal authorities to locate several substantial war production factories in and around Los Angeles (Verge 1994). By 1950, the massive wartime influx of munitions factory workers and the first phase of a postwar population boom pushed of Los Angeles to a population of 1.9 million.

Postwar Los Angeles faced the twin challenges of rapid suburban expansion and the decline of its central business district. As federal subsidies under the G.I. Bill subsidized the suburbanization of the San Fernando Valley and other far-flung residential areas, a network of freeways, including four that cut through downtown, were erected to convey commuters and shoppers across the ever-widening city. The flight of middle-class residents from the central city, ongoing since the 1920s, led retailers to relocate to new shopping centers closer to their suburban clientele. By the 1950s, redevelopment officials believed, the situation in declining areas such as Bunker Hill was such that the city opted for the wholesale razing of large formerly residential areas. Following the loss of many residents and retailers, downtown Los Angeles was rebuilt largely with modern, high-rise office towers. The trend toward suburbanization held steady through much of the late 20th century. However, early steps toward a return of residents to the central city began in the 1970s, as artists settled in live-work spaces in the industrial district located east of downtown. City officials and real estate interests came to embrace the residential redevelopment of the central city around the turn of the twenty-first century, as several sections of the city's historic core were targeted for new development.

Cornfield Arroyo Seco Specific Plan Area History

The following history of the Project Area is excerpted from the 2011 historic resources survey of the Specific Plan area (LSA 2011).

The Project survey area contains some of the oldest developed areas of Los Angeles. The site where Gaspar de Portola's 1769 expedition camped in Los Angeles is believed to be along the Los Angeles River just south of where it is joined by the Arroyo Seco Wash. In 1781, settlers from Spain and Mexico founded the Pueblo de Los Angeles about a mile south of the survey area along the river.

Agriculture provided the main source of industry for the nascent Pueblo, which grew slowly along the river during most of the nineteenth century. By 1820, the Pueblo was home to 650 California residents. In 1847, the U.S. gained possession of the Pueblo during the Mexican-American War. Under U.S. control, the riverfront began to industrialize. The Southern Pacific Railroad/River Station was completed in the 1870s and triggered a large wave of European and Chinese immigrants. The River Station became a major industrial and commercial center, connecting Los Angeles to major U.S. cities and the East. Much of the early growth of Los Angeles can be attributed to the development of the riverfront industrial center.

In the early 20th century, Los Angeles expanded across the river east into Lincoln Heights. In 1910, Henry G. Parker and Hugo Eckardt constructed the first monumental bridge across the Los Angeles River. The classically styled North Main Street Bridge connected East Los Angeles to Downtown. One year later, in 1911, the Buena Vista Viaduct (now called the North Broadway-Buena Vista Bridge) was completed. At the time, this bridge was the longest and widest concrete arch bridge in California. Designers Homer Hamlin and Alfred P. Rosenheim incorporated Ionic arches and balustrades to complement the North Main Street Bridge. Eighteen years later, the North Spring Street Viaduct was completed. John C. Shaw designed the North Spring Street Viaduct to relieve traffic on the North Broadway Bridge. Shaw's design continued the classical style of the two earlier bridges, linking the three bridges as a thematic sub-group that connects Lincoln Heights to Downtown. All three bridges were designated as City Historic Cultural Monuments in 2008.

Some of the original industrial and commercial buildings still exist along the riverfront. The Standard Oil Company of California buildings on North Spring Street served as sales department and provided industrial facilities for one of the most powerful corporations in the world. Rockefeller's Standard Oil of California was one of the "seven sisters" that ran the oil industry during the 20th century and later became Chevron Corporation. The Baker Iron Works Site, on North Broadway, was an influential industrial pioneer in Los Angeles. Baker played a major role

in stimulating growth in California, particularly through the production of streetcars, water distribution systems, and oil drilling products.

In the following years, the area surrounding Baker became the premier steel and iron manufacturing center in California. In addition, Baker was a major supplier to the United States military during World Wars I and II. Located on North Spring Street, Capitol Milling Company was one of Los Angeles' leading enterprises, specializing in milling grains to produce flour, cereal, and food. The nearby Southern Pacific Railroad allowed Capitol Milling to transport products nationwide. Today, these buildings provide a window to Los Angeles' past and serve as symbols of the industries that allowed the city to grow.

The concentration of industry near the river fostered the growth of new immigrant communities, including vibrant Italian, Mexican, and Chinese districts. These communities introduced new cultural elements and helped to establish Los Angeles as a global city. In 1917, Santo Cambianica, an Italian immigrant, opened the San Antonio Winery near the Los Angeles River.

Lincoln Heights

As commercial and industrial activity grew downtown in the late nineteenth century, new arrivals to Los Angeles looked to adjacent land surrounding downtown as the setting for the City's first suburbs. Similar subdivisions were recorded concurrently in areas east, south, and north of Downtown. The community of Lincoln Heights was built on the higher plain southeast of the confluence of the river and Arroyo Seco, subdividing the former farmlands. This new community was linked to downtown Los Angeles along Downey Avenue and served by horse-drawn streetcars. The main north-south road, San Fernando Road/Avenue 20, passed through Lincoln Heights and connected it to northern and southern California. Into the twentieth century, Lincoln Heights grew into a small town with a classic mix of residential neighborhoods around a small downtown located between Broadway and Five Points. At the same time, owing to its location as the mouth of a pass to the north, the first rail lines linking northern and southern California were built, paralleling the Los Angeles River. Along with the railroads came the first industrial uses, some directly rail-related in the form of rail yards, such as the Cornfield site, and some uses that were served by the rail. The residential small-town character of Lincoln Heights began to erode.

By the end of World War II, Lincoln Heights transformed into a predominantly working-class neighborhood. This transformation accelerated with the construction of the Golden State Freeway (I-5) in the 1950s, replacing the historic north-south Route 99 that used San Fernando Road and Avenue 20, split Lincoln Heights in half at its core and destroyed the neighborhood's important relationship with downtown, the river, and the historic origins of Los Angeles.

Railroads and Industry

After the rapid development of the 1920s, more and more industry began to locate in Lincoln Heights along the riverbanks following the railroad. Early land use districting ordinances had already established industrial use areas along the rail and river corridor, which were hardened further into discrete zones around 1920. The mixed-use character of Lincoln Heights with its residential neighborhoods was "pushed" to the east, with older neighborhoods nearer the river displaced by industrial lands.

Meanwhile, plagued by the river's unpredictability and constant flooding, the U.S. Army Corps of Engineers began to channelize the river in the 1930s. Ever since, the once natural resource has served as a flood control system and carried storm water and other runoff south to San Pedro and the harbor.

In 1996, one of the largest undeveloped parcels within the area was proposed to be developed as an industrial park but the surrounding neighborhoods resoundingly rejected the concept and instead demanded that the parcel, which was known as “the Cornfield,” be set aside as a park. With the assistance of the Trust for Public Land, the State of California purchased the 33-acre property and is today developing conceptual plans to develop the Los Angeles State Historic Park. With the introduction of the Gold Line only a few short years later, in 2002, and subsequently the interest in the revitalization of the River and the Arroyo Seco, the stage was set for developer speculation and the pressure for residential conversion began.

CULTURAL RESOURCES

Los Angeles contains a wide range of cultural resource types spanning the entire history of Los Angeles from pre-Contact, through the Spanish pueblo era, the Mexican era, and the American era. Cultural heritage can be generally categorized as “tangible” or “intangible.” Tangible cultural heritage includes the movable and immovable physical representations of heritage, including objects, archaeological sites, buildings, structures, districts, and landscapes. Intangible cultural heritage includes those aspects of heritage that are more ephemeral, such as events, traditions, organizations, knowledge, and the interaction between communities and their environment. Intangible cultural heritage is not a regulated category, and intangible resources cannot be identified as historical resources under CEQA, but they can inform the significance of tangible cultural resources.

HISTORICAL RESOURCES

CEQA considers “historical resources” to be part of the environment that could be impacted by a project. Historical resources are defined to include resources that have been designated by a state or local agency or found eligible to be designated by the state or local agency. Properties can be designated at the national, state, and/or local level. The State Register includes those resources that have been designated at the national or state level. The City has two types of formal designation: those designated as Historic Cultural Monuments and those properties in a Historic Preservation Overlay Zone (HPOZ). Below is a summary of those resources that have been designated at the National, State or local level in the Project Area, as well as summary of those designated Citywide.

In regard to eligible historical resources, the City has commissioned numerous surveys, prepared by qualified architectural historians, to identify those resources (buildings, structures, improvements) that could be potentially eligible for designation based on documentary research and visual review of the resource itself, or photographs of the resource. The principal survey relied on by the City to identify eligible resources for purposes of CEQA compliance is SurveyLA, which is further described below.

Designated Historical Resources

State and National

Currently, the Project Area contains five state- and/or federally designated and eligible historical resources, including two historic districts listed on or eligible for the National Register (see **Table 4.4-1**). In addition, based on a previous study conducted outside the Project Area, the Los Angeles River, which traverses the Project Area, has presumed eligibility for listing in the National Register as a primary element of a historic district (Rincon Consultants 2020).

1630 N. Main Street

The Department of Water and Power General Services Headquarters Historic District is located at 1630 N Main Street. A collection of 11 public utility buildings built in 1946, the buildings range from two to three stories and are designed with elements of International, Art Deco and Beaux Arts architectural styles. Due to significant associations and the Department of Water and Power's role in the development of Los Angeles, the district was determined eligible for the National Register in 1995 and, as a result, was automatically listed on the California Register (Office of Historic Preservation 2022).

William Mead Homes/Ann Street Project

Located at 1300 N. Cardinal Street, William Mead Homes/Ann Street Project consists of a grouping of 27 three-story apartment buildings. with Streamline Moderne and International Style architectural elements. Constructed in 1942, the property is significant as one of the first public housing projects in the city and for well as its association with defense production during World War II. Architecturally, it is also significant as an example of Garden City design principles. In 2002, the property was determined eligible for the National Register and, as a result, automatically listed in the California Register (Office of Historic Preservation 2022).

Spring Street Viaduct (Also referred to as North Spring Street Bridge in HCM)

The Spring Street Viaduct was completed in 1910 and built to carry North Spring Street over the Los Angeles River. The bridge is associated with a major bridge building program in Los Angeles, which was conducted between 1909 and 1932. The bridge was determined eligible for listing in the National Register in 1986 and automatically listed in the California Register, as a result. The resource is also designated as an HCM #900 in 2008 under the name North Spring Street Bridge, No. 53C0859 (OHP 2022; City of Los Angeles, Department of City Planning 2023).

Lincoln Heights Jail

Constructed in 1927, the Lincoln Heights Jail is located at 401 North Avenue 19. In 2021, the five-story building Art Deco-style institutional building was determined eligible for the National Register and, as a result, automatically listed in the California Register. The property is also designated as HCM #587 (Office of Historic Preservation 2022; City of Los Angeles, Department of City Planning 2021).

Arroyo Seco Parkway Historic District

The resource is a historic district consisting of 60 total properties, 45 of which are contributors. Notable features of the district include a concrete rigid frame bridge, concrete arch spandrel bridge, an Art Deco tunnel, vernacular pedestrian and equestrian tunnel, and parkways. The district was determined eligible for the National Register due to its significant associations with transportation planning, freeway construction, bridge and tunnel architecture, and engineering between 1938-1953. A section of the southern half of the resource partially overlaps with the northern portion of the plan area.

Local – HPOZ

There are 35 designated HPOZs in the City. An additional HPOZ is proposed, 27th and 28th Street, and another is currently inactive, Holmby-Westwood. The majority of the HPOZs are located in the central portion of the City and range in size from neighborhoods of approximately 50 parcels to more than 4,000 properties. While most HPOZs are primarily residential, there are several that have a mix of single-family and multi-family residential, and some that include commercial and industrial properties (City of Los Angeles 2022).

Cornfield Arroyo Seco Specific Plan Area Historic Preservation Overlay Zones

The Project Area does not currently contain any HPOZs.

Local – HCM

The City’s Office of Historic Resources has recorded thousands of HCMs throughout the City, officially recognizing and providing protection to some of Los Angeles’ historical resources (City of Los Angeles 2021). The HCM list is continually updated as new resources are designated.

Citywide Historic-Cultural Monuments

As of May 5, 2021, there are 1,217 HCMs in the City (City of Los Angeles 2021).

Cornfield Arroyo Seco Specific Plan Area Historic-Cultural Monuments

Currently, the Project Area contains 9 City-designated HCMs. A review of the Office of Historic Preservation Built Environment Resources Database identified three additional properties that were recommended eligible, but not designated, as HCMs. Eligible and designated HCMs are discussed in brief below (not including those which are designated at the state and national level and previously discussed above).

Los Angeles Railway Huron Substation (HCM #404)

The Los Angeles Railway Huron Substation is an electrical substation located at 2640 North Huron Street. The substation was constructed in 1906 as part of the Los Angeles Railway system. It was designated as an HCM in 1988 (City of Los Angeles, Department of Planning 2021). No further information on the property’s eligibility for HCM designation was available.

North Broadway-Buena Vista Street Bridge, No. 53C0545 (HCM #907)

The North Broadway-Buena Vista Street Bridge, No. 53C0545 was constructed in 1909 to carry North Broadway over the Los Angeles River. Constructed in 1909, is significant, in part, for its associations with a City bridge building program that erected several monumental bridges over the Los Angeles River between 1909 and 1932. The bridge is also architecturally significant as the first major Beaux-Arts bridge constructed by the City (City of Los Angeles, Department of City Planning 2023). The bridge was designated as an HCM in 2008 and has also been determined eligible for the National Register and listed in the California Register (City of Los Angeles, Department of Planning 2021; 2023).

River Station Area (HCM #82)

The River Station Area at 1231 North Spring Street, is significant as the site of the city’s first train station and as the city’s oldest industrial area (City of Los Angeles, Department of City Planning 2023). It was designated as an HCM in 1971 (City of Los Angeles, Department of Planning 2021).

Standard Oil Company Sales Department Building/Woman's Building (HCM #1160)

The Standard Oil Company Sales Department Building/Woman's Building is a private commercial and institutional building located at 1727 North Spring Street. Constructed in 1892, the building is significant for its associations with the Standard Oil Company and its role in the development of Los Angeles, as well as for the building’s use by women’s rights organizations City of Los Angeles, Department of City Planning 2023). It was designated as an HCM in 2018 (City of Los Angeles, Department of Planning 2021).

Raphael Junction Block Building (HCM #872)

The Raphael Junction Block Building is an industrial warehouse constructed in 1884. Located at 1635-1637 North Spring Street, the building is significant as one of the city's oldest standing warehouses and represents the surrounding "Cornfields" area's development into one of the city's important shipping and storage hubs (City of Los Angeles, Department of City Planning 2023). It was designated as an HCM in 2007 (City of Los Angeles, Department of Planning 2021).

Albion Cottages and Milagro Market (HCM #442)

Constructed in 1890, Albion Cottages and Milagro Market is a residential and commercial property located at 1801-1813 Albion Street. In part, its significance derives from the property's collection of Italianate-style cottages, which are some of the earliest existing development in Los Angeles. In addition, Milagro Market, also located on the property, remains as a good example of the "mom and pop"-type market that defined neighborhood grocery sales in the years before World War II (City of Los Angeles, Department of City Planning 2023). The property was designated as an HCM in 1989 (City of Los Angeles, Department of Planning 2021).

North Main Street Bridge, No. 53C1010 (HCM #901)

Constructed in 1910, the North Main Street Bridge, No. 53C1010, carries North Main Street over the Los Angeles River. In part, it is significant for its association with a bridge building program that erected several monumental bridges over the Los Angeles River between 1909 and 1932. The bridge is also architecturally significant as an example of a monumental Beaus Arts-style bridge (City of Los Angeles, Department of City Planning 2023). The bridge was designated as an HCM in 2008 (City of Los Angeles, Department of Planning 2021).

2646 North Figueroa Street

Constructed in 1924, 2646 North Figueroa Street is a two-story commercial building elements of Art-Deco style architecture. The building was previously recommended for eligible for designation at the local level; however, available documentation does not provide further information related to the determination of eligibility (Office of Historic Preservation 2022).

Arroyo Theater

Located at 3236 North Figueroa Street, the Arroyo Theater is a was constructed in 1928 with elements of Spanish Colonial Revival and Churrigueresque architectural styles. The building was previously recommended eligible for HCM designation as a good example of a pre-World War II-Era neighborhood theater, but is not eligible for the National Register of California Register due to alterations (Office of Historic Preservation 2022; City of Los Angeles, Department of City Planning 2023).

2325 Huron Street

The property at 2325 Huron Street is a one-story residence with elements of Folk Victorian architectural style constructed in 1895. The property was previously recommended eligible for designation as an HCM. Available documentation provides not further information (Office of Historic Preservation 2022).

Eligible Historical Resources

Local Surveys

Citywide

SurveyLA identifies and evaluates potential built-environment resources and historic districts for National Register, California Register of Historical Resources (California Register), and local listing. SurveyLA field surveys have been completed for all 35 CPAs in the City of Los Angeles. All individual survey reports have been completed and data entry into HistoricPlacesLA, the City's online information and management database to inventory, map, and describe significant historical resources, is ongoing. HistoricPlacesLA may be accessed online via the link below. As discussed below, because the Project Area was surveyed in 2011, it was not subject to recordation for SurveyLA (HistoricPlacesLA: <http://www.historicplacesla.org/>)

Project Area

LSA Associates prepared a survey titled Historic Resources Area, Project Area, in 2011. To inform future planning considerations in the Project Area, the study identified, documented, and evaluated, at the intensive level, selected properties for eligibility for the National Register, California Register, and HCM designation. Because the Project Area was subject to the 2011 historical resources inventory, it was excluded from the SurveyLA Central City North CPA or Northeast Los Angeles CPA survey areas, which the Project Area overlaps. The Central City North CPA was documented for SurveyLA in 2016 and the Northeast Los Angeles CPA in 2017.

The Project Area survey is consistent with the SurveyLA methodology, which identifies the following resource types:

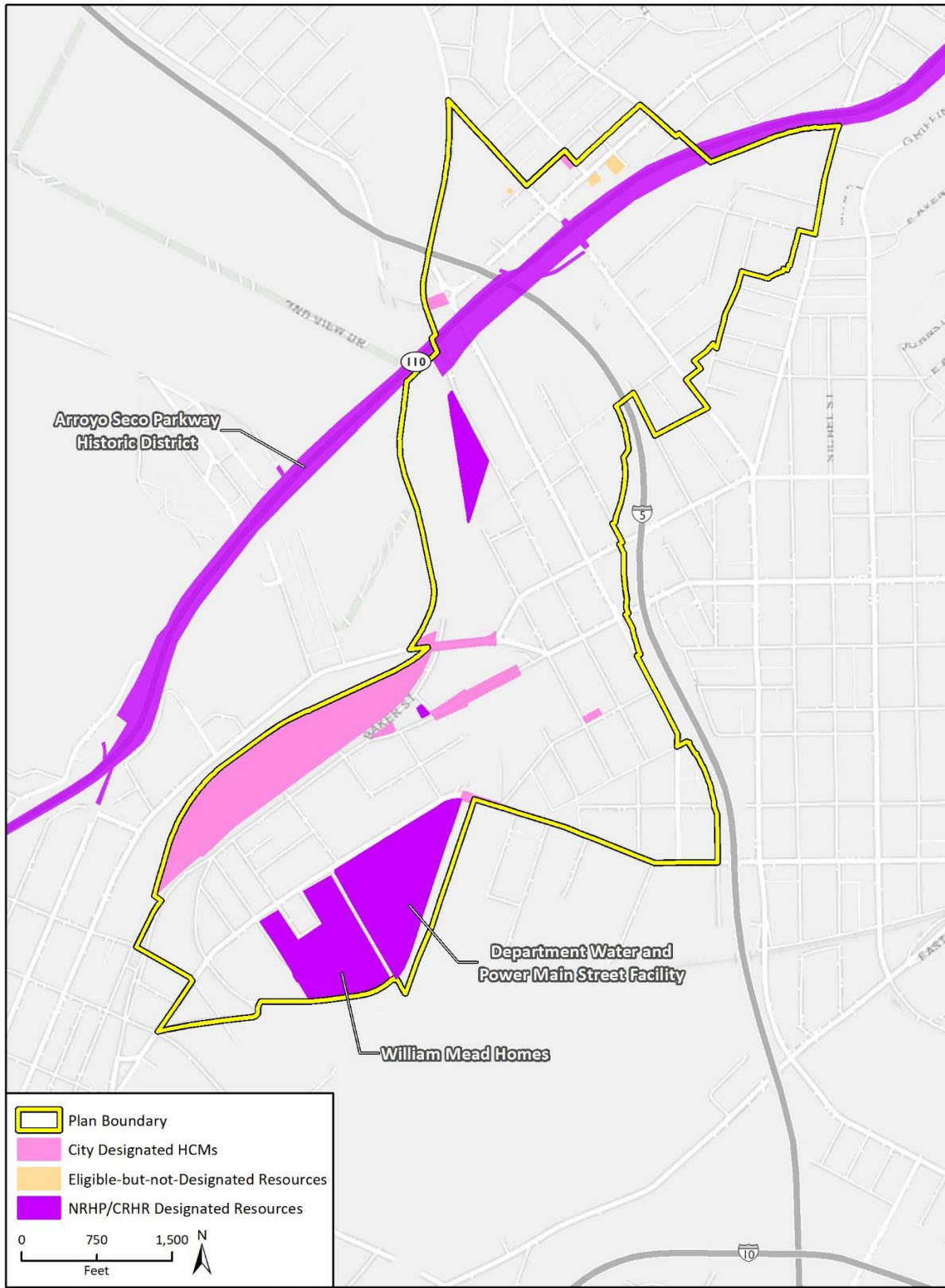
- Individual Resources are generally resources located within a single assessor parcel such as a residence or duplex. However, a parcel may include more than one individual resource if each appears to be significant.
- Non-Parcel Resources are not associated with Assessor Parcel Numbers and generally do not have addresses. Examples may include street trees, street lamps, landscaped medians, bridges, and signs.
- Historic Districts and Multi-Property Resources are areas that are related geographically and by theme. Districts may include single or multiple parcels depending on the resource. Examples of resources that may be recorded as historic districts include residential neighborhoods, garden apartments, commercial areas, large estates, school and hospital campuses, and industrial complexes. These areas require additional analysis and field work for HPOZ determination. District contributors and non-contributors are located within resources recorded as historic districts. Non-contributing resources may be those that are extensively altered, built recently, or that do not relate to historic contexts and themes defined for the district.
- Planning Districts are areas that are related geographically and by theme, but do not meet eligibility standards for designation, and as such are not considered "historical resources" as defined by CEQA (and will not be analyzed as such for purposes of this EIR). This is generally because the majority of the contributing features have been altered, resulting in a cumulative impact on the overall integrity of the area and making it ineligible as a Historic District. The Planning District determination, therefore, is used as a tool to inform new Community Plans being developed by the Department of City Planning. These areas have consistent planning concepts, such as height, massing, setbacks, and street trees, which may be considered in the local planning process.

The 2011 survey identified and evaluated 19 individual resources that were recommended eligible for the National Register, California Register, and HCM designation, and one property was recommended eligible

for HCM designation alone. Two individual properties selected for the 2011 survey were previously determined eligible for listing in the National Register and listed in the California Register and were not reevaluated for historical significance as part of the survey. The 2011 survey did not identify historic districts or non-parcel resources that had not been previously identified. Four additional properties were assigned an OHP status code of 6L, meaning they each warrant consideration in the planning process. A property assigned a 6L status code does not qualify as a historical resource pursuant to CEQA. Two areas were identified as non-eligible planning areas, the River Station Historic Vernacular Landscape and Albion Street Community Planning Area.

Figure 4.4-1a displays known, eligible and designated historical resources located in the Project Area, as identified in a review of the National Register, California Register, HCM list, and California Office of Historic Preservation Built Environment Resources Directory. City of Los Angeles HCMs are grouped together and shaded pink; National Register and California Register designated resources are grouped together and shaded purple; eligible resources are grouped together and shaded peach. Many of the resources depicted are listed or eligible for multiple designations (for example a resource may be a designated HCM and also listed in the National Register). In such situations, only the highest level of designation is displayed (in the aforementioned example, the resource would be grouped and displayed as National Register designated). Also included are **Figure 4.4-1b**, **Figure 4.4-1c**, and **Figure 4.4-1d**, which display the locations of districts, multi-property sites, non-parcel, and individual properties in the Project Area that were identified in the 2011 Project Area historical resources survey as potentially eligible for historic designation.

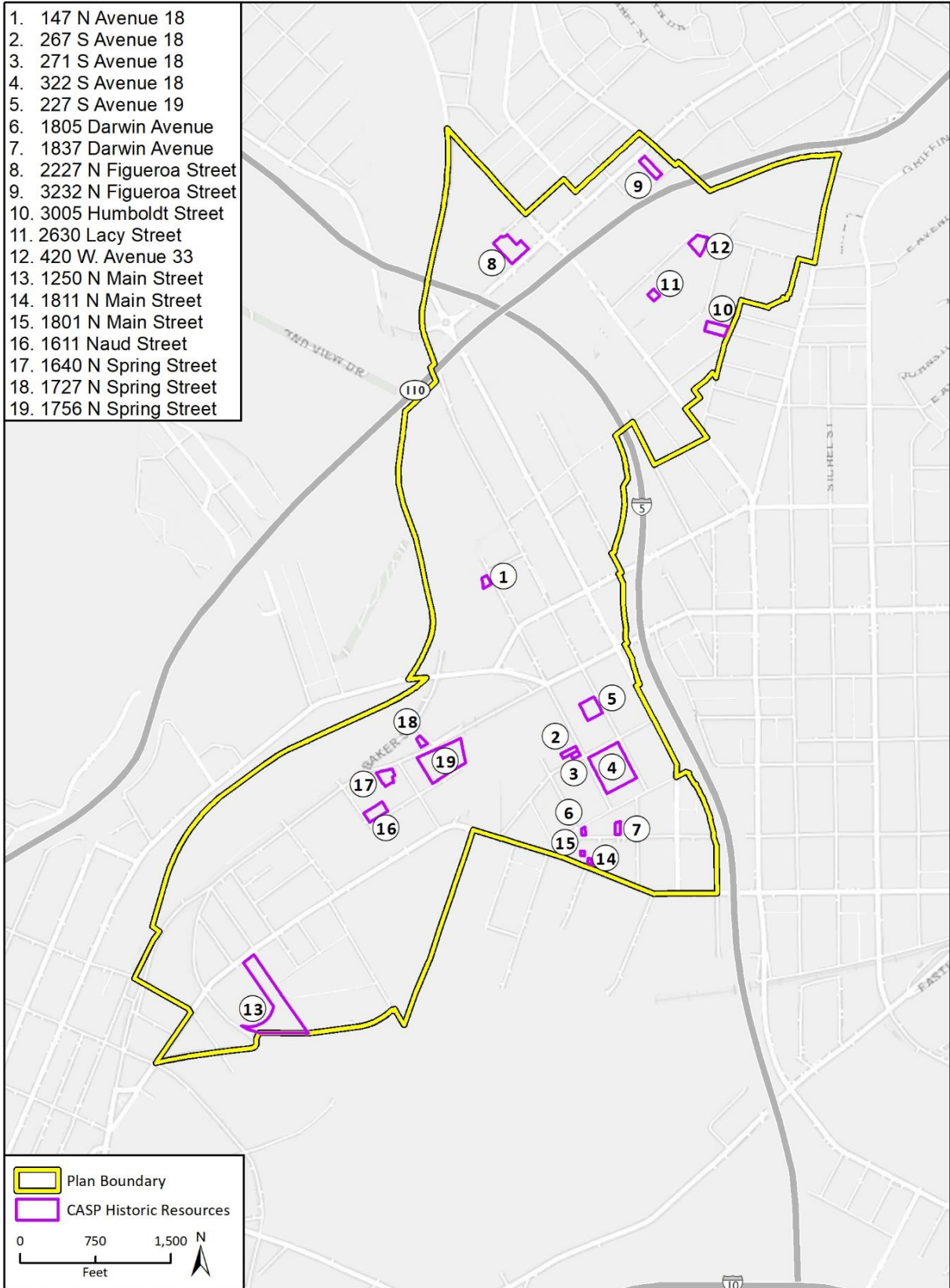
Figure 4.4-1a Historical Resources in the Project Area



Imagery and additional data provided by City of Los Angeles, 2023.

Fig 1 Cultural Resources_20230118

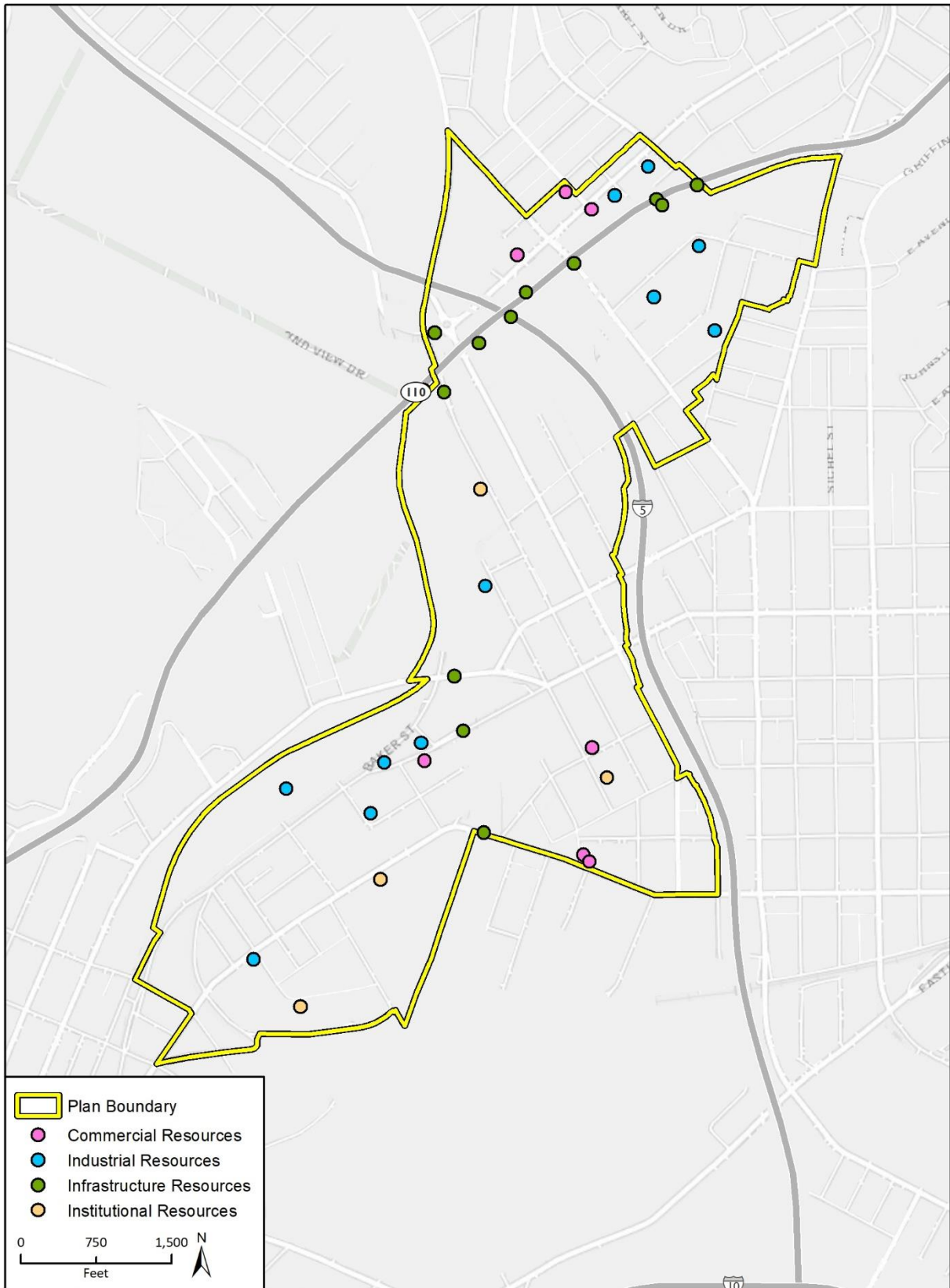
Figure 4.4-1b Historical Resources Identified in the 2011 CASP Area Study



Imagery and additional data provided by City of Los Angeles, 2018, and Survey LA, 2019.

FIG. 4.4-1b CASP Historical Resources

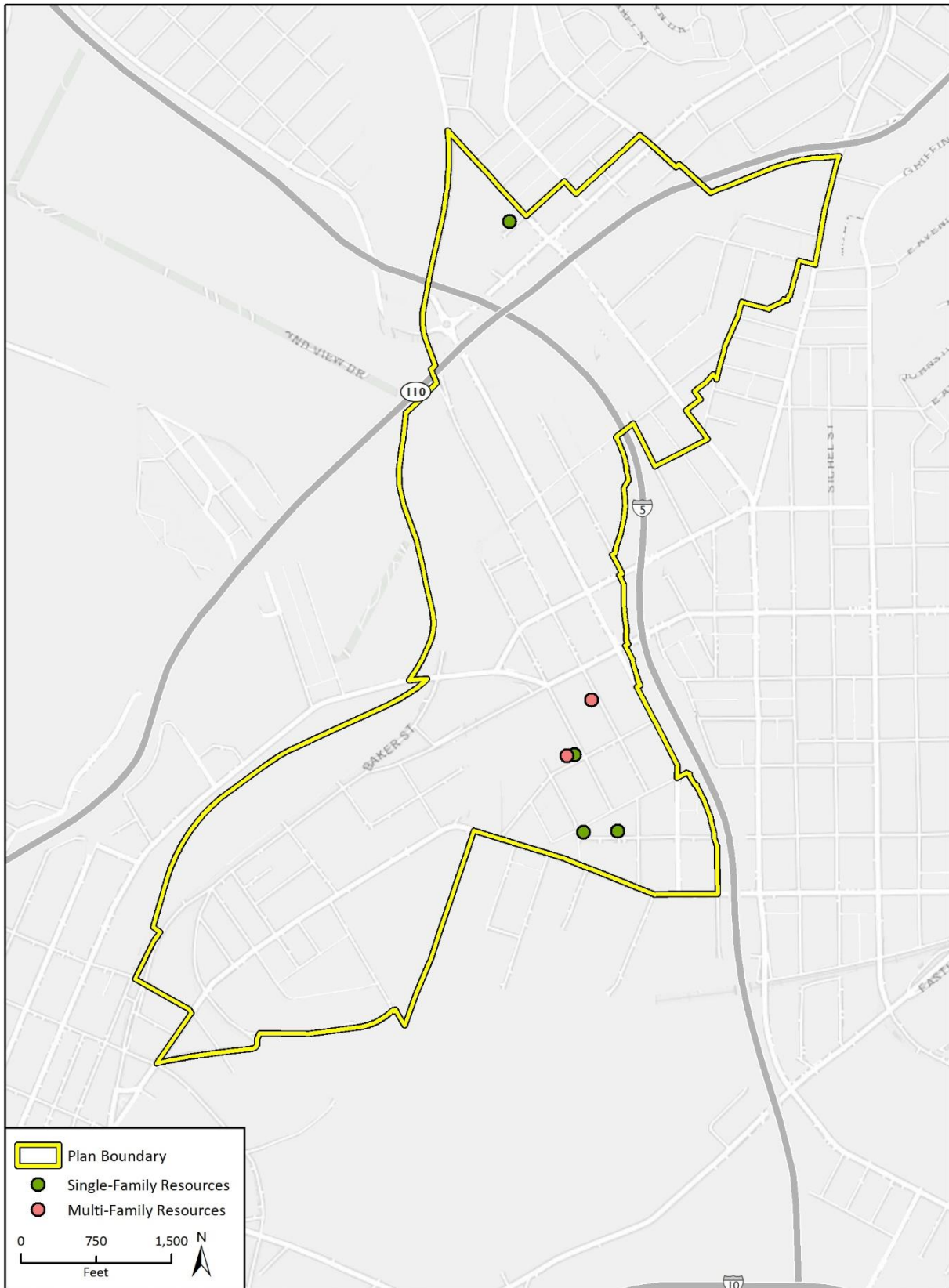
Figure 4.4-1c Historical Resources Identified in the 2011 CASP Area Study



Imagery and additional data provided by City of Los Angeles, 2018, and Survey LA, 2019.

Fig 3. Commercial Properties

Figure 4.4-1d Historical Resources Identified in the 2011 CASP Area Study



Imagery and additional data provided by City of Los Angeles, 2018, and Survey LA, 2019.

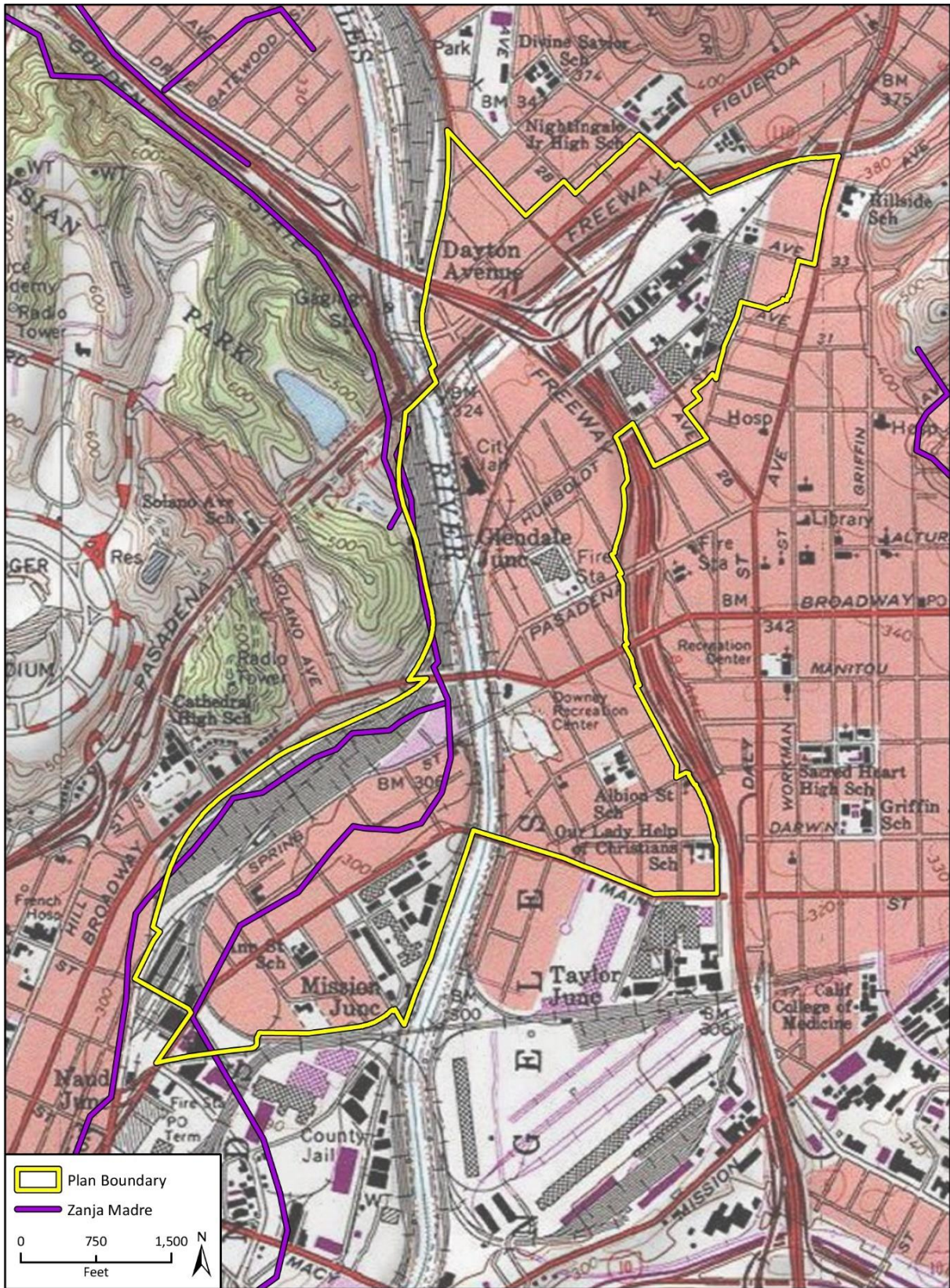
Fig. 4.4-1d Residential Properties

Archaeological Sites

As discussed above, people have been living and using the land in the City and Project Area for thousands of years. Prehistoric and historic-period archaeological sites are known to exist throughout the City.

In August 1993, 196 prehistoric sites, 50 historic-period sites, and 10 undefined isolated occurrences had been recorded in the City. Of these, at least 26 sites were known to contain human burials, and 10 sites had both prehistoric and historic components. The prehistoric sites include named Native American villages, buried deposits and features, pit houses, occupied caves and rock shelters, bedrock mortars, camp sites, cemeteries, and rock art (City of Los Angeles 2006). Historic-period archaeological sites primarily include privies and refuse deposits dating to the Spanish, Mexican, and early American settlement of the City, especially before the advent of citywide sewer and trash systems. Historic archaeological sites are also known to exist throughout the Project Area and include sites associated with the Spanish settlement at the Los Angeles pueblo beginning in 1781, Mexican settlement of the Area, and early American settlement and the establishment of the City. Remnants of the Zanja Madre, for example, the original aqueduct that carried water from the Los Angeles River to the pueblo, have been unearthed in the Project Area. The Zanja Madre was constructed within a month of the founding of the Los Angeles Pueblo. The ditch originated near the modern North Broadway bridge north of the City and extended southward to the original Plaza, crossing through the western and southwestern portion of the Project Area along the way. By 1870, there were over 50 miles of zanja including smaller ditches branching off of the Zanja Madre (**Figure 4.4-2**). During this time, the zanjias were enclosed by brick or replaced with piping (Gumprecht 1999). The system was mostly abandoned in 1906, with only small portions of zanjias used as part of the storm drain system. (Gust and Parker 2004). Portions of the abandoned zanjias have been unearthed throughout the City, including portions of the Zanja Madre within the Project Area.

Figure 4.4-2 Zanja Madre



Basemap provided by Esri and its licensors © 2022.

Fig. 4.4-2 Zanja Madre

REGULATORY FRAMEWORK

FEDERAL

National Historic Preservation Act and National Register of Historic Places

The National Historic Preservation Act of 1966 established the National Register of Historic Places (National Register) as “an authoritative guide to be used by federal, state, and local governments, private groups and citizens to identify the Nation’s historic resources and to indicate what properties should be considered for protection from destruction or impairment” (36 Code of Federal Regulations [CFR] 60). The National Register recognizes a broad range of cultural resources that are significant at the national, state, and local levels and can include districts, buildings, structures, objects, prehistoric archaeological sites, historic-period archaeological sites, traditional cultural properties, and cultural landscapes. Within the National Register, approximately 2,500 (3 percent) of the more than 90,000 districts, buildings, structures, objects, and sites are recognized as National Historic Landmarks or National Historic Landmark Districts as possessing exceptional national significance in American history and culture (National Park Service n.d.).

Whereas individual historic properties derive their significance from one or more of the criteria discussed in the subsequent section, a historic district derives its importance from being a unified entity, even though it is often composed of a variety of resources. With a historic district, the historic resource is the district itself. The identity of a district results from the interrelationship of its resources, which can be an arrangement of historically or functionally related properties (National Park Service 1997a). A district is defined as a geographic area of land containing a significant concentration of buildings, sites, structures, or objects united by historic events, architecture, aesthetic, character, and/or physical development. A district’s significance and historic integrity determine its boundaries. Other factors include:

- Visual barriers that mark a change in the historic character of the area or that break the continuity of the district, such as new construction, highways, or development of a different character;
- Visual changes in the character of the area due to different architectural styles, types, or periods, or to a decline in the concentration of contributing resources;
- Boundaries at a specific time in history, such as the original city limits or the legally recorded boundaries of a housing subdivision, estate, or ranch; and
- Clearly differentiated patterns of historical development, such as commercial versus residential or industrial (National Park Service 1997b).

Within historic districts, properties are identified as contributing and non-contributing. A contributing building, site, structure, or object adds to the historic associations, historic architectural qualities, or archaeological values for which a district is significant because:

- It was present during the period of significance, relates to the significance of the district, and retains its physical integrity; or
- It independently meets the criterion for listing in the National Register.

A resource that is listed in or eligible for listing in the National Register is considered “historic property” under Section 106 of the National Historic Preservation Act.

Criteria

To be eligible for listing in the National Register, a resource must be at least 50 years of age, unless it is of exceptional importance as defined in Title 36 CFR, Part 60, Section 60.4(g). In addition, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Four criteria for evaluation have been established to determine the significance of a resource:

- A. Are associated with events that have made a significant contribution to the broad patterns of our history;
- B. Are associated with the lives of persons significant in our past;
- C. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. Have yielded, or may be likely to yield, information important in prehistory or history (National Park Service 1997a).

Context

To be eligible for listing in the National Register, a property must be significant within a historic context. National Register Bulletin #15 states that the significance of a historic property can be judged only when it is evaluated within its historic context. Historic contexts are “those patterns, themes, or trends in history by which a specific...property or site is understood and its meaning... is made clear” (National Park Service 1997a). A property must represent an important aspect of the area’s history or prehistory and possess the requisite integrity to qualify for the National Register.

Integrity

In addition to meeting one or more of the criteria of significance, a property must have integrity, which is defined as “the ability of a property to convey its significance” (National Park Service 1997a). The National Register recognizes seven qualities that, in various combinations, define integrity. The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance. In general, the National Register has a higher integrity threshold than State or local registers.

In the case of districts, integrity means the physical integrity of the buildings, structures, or features that make up the district as well as the historic, spatial, and visual relationships of the components. Some buildings or features may be more altered over time than others. In order to possess integrity, a district must, on balance, still communicate its historic identity in the form of its character defining features.

Criteria Considerations

Certain types of properties, including religious properties, moved properties, birthplaces or graves, cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years are not considered eligible for the National Register unless they meet one of the seven categories of Criteria Considerations A through G, in addition to meeting at least one of the four significance criteria discussed above, and possess integrity as defined above (National Park Service 1997a). Criteria Consideration G is intended to prevent the listing of properties for which insufficient time may have passed to allow the proper evaluation of their historical importance (National Park Service 1997a). The full list of Criteria Considerations is provided below:

- A. A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- B. A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- C. A birthplace or grave of a historical figure of outstanding importance, if there is no other appropriate site or building directly associated with his or her productive life; or
- D. A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- E. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- F. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance; or
- G. A property achieving significance within the past 50 years if it is of exceptional importance.

Secretary of the Interior's Standards

The National Park Service issued the Secretary of the Interior's Standards with accompanying guidelines for four types of treatments for historic resources: Preservation, Rehabilitation, Restoration, and Reconstruction. The most applicable guidelines should be used when evaluating a project for compliance with the Secretary of the Interior's Standards. Although none of the four treatments, as a whole, apply specifically to new construction in the vicinity of historic resources, Standards #9 and #10 of the Secretary of the Interior's Standards for Rehabilitation provides relevant guidance for such projects. The Standards for Rehabilitation are as follows:

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired (National Park Service 2017).

It is important to note that the Secretary of the Interior's Standards are not intended to be prescriptive but, instead, provide general guidance. They are intended to be flexible and adaptable to specific project conditions to balance continuity and change, while retaining materials and features to the maximum extent feasible. Their interpretation requires exercising professional judgment and balancing the various opportunities and constraints of any given project. Not every Standard necessarily applies to every aspect of a project, and it is not necessary for a project to comply with every Standard to achieve compliance.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) requires federal agencies to return Native American cultural items to the appropriate Federally recognized Indian tribes or Native Hawaiian groups with which they are associated (National Park Service 2022).

Archaeological Resources Protection Act

The Archaeological Resources Protection Act (ARPA) of 1979 governs the excavation, removal, and disposition of archaeological sites and collections on federal and Native American lands. This act was most recently amended in 1988. ARPA defines archaeological resources as any material remains of human life or activities that are at least 100 years of age, and which are of archeological interest. ARPA makes it illegal for anyone to excavate, remove, sell, purchase, exchange, or transport an archaeological resource from federal or Native American lands without a proper permit (National Park Service 2007).State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) is the principal statute governing environmental review of projects occurring in the state and is codified in Public Resources Code (PRC) Section 21000 et seq. CEQA requires lead agencies to determine if a proposed project would have a significant effect on the environment, including significant effects on historical or unique archaeological resources. Under CEQA Section 21084.1, a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.

Public Resources Code Section 21084.1 provides:

[A]n historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources. Historical resources included in a local register of historical resources, as defined in subdivision (k) of Section 5020.1, or deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1, are presumed to be historically or culturally significant for purposes of this section, unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant. The fact that a resource is not listed in, or determined to be eligible for listing in, the California Register of Historical Resources, not included in a local register of historical resources, or not deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1 shall not preclude a lead agency from determining whether the resource may be an historical resource for purposes of this section.

CEQA Guidelines Section 15064.5 recognizes that historical resources include: (1) resources listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources; (2) resources included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any objects, buildings, structures, sites, areas, places, records, or manuscripts which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

If a lead agency determines that an archaeological site is a historical resource, the provisions of PRC Section 21084.1 and CEQA Guidelines Section 15064.5 apply. If an archaeological site does not meet the criteria for a historical resource contained in the CEQA Guidelines, then the site may be treated in accordance with the provisions of PRC Section 21083, if it meets the criteria of a unique archaeological resource. As defined in PRC Section 21083.2, a unique archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological site meets the criteria for a unique archaeological resource as defined in PRC Section 21083.2, then the site is to be treated in accordance with the provisions of PRC Section 21083.2, which state that if the lead agency determines that a project would have a significant effect on unique archaeological resources, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place (PRC Section 21083.1[a]). If preservation in place is not feasible, mitigation measures shall be required. The CEQA Guidelines note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (CEQA Guidelines Section 15064.5(c)(4)).

A significant effect under CEQA would occur if a project results in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5(a). Substantial adverse change is defined as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired." According to CEQA Guidelines Section 15064.5[b][2], the significance of a historical resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics that:

- A. Convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
- B. Account for its inclusion in a local register of historical resources pursuant to PRC Section 5020.1(k) or its identification in a historical resources survey meeting the requirements of PRC Section 5024.1(g) Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- C. Convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a Lead Agency for purposes of CEQA.

In general, a project that complies with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings is considered to have impacts that are less than significant (CEQA Guidelines, 15064.5[b][3]).

California Register of Historical Resources

The California Register of Historical Resources (California Register) is "an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1[a]). The California Register was enacted in 1992, and its regulations became official on January 1, 1998. The California Register is administered by the California Office of Historic Preservation (OHP). The criteria for eligibility for the California Register are based upon National Register criteria. Certain resources are determined to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register. To be eligible for the California Register, a prehistoric or historic-period property must be significant at the local, State, and/or federal level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above, and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register and those formally determined eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward; and,
- Those California Points of Historical Interest that have been evaluated by the State Office of Historic Preservation (OHP) and have been recommended to the State Historical Resources Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources assigned a California Historical Resource Status Code of Category 3 through 5 (those properties identified as eligible for listing in the National Register, the California Register, and/or a local jurisdiction register);
- Individual historical resources;
- Historic districts; and,

- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

California Historical Resource Status Codes

The California State Office of Historic Preservation developed California Historical Resource Status Codes to provide a standardized classifications for properties and districts that have been subject to historical resources evaluation for national, state, or local eligibility. The Status Codes convey the level at which a property or district has been evaluated, its eligibility status, and the process by which the evaluation was made, such as through the regulatory process or as part of a survey evaluation (Office of Historic Preservation 2004). Below, the 7 broad categories of Status Codes are summarized. A detailed list of all individual Status Codes is provided in Appendix F.

Status Code Categories

1. Properties listed in the National Register or the California Register
2. Properties determined eligible for listing in the National Register or the California Register
3. Properties that appear eligible for National Register or California Register through a survey evaluation
4. Properties that appear eligible for National Register (NR) or California Register (CR) through other evaluation, specifically, those that are included on the Master List of State-Owned Properties
5. Properties recognized as historically significant by local government
6. Properties that are not eligible for listing
7. Properties that have were not evaluated for the National Register or California Register or which require re-evaluation

California Health and Safety Code

California Health and Safety Code Sections 7050.5, 7051, and 7054 address the illegality of interference with human burial remains (except as allowed under applicable PRC Sections), and the disposition of Native American burials in archaeological sites. These regulations protect such remains from disturbance, vandalism, or inadvertent destruction, and establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including treatment of the remains prior to, during, and after evaluation, and reburial procedures.

California Public Resources Code (PRC)

PRC Sections 5097.5, 5097.9, and 5097.98-99

PRC Section 5097.5 provides protection for cultural and paleontological resources, where Section 5097.5(a) states, in part, that:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.

PRC Section 5097.9 establishes the California Native American Heritage Commission (NAHC) to make recommendations to encourage private property owners to protect and preserve sacred places in a natural state and to allow appropriate access to Native Americans for ceremonial or spiritual activities. NAHC is authorized to assist Native Americans in obtaining appropriate access to sacred places on public lands, and to aid state agencies in any negotiations with federal agencies for the protection of Native American sacred places on federally administered lands in California.

PRC Sections 5097.98-99 require that the NAHC be consulted whenever Native American graves or human remains are found. According to these sections, it is illegal to take or possess remains or artifacts taken from Native American graves; however, it does not apply to materials taken before 1984. California Code of Regulations, Title 14, Section 4307 and Section 1427. Title 14, Section 4307 states that “no person shall remove, injure, deface or destroy any object of paleontological, archaeological, or historical interest or value.” Section 1427 “recognizes that California’s archaeological resources are endangered by urban development and population growth and by natural forces. Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of archaeological or historical interest or value, whether situated on private lands or within any public park or place, is guilty of a misdemeanor. It is a misdemeanor to alter any archaeological evidence found in any cave, or to remove any materials from a cave.”

California Penal Code Section 622.5

California Penal Code Section 622.5 provides the following: “Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of archeological or historical interest or value, whether situated on private lands or within any public park or place, is guilty of a misdemeanor.”

California Penal Code Section 623

California Penal Code Section 623 provides the following: “Except as otherwise provided in Section 599c, any person who, without the prior written permission of the owner of a cave, intentionally and knowingly does any of the following acts is guilty of a misdemeanor punishable by imprisonment in the county jail not exceeding one year, or by a fine not exceeding one thousand dollars (\$1,000), or by both such fine and imprisonment: (1) breaks, breaks off, cracks, carves upon, paints, writes or otherwise marks upon or in any manner destroys, mutilates, injures, defaces, mars, or harms any natural material found in any cave. (2) disturbs or alters any archaeological evidence of prior occupation in any cave. (3) kills, harms, or removes any animal or plant life found in any cave. (4) burns any material which produces any smoke or gas which is harmful to any plant or animal found in any cave. (5) removes any material found in any cave. (6) breaks, forces, tampers with, removes or otherwise disturbs any lock, gate, door, or any other structure or obstruction designed to prevent entrance to any cave, whether or not entrance is gained.

Assembly Bill (AB) 52

AB 52 specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. AB 52 requires that a lead agency consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a project prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. Furthermore, it provides examples of mitigation measures that may be considered to mitigate any impact. These provisions are applicable to projects that have a notice of preparation (NOP) for an environmental impact or a notice of negative declaration or mitigated negative declaration filed on or after July 1, 2015.

LOCAL

City of Los Angeles General Plan Conservation Element (2001)

The City of Los Angeles General Plan includes a Conservation Element. Section 3 of the Conservation Element, adopted in September 2001, includes policies for the protection of archaeological resources. As stated therein, it is the City’s policy that archaeological resources be protected for research and/or educational purposes. Section 5 of the Conservation Element recognizes the City’s responsibility for identifying and protecting its cultural and historical heritage. The Conservation Element establishes the policy to continue to protect historic and cultural sites and/or resources potentially affected by proposed land development, demolition, or property modification activities, with the related objective to protect important cultural and historical sites and resources for historical, cultural, research, and community educational purposes (City of Los Angeles 2001).

In addition to the National Register and the California Register, two additional types of historic designations may apply at a local level:

1. Historic-Cultural Monument (HCM)
2. Classification by the City Council as a Historic Preservation Overlay Zone (HPOZ)

Policies from the Conservation Element related to paleontological, archaeological, and historical resources are listed in **Table 4.4-1, Relevant General Plan Cultural Resources Goals, Objectives, and Policies.**

TABLE 4.4-1 RELEVANT GENERAL PLAN CULTURAL RESOURCES OBJECTIVES AND POLICIES	
Objective/Policy	Objective/Policy Description
Conservation Element – Archaeological and Paleontological	
Objective	Protect the city's archaeological and paleontological resources for historical, cultural, research and/or educational purposes.
Policy	Continue to identify and protect significant archaeological and paleontological sites and/or resources known to exist or that are identified during land development, demolition or property modification activities.
Conservation Element – Cultural and Historical	
Objective	Protect important cultural and historical sites and resources for historical, cultural, research, and community educational purposes.
Policy	Continue to protect historic and cultural sites and/or resources potentially affected by proposed land development, demolition or property modification activities.
SOURCE: City of Los Angeles, Conservation Element of the City of Los Angeles General Plan, adopted September 26, 2001.	

City of Los Angeles Cultural Heritage Ordinance

The Los Angeles City Council adopted the Cultural Heritage Ordinance in 1962 and most recently amended it in 2018 (Sections 22.171 et seq. of the Administrative Code). The Ordinance created a Cultural Heritage Commission (CHC) and criteria for designating an HCM. The CHC is comprised of five citizens, appointed by the Mayor, who have exhibited knowledge of Los Angeles history, culture, and architecture. The City of Los Angeles Cultural Heritage Ordinance states that a HCM designation is reserved for those resources that have a special aesthetic, architectural, or engineering interest or value of a historic nature and meet one of the following criteria. A historical or cultural monument is any site, building, or structure of particular historical or cultural significance to the City of Los Angeles. The four criteria for HCM designation are stated below:

- The proposed HCM reflects the broad cultural, economic, or social history of the nation, state or community is reflected or exemplified; or
- The proposed HCM is identified with historic personages or with important events in the main currents of national, state or local history; or
- The proposed HCM embodies the characteristics of an architectural type specimen inherently valuable for a study of a period, style or method of construction;
- The proposed HCM is the notable work of a master builder, designer, or architect whose individual genius influenced his or her age (Section 22.171 of the Administrative Code).

A proposed resource may be eligible for designation if it meets at least one of the criteria above. When determining historic significance and evaluating a resource against the Cultural Heritage Ordinance criteria above, the CHC and Office of Historic Resources (OHR) staff often ask the following questions:

- Is the site or structure an outstanding example of past architectural styles or craftsmanship?
- Was the site or structure created by a “master” architect, builder, or designer?
- Did the architect, engineer, or owner have historical associations that either influenced architecture in the City or had a role in the development or history of Los Angeles?
- Has the building retained “integrity”? Does it still convey its historic significance through the retention of its original design and materials?
- Is the site or structure associated with important historic events or historic personages that shaped the growth, development, or evolution of Los Angeles or its communities?
- Is the site or structure associated with important movements or trends that shaped the social and cultural history of Los Angeles or its communities?

Unlike the National and California Registers, the Cultural Heritage Ordinance makes no mention of concepts such as physical integrity or period of significance. However, in practice, the seven aspects of integrity from the National Register and California Register are applied similarly and the threshold of integrity for individual eligibility is similar. It is common for the CHC to consider alterations to nominated properties in making its recommendations on designations. Moreover, properties do not have to reach a minimum age requirement, such as 50 years, to be designated as HCMs.

In addition, the LAMC Section 91.106.4.5 states that the Los Angeles Department of Building and Safety “shall not issue a permit to demolish, alter or remove a building or structure of historical, archaeological or architectural consequence if such building or structure has been officially designated, or has been determined by state or federal action to be eligible for designation, on the National Register of Historic Places, or has been included on the City of Los Angeles list of HCMs, without the department having first determined whether the demolition, alteration or removal may result in the loss of or serious damage to a significant historical or cultural asset. If the department determines that such loss or damage may occur, the applicant shall file an application and pay all fees for the CEQA Initial Study and Check List, as specified in Section 19.05 of the LAMC. If the Initial Study and Check List identifies the historical or cultural asset as significant, the permit shall not be issued without the department first finding that specific economic, social or other considerations make infeasible the preservation of the building or structure” (LAMC Section 91.106.4.5.1). Under Section 91.106.4.5.1 of the LAMC, permits for the demolition of a building or structure that are over 45 years old will not be issued unless abutting properties owners and occupant, and the City Council District Office, and the Certified Neighborhood Council representing the site are notified in writing and a public notice of application for demolition has been posted at the site at least 60 days prior to the date of issuance of the demolition of building or structure permit.

City of Los Angeles Historic Preservation Overlay Zone (HPOZ) Ordinance

The Los Angeles City Council adopted the ordinance enabling the creation of HPOZs in 1979; most recently, this ordinance was amended in 2017. An HPOZ is a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development (LAMC Section 12.20.3). Each HPOZ is established with a Historic Resources Survey, a historic context statement, and a preservation plan. The Historic Resources Survey identifies all Contributing and Non-Contributing features and lots. The context statement identifies the historic context, themes, and subthemes of the HPOZ as well as the period of significance. The preservation plan contains guidelines that inform appropriate methods of maintenance, rehabilitation, restoration, and new construction. Contributing Elements are defined as any building, structure, Landscaping, or Natural Feature identified in the Historic Resources Survey as contributing to the Historic significance of the HPOZ, including a building or structure which has been altered, where the nature and extent of the Alterations are determined reversible by the Historic Resources Survey (LAMC Section 12.20.3). For CEQA purposes, Contributing Elements are treated as contributing features to a historic district, which is the historical resource. Non-Contributing Elements are any building, structure, Landscaping, Natural Feature identified in the Historic Resources Survey as being built outside of the identified period of significance or not containing a sufficient level of integrity. For CEQA purposes, Non-Contributing Elements are not treated as contributing features to a historical resource.

City of Los Angeles Historic Resources Survey (SurveyLA)

SurveyLA is a Citywide survey that identifies and documents potentially significant historical resources representing important themes in the City's history. The survey and resource evaluations were completed by consultant teams under contract to the City and under the supervision of the Department of City Planning's OHR. The program is managed by OHR, which maintains a website for SurveyLA. The field surveys cumulatively cover broad periods of significance, from approximately 1850 to 1980 depending on the location, and include individual resources such as buildings, structures, objects, natural features and cultural landscapes as well as areas and districts (archaeological resources are planned to be included in future survey phases). The survey identifies a wide variety of potentially significant resources that reflect important themes in the City's growth and development in various areas including architecture, city planning, social history, ethnic heritage, politics, industry, transportation, commerce, entertainment, and others. Field surveys, conducted from 2010-2017, were completed in three phases by Community Plan area. However, SurveyLA did not survey areas already designated as HPOZs or areas already surveyed by Community Redevelopment Agencies. All tools, methods, and criteria developed for SurveyLA were created to meet state and federal professional standards for survey work.

Los Angeles' Citywide Historic Context Statement (HCS) was designed for use by SurveyLA field surveyors and by all agencies, organizations, and professionals completing historical resources surveys in the City of Los Angeles. The context statement was organized using the Multiple Property Documentation (MPD) format developed by the National Park Service for use in nominating properties to the National Register. This format provides a consistent framework for evaluating historical resources. It was adapted for local use to evaluate the eligibility of properties for city, state, and federal designation programs. The HCS uses Eligibility Standards to identify the character defining, associative features and integrity aspects a property must retain to be a significant example of a type within a defined theme. Eligibility Standards also indicate the general geographic location, area of significance, applicable criteria, and period of significance associated with that type. These Eligibility Standards are guidelines based on knowledge of known significant examples of property types; properties do not need to meet all of the Eligibility Standards in order to be eligible. Moreover, there are many variables to consider in assessing integrity depending on why a resource is significant under the National Register, California Register or City of Los Angeles HCM eligibility criteria. SurveyLA findings are subject to change over time as properties age, additional

information is uncovered, and more detailed analyses are completed. Resources identified through SurveyLA are not designated resources. Designation by the City of Los Angeles and nominations to the California or National Registers are separate processes that include property owner notification and public hearings.

Redevelopment Project Area Historic Resources Surveys

The Community Redevelopment Agency of the City of Los Angeles (CRA/LA) was established in 1948 to revitalize economically underserved areas within the City of Los Angeles by increasing the supply of low income housing, providing infrastructure for commercial and industrial development, and creating employment opportunities. To carry out these goals, CRA/LA adopts comprehensive plans for each Redevelopment Project Area. Some areas also include a historical resources survey that documents all of the historical resources--individual and districts--within the Redevelopment Project Area. These CRA/LA surveys were done independent of the City's SurveyLA effort, though some of the more recent surveys may have used the same methodology and technology that was used in SurveyLA. SurveyLA did not survey areas already surveyed by CRA/LA. Currently, there are 32 Redevelopment Project Areas throughout Los Angeles. On September 30, 2019, the Los Angeles City Council voted to adopt Ordinance No. 186325 to effectuate the transfer of land use related plans and functions of the CRA/LA to the City of Los Angeles. As a result, the Department of City Planning has jurisdiction over review of properties located within Redevelopment Project Areas as of November 11, 2019.

City of Los Angeles Cultural Heritage Master Plan

The City of Los Angeles Cultural Affairs Department developed a Cultural Heritage Master Plan, adopted by the City Council in 2000. The Master Plan contains numerous important policy recommendations on historic preservation in the City of Los Angeles, many of which have shaped the creation and early work of the Office of Historic Resources.

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance were developed based on Appendix G of the CEQA Guidelines. The Proposed Project would have a significant impact to cultural resources if it would:

- Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5 (Threshold 4.4-1)
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5 (Threshold 4.4-2)
- Disturb any human remains, including those interred outside of dedicated cemeteries (Threshold 4.4-3)

METHODOLOGY

The cultural resources analysis considers the presence and absence of known cultural resources, as well as the potential for significant cultural resources to occur within the Project Area and considers the potential impacts on such resources from adoption and implementation of the Proposed Project.

The analysis of historical resources examines the likelihood that the Proposed Project could cause a substantial adverse change in the significance of a historical resource. For purposes of the analysis of

impacts to historical resources, historical resources include all resources on the California Register (which include those on the National Register); all HCMs, all HPOZs; all resources identified as eligible for listing or designated on a state or local register in Historic Resources Survey, Cornfield Arroyo Seco Specific Plan Area, completed in 2011 .

Based on CEQA Guidelines Section 15064.5, activities under the Proposed Project would have a significant impact on historical resources if they would cause a substantial adverse change in the significance of a historical resource. Section 15064.5 explains that “[s]ubstantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.” Generally, a project that follows the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995) is considered to be mitigated to a level of less-than-significant impact on the historical resource.

The analysis of archaeological resources identifies the likelihood of ground disturbing activities to potentially result in a significant impact to unique archaeological resources (non-unique resources do not have to be addressed in an Environmental Impact Report). PRC Section 21083.2 defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Similar to archaeological resources, the analysis of human remains considers the likelihood of ground disturbing activities to potentially encounter human remains.

PROJECT IMPACTS

Threshold 4.4-1	Cause a substantial adverse change in the significance of a historical resource as pursuant to § 15064.5
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Impact 4.4-1 **Proposed Project:** Although the existing regulations provide certain protections for significant historical resources, individual reasonably anticipated development from the Project could potentially cause a substantial adverse change in or disturbance of historical resources as defined in CEQA Guidelines Section 15064.5. Impacts to historical resources would be *significant and unavoidable*.

Project Impacts

As described in the Setting, there are 37 historical resources identified within the Project Area, including both designated resources and those found potentially eligible in the 2011 historical resources survey of the Project Area or other surveys.

Within the Project Area, there are eight state- and/or federally designated historical resources, including two historic districts, in addition to nine designated HCMs. The 2011 historic resources survey of the Project Area, which was completed to identify potentially eligible historical resources, identified 19 previously unrecorded properties within the Project Area that could be eligible for federal, state, and/or local designation pending further investigation. **Figures 4.4-1a through 4.4-1d** identify the location of these historical resources and indicates that, although they are located throughout the Project Area, higher concentrations in the north and south ends of the Project Area. Several designated and eligible historical resources are associated with the local and regional transportation networks traverse or are located within the Project Area. Among these are the National Register-listed Arroyo Seco Parkway Historic District, which passes through the north end of the Project Area, and multiple City-owned bridges that cross the Los Angeles River. Historical resources associated with the early development of industry in the Project Area are found throughout the area but are most often found along the historical rail corridor now used as the L Line of the Los Angeles Metro Rail.

The Proposed Project does not introduce any features that would preclude implementation of or alter the regulatory control ordinances that designated historical resources are subject to the Cultural Heritage Ordinance and Building Permit regulations discussed above. There are no historical resources that are called for removal or alteration under the Project. However, development that would occur over the life of the Project has the potential to occur on, or adjacent to, historical resources. Development can impact historical resources either through direct effects (demolition or alteration of a historical resource's physical characteristics that convey its historical significance, such as incompatible façade changes) or through indirect effects to the area surrounding a resource (such as creating a visually incompatible structure adjacent to a historical structure).

Nothing in the Proposed Project alters the current City's practice for any discretionary project, which involves OHR reviewing any project involving a property identified in SurveyLA as potentially eligible for listing, and requiring avoidance measures, unless OHR agrees the resource is not eligible for listing. If OHR disagrees with an applicant that a resource is not eligible for listing, OHR will require the applicant to provide an impact assessment from a qualified preservation consultant and develop mitigation measures or OHR will advise if a significant impact is not avoidable. The Office of Historic Resources typically recommends modifications that are consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. Such modifications may include retention of significant character-defining features and adjustments to setbacks, step backs, and height, as well as other project features related to context-sensitive project design. If an impact is not avoidable, the Planning Department will require the applicant to pay fees for the City to prepare an EIR.

Notwithstanding the above, new development could result in an impact to historical resources either through direct effects (demolition or alteration of a historical resource's physical characteristics that convey its historical significance, such as change to the façade inconsistent with the original façade) or through indirect effects to the area surrounding a resource (eliminating or diminishing the historic value of a resource without physically changing the resource, such as creating a visually incompatible structure adjacent to a historical structure).

All discretionary projects that have the potential to impact historical resources must be individually reviewed by the Office of Historic Resources. While the Office of Historic Resources reports that it is extremely uncommon in the City to lose designated historical resources when a property owner has complied with the City's regulations, the Cultural Heritage Ordinance and the Building Code, it cannot prevent a property from being demolished or redeveloped or prevent structures from being altered. Rather these ordinances provide for processes, including environmental review, but they do not prohibit demolition. It is possible that demolition and/or significant alteration to some of the historical resources

within the Project Area would occur during the life of the Proposed Project. Therefore, the Proposed Project's impacts related to historical resources would be potentially *significant and unavoidable*.

Mitigation Measures

No feasible mitigation measures have been identified. As discussed above, historical resources that are designated under HCM may be demolished if an applicant goes through the discretionary review process and prepares necessary environmental review. Resources included in 2011 Project Area Survey are not prohibited from demolition or alteration, provided they go through the appropriate process including environmental review. As a policy matter, the City finds that requiring additional review of projects otherwise undergoing discretionary review is undesirable based on the requirements it would place on City resources and the delay it would result in for projects. Additionally, as a policy matter, the City finds that it is undesirable to put additional regulations or processes on ministerial projects involving historical resources that are designated under the HCM or identified in the 2011 Project Area Survey. Based on the above, there is no feasible mitigation to prevent the demolition or substantial alteration of historical resources. Therefore, impacts to historical resources from the Proposed Plan will be *significant and unavoidable*.

Threshold 4.4-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5

Impact 4.4-2 **Proposed Project:** Implementation of the Proposed Project could result in development that could cause a substantial adverse change in or disturbance of known or unknown archaeological resources as defined in CEQA Guidelines Section 15064.5. Therefore, without mitigation, impacts related to archaeological resources would be potentially significant. With mitigation, the impact would be less than significant.

Project Impacts

Effects on archaeological resources are only known once a specific development has been proposed because the effects are highly dependent on both the individual development site conditions and the characteristics of the proposed ground-disturbing activity. Ground-disturbing activities associated with reasonably anticipated development from the Project, particularly in areas that have not been studied through a cultural resources investigation, or when excavation depths exceed those previously attained, have the potential to damage or destroy previously-unknown historic or prehistoric archaeological resources that may be present on or below the ground surface. Impacts to archaeological resources are especially likely in instances where ground disturbance will occur in native soils, in historic-age fill of unknown origin, and in areas that were developed prior to the implementation of City-wide sewer and trash collection programs. Because of the extensive history of the Los Angeles area throughout the Prehistoric, Spanish, Mexican, and American periods, the entire Project Area is considered sensitive for archaeological resources. Development throughout Los Angeles has encountered subsurface archaeological resources, such as remnants of the Zanja Madre, Tongva sites, and historic archaeological sites such as refuse deposits and privies associated with the early growth of the City. The Zanja Madre, for example, is thought to have run from El Pueblo de Los Angeles in several branches southward, passing through the Project Area and then into Downtown but has not been fully mapped. Consequently, impacts related to damage to or destruction of previously-unknown sub-surface cultural resources could occur as a result of development under the Proposed Project. Such damage or destruction would be *potentially significant*.

Mitigation Measures

The following mitigation measures, in addition to Mitigation Measures 4.15-1(a) and 4.15-1(b) in Section 4.15, Tribal Cultural Resources, apply to discretionary development projects.

4.4-2(a)

For any project that requires a permit for grading or excavation; if a possible archaeological resource is uncovered during earthwork or construction, all work shall cease within a minimum distance of 50 feet from the find until a qualified archaeologist has been retained to evaluate the find in accordance with National Register of Historic Places and California Register of Historical Resources criteria. The qualified archaeologist may adjust this avoidance area, ensuring appropriate temporary protection measures of the find are taken while also considering ongoing construction needs in the surrounding area. Temporary staking and delineation of the avoidance area shall be installed around the find in order to avoid any disturbance from construction equipment. Ground disturbance activities may continue unimpeded on other portions of the site outside the specified radius.

Any potential archaeological resource or associated materials that are uncovered shall not be moved or collected by anyone other than an archaeological monitor or qualified archaeologist unless the materials have been determined to be non-unique archaeological resources, as defined in Public Resources Code Section 21083.1(h), by the qualified archaeologist. The qualified archaeologist shall determine if the resources are unique archaeological resources as defined in Public Resources Code Section 21083.2(g).

Consistent with Public Resources Code Section 21083.2, the handling, treatment, preservation, and recordation of unique archaeological resources should occur as follows:

- The find should be preserved in place or left in an undisturbed state unless the project would damage the resource.
- When preserving in place or leaving in an undisturbed state is not possible, excavation and recovery of the find for scientific study should occur unless testing or studies already completed have adequately recovered the scientifically consequential information from and about the resource, and this determination is documented by a qualified archaeologist.

Ground Disturbance Activities in the area where resource(s) were found may recommence once the identified resources are properly assessed and processed by a qualified archaeologist. A report that describes the resource(s) and its disposition, as well as the assessment methodology, shall be prepared by the qualified archaeologist according to current professional standards and maintained for a minimum of five years after the Certificate of Occupancy is used. If appropriate, the report should also contain the qualified archaeologist's recommendations for the preservation, conservation, and curation of the resource at a suitable repository, such as the Natural History Museum of Los Angeles County, with which the Applicant or Owner must comply.

4.4-2(b)

Prior to issuance of a permit for grading or excavation all project applicants will receive notice and acknowledge receipt of the following notice:

Several laws regulate the treatment of archaeological, paleontological, and tribal cultural resources and make it a criminal violation to destroy those resources. These regulations include, but are not limited to:

- California Penal Code Section 622.5 provides the following: "Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of archeological or historical interest or value, whether situated on private lands or within any public park or place, is guilty of a misdemeanor."
- Public Resources Code Section 5097.5(a) states: "A person shall not knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints,

inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.”

- California Code of Regulations, Title 14, Section 4307 states: “No person shall remove, injure, deface or destroy any object of paleontological, archaeological, or historical interest or value.” Section 1427 “recognizes that California’s archaeological resources are endangered by urban development and population growth and by natural forces...Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of archaeological or historical interest or value, whether situated on private lands or within any public park of place, is guilty of a misdemeanor. It is a misdemeanor to alter any archaeological evidence found in any cave, or to remove any materials from a cave.”

The following best practices are recognized by archaeologists and environmental consultants to ensure archaeological resources are not damaged during grading, excavation, or other Ground Disturbance Activities:

- **Records Search.** A cultural resources records search should be requested from and conducted by the California Historical Resources Information System’s (CHRIS) South Central Coastal Information Center (SCCIC) located at California State University, Fullerton to determine whether any cultural resources have been previously identified on or within a 0.5-mile radius of the Project site. The results of this records search shall be used as an indicator of the archaeological sensitivity of the Project site.
- A qualified archaeologist shall be retained and use all reasonable methods, consistent with professional standards and best practices, to determine the potential for archaeological resources to be present on the Project site. If the qualified archaeologist determines there is a medium to high potential that archaeological resources may be located on the Project site and it is possible that such resources will be impacted by the Project, the qualified archaeologist shall advise the Applicant and Owner to retain an Archaeological monitor to observe all Ground Disturbance Activities within those areas identified as having a medium to high potential in order to identify any resources and avoid potential impacts to such resources.
- **Monitoring.** An archaeological monitor should monitor excavation and grading activities in soils that have not been previously disturbed in order to identify and record any potential archaeological finds and avoid potential impacts to such resources. In the event of a possible archaeological discovery, the archaeological monitor shall notify a qualified archaeologist. The Archaeological monitor has the authority to temporarily halt earthwork activities.
- **Handling, Evaluation, and Preservation.** Any archaeological resource materials or associated materials that are uncovered shall not be moved or collected by anyone other than an archaeological monitor or qualified archaeologist unless they have been determined to be nonunique archaeological resources, as defined in Public Resources Code Section 21083.1(h) by a qualified archaeologist. A qualified archaeologist shall determine if the resources are unique archeological resources as defined in Public Resources Code Section 21083.2(g).
- Consistent with Public Resources Code Section 21083.2, the handling, treatment, preservation, and recordation of unique archaeological resources should occur as follows:
 - The find should be preserved in place or left in an undisturbed state unless the Project would damage the resource.
 - When preserving in place or leaving in an undisturbed state is not possible, excavation and recovery of the find for scientific study should occur unless testing or studies already completed

have adequately recovered the scientifically consequential information from and about the resource, and this determination is documented by a qualified archaeologist.

- If recommended by the qualified archaeologist, the resource(s) shall be curated by a public, non-profit institution with a research interest in the material, such as the Natural History Museum of Los Angeles County or another appropriate curatorial facility for educational purposes.
- Ground Disturbance Activities in the area where resource(s) were found may recommence once the identified resources are properly assessed and processed by a qualified archaeologist.

4.4-2(c)

Projects within 500 feet of the currently mapped known segments of the Zanja system (see Appendix F) have increased likelihood of encountering segments of the Zanja system during construction. The Zanja system includes the Zanja Madre and its outbranching secondary Zanja segments. If possible, segments of the Zanja system are uncovered during earthwork or construction, all work shall cease within a minimum distance of 50 feet from the find until a qualified archaeologist has been retained to inspect and evaluate the find. The qualified archaeologist may adjust this avoidance area, ensuring appropriate temporary protection measures of the find are taken while also considering ongoing construction needs in the surrounding area. Temporary staking and delineation of the avoidance area shall be installed around the find in order to avoid any disturbance from construction equipment. Ground Disturbance Activities may continue unimpeded on other portions of the site outside the specified radius.

At a minimum, and even if avoided, should the find be determined to be related to the Zanja system, the qualified archaeologist shall prepare a memo and complete all relevant State of California Department of Parks and Recreation (DPR) DPR 523 forms documenting the find.

If the qualified archaeologist, having evaluated the find, determines that the find retains integrity, documentation consistent with the standards and guidelines established the Historic American Engineering Record (HAER) shall be undertaken and transmitted to the Library of Congress before any alteration, demolition, construction, or removal activity may occur within the determined avoidance area. Documentation shall include narrative records, measured drawings, and photographs in conformance with HAER Guidelines. The found segments shall also be mapped using Geographic Information Systems (GIS) or 3D mapping technology in order to contribute to the existing record of the location and extent of the Zanja system as a whole. At minimum, GIS data shall include the geographic coordinates and depth of all portions of the find. All records, including geographic data, georeferenced photographs, and information about the depth of the find shall be submitted to City Planning. Report documentation and GIS files shall additionally be provided to the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton.

In addition to HAER documentation, if determined appropriate by the qualified archaeologist, one or more of the following specific treatments shall be developed and implemented based on potential California Register eligibility criteria or the significance of the find as a unique archaeological resource:

- Treatment Under Criterion 1: Treatment shall include interpretation of the Zanja system for the public. The interpretive materials may include, but not be limited to, interpretive displays of photographs and drawings produced during the HAER documentation, signage at the Zanja Madre alignment, relocating preserved segments in a publicly accessible display, or other visual representations of Zanja alignments through appropriate means such as a dedicated internet website other online-based material. At a minimum, the interpretive materials shall include photographs and drawings produced during the HAER documentation and signage. These interpretive materials shall be employed as part of Project public outreach efforts that may include various forms of public exhibition and historic image reproduction. Additionally, the results of the historical and

archaeological studies conducted for the Project shall be made available to the public through repositories such as the local main library branch or with identified non-profit historic groups interested in the subject matter. The interpretive materials shall be prepared at the expense of the Project applicant, by professionals meeting the Secretary of the Interior's Professional Qualifications Standards in history or historical archaeology. The development of the interpretive materials shall consider any such materials already available to the public so that the development of new materials would add to the existing body of work on the historical Los Angeles water system, and to this end, shall be coordinated, to the extent feasible and to the satisfaction of the Department of City Planning, in consultation with the Office of Historic Resources. The interpretive materials shall include a consideration of the Zanja segment located on the Project Site in relation to the entire Zanja system. The details of the interpretive materials, including the content and format, and the timing of their preparation, shall be completed to the satisfaction and subject to the approval of the Department of City Planning, in consultation with the Office of Historic Resources.

- Treatment Under Criterion 2: No additional work; archival research about important persons directly associated with the construction and use of the Zanja system would be addressed as part of HAER documentation.
- Treatment Under Criterion 3: No additional work; HAER documentation is sufficient.
- Treatment Under Criterion 4: No additional work; archaeological data recovery and HAER documentation are sufficient.
- Treatment as a unique archaeological resource, as defined by PRC Section 21083.2(g): Same as Criterion 1 treatment.

Significance After Mitigation

Implementation of Mitigation Measures 4.4-2(a), 4.4-2(b), and 4.4-2(c) would avoid significant direct impacts to archaeological resources to the maximum extent feasible and provide for recovery and/or documentation of any significant resources, including any present portions of the Zanja Madre, that cannot be preserved in place. With mitigation, significant archaeological resources would be preserved and impacts to archaeological resources would be *less than significant with mitigation*.

Threshold 4.4-3	Disturb any human remains, including those interred outside of dedicated cemeteries
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Impact 4.4-3 **Proposed Project:** Although human remains are not known to be present in the Project Area, new reasonably anticipated development from the Proposed Project could result in damage to or destruction of as of yet undiscovered human remains. With adherence to existing regulations, impacts would be *less than significant*.

Project Impacts

Human burials outside of formal cemeteries often occur in prehistoric archaeological contexts. Although the Project Area is built out, the potential still exists for these resources to be present. Excavation during future construction activities in the Project Area would have the potential to disturb these resources, including Native American burials.

Human burials, in addition to being potential archaeological resources, have specific provisions for treatment in Section 5097 of the California Public Resources Code. The California Health and Safety Code (Sections 7050.5, 7051, and 7054) has specific provisions for the protection of human burial remains. Existing regulations address the illegality of interfering with human burial remains, and protects them from disturbance, vandalism, or destruction, and established procedures to be implemented if Native American

skeletal remains are discovered. Public Resources Code Section 5097.98 also addresses the disposition of Native American burials, protects such remains, and established the NAHC to resolve any related disputes.

Implementation of the above-described regulations would ensure that development carried out under the Proposed Project would have a *less than significant* impact from potential disturbance of human remains, including those interred outside of formal cemeteries.

Mitigation Measures

None required.

CUMULATIVE IMPACTS

The geographic area to analyze cumulatively considerable cultural resource impacts includes the entire Project Area and areas comprising portions of historical and archaeological resources that extend outside the Project Area boundaries.

Historical Resources

Cumulative development throughout the Project Area could involve demolition or alteration of historical resources. The nature and magnitude of such impacts would depend on the nature and location of individual future developments so it would be speculative to try to predict the specific level of cumulative impact that may occur as the City continues to develop. Nevertheless, it is conservatively projected that Citywide development could result in the alteration or loss of some historical resources, with potentially significant cumulative impacts.

As discussed under Impact 4.4-1, the Proposed Project could involve the loss of historical resources throughout the Project Area. Although the City policies and programs includes a number of policies aimed at the preservation of historical resources, the loss of such resources remains a possibility. Based on this information, the Project could foreseeably have cumulatively considerable contributions to a significant cumulative impact to historical resources.

The potential for impacts to historical resources from individual developments is site-specific and depends on the location and nature of each individual development proposal. However, potential impacts may reach beyond an individual project site if the project is located within a designated or potential historic district. All future development projects would continue to be subject to existing federal, state, and local requirements and discretionary projects may be subject to project-specific mitigation requirements as outlined herein. It is anticipated that cumulative impacts to historical resources can be avoided through implementation of regulatory compliance measures (existing rules for HCM) and project design features on a project-by-project basis, but alteration or demolition of historical resources remains a possibility throughout the Project Area and Citywide.

Based on the above, the incremental effect of the Project Area on historical resources would be cumulatively considerable and cumulative impacts to historical resources in the Project Area would be *significant and unavoidable*.

Archaeological Resources

Cumulative development could potentially disturb known and currently unknown archaeological resources that could be present throughout the Project Area. The nature and magnitude of such impacts would depend on the nature and location of individual future developments so it would be speculative to try to predict the specific level of cumulative impact that may occur as the City continues to develop. Nevertheless, it is anticipated that development would have the potential to disturb archaeological resources.

As discussed under Impact 4.4-2, implementation of the Proposed Project could potentially disturb archaeological resources that may be present in the Project Area. Although it is anticipated that cumulative impacts to archaeological resources can be avoided or minimized through implementation of mitigation measures on a project-by-project basis, impacts remain a possibility. Based on the above, the incremental effect of the Project on archaeological resources would be cumulatively considerable and cumulative impacts to archaeological resources citywide would be *significant and unavoidable*.

Human Remains

Although unlikely, cumulative development could potentially disturb currently unknown human remains that could be present in the Project Area. However, compliance with applicable regulatory requirements on a case-by-case basis related to the avoidance and treatment of human remains would reduce such impacts to a less than significant level. Based on this information, implementation of the Proposed Project would not substantially contribute to any significant cumulative impact to human remains.

Based on the above, the Proposed Project's incremental effect would not be cumulatively considerable and cumulative impacts would be *less than significant*.

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4.5 ENERGY

This section addresses the potential construction and operational impacts on energy resources. The analysis identifies the utility companies that provide electricity and natural gas services in the CASP Area (or Project Area), describes the existing consumption, the nature and location of related infrastructure, and the anticipated demand for electricity and natural gas.

ENVIRONMENTAL SETTING

PETROLEUM

California is one of the top producers of petroleum in the nation, with drilling operations primarily concentrated in Kern and Los Angeles Counties. A network of crude oil pipelines connects production areas to oil refineries in the Los Angeles area, the San Francisco Bay area, and the Central Valley. California oil refineries also process large volumes of Alaskan and foreign crude oil received in ports in Los Angeles, Long Beach, and the San Francisco Bay area. Crude oil production in California and Alaska is in decline, and California refineries have become increasingly dependent on foreign imports. Led by Saudi Arabia, Iraq and Ecuador, foreign suppliers now produce about 56 percent of the crude oil refined in California in 2021 (California Energy Commission [CEC 2021a]CEC 2022a).

According to the United States Energy Information Administration (EIA), transportation accounted for nearly 34 percent of California's energy demand, amounting to approximately 2,355 trillion British thermal units (Btu) in 2020. California's transportation sector, including on-road and rail transportation, consumed roughly 524 million barrels of petroleum fuels in 2020 (EIA 2022a). Furthermore, petroleum-based fuels are used for approximately 99 percent of the State's transportation activity (EIA 2022b). Most gasoline and diesel fuel sold in California for motor vehicles is refined in California to meet state-specific formulations required by the California Air Resources Board (CARB).

Citywide Petroleum Consumption

Southern California is in Petroleum Administration for Defense District 5 (PADD 5). PADDs are geographic groupings of the United States that assists the U.S. Energy Information Administration in assessing regional petroleum product supplies and their movements throughout the nation. Demand in PADD 5 includes in-region consumption, transfers of fuels to other parts of the United States (other PADDs) and to other regional markets within PADD 5, and exports to the global market. Supply in PADD 5 includes in-region refinery production, receipts of fuels produced in other regions and other PADD 5 regional markets, and imports (EIA 2015). There are four petroleum refineries located in the City of Los Angeles, such as Marathon Petroleum, Phillips 66, Valero Energy, and Valero Wilmington Asphalt Refinery. The petroleum refineries in the City consume a total of approximately 593,300 barrels per day (CEC 2021b). As discussed below, the other petroleum refineries near are the Lunday-Thagard Co. Refinery and World Oil Refining Refinery, both located in the City of South Gate, adjacent to the southeastern boundary of the Southeast Los Angeles community.

Project Area Petroleum Consumption

Petroleum fuels are generally purchased by individual users such as residents and employees. There are no petroleum refineries located within the Project Area, and there are five gas stations located at 2001 N Broadway (76 Gas Station), and the intersection of Figueroa Street and Avenue 26th (USA Gasoline, 76,

Hancor, and Chevron) within the Project Area based on Google aerial images (EIA 2022c). The nearest petroleum refineries outside of the Project Area are the Lunday-Thagard Co. Refinery, located at 9301 Garfield Avenue, and the World Oil Refining Refinery, located at 9302 Garfield Avenue in South Gate, Los Angeles, approximately 10 miles southeast of the Project Area.

Petroleum consumption was identified by calculating the direct energy consumption of the Project Area (see *Methodology* in Section 4.5.4, *Environmental Impacts*, for more information). Daily vehicle miles traveled (VMT) within the Project Area were retrieved from the traffic study prepared by Fehr & Peers and were estimated at approximately 328,439 in 2021, as shown in **Table 4.5-1**. Based on this daily VMT, approximately 2,053 million British thermal units (mmBtu) were consumed per day in 2021 by the transportation sector, as shown below in **Table 4.5-2**.

TABLE 4.5-1 CURRENT DAILY AND ANNUAL VMT FOR THE PROJECT AREA		
	Daily VMT	Annual VMT ¹
CASP Area Total	328,439	113,968,333
<p>NOTES: VMT = vehicle miles traveled. ¹ Annual VMT is calculated by multiplying daily VMT by 347 days to account for reduced travel on weekends, in accordance with industry standards. SOURCE: Fehr & Peers 2022.</p>		

TABLE 4.5-2 CURRENT DIRECT TRANSPORTATION ENERGY USE IN THE PROJECT AREA						
	2021 Daily Energy Use (mmBtu)	2021 Annual Energy Use (mmBtu)	2021 Daily Per Capita Energy Use (mmBtu)	2021 Daily Per Service Population Energy Use (mmBtu)	2021 Annual Per Capita Use (mmBtu)	2021 Annual Per Service Population Energy Use (mmBtu)
CASP Area Total	1,925 ²	702,446 ¹	0.32 ³	0.17 ⁴	116.55 ⁵	61.41 ⁶
<p>NOTES: VMT = vehicles miles traveled, mmbtu = millions British thermal units Transportation energy consumption was derived from the CASP Update VMT (see Table 4.5-1), default fleet mix from CalEEMod (see Appendix X), average fuel economy from the United States Department of Transportation – Federal Highway Administration, and energy unit data from EIA. ¹ (4,859,960 gal gasoline x (120,286 btu/gal) + 857,912 gal diesel x (137,381 btu/gal)) / 1,000,000 btu/mmbtu ²Annual energy use mmbtu divided by 365. ³1,925 daily mmbtu divided by existing 2021 population (6,027) ⁴1,925 daily mmbtu divided by existing 2021 population (6,027) and jobs (5,411) ⁵702,446 annual mmbtu divided by 2021 population (6,027) ⁶ 702,446 annual mmbtu divided by 2021 population (6,027) and jobs (5,411). Totals may not add up due to rounding. SOURCE: United States Department of Transportation 2022a; EIA 2022d.</p>						

ELECTRICITY

In 2021, California produced 70 percent of the electricity it used. The remainder was imported from outside the state. In 2021, California used 277,764 gigawatt hours of electricity while a total of 194,127 gigawatt hours was produced in-state (CEC 2022b). Likewise, in 2020, Californians consumed an estimated 11,923 million Therms (CEC 2022c).

The Los Angeles Department of Water and Power (LADWP) provides electrical service throughout Los Angeles. LADWP generates power from a variety of different sources that include approximately 26 percent natural gas, 19 percent coal, 35 percent renewables, 14 percent nuclear, and seven percent hydroelectric (LADWP 2021). LADWP utilizes renewable energy sources and is committed to meeting the requirement of the Renewable Portfolio Standard (RPS) Enforcement Program to use at least 33 percent of

the City's energy from renewables by 2020 (CARB 2016). Eligible renewable resources include biodiesel, biomass, hydroelectricity and small hydro, Los Angeles Aqueduct hydro power plants, digester gas, fuel cells, geothermal, landfill gas, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, renewable derived biogas, multi-fuel facilities using renewable fuels, solar photovoltaic, solar thermal electric, wind, and other renewables (LADWP 2013).

LADWP provides electricity service to over 4 million residents in its service area, encompassing the City and parts of the Owens Valley (LADWP 2022). LADWP has over 8,009 megawatts of generation capacity from a diverse mix of energy sources. Its distribution network includes 7,148 miles of overhead distribution lines and nearly 3,709 miles of underground distribution cables (LADWP 2022). The LADWP system supplies more than 21 million megawatt-hours (MWh) of electricity per year (CEC 2022d).

2017 Power Strategic Long-Term Plan

The 2017 Power Strategic Long-Term Resource Plan (SLTRP) document serves as a comprehensive 20-year roadmap that guides the LADWP Power System in its efforts to supply reliable electricity in an environmentally responsible and cost-effective manner. Since resource decisions can have significant economic and environmental consequences, it is essential for the planning process to be conducted with transparency, active participation, and collaborative dialog with affected stakeholders and our customers. The 2016 Integrated Resource Plan (IRP) included a public outreach process and Advisory Committee that, along with a series of public outreach workshops, played an integral role in the development of the resource cases that were evaluated and in the final selection of the recommended resource case. Strong interest in the City Council's 100 percent renewable energy Motion was communicated during last year's public outreach process. In response, LADWP formed research partnerships and developed a robust stakeholder process in order to investigate the investments necessary to achieve a 100 percent clean energy future. Future SLTRPs will consider incorporating the findings of this study that are recommended within the 2050 timeframe. This year's 2017 SLTRP re-examines and expands its analysis on the 2016 IRP resource cases with updates in line with latest regulatory framework, and updates to case scenario assumptions that include a 65 percent RPS, advanced energy efficiency, and higher levels of local solar, energy storage, and transportation electrification (LADWP 2017).

Citywide Electricity Consumption

In 2021, the most recent year with available data, LADWP's electricity generation and distribution infrastructure delivered 21.0 million MWh of electricity to its customers. Commercial users consumed the most electricity supplied by the LADWP in 2021 with approximately 11.5 million MWh, or 55 percent of the total electricity provided by the LADWP. Residential customers consumed approximately 7.4 million MWh, or 35 percent, of electricity supplied by the LADWP in 2021. Industrial users consumed approximately 1.7 million MWh, or eight percent, while other LADWP customers consumed approximately 0.39 million MWh, or approximately two percent (CEC 2022d).

CASP Area Electricity Consumption

Electricity consumption in the Project Area for existing conditions was estimated using CalEEMod see Section 4.2, *Air Quality*, for modeling methodology and assumptions, and Appendix X for model results). As shown in **Table 4.5-3**, existing (2021) Project Area residential and non-residential development consumed a combined total of just over 85,989 MWh of electricity. With a Project Area population of approximately 6,027, this equates to approximately 14.3 MWh per capita of electricity consumption in 2021.

TABLE 4.5-3 CURRENT PROJECT AREA ELECTRICITY CONSUMPTION				
	Electricity Consumption (MWh)¹	Proportion of Statewide Consumption	Per Capita Electricity Consumption (MWh)	Per Service Population Electricity Consumption
CASP Area	85,989	0.04%	14.3	7.5
<p>NOTE: The per capita consumption for electricity is determined by dividing electricity consumption data from CalEEMod by the existing CASP Area population, as detailed in Section 4.12, <i>Population, Housing and Employment</i>.</p> <p>SOURCE: CEC 2022d, City of Los Angeles 2018.</p>				

As shown in **Table 4.5-3**, the Project Area accounted for approximately 0.4 percent of the State's electricity consumption in 2021 (CEC 2022d, Appendix E). With a 2021 per capita consumption of 14.3 MWh, the Project Area ranked per capita average is above California's average per capita consumption of approximately 7.1 MWh of electricity in 2021 (CEC 2022b; California Department of Finance [DOF] 2022).

NATURAL GAS

Southern California Gas Company (SoCal Gas) is responsible for providing natural gas supply to the County and City. SoCal Gas is regulated by the California Public Utilities Commission (CPUC) and other state and federal agencies. In 2021, Californians consumed approximately 11,923 million Therms of natural gas or 1,108,529 billion Btu (CEC 2022c). The state population in 2022 was approximately 39.3 million, resulting in an average statewide per capita natural gas demand of 0.03 billion Btu per capita (California Department of Finance 2022).

2022 California Gas Report

The 2022 California Gas Report presents a comprehensive outlook for natural gas requirements and supplies for California through the year 2035. This report is prepared in even-numbered years, followed by a supplemental report in odd-numbered years, in compliance with California PUC Decision D.95-01-039. The below projections in the California Gas Report are for long-term planning and do not necessarily reflect the day-to-day operational plans of the utilities (SoCal Gas 2022a).

Statewide residential gas demand is projected to decrease at an average rate of 2.4 percent each year (SoCalGas 2022a). Aggressive energy efficiency programs are dampening gas demand in these sectors. In addition, the statewide efforts to minimize greenhouse gas (GHG) emissions are reducing electricity generation demand due to increase in demand side and supply side generation resources that produce few or no carbon emissions (SoCal Gas 2022a).

Residential gas demand is expected to decrease at an annual average rate of 2.4 percent. Demand in the commercial market is expected to decline at an annual rate of 1.8 percent, and demand in the industrial market (non-refinery) is expected to grow at an annual rate of 0.2 percent.

For electricity demand within California, SoCalGas relies on the California Energy Commission (CEC)'s California Energy Demand Forecast 2021-2035, dated January 2022. This energy demand forecast was developed as part of the CEC's Integrated Energy Policy Report process. The mid energy demand forecast with Additional Achievable Energy Efficiency Scenario 3 and Additional Achievable Fuel Substitution Scenario 2 was selected as the energy demand forecast (SoCal Gas 2022a). SoCal Gas engages in a number of energy efficiency and conservation programs designed to help customers identify and implement ways to benefit environmentally and financially from energy efficiency investments. Programs administered by SoCal Gas include services that help customers evaluate their energy efficiency options and adopt

recommended solutions, as well as simple equipment retrofit improvements, such as rebates for new hot water heaters.

Southwestern United States Gas Supplies

Traditional Southwestern U.S. sources of natural gas will continue to supply most of Southern California's natural gas demand. This gas is primarily delivered via the El Paso Natural Gas pipeline with some volumes also on Transwestern pipeline. The San Juan Basin's gas supplies peaked in 1999 and have been declining at an annual rate of roughly 2 percent. The Permian Basin has experienced a major increase in gas production as a byproduct of the tremendous amount of oil development in the area. The increase positioned the Permian Basin as a preferred gas supply source of economical gas. Permian gas production increased over 130 percent during the period 2017-2021. Mexican demand for Southwestern U.S. gas along with East of California demand continue to steadily increase and compete for Southwestern supplies. This increased demand, which has been more than offset by the recent increase in Permian gas production, will continue to compete with Southern California for Southwest supplies (SoCal Gas 2022a).

Rocky Mountain Gas Supplies

Rocky Mountain supply supplements traditional South-Western U.S. gas sources for Southern California. This gas is delivered to Southern California primarily on the Kern River Gas Transmission Company's pipeline, although there is also access to Rockies gas through pipelines interconnected to the San Juan Basin. Many pipelines that supplying other markets connect to Rocky Mountain region, which allows these supplies to be redirected from lower to higher value markets as conditions change. Kern River Gas Transmissions volumes to Southern California have surpassed Transwestern pipeline's deliveries of South-western supplies (SoCal Gas 2022a).

Canadian Gas Supplies

Canadian gas only provides a small share of Southern California gas supplies due to the high cost of transport (SoCal Gas 2022a).

Regional Gas Consumption

SoCal Gas is the distributor of natural gas in Southern California, providing retail and wholesale customers with transportation, exchange and storage services and procurement services to most retail core customers. SoCal Gas is a gas-only utility and, in addition to service the residential, commercial, and industrial markets, provides gas for enhanced oil recovery and electric generation customers in Southern California. SoCal Gas' natural gas system is the nation's largest natural gas distribution utility and serves a 24,000-square-mile area in Central and Southern California. The system supplies natural gas to 21.8 million customers through 5.9 million meters in more than 500 communities (SoCal Gas2022b.).

Most of the natural gas used in California comes from out-of-state natural gas basins. In 2017, for example, California utility customers received 38 percent of their natural gas supply from basins located in the Southwestern United States, 27 percent from Canada, 27 percent from the U.S. Rocky Mountain area, and 8 percent from production located in California. Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California gas utilities are Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, Ruby Pipeline, Mojave Pipeline, and Tuscarora (CPUC 2022).

SoCalGas serves approximately 21.8 million customers through 5.9 million meters of gas lines within a 24,000-square-mile service area that includes over 500 communities in Central and Southern California. In 2020, a total of approximately 5,100 million therms of natural gas were consumed by SoCalGas' customers.

Of this total, residential, industrial, commercial and miscellaneous other customers consumed 2,261 million, 1,650 million, 844 million, and 347 million therms of natural gas, respectively. In 2021, the total gas consumption for Los Angeles County was 2,881 million therms. Of this total, 1,743 million therms were for non-residential use and 1,138 therms was for residential use (CEC 2022c).. SoCalGas projects total gas demand to decline at an annual rate of 1.5 percent from 2022 to 2035. The core, non-residential markets (comprising core commercial, core industrial and NGV) are expected to decline at an average annual rate of 1.4 percent or from 224 Bcf in 2020 to 170 Bcf by 2035 (SoCalGas 2022a).

CASP Area Natural Gas Consumption

As shown in **Table 4.5-4**, the Project Area accounted for less than <0.1 percent of the State’s natural gas consumption in 2021 (CEC 2022c). With a 2021 Project Area population of approximately 6,027, this equates to natural gas consumption of about 0.019 billion Btu per capita. As noted above, the average statewide per capita natural gas demand in 2017 was 0.03 billion Btu per capita (California Department of Finance 2022). Therefore, per capita natural gas demand in the Project Area is higher than statewide per capita demand.

TABLE 4.5-4 CURRENT PROJECT AREA NATURAL GAS CONSUMPTION			
	Natural Gas Consumption (billion Btu)	Proportion of Statewide Consumption	Per Capita Natural Gas Consumption (billion Btu)
CASP Area	113	<0.1%	0.19
<p>NOTE: The per capita consumption for natural gas is determined by dividing natural gas consumption data from CalEEMod by the existing CASP area population, as detailed in Section 4.12, <i>Population, Housing and Employment</i>.</p> <p>SOURCES: CEC 2022c; City of Los Angeles 2018.</p>			

ALTERNATIVE FUELS

A variety of alternative fuels are used to reduce petroleum-based fuel demand. The use of these fuels is encouraged through various state-wide regulations and plans (e.g., Low Carbon Fuel Standard and SB 32). Conventional gasoline and diesel may be replaced, depending on the capability of the vehicle with transportation fuels including the following:

Hydrogen

Hydrogen is being explored for use in combustion engines and fuel cell electric vehicles. The interest in hydrogen as an alternative transportation fuel stems from its clean-burning qualities, its potential for domestic production, and the fuel cell vehicle’s potential for high efficiency (two to three times more efficient than gasoline vehicles). Currently, 47 hydrogen refueling stations are located in California; however, none are located in the Project Area (United States Department of Energy [DOE 2022a]).

Biodiesel

Biodiesel is a renewable alternative fuel that can be manufactured from vegetable oils, animal fats, or recycled restaurant greases. Biodiesel is biodegradable and cleaner-burning than petroleum-based diesel fuel. Biodiesel can run in any diesel engine generally without alterations but fueling stations have been slow to make it available. There are currently 17 biodiesel refueling stations in California, none of which is located in the Project Area (DOE 2022b).

Electric Vehicles

Electricity can be used to power electric and plug-in hybrid electric vehicles directly from the power grid. Electricity used to power vehicles is generally provided by the electricity grid and stored in the vehicle's batteries. Fuel cells are being explored as a way to use electricity generated onboard the vehicle to power electric motors. There are approximately seven electrical charging stations in the Project Area (DOE 2022c).

Biogas

Biogas is a mixture of methane and carbon dioxide produced by the bacterial degradation of organic matter. There is growing interest regarding biogas production potential in SoCal Gas' service territory from the following activities:

- Non-hazardous-waste landfills,
- Landfill diversion of organic waste material,
- Wastewater treatment,
- Concentrated animal feeding operations, and
- Food and green waste processing.

Biogas is produced from existing waste streams and a variety of renewable and sustainable biomass sources, including animal waste, crop residuals and food waste. Methane can also be produced by the combustion-free thermal conversion of agricultural crop residues, silvicultural residue, wood waste, and municipal sewage sludge or biosolids. The most common source of biogas is the naturally occurring biological breakdown of organic waste at facilities such as wastewater treatment plants and landfills. The abundance of these materials allows for production of substantial quantities of biogas. A study conducted by the University of California, Davis estimates that more than 20 percent of SoCalGas's current residential natural gas use can be provided by biogas derived from our state's existing organic waste alone. In the transportation sector that is enough to replace around 20 percent of the fuel used by heavy-duty trucks in the state. This can help reduce the need for other fossil-based fuels while boosting our supplies with a locally sourced renewable fuel. Looking outside California, the opportunity to produce biogas is vast. According to estimates, the U.S. could produce up to 10 trillion cubic feet of biogas annually by 2030—that is more than five times California's projected natural gas consumption.⁶⁶ (SoCalGas 2022a).

REGULATORY FRAMEWORK

Federal, state and local laws, regulations, plans, and guidelines that are potentially applicable to the Proposed Project or are relevant to the determination of whether the Proposed Project would have a significant impact related to energy are discussed below.

FEDERAL

Energy Policy Conservation Act and Corporate Average Fuel Standards

The Energy Policy Conservation Act of 1975 established nation-wide fuel economy standards in order to conserve oil. Pursuant to this Act, the National Highway Traffic Safety Administration, part of the U.S. Department of Transportation, is responsible for revising existing fuel economy standards and establishing new vehicle fuel economy standards.

The Corporate Average Fuel Economy program was established to determine vehicle manufacturing compliance with the government's fuel economy standards. Compliance with Corporate Average Fuel standards is determined based on each manufacturer's average fuel economy for the proportion of their vehicles produced for sale in the United States.

First established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of passenger cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA) jointly administer CAFE standards. The U.S. Congress has directed NHTSA to set CAFE standards at the "maximum feasible level" with consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.¹ When these standards are raised, automakers respond by creating a more fuel-efficient fleet. The NHTSA has proposed dramatically increasing fuel economy standards to improve the nation's energy security, save consumer's money at the gas pump, and reduce greenhouse gas (GHG) emissions. In 2012, the NHTSA established final passenger car and light truck CAFE standards for model years 2017 through 2021, which the agency projects will require in model year 2021, on average, a combined fleet-wide fuel economy of 40.3 to 41.0 miles per gallons (mpg). In March 2020, the U.S. Department of Transportation (USDOT) and the USEPA issued the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, which amends existing CAFE standards and tailpipe carbon dioxide emissions standards for passenger cars and light trucks and establishes new standards covering model years 2021 through 2026.²

Phase 1 and 2 Heavy-Duty Vehicle GHG Standards

Fuel efficiency standards for medium- and heavy-duty trucks have been jointly developed by USEPA and the National Highway Traffic Safety Administration (NHTSA). The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018, and result in a reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on the vehicle type. The USEPA and NHTSA have also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type.³

Public Utility Regulatory Policies Act of 1978 (PURPA), Public Law 95-617.

PURPA sought to promote conservation of electric energy. Additionally, PURPA created a new class of nonutility generators (small power producers) from which, along with qualified co-generators, utilities are required to buy power.

PURPA was in part intended to augment electric utility generation with more efficiently produced electricity and to provide equitable rates to electric consumers. Utility companies are required to buy all electricity from qualifying facilities at avoided cost (i.e., the incremental savings associated with not having to produce additional units of electricity). PURPA expanded participation of nonutility generators in the electricity market and demonstrated that electricity from nonutility generators could successfully be

¹ Federal Register, 49 U.S.C. 32902, Average Fuel Economy Standards.

² Federal Register, Vol. 85, No. 84, Thursday, April 30, 2020, Rules and Regulations: United States Environmental Protection Agency 40 CFR Parts 86 and 600 and United States Department of Transportation, National Highway Traffic Safety Administration, 49 CFR Parts 523, 531, 533, 536, and 537, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks, Final Rule, Effective June 29, 2020.

³ Federal Register, Vol. 81, No. 206, Tuesday, October 25, 2016, Rules and Regulations, United States Environmental Protection Agency, 40 CFR Parts 9, 22, 85, 86, 600, 1033, 1036, 1037, 1039, 1042, 1043, 1065, 1066, and 1068, and Department of Transportation, National Highway Traffic Safety Administration, 49 CFR Parts 523, 534, 535, and 538, Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2, Effective December 27, 2016.

integrated with a utility's own supply. In addition, PURPA requires utilities to buy whatever power is produced by qualifying facilities (usually cogeneration or renewable energy). The Fuel Use Act of 1978 (repealed in 1987) also helped qualifying facilities become established. Under Fuel Use Act, utilities were not allowed to use natural gas to fuel new generating technologies, but qualifying facilities, by definition not utilities, were able to take advantage of abundant natural gas and abundant new technologies (such as combined-cycle). The technologies lowered the financial threshold for entrance into the electricity generation business as well as shortened the lead time for constructing new plants.

National Energy Policy Act of 1992 (EPACT92)

EPACT92 calls for programs that promote efficiency and the use of alternative fuels. EPACT92 requires certain federal, state, and local government and private fleets to purchase a percentage of light duty alternative fuel vehicles (AFV) capable of running on alternative fuels each year. In addition, EPACT92 has financial incentives. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. The Act also requires states to consider a variety of incentive programs to help promote AFVs.

Energy Policy Act of 2005

The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Clean Air Act (CAA)

Clean Air Act (CAA). CAA Section 211(o), as amended by the Energy Policy Act of 2005, requires the Administrator of the United States Environmental Protection Agency (USEPA) to annually determine a renewable fuel standard which is applicable to refineries, importers, and certain blenders of gasoline, and to publish the standard in the Federal Register by November 30 each year. On the basis of this standard, each obligated party determines the volume of renewable fuel that it must ensure is consumed as motor vehicle fuel. This standard is calculated as a percentage, by dividing the amount of renewable fuel that the Act requires to be blended into gasoline for a given year by the amount of gasoline expected to be used during that year, including certain adjustments specified by the CAA.

Energy Independence and Security Act of 2007

Energy Independence and Security Act of 2007 is designed to improve vehicle fuel economy and help reduce U.S. dependence on oil. It expands the production of renewable fuels, reducing dependence on oil, and confronting global climate change.

Specifically, it:

- Increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard that requires fuel producers to use at least 36 billion gallons of biofuel in 2022, which represents a nearly five-fold increase over current levels; and
- Reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020 – an increase in fuel economy standards of 40 percent.

Clean Cities Program

The U.S. Department of Energy's (DOE) Clean Cities Program promotes voluntary, locally based government/industry partnerships for the purpose of expanding the use of alternatives to gasoline and diesel fuel by accelerating the deployment of AFVs and building local AFV refueling infrastructure. The mission of the Clean Cities Program is to advance the nation's economic, environmental and energy security by supporting local decisions to adopt practices that contribute to the reduction of petroleum consumption. The Clean Cities Program carries out this mission through a network of more than 80 volunteer coalitions, which develop public/private partnerships to promote alternative fuels and vehicles, fuel blends, fuel economy, hybrid vehicles, and idle reduction.

STATE

Warren-Alquist Act

The 1975 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the CEC. The Act established a state policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The CPUC regulates privately-owned utilities in the energy, rail, telecommunications, and water fields. Both CEC and CPUC have jurisdiction over Investor-Owned Utilities in California, while the CEC is the primary energy policy and planning agency and CPUC is the primary regulatory agency.

California Energy Plan

CEC is responsible for preparing the California Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The current (2008) California Energy Plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs; and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access.

Assembly Bill 2076: Reducing Dependence on Petroleum

Pursuant to Assembly Bill (AB) 2076 (Chapter 939, Statutes of 2000), CEC and CARB prepared and adopted in 2003 a joint agency report, *Reducing California's Petroleum Dependence*. This report includes recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita VMT. Further, in response to the CEC's 2003 and 2005 *Integrated Energy Policy Reports*, the governor directed CEC to take the lead in developing a long-term plan to increase alternative fuel use.

A performance-based goal of AB 2076 was to reduce petroleum demand to 15 percent below 2003 demand.

Integrated Energy Policy Report (IEPR)

SB 1389 (Chapter 568, Statutes of 2002) required CEC to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The CEC shall use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety.

CEC adopts an IEPR every two years and an update to the previous IEPR every year between. The 2016 IEPR provides a summary of priority energy issues currently facing the state and outlines strategies and recommendations to further the State's goal of ensuring reliable, affordable, and environmentally responsible energy sources. Energy topics covered in the IEPR include electricity resource and supply plans; electricity and natural gas demand forecasts; natural gas outlooks; transportation energy demand forecasts; energy efficiency savings; integrated resource planning; a barriers study; climate adaptation and resilience; renewable gas; southern California energy reliability; distributed energy resources; strategic transmission investment plans; and existing power plan reliability issues.

Renewable Portfolio Standards (SB 1078, SB 107, SB X 1-2, SB 100, SB 350)

Established in 2002 under SB 1078, and accelerated in 2006 under SB 107, in 2011 under SB X 1-2, in 2015 under SB 350, and most recently in September 2018 under SB 100, California's RPS requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 40 percent by 2024, 50 percent by 2026, 60 percent by 2030, and 100 percent by 2045 (Legislative Council of California 2002; Legislative Council of California 2006a). The 33 percent standard is consistent with the RPS goal established in the Scoping Plan (CARB 2008). Initially, the RPS provisions applied to investor-owned utilities, community choice aggregators, and electric service providers. SB X 1-2 (2011) added, for the first time, publicly-owned utilities to the entities subject to RPS.

Assembly Bill 1493: Reduction of Greenhouse Gas Emissions

AB 1493 (Chapter 200, Statutes of 2002), known as the Pavley bill, amended Health and safety Code sections 42823 and 43018.5 requiring CARB to develop and adopt regulations that achieve maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles, light-duty trucks, and other vehicles used for noncommercial personal transportation in California.

Implementation of new regulations prescribed by AB 1493 required that the State of California apply for a waiver under the federal Clean Air Act. Although the USEPA initially denied the waiver in 2008, the USEPA approved a waiver in June 2009, and in September 2009, CARB approved amendments to its initially adopted regulations to apply the Pavley standards that reduce GHG emissions to new passenger vehicles in model years 2009 through 2016. According to CARB, implementation of the Pavley regulations is expected to reduce fuel consumption while also reducing GHG emissions (CARB 2017). In 2018, the USEPA and National Highway Traffic Safety Administration proposed to freeze the clean car standards at the 2020 level through model year 2026 and to revoke California's authority to impose stricter rules (CARB 2018). On September 27, 2019, the U.S. EPA withdrew the waiver it had previously provided to California for the State's GHG and ZEV programs under Section 209 of the CAA. The withdrawal of the waiver was effective November 26, 2019. In response, several states, including California, filed a lawsuit challenging the withdrawal of the U.S. EPA waiver (*State of California vs. Chao*). In March 2022, the U.S. EPA reinstated California's authority under the CAA to implement its own GHG emissions standards and zero emission vehicle sales mandates (USEPA 2022).

Energy Action Plan

The first Energy Action Plan (EAP) emerged in 2003 from a crisis atmosphere in California's energy markets. The state's three major energy policy agencies (CPUC, CEC, and the Consumer Power and Conservation Financing Authority [established under deregulation and now defunct]) came together to develop one high-level, coherent approach to meeting California's electricity and natural gas needs. It was the first time that energy policy agencies formally collaborated to define a common vision and set of strategies to address California's future energy needs and emphasize the importance of the impacts of energy policy on the California environment.

In the October 2005 *Energy Action Plan II*, CEC and CPUC updated their energy policy vision by adding some important dimensions to the policy areas included in the original EAP, such as the emerging importance of climate change, transportation-related energy issues and research and development activities. In February 2008, CEC adopted an update to the EAP II that supplements the earlier EAPs and examines the State's ongoing actions in the context of global climate change.

Assembly Bill 1007: State Alternative Fuel Plans

AB 1007 (Chapter 371, Statutes of 2005) required CEC to prepare a State plan to increase the use of alternative fuels in California. CEC prepared the State Alternative Fuels Plan in partnership with CARB and in consultation with other State, federal, and local agencies. The State Alternative Fuels Plan presents strategies and actions California must take to increase the use of alternative non-petroleum fuels in a manner that minimizes costs to California and maximizes the economic benefits of in-state production. The State Alternative Fuels Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

Bioenergy Action Plan, Executive Order S-06-06

Executive Order (EO) S-06-06, which took effect in 2006, establishes targets for the use and production of biofuels and biopower, and directs state agencies to work together to advance biomass programs in California while providing environmental protection and mitigation. The EO establishes the following targets to produce a minimum of 20 percent of the state's biofuels in California by 2010, 40 percent by 2020, and 75 percent by 2050. EO S-06-06 also calls for the state to meet a target for use of biomass electricity. The 2011 Bioenergy Action Plan identifies those barriers and recommends actions to address them so that the State can meet its clean energy, waste reduction, and climate protection goals. The 2012 Bioenergy Action Plan updates the 2011 Plan and provides a more detailed action plan to achieve the following goals:

- Increase environmentally and economically sustainable energy production from organic waste
- Encourage development of diverse bioenergy technologies that increase local electricity generation, combined heat and power facilities, renewable natural gas, and renewable liquid fuels for transportation and fuel cell applications
- Create jobs and stimulate economic development, especially in rural regions of the state
- Reduce fire danger, improve air and water quality, and reduce waste

Title 24, California Code of Regulations

The California Code of Regulations (CCR) Title 24 is referred to as the California Building Standards Code. It consists of a compilation of several distinct standards and codes related to building construction, including plumbing, electrical, interior acoustics, energy efficiency, and accessibility for persons with physical and sensory disabilities. The California Building Standards Code's energy-efficiency and green building standards are outlined below. These standards are updated every three years and the project will be subject to the 2022 California Building Standards when they go into effect on January 1, 2023.

Part 6 (Building Energy Efficiency Standards)

CCR Title 24, Part 6 is the Building Energy Efficiency Standards or California Energy Code. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. New construction and major renovations must

demonstrate their compliance with the current Energy Code through submittal and approval of a Title 24 Compliance Report to the local building permit review authority and the California Energy Commission (CEC).

Part 11 (CALGreen)

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11, first in 2009 as a voluntary code, which then became mandatory effective on January 1, 2011 (as part of the 2010 California Building Standards Code). The 2022 CALGreen includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures. It also includes voluntary tiers with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory CALGreen standards and may adopt additional amendments for stricter requirements.

The mandatory standards applicable to air quality require:

- Minimum 20 percent reduction in indoor water use relative to specified baseline levels;⁴
- Waste Reduction:
 - Minimum 65 percent non-hazardous construction/demolition waste diverted from landfills;
 - Non-residential and multi-family dwellings with five or more units: Provide readily accessible areas identified for the depositing, storage and collection of nonhazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastic, organic waste, and metals; and/or
 - Non-residential: Reuse and/or recycling of 100 percent of trees, stumps, rocks, and associated vegetation soils resulting from primary land clearing;
- Inspections of energy systems to ensure optimal working efficiency;
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards; and
- Electric Vehicle (EV) Charging for New Construction:⁵
 - One- and two-family dwellings and town houses with attached private garages: Dedicated circuitry to facilitate installation of electric vehicle (EV) charging;
 - Multi-family dwellings and hotels/motels with less than 20 units/rooms: Designation of at least 10 percent of the total number of parking spaces shall be EV capable and at least 25 percent of the total number of parking spaces shall be EV-ready;
 - Multi-family dwellings and hotels/motels with greater than 20 units/rooms: Designation of at least 10 percent of the total number of parking spaces shall be EV capable, at least 25 percent of the total number of parking spaces shall be EV-ready, and at least 5 percent of the total number of parking spaces shall be equipped with a Level 2 charging station;

⁴ Similar to the compliance reporting procedure for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CALGreen water reduction requirements must be demonstrated through completion of water use reporting forms. Buildings must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CALGreen or a reduced per-plumbing-fixture water use rate.

⁵ EV Capable = a vehicle space with electrical panel space and load capacity to support a branch circuit and necessary raceways to support EV charging; EV-ready = a vehicle space which is provided with a branch circuit and any necessary raceways to accommodate EV charging stations, including a receptacle for future installation of a charger (see 2022 California Green Building Standard Code, Title 24 Part 11 for full explanation of mandatory measures, including exceptions).

- Non-residential land uses shall comply with the following EV charging requirements based on the number of passenger vehicle parking spaces:
 - 0-9: no EV capable spaces or charging stations required;
 - 10-25: 4 EV capable spaces but no charging stations required;
 - 26-50: 8 EV capable spaces of which 2 must be equipped with charging stations;
 - 51-75: 13 EV capable spaces of which 3 must be equipped with charging stations;
 - 76-100: 17 EV capable spaces of which 4 must be equipped with charging stations;
 - 101-150: 25 EV capable spaces of which 6 must be equipped with charging stations;
 - 151-200: 35 EV capable spaces of which 9 must be equipped with charging stations; and
 - More than 200: 20 percent of the total available parking spaces of which 25 percent must be equipped with charging stations;
- Non-residential land uses shall comply with the following EV charging requirements for medium- and heavy-duty vehicles: warehouses, grocery stores, and retail stores with planned off-street loading spaces shall install EV supply and distribution equipment, spare raceway(s) or busway(s) and adequate capacity for transformer(s), service panel(s), or subpanel(s) at the time of construction based on the number of off-street loading spaces as indicated in Table 5.106.5.4.1 of the California Green Building Standards;
- Bicycle Parking:
 - Non-residential short-term bicycle parking for projects anticipated to generate visitor traffic: permanently anchored bicycle racks within 200 feet of visitor entrance for 5 percent of new visitor motorized vehicle parking spaces with a minimum of one 2-bike capacity rack; and/or
 - Non-residential buildings with tenant spaces of 10 or more employees/tenant-occupants: secure bicycle parking for 5 percent of the employee/tenant-occupant vehicle parking spaces with a minimum of one bicycle parking facility.
- Shade Trees (Non-Residential):
 - Surface parking: minimum No. 10 container size or equal shall be installed to provide shade over 50 percent of the parking within 15 years (unless parking area covered by appropriate shade structures and/or solar);
 - Landscape areas: minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years; and/or
 - Hardscape areas: minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years (unless covered by applicable shade structures and/or solar or the marked area is for organized sports activities).

The voluntary standards include:

- Deconstruct existing buildings and reuse applicable salvaged materials;
- Residential – Cool Roofs: have a thermal mass over the roof membrane, including green roofs weighing a minimum of 25 pounds per square foot or roof areas covered by solar photovoltaic panels and building integrated solar thermal panels;
- Residential – Reduce nonroof heat island for 50 percent of sidewalks, patios, driveways or other paved areas;

- One- and two-family dwelling units and townhouses with attached garages: install a dedicated 208/250-volt branch circuit for EV charging;
- Residential Bicycle Parking:
 - Multi-family/hotel/motel short-term parking: provide permanently anchored bicycle racks within 100 feet of visitor's entrance for 5 percent of visitor motorized vehicle parking capacity (minimum one 2-bike capacity rack);
 - Multi-family buildings long-term parking: provide acceptable on-site bicycle parking for at least one bicycle per every two dwelling units; and/or
 - Hotel/motel long-term parking: provide one acceptable on-site bicycle parking space for every 25,000 square feet but not less than two spaces;
- Tier I:
 - Stricter energy efficiency requirements;
 - Stricter water conservation requirements for specific fixtures;
 - minimum 65 percent reduction in construction waste with third-party verification, Minimum 10 percent recycled content for building materials;
 - Minimum 20 percent permeable paving;
 - Minimum 20 percent cement reduction;
 - Multi-family developments/hotels/motels: minimum 35 percent of total parking spaces shall be EV ready and for projects with 20 or more dwelling units/rooms a minimum of 10 percent of the total number of parking spaces shall be equipped with EV charging stations.
- Tier II:
 - Stricter energy efficiency requirements,
 - Stricter water conservation requirements for specific fixtures;
 - Minimum 75 percent reduction in construction waste with third-party verification,
 - Minimum 15 percent recycled content for building materials;
 - Minimum 30 percent permeable paving;
 - Minimum 25 percent cement reduction; and/or
 - Multi-family developments/hotels/motels: minimum 40 percent of total parking spaces shall be EV ready and for projects with 20 or more dwelling units/rooms, a minimum of 15 percent of the total number of parking spaces shall be equipped with EV charging stations.

Western Electricity Coordinating Council and the North American Electric Reliability Council

The Western Electricity Coordinating Council (WECC) is a voluntary consortium of electrical power providers that is responsible for coordinating and promoting electricity reliability from the Canadian provinces of Alberta and British Columbia in the north of its jurisdiction to the northern Mexican State of Baja California in the south of its jurisdiction, and the 14 western states (WECC 2015). The LADWP is a member of the WECC. The WECC has implemented Standard BAL-STD-002-0 to require reliable operation of the power system while ensuring adequate generating capacity at all times. As a means of ensuring power system reliability, the LADWP maintains an extra reserve margin of power generation resources in the event of a power system disturbance. In order to determine how much extra generation

reserves are needed, the LADWP adheres to the WECC Reliability Standard. WECC Standard BAL-STD-002-0 requires its providers to:

- Supply requirements for load variations
- Replace generating capacity and energy lost due to forced outages of generation or transmission equipment
- Meet on-demand obligations
- Replace energy lost due to curtailment of interruptible imports

Executive Order S-1-07 (California Low Carbon Fuel Standard)

The Low Carbon Fuel Standard (LCFS), established in 2007 through Executive Order S-1-07 and administered by CARB, requires producers of petroleum-based fuels to reduce the carbon intensity of their products, starting with 0.25 percent in 2011 and culminating in a 10-percent total reduction in 2020. Petroleum importers, refiners and wholesalers can either develop their own low carbon fuel products or buy LCFS credits from other California Air Resources Board companies that develop and sell low carbon alternative fuels, such as biofuels, electricity, natural gas, and hydrogen.

Sustainable Communities Strategy (SB 375)

The Sustainable Communities and Climate Protection Act of 2008, or SB 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction mandates established in AB 32. SB 375 specifically requires each Metropolitan Planning Organization (MPO) to prepare a “sustainable communities strategy” (SCS) as part of its Regional Transportation Plan (RTP), which is required by the state and federal government, that will achieve GHG emission reduction targets set by CARB for the years 2020 and 2035 by reducing vehicle miles travelled (VMT) from light duty vehicles through the development of more compact, complete, and efficient communities. The SCS also contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets. The City of Los Angeles and, thus, all projects are located within the MPO area of the Southern California Association of Governments (SCAG). SCAG’s compliance with SB 375, through preparation of a Regional Transportation Plan/Sustainable Communities Strategy, is described below under the regional regulatory setting.

REGIONAL

Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy

SCAG functions as the Metropolitan Planning Organization for six counties, including Los Angeles County, wherein the project Site is located. As the designated Metropolitan Planning Organization, SCAG is required by federal law to prepare and update a long-range regional transportation plan, keep up with CAA requirements, monitor system performance, and develop SCS to achieve GHG reduction targets set by CARB.

On September 1, 2020, SCAG’s Regional Council adopted an updated Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) known as the 2020-2045 RTP/SCS or Connect SoCal.⁶ The 2020-2045 RTP/SCS is a long-range visioning plan that builds upon and expands land use and transportation strategies of the 2016-2040 RTP/SCS to increase mobility options and achieve a more

⁶ SCAG, 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments, Adopted September 3, 2020.

sustainable growth pattern. The 2020-2045 RTP/SCS projects growth in employment, population, and households at the regional, county, city, town and neighborhood levels. These projections take into account economic and demographic trends, as well feedback from SCAG’s jurisdictions. The 2020-2045 RTP/SCS “Core Vision” centers on maintaining and better managing the transportation network for moving people and goods, while expanding mobility choices by locating housing, jobs and transit closer together and increasing investment in transit and complete streets.⁷ The 2020-2045 RTP/SCS continues efforts to better align transportation investments and land use decisions to improve mobility and reduce GHGs by bringing housing, jobs and transit closer together. SCAG has determined that the 2020-2045 RTP/SCS would achieve the applicable GHG emissions reduction target for automobiles and light trucks of 19 percent per capita reduction by 2035, relative to 2005 levels, as established by CARB for the region.⁸

Air Quality Management Plan

As mentioned in Section 4.2, *Air Quality*, under state law, the South Coast Air Quality Management District (SCAQMD) is required to prepare a plan for air quality improvement for pollutants for which the District is in non-compliance. The SCAQMD updates the plan every three years. Each iteration of the SCAQMD’s Air Quality Management Plan (AQMP) is an update of the previous plan and has a 20-year horizon. The 2022 AQMP, adopted on December 2, 2022, incorporates new scientific data and notable regulatory actions that have occurred since adoption of the 2016 AQMP.

The 2022 AQMP addresses several state and federal planning requirements and incorporates new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and updated meteorological air quality models (SCAQMD 2022). This Plan builds upon the approaches taken in the 2016 AQMP for the attainment of federal PM and ozone standards and highlights the significant number of reductions to be achieved. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emissions technologies, when cost-effective and feasible, and low NO_x technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other CAA measures to achieve the 2015 8-hour ozone standard. Local

City of Los Angeles General Plan

The Air Quality Element of the City’s General Plan includes a goal (Goal 5) that aims to increase energy efficiency through land use and transportation planning; the use of renewable resources and less-polluting fuels; and the implementation of conservation measures including passive methods such as site orientation and tree planting (Los Angeles 2003). Additionally, Section 19: Resource Management (Fossil Fuels) of the Conservation Element of the General Plan includes Policy 1, which aims to continue to encourage energy conservation and petroleum product reuse (Los Angeles 2001).

City of Los Angeles Green Building Code

The following types of projects are subject to the Los Angeles Green Building Code:

- All new buildings (residential and non-residential)
- All additions (residential and non-residential)
- Alterations with building valuations over \$200,000 (residential and non-residential)

⁷ SCAG, A Plan Summary for Connect SoCal, Adopted September 3, 2020.

⁸ CARB, Executive Order G-20-239 Southern California Association of Governments’ 2020 Sustainable Communities Strategy CARB Acceptance of GHG Quantification Determination, October 30, 2020.

The Los Angeles Green Building Code is based on the 2016 CALGreen Standards. The program addresses five key areas: (1) Site: location, site planning, landscaping, storm water management, construction and demolition recycling; (2) Water Efficiency: efficient fixtures, wastewater reuse, and efficient irrigation; (3) Energy & Atmosphere: energy efficiency, and clean/renewable energy; (4) Materials & Resources: materials reuse, efficient building systems, and use of recycled and rapidly renewable materials; and (5) Indoor Environmental Quality: improved indoor air quality, increased natural lighting, and improved thermal comfort/control. Specifically, the Los Angeles Green Building Code requires all non-residential buildings to be constructed such that they're solar ready, while all residential buildings three stories and under must include solar photovoltaic systems. Likewise, all residential buildings greater than three stories must be solar ready.

Los Angeles 2017 Power Strategic Long-Term Resource Plan

The 2017 SLTRP document serves as a comprehensive 20-year roadmap that guides the LADWP Power System in its efforts to supply reliable electricity in an environmentally responsible and cost-effective manner.. This year's 2017 SLTRP re-examines and expands its analysis on the 2016 IRP resource cases with updates in line with latest regulatory framework, and updates to case scenario assumptions that include a 65 percent RPS, advanced energy efficiency, and higher levels of local solar, energy storage, and transportation electrification Starting in 2017, the Power IRP was expanded into the Power SLTRP, which will increase the planning horizon, from 20 years ending in 2037 and extend through 2050, in order to better align with Statewide greenhouse gas emissions goals and align with Los Angeles' 100 percent clean energy initiative. In 2018, the SLTRP will extend through 2050 while a separate, streamlined IRP document will be produced for submission and filing with the California Energy Commission in accordance with Senate Bill 350. The goal of the 2017 SLTRP is to identify a portfolio of generation resources and Power System assets that meets the city's future energy needs at the lowest cost and risk consistent with LADWP's environmental priorities and reliability standards. The SLTRP examines a total of eleven different case scenarios with a combination of strategies, including early coal replacement, accelerated RPS, energy efficiency, local solar, energy storage, and transportation electrification. The recommended SLTRP case scenario balances LADWP's objectives and identifies four key initiatives – greenhouse gas reduction, transportation electrification, dispatchable resources, and Power System reliability (LADWP 2017).

L.A.'s Green New Deal: Sustainable City Plan 2019

The City of Los Angeles adopted its climate action plan, Green LA: An Action Plan to Lead the Nation in Fighting Global Warming (Green LA), in May 2007. Green LA set the goal of reducing the City's GHG emissions to 35 percent below 1990 levels by 2030. The action plan outlines several actions in the fields of energy, water, waste, and transportation. These actions include improved transportation centered around mobility for people rather than cars, increasing recycling to 70 percent diversion, meeting all additional water use through reclaimed water, and increasing renewable energy to 35 percent by 2020. The action plan also outlines goals to help residents become "energy misers" by distributing compact fluorescent lamps (CFL's) and increasing rebates for energy efficient appliances and retrofits.

The City released its first Sustainable City pLAN, which is a roadmap for a Los Angeles that is environmentally healthy, economically prosperous, and equitable in opportunity for all — now and over the next 20 years. The pLAN focuses on both short-term results and long-term goals that will transform our City. L.A.'s Green New Deal is an expanded vision for our pLAN—securing clean air and water and a stable climate, improving community resilience, expanding access to healthy food and open space, and promoting justice for all (Los Angeles 2022).

City of Los Angeles Solid Waste Programs and Ordinances

The recycling of solid waste materials also contributes to reduced energy consumption. Specifically, when products are manufactured using recycled materials, the amount of energy that would have otherwise been consumed to extract and process virgin source materials is reduced. For example, in 2015, 3.61 million tons of aluminum were produced by recycling in the United States, saving enough energy to provide electricity to 7.5 million homes.⁹ In 1989, California enacted AB 939, the California Integrated Waste Management Act which establishes a hierarchy for waste management practices such as source reduction, recycling, and environmentally safe land disposal.¹⁰

The City implements various programs and ordinances related to solid waste. These include: (1) the City of Los Angeles Solid Waste Management Policy Plan, adopted in 1993, which is a long-range policy plan that proposes an approach for the City to achieve a goal of 90-percent diversion by 2025; (2) the RENEW LA Plan, which is a Resource Management Blueprint with the aim to achieve a zero waste goal through reducing, reusing, recycling, or converting the resources now going to disposal so as to achieve an overall diversion level of 90 percent or more by 2025; (3) the Waste Hauler Permit Program (Ordinance No. 181,519), which requires all private waste haulers collecting solid waste, including construction and demolition waste, to obtain AB 939 Compliance Permits and to transport construction and demolition waste to City certified construction and demolition processing facilities;¹¹ and (4) the Exclusive Franchise System Ordinance (Ordinance No. 182,986), which, among other requirements, sets maximum annual disposal levels and specific diversion requirements for franchised waste haulers in the City to promote solid waste diversion from landfills in an effort to meet the City's zero waste goals. These solid waste reduction programs and ordinances not only help to reduce the number of trips to haul solid waste therefore reducing the amount of petroleum-based fuel, but also help to reduce the energy used to process solid waste.

City of Los Angeles Los Angeles 100% Renewable Energy Study (LA100)

The Los Angeles 100% Renewable Energy Study (LA100), published in March 2021, explores possible pathways on how the City could achieve a 100% clean energy future by 2045. The study outlines goals, future scenarios, and implementation pathways but does not present recommendations. All LA100 scenarios include significant deployment of renewable and zero-carbon energy by 2035, accounting for 84%–100% of energy. The study describes how in the future Los Angeles would rely on technologies like wind, solar, and batteries to meet most of the City's everyday needs, and only on combustion turbines—supplied with renewable fuels—for limited periods. The study explores some of the following topics: electricity demand projection, options for local solar and storage, renewable energy investments and operations, as well as the impacts and costs for 100% renewable energy pathways. Results show that a 100% renewable electricity supply is achievable by 2045 or sooner.¹²

In addition to the executive summary, the report makes high-level findings and has 12 chapters, including specific topics such as electricity demand projections, customer-adopted rooftop solar and storage,

⁹ American Geosciences Institute, “How Does Recycling Save Energy?” <https://www.americangeosciences.org/critical-issues/faq/how-does-recycling-save-energy#:~:text=Extracting%20and%20processing%20raw%20resources,turn%20them%20into%20usable%20materials>. Accessed May 2022

¹⁰ CalRecycle, History of California Solid Waste Law, 1985-1989. <https://calrecycle.ca.gov/laws/legislation/calhist/1985to1989/> Accessed May 2022

¹¹ The California Integrated Waste Management Act of 1989 (AB 939), as amended, was enacted to reduce, recycle, and reuse solid waste generation in the state. AB 939 requires city and county jurisdictions to divert 50 percent of the total waste stream from landfill disposal.

¹² Cochran, Jaquelin, and Paul Denholm, eds. 2021. The Los Angeles 100% Renewable Energy Study. Golden, CO: National Renewable Energy Laboratory. <https://www.nrel.gov/docs/fy21osti/79444-ES.pdf>. Accessed on November 29, 2021. NREL/TP-6A20-79444. <https://maps.nrel.gov/la100/>. Accessed on November 23, 2021.

renewable energy investments and operations, air quality and public health, environmental justice, and economic impacts and jobs.

City of Los Angeles Residential and Commercial Building Construction / Zero-Carbon Emissions / Climate Equity LA Series / Building Decarbonization

On December 19, 2022, the City of Los Angeles published an ordinance in the City’s Municipal Code, Article 9 of Chapter IX, that requires all new buildings to be all-electric buildings with exceptions. Land use development projects would construct a building that contains no combustion equipment, plumbing for combustion equipment, gas piping, or fuel gas serving any use including, but not limited to, space heating (including fireplaces), water heating (including pools and spas), cooking appliances (including barbeques), and clothes drying, within the building or building property lines, and instead uses electricity as the sole source of energy for all lighting, appliances and/or equipment, including, but not limited to, space heating, water heating, cooking appliances, and drying appliances. Exceptions include: attached accessory dwelling units using existing gas piping systems in conjunction with the primary dwelling, gas-powered emergency life-safety systems, including emergency backup, and cooking equipment contained within kitchens located in a public use area, as defined in the California Building Code Chapter 2, such as restaurants, commissaries, cafeterias, and community kitchens provided the electrical infrastructure is installed in accordance with Section 99.04.106.8.1.Existing Buildings Energy & Water Efficiency Program Ordinance

The City also has an Existing Buildings Energy & Water Efficiency (EBEWE) Program Ordinance that requires owners of buildings over certain sizes to disclose their buildings’ energy and water consumption.

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance were developed in accordance with Appendix F and Appendix G of the CEQA Guidelines. Energy-related impacts would be significant if the Proposed Project would:

- Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation (Threshold 4.5-1)
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency (Threshold 4.5-2)

METHODOLOGY

Total energy consumption was calculated for existing (2021), future (2040) without CASP Update, and future (2040) with CASP Update conditions. Future energy use without the CASP Update is provided for informational purposes only and not impact analysis; the determination of significance is based on a comparison of future conditions with the CASP Update to existing conditions. Electricity and natural gas consumption estimates were calculated using CalEEMod. Refer to the Methodology subsection of Section 4.2, *Air Quality*, for modeling assumptions and Appendix E for modeling results. Petroleum consumption was identified by calculating the direct energy consumption of the CASP area using daily VMT, fleet mix, and average fuel economy. Daily VMT within the CASP area were retrieved from the traffic study prepared by Fehr & Peers and fleet mix was derived from CalEEMod. Average fuel economy is forecast to continue to increase, with the most recent automotive trends report for 2021 showing preliminary real-world fuel economy at 25.3 miles per gallon (USEPA 2021). Therefore, applying the 2021-based average fuel economy to future year (2040) with Project VMT provides a conservative evaluation of energy consumption

as the energy use of vehicles in 2040 is likely to be lower than current fuel use. There are no state standards established requiring future decreases in per capita energy use.

Electricity consumption was estimated by calculating the electricity consumption by land use with electricity factors derived from the California Emissions Estimator Model. Electricity factors for the existing and future conditions only account for 2019 energy standards, as a result, the analysis below provides a conservative estimate of the CASP’s future electricity consumption.

PROJECT IMPACTS

Threshold 4.5-1	Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation
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Impact 4.5-1 **Project Impact:** Development accommodated by the Proposed Project would increase demand for energy beyond existing conditions. However, the Project would not conflict with state and/or local plans for renewable energy or energy efficiency. The Project would result in decreases in per capita transportation-related energy use, electricity, and natural gas consumption in the Project Area and neither future construction nor operation of new development would result in energy used in an inefficient, unnecessary or wasteful manner, during construction or operation of reasonably anticipated development. This impact would be *less than significant*.

Project Impacts

Long-term operation of development accommodated by the Proposed Project would require permanent grid connections for electricity and natural gas service to power internal and exterior building lighting, and heating and cooling systems. In addition, the increase in vehicle trips associated with the Proposed Project’s development would increase fuel consumption within the Project Area. Increases in motor vehicle trips are primarily a combined function of population and employment growth. Population growth and growth in VMT would occur in the region regardless of whether the Project is implemented. As a result, energy consumption as it relates to vehicles would increase beyond the 2021 baseline under any scenario.

Table 4.5-5 shows daily VMT and estimated fuel consumption translated into energy use (mmBtu) in the Project Area under existing (2021), future (2040) without Proposed Project conditions, and future (2040) with Proposed Project conditions. The 2040 without Proposed Project was included for informational purposes and was not relied on for impact analysis or conclusions. With respect to transportation energy use, as shown in **Table 4.5-5**, future total daily energy consumption under implementation of the Proposed Project is expected to increase; however, per capita energy consumption is anticipated to decrease from 0.32 to 0.10 mmBtu per capita, a decrease of 69 percent. This change can be attributed to the fact that implementation of the Proposed Project would lower per capita VMT due to the location of jobs and housing in close proximity to each other and creation of substantial opportunities to use such transportation modes as transit, bicycling, and walking.

TABLE 4.5-5 DIRECT TRANSPORTATION ENERGY USE					
Year	Overall Daily VMT	Overall Annual VMT¹	Overall Daily Energy Use (mmBtu)	Overall Annual Energy Use (mmBtu)	Daily Per Capita Energy Use (mmBtu)
Baseline	328,439	113,968,333	1,924	702,446	0.32
Future (2040) without Proposed Project	841,339	291,944,633	4,930	1,799,406	0.14
Future (2040) with Proposed Project	983,961	341,434,467	5,766	2,104,437	0.10
Change from Existing Conditions under Proposed Project	655,522	+227,466,134	+3,814	+1,391,915	-0.22
NOTES:					
Transportation energy consumption was derived from the Project Area VMT (see Table 4.5-1), default fleet mix from CalEEMod (see Appendix X), average fuel economy from the United States Department of Transportation, and energy unit data from EIA.					
1 Annual VMT is calculated by multiplying daily VMT by 347 days, to account for reduced travel on weekends, in accordance with industry standards.					
SOURCE: United States Department of Transportation 2022a; EIA 2022d; Fehr & Peers 2022.					

Table 4.5-6 shows estimated annual electricity consumption in the Project Area under existing (2021), future (2040) without Proposed Project, and future (2040) with Proposed Project conditions. The 2040 without Proposed Project was included for informational purposes and was not relied on for impact analysis or conclusions. Future total annual electricity consumption under implementation of the Proposed Project is expected to increase; however, per capita electricity consumption is anticipated to decrease from 14.3 to 3.8 MWh per capita, a decrease of 73 percent. The Proposed Project buildout would increase the production of affordable, mixed-income, and permanent supportive housing, which consumes less electricity per capita compared to existing conditions. It is important to note that future energy consumption estimates only take into compliance with existing energy efficiency standards (i.e., 2022 Title 24). Similar to current plans, reasonably anticipated future development anticipated to occur with the implementation of the Proposed Project would be subject to Title 24, Part 6 of the California Administrative Code, the Energy Efficiency Standards for Residential and Nonresidential Buildings, which requires local jurisdictions to use energy efficient appliances, weatherization techniques, and efficient cooling and heating systems to reduce energy demand stemming from new development. In addition, future development would also be required to comply with the City of Los Angeles' Green Building Code Energy Efficiency requirements. Although the analysis contained herein does not account for future improvements in energy efficiency, development accommodated by the Proposed Project would be expected to consume less energy than existing developments as building standards become more stringent. Furthermore, while City of Los Angeles Ordinance 187714 would require all new buildings in the Project Area to be all-electric, it is speculative to forecast the Ordinance's effect on energy consumption; and any increase in electricity consumption relating to space heating, water heating, cooking appliances, and clothes drying would be offset by corresponding decreases in natural gas consumption for those uses.

Table 4.5-7 shows estimated annual natural gas consumption in the Project Area under existing (2021), future (2040) without Project, and future (2040) with Project conditions. The 2040 without Proposed Project was included for informational purposes and was not relied on for impact analysis or conclusions. Future total annual natural gas consumption under implementation of the Proposed Project is expected to increase, but the per capita natural gas consumption is anticipated to decrease from 18.7 to 6.0 mmBtu per capita, a decrease of 68percent. It is important to note that future energy consumption estimates, included in **Table 4.5-7**, only take into account compliance with existing energy efficiency standards (i.e., 2022 Title 24). Development accommodated by the Proposed Project would be expected to consume less energy than existing developments as energy conservation standards become more stringent, including the City of Los

Angeles Ordinance 187714, that requires all new buildings to be all-electric and would likely result in a further reduction in natural gas consumption. Therefore, the estimates provided here are conservative.

TABLE 4.5-6 PROJECT AREA ELECTRICITY CONSUMPTION			
Year	Overall Electricity Consumption (MWh)¹	Proportion of Statewide Consumption	Per Capita Electricity Consumption (MWh)
Baseline (2021)	85,989	0.03%	14.3
Future (2040) without Proposed Project	230,320	0.08%	6.39
Future (2040) with Proposed Project	212,296	0.08%	3.8
Change from Existing Conditions under Proposed Project	+126,307		-10.5

NOTE: The per capita consumption for electricity is determined by dividing electricity consumption data from CalEEMod by the existing Project Area population, as detailed in Section 4.12, *Population, Housing and Employment*.

SOURCES: CEC 2022b, City of Los Angeles 2018.

TABLE 4.5-7 PROJECT AREA NATURAL GAS CONSUMPTION			
Year	Overall Natural Gas Consumption (billion Btu)	Proportion of Statewide Consumption	Per Capita Natural Gas Consumption (mmBtu)¹
Baseline (2021)	113	<0.01%	18.7
Future (2040) without Proposed Project	335	0.1%	9.3
Future (2040) with Proposed Project	342	0.1%	6.0
Change from Existing Conditions under Proposed Project	+229		-12.7

NOTE: The per capita consumption for natural gas is determined by dividing natural gas consumption data from CalEEMod by the existing Project Area population, as detailed in Section 4.12, *Population, Housing and Employment*.

¹ Total annual natural gas consumption is expressed in billion Btu, while per capita annual natural gas consumption is expressed in million Btu

SOURCES: CEC 20122f; City of Los Angeles 2018.

Construction and maintenance of reasonably anticipated development from the Proposed Project would result in short-term consumption of energy from the use of construction equipment and processes. Construction energy demand is not calculated because lot acreage, size of buildings, and construction durations for development under the Proposed Project is currently unknown and estimates would be speculative. Although the Proposed Project would increase energy consumption over existing conditions, implementation of the Proposed Project would decrease electricity consumption and increase natural gas consumption modestly compared to the 2040 without Proposed Project scenario. Importantly, the per capita energy consumption would decrease with the Proposed Project. Therefore, the Proposed Project would not foreseeably increase construction and operations energy demand. The California Green Building Standards Code (CalGreen) includes specific requirements related to recycling, construction materials and energy efficiency standards, which would help minimize waste and energy consumptions. All construction and maintenance accommodated by the Proposed Project would be required to comply with relevant provisions of CalGreen.

Consistency with Energy Conservation and Renewable Energy Policies

As previously discussed, the Proposed Project would result in decreases in per capita transportation-related energy use, electricity, and natural gas consumption in the Project Area. Although implementation of the Proposed Project would result in greater net energy consumption than 2021 baseline conditions, the Project would not result in the inefficient, wasteful, or unnecessary consumption of energy if it is consistent with existing relevant energy conservation policies. Accordingly, inconsistencies between the Project and adopted plans and policies related to energy conservation have not been identified. The discussion below further examines consistency with adopted plans and policies related to energy conservation.

SCAG monitors regulations related to fuel efficiency standards and alternative fuel vehicles. The Proposed Project is a land use plan and would not include regulations related to fuel efficiency or alternative fuel vehicles. However, the Proposed Project would reduce per capita VMT and the associated use of fuels, by increasing access to transit and promote the use of active transportation modes by accommodating compact development and mix of land uses in close proximity to transit. Therefore, the plan would not conflict, but would instead support the goals of these regulations. (e.g., *Energy Policy and Conservation Act* and *Corporate Average Fuel Standards, EPCAct, Energy Independence and Security Act of 2007, AB 1493: Reduction of Greenhouse Gas Emissions, AB 1007: State Alternative Fuels Plan*). The 1975 *Warren-Alquist Act* established the California Energy Resource Conservation and Development Commission, now known as the CEC, and established a State policy to reduce wasteful, uneconomical and unnecessary uses of energy. The Proposed Project would be subject to California's Energy Efficiency Standards in the California Code of Regulations, Title 24, Part 6, which requires local jurisdictions to enforce energy efficient appliances, construction materials and building systems for new development. In addition, the City of Los Angeles' Green Building Code would require new development in the Project Area to comply with its Energy Efficiency requirements. As demonstrated in **Table 4.5-5** through **Table 4.5-7** above, the Project would result in lower per capita energy use in comparison to the 2021 baseline conditions. Therefore, the Proposed Project would not result in wasteful, inefficient, or unnecessary use of energy and would not be inconsistent with applicable *Warren-Alquist Act* policies.

SB 1078, as accelerated by SB 350, establishes a renewable portfolio standard for electricity supply, and requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide 33 percent of their supply from renewable sources by 2020. In addition, the 2017 IEPR includes a set of strategies to address California's future energy needs. Key topics covered in the report include electricity resource and supply plans; electricity and natural gas demand forecasts; natural gas outlooks; transportation energy demand forecasts; energy efficiency savings; integrated resource planning; a barriers study; climate adaptation and resilience; renewable gas; distributed energy resources; strategic transmission investment plans; and existing power plan reliability issues. The Proposed Project would not conflict with these policies. Refer to Section 4.7, *Greenhouse Gases*, for a discussion of greenhouse gas emissions reductions related to the Project.

In addition, future development projects accommodated by the Project are expected to promote energy efficiency as they support implementation of the SCAQMD 2022 Air Quality Management Plan transportation control measures, including transportation demand management, transportation system management, commuter and public transit; rail, bike and pedestrian programs, among others (refer to Section 4.2, *Air Quality*).

The Proposed Project would be consistent with the Air Quality and Conservation Elements of the Los Angeles General Plan, which encourages the use of renewable energy, energy conservation and energy efficiency techniques in all new building design, orientation and construction and support of alternative transportation and fuels. The Proposed Project's land use regulations, including its standards related to Building Form, Frontage, Development Standards, and Use, would support mixed use, pedestrian-oriented,

and infill development, thus reducing fuel consumption and enhancing opportunities for the use of transit and other alternative modes of transportation.

In summary, the Proposed Project would not result in wasteful or inefficient energy consumption and is consistent with applicable policies regarding energy conservation and renewable energy. Therefore, the Project would have a *less than significant* impact with respect to energy consumption.

Mitigation Measures

Significant impacts have not been identified; therefore, mitigation is not required for the Proposed Project.

Threshold 4.5-2	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.
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Impact 4.5-2 **Project Impact:** The Project would not conflict with applicable federal, state, and local energy conservation policies aimed at decreasing reliance on fossil fuels and increasing reliance on renewable energy sources. This impact would be *less than significant*.

Project Impacts

As discussed under Threshold 4.5-1, above, inconsistencies between the Proposed Project and adopted plans and policies related to decreasing reliance on fossil fuels and increasing reliance on renewable energy sources have not been identified. SB 1078, as accelerated most recently by SB 100, established an RPS for electricity supply, and requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide 33 percent of their supply from renewable sources by 2020, 60 percent by 2030, and 100 percent by 2045. To meet this state requirement, as well as the local desire to achieve 100 percent renewable energy, the LADWP’s 2016 IRP expresses plans to increase the LADWP’s RPS to 55 percent by 2030 and to 65 percent by 2036 along with the sale of LADWP’s 21-percent share in the coal-fired Navajo Generation Station. Many of these strategies are aimed at reducing greenhouse gas emissions, but also result in improved energy efficiency and an increased integration of renewable energy sources. The Project would not conflict with these policies or objectives. Refer to Section 4.7, *Greenhouse Gases*, for a discussion of greenhouse gas emissions reductions related to the Proposed Project.

The Proposed Project would also be consistent with the City of Los Angeles General Plan Air Quality and Conservation Elements, which encourages the use of renewable energy, energy conservation and energy efficiency techniques in all new building design, orientation and construction and support of alternative transportation and fuels. As described under Threshold 4.5-1, above, the Project includes policies intended to improve the efficiency and effectiveness of the transportation system and provide options for alternative transportation. In summary, the Proposed Project would not result in an increased reliance on fossil fuels and a decreased reliance on renewable energy sources and is consistent with applicable policies regarding energy conservation and renewable energy. Therefore, the Proposed Project’s impact with respect to energy source reliance would be *less than significant*.

Mitigation Measures

Significant impacts have not been identified; therefore, mitigation is not required for the Project.

CUMULATIVE IMPACTS

Locally, energy resources are provided by various oil companies, LAWDP, and SoCal Gas, but the issue of energy is global in nature and the state as well as regional and local governments have adopted policies

aimed at energy conservation. The service areas for energy providers are varied, with LADWP primarily serving the Project Area, SoCal Gas serving a 24,000 square mile region covering much of central and southern California, and oil companies serving customers all over the world. No single geographic scope can address the full extent of issues related to energy resources so the cumulative analysis contained herein considers energy demand in the City of Los Angeles and the southern California region served by SoCal Gas in the context of statewide energy demand and state mandates related to energy conservation.

As discussed above, cumulative development in Los Angeles and throughout southern California would continue to increase energy use to meet the Project Area and region's growing population; however, implementation of future community plans is expected to generally improve the efficiency of energy use in the Project Area, while adherence to existing state regulations such as CalGreen and the Low Carbon Fuel Standard would ensure the incorporation of energy efficient measures in the design and operation of future developments throughout the region. Thus, cumulative impacts related to energy use arising from cumulative development in Los Angeles and throughout the region would be less than significant.

As discussed under Impact 4.5-1, above, implementation of the Proposed Project would generally improve the efficiency of energy use in the Project Area on a per capita basis and would not contribute to a cumulative impact related to the wasteful, unnecessary, or inefficient use of energy. Furthermore, development emphasis on compact land use and growth patterns that facilitate transit and non-motorized transportation are anticipated to result in less energy consumption. As mentioned in Section 4.7, *Greenhouse Gases*, SCAG's 2020-2045 RTP/SCS was developed to provide a blueprint to integrate land use and transportation strategies to help achieve a coordinated and balanced regional transportation system as well as reduce energy use and associated GHG emissions within the region. The Proposed Project would accommodate concentrated, mixed-use development adjacent to transit corridors in order to conserve resources, protect existing residential neighborhoods, and reduce energy use through the increase in active transportation and use of transit. While implementation of the Proposed Project would result in increased demand for energy and natural gas, the impact to the City's and region's energy resources would be less than significant. The Proposed Project would support energy efficient practices and would not result in wasteful or inefficient use of energy.

Based on the above, the incremental effect of the Proposed Project on energy resources would not be cumulatively considerable and cumulative impacts would be *less than significant*.

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4.6 GEOLOGY AND SOILS

This section provides an overview of geology and soils and evaluates the impacts associated with the Proposed Project. Topics addressed include suitability of soil for development; geologic faults; and direct and indirect seismic hazards such as floods, erosion, subsidence, liquefaction, and landslides. This section was prepared utilizing documents and maps published by the United States Geological Survey (USGS), California Department of Conservation, California Geological Survey (CGS), and the City of Los Angeles. Generally, this section evaluates whether the Project would substantially increase the exposure of people or structures to adverse effects related to seismic activity, unstable geologic materials, or erosion, or cause impacts to paleontological resources or unique geological features compared to existing conditions.

ENVIRONMENTAL SETTING

GEOLOGY

Project Area Geology

The Project Area is situated on a relatively flat river plain along the east and west sides of the concrete-lined Los Angeles River channel, which bisects the Project Area. Topographically, the area slopes to the south with elevations ranging from approximately 370 feet relative to MSL near the northern boundary of the Project Area to approximately 296 feet MSL near the southern boundary. Relatively steep slopes ascend from the river plain approximately 30 feet or more to Broadway and Elysian Park along the north side of the Project Area (USGS 2017).

A majority of the land surface in the Project Area is urbanized and developed with a mostly industrial uses, the majority of which are paved which limits the extent of exposed surface soils. The Project Area is generally underlain by Quaternary alluvial soils overlying Tertiary age sedimentary deposits. The alluvium is generally comprised of both stream channel and floodplain deposits of the Los Angeles River consisting of unconsolidated silt, sand, and gravel. Older alluvium consisting of river terrace deposits is mapped along the east side of the river. These deposits are described as dissected silt, sand, and gravel. Fill soils may be present, related to previous site development in the Project Area (Ninyo and Moore, 2008).

The sedimentary bedrock exposed in the Elysian hills bordering the northwest boundary of the Project Area has been mapped as the Upper Pliocene Puente Formation, a member of the Monterey Formation. The geologic structure in the area is dominated by a northwest–southeast plunging anticline of the Elysian Park Anticline and the Elysian Park Blind Thrust Fault. The Project Area borders the southwest limb of the anticline where the bedding of the Puente Formation typically dips to the southwest on the order of 30 or more degrees. The anticline is concealed under the alluvium and its approximate location is inferred from nearby bedrock outcrops (Ninyo and Moore, 2008).

Faulting and Seismicity

Project Area Faults

The Project Area is located in a seismically active area, as is the majority of Southern California. No known active faults are located in the Project Area. However, an unnamed Pre-Quaternary fault (older than 1.6 million years) runs east-west through the project area, but it is not considered an active fault. Two potentially active fault lines run near the Project Area. An unnamed Late Quaternary fault identified as

“Unnamed fault west of Monterey Park” by the California Department of Conservation is located approximately 2 miles southeast of the of the Project Area is considered potentially active because it has experienced movement in the past 700,000 years. (DOC 2010). The fault primarily trends east west running from Boyle Heights east toward Montebello, but arcs to the north in City Terrace (DOC 2010). This fault has an expected maximum capability of a magnitude 6.7 earthquake. Though no recent seismic activity has been recorded along this fault, a major earthquake occurring along this fault would be capable of generating seismic hazards and strong groundshaking effects in the Project Area. A Quaternary fault identified as the “Raymond Fault” is located approximately 2 miles north of the Project. The fault primarily trends east west, running from Monrovia in the east, towards Los Feliz where it then trends west toward the Hollywood fault. No recent activity has been recorded on this fault.

Several Pre-Quaternary Faults are also located in the northern sections of the Project Area in and around the vicinity of Elysian Park. However, these faults have not experienced movement within the past 1.6 million years and are considered inactive. Of the local faults, the probability of earthquake activity is considered the highest along the East Montebello Fault, with possible ground rupture. The closest faults that are associated with an Alquist Priolo Earthquake Fault Zone are the Raymond Fault located approximately 2 miles to the north of the CPA and the East Montebello Fault located approximately 6 miles to the east. Thus, no fault rupture hazard is anticipated along the fault traces that pass through the Project Area. (CGS 2017).

Recent Seismic Activity

Historically, earthquakes have caused substantial groundshaking in the Los Angeles region and include the following: the 1933 Long Beach earthquake (magnitude 6.4 on Richter scale), along the Newport-Inglewood Fault Zone; the 1971 San Fernando earthquake (magnitude 6.7), along the San Fernando-Sierra Madre Fault; the 1987 Whittier Narrows earthquake (magnitude 5.9), along the Elysian Park Thrust Fault; the 1988 Pasadena earthquake (magnitude 5.0); the 1990 earthquake north of Pomona (magnitude 5.3); the 1991 Sierra Madre earthquake (magnitude 5.8); the 1992 Landers area earthquake (magnitude 7.4); and the 1994 Northridge earthquake (magnitude 6.7), along the Oakridge Fault. In addition, the 2008 Chino Hills earthquake (magnitude 5.5) was the strongest earthquake felt in the greater Los Angeles region since the 1994 Northridge earthquake.

Seismic Hazards

Hazards associated with earthquakes include primary hazards, such as surface rupture and groundshaking, as well as secondary hazards, such as liquefaction, lateral spreading, ground lurching, tsunamis, and dam inundation. These hazards are described below.

Surface Rupture

Surface rupture represents the breakage of ground along the surface trace of a fault, which is caused by the intersection of the fault surface area ruptured in an earthquake with Earth's surface. Fault displacement occurs when material on one side of a fault moves relative to the material on the other side of the fault. This can have particularly adverse consequences when buildings are located within the rupture zone. It is not feasible, from a structural or economic perspective to design and build structures that can accommodate rapid displacement involved with surface rupture. Amounts of surface displacement can range from a few inches to tens of feet during a rupture event.

The Alquist-Priolo Earthquake Fault Zoning Act regulates development near active faults to mitigate the hazard of surface fault rupture. Essentially, this Act prohibits the location of most structures for human occupancy across the trace of active faults and establishes Earthquake Fault Zones and requires geologic/seismic studies of all proposed developments within a delineated zone. The Earthquake Fault

Zones are delineated and defined by the State Geologist and identify areas where potential surface rupture along a fault could occur.

Project Area Surface Rupture

As previously discussed, no Alquist-Priolo Earthquake Fault Zones are located in the Project Area.

Groundshaking

The major cause of structural damage from earthquakes is groundshaking. The intensity of ground motion expected at a particular site depends upon the magnitude of the earthquake, the distance to the epicenter, and the geology of the area between the epicenter and the property. Greater movement can be expected at sites located on poorly consolidated material, such as alluvium, within close proximity to the causative fault, or in response to a seismic event of great magnitude.

Project Area Groundshaking

Groundshaking levels in the Project Area would be similar to those citywide. Earthquake scenario maps have been developed that depict the expected ground motions and effects of large earthquakes in the City. Ground shaking faults were developed for the Newport-Inglewood Fault, Palos Verde Fault, Puente Hills Fault, San Andreas Fault, and Santa Monica Fault using different scenarios of magnitude, depth, and epicenter locations (City of Los Angeles 2017a). The fault scenarios involved a variation of magnitudes from 6.8 to 7.8. All were expected to produce a range of ground shaking at sites throughout the region from moderate to severe, depending on the distance from the earthquake, rock, and soil conditions.

Liquefaction

Liquefaction is a phenomenon in which the strength and stiffness of a soil is reduced by earthquake shaking or other rapid loading. Liquefaction occurs in saturated soils, in which the water exerts a pressure on the soil particles that influences how tightly the particles themselves are pressed together. This is caused by a sudden temporary increase in pore water pressure due to seismic densification or other displacement of submerged granular soils. Significant factors that affect liquefaction include water level, soil type, particle size and gradation, relative density, confining pressure, and the intensity and duration of shaking.

Liquefaction more often occurs in earthquake-prone areas underlain by young alluvium where the groundwater table is within 30 feet of the ground surface. In addition to the necessary soil conditions, the ground acceleration and duration of the earthquake must also be of a sufficient level to induce liquefaction.

Project Area Liquefaction

The majority of the Project Area is located in a liquification zone and would be subject to earthquake induced liquification.

Lateral Spreading

Lateral spreading involves the lateral displacement of surficial blocks of sediment (e.g., alluvium, terrace sands) as a result of liquefaction in a subsurface layer. The initial gradient of a particular site that fails in lateral spreading can be small since the soil mass usually moves on a liquefied layer of loose, saturated granular material.

Ground Lurching

Certain soils have been observed to move in a wave-like manner in response to intense seismic groundshaking, forming ridges or cracks on the ground surface. Areas underlain by thick accumulations of

colluvium and alluvium appear to be more susceptible to ground lurching than bedrock. Under strong seismic ground motion conditions, lurching can be expected within loose, cohesionless soils, or in clay-rich soils with a high moisture content. Generally, only lightly loaded structures, such as pavement, fences, pipelines, and walkways, are damaged by ground lurching; more heavily loaded structures appear to resist such deformation.

Tsunamis

Tsunamis occur when large areas of the submerged continental shelf or slope are rapidly displaced vertically. Tsunami inundation zones in Los Angeles are limited to areas along the coast in Venice, Marina del Rey, and San Pedro (California Department of Conservation 2020). The Project Area is located approximately 15 miles from the Pacific Ocean and is not located within an Inundation Map for flood risk (CGS 2016). There is no potential for tsunami damage in the Project Area.

Dam Inundation

Project Area Dam Inundation

As discussed in Section 4.9, *Hydrology and Water Quality*, dam failure from three regional dams could potentially create flooding in the majority of the Project Area. These include the Sepulveda Dam on the Los Angeles River, approximately 15 miles northwest of the Project Area, the Hansen Dam on the Tujunga Wash, approximately 15 miles northwest of the Project Area, and the Elysian Reservoir, located just west of the Plan Area on the northwest side of SR-110 (Los Angeles County Enterprise Geographic Information Systems 2017).

Soil Hazards

Hazards associated with soils include erosion, shrink/swell potential (expansive soils), landslides, and subsidence, as described below. Most of the City is urbanized and the majority of the land surface is covered in structures and pavement, which limits the extent of exposed surface soils.

Project Area Soil Hazards

The Project Area is generally underlain by Quaternary alluvial soils overlying Tertiary age sedimentary deposits. The alluvium is generally comprised of both stream channel and floodplain deposits of the Los Angeles River consisting of unconsolidated silt, sand, and gravel. Older alluvium consisting of river terrace deposits is mapped along the east side of the river. These deposits are described as dissected silt, sand, and gravel. Fill soils may also be present in the Project Area.

Soil Erosion

Erosion refers to the removal of soil by water or wind. The effects of erosion are intensified with an increase in slope (as water moves faster, it gains momentum to carry more debris), the narrowing of runoff channels (which increases the velocity of water), and by the removal of groundcover, which leaves the soil exposed.

Project Area Erosion

In the Project Area, there is a low potential for soil erosion as the ground surface is almost entirely paved and the underlying soils are not exposed to the elements. This impermeable surface cover decreases the infiltration of water into the underlying soils, which could increase the amount and velocity of runoff, and potentially erosion, in downstream locations. However, runoff in the Project Area flows to the Los Angeles River which runs through the center of the Project Area, the majority of which is concrete-lined. This existing, concrete-armored stormwater infrastructure minimizes the erosion potential in and downstream of

the Project Area. Although portions of the Los Angeles River within the Project Area have an unconsolidated bottom which contains 25 percent cover of particles smaller than stones, the infiltration of water into the underlying soils is minimal and the potential for soil erosion remains low.

Shrink/Swell (Expansive Soils)

Soils that volumetrically increase (swell) or expand when exposed to water and contract when dry (shrink) are considered expansive soils. A soil's potential to shrink and swell depends on the amount and types of clay in the soil. Montmorillonite and bentonite clays are more responsive to changes in water content than other types of clay. Further, the higher the clay content, the more the soil will swell when wet and shrink when dry. Highly expansive soils can cause structural damage to foundations and roads without proper structural engineering and are generally less suitable or desirable for development than non-expansive soils because of the necessity for detailed geologic investigations and costlier grading applications.

The Los Angeles Building Code (LABC) incorporates California Building Code (CBC) requirements for slab-on-ground building foundations located on expansive soils. If expansive soils are detected based on a preliminary soil report, the CBC requires preparation of a soil investigation prior to construction and incorporation of appropriate corrective actions to prevent structural damage, to be determined on a project-by-project basis. If a building or structure is assigned to a specific seismic design category, a geotechnical investigation will be conducted and a geotechnical report will be submitted prior to construction and incorporation of appropriate corrective actions to prevent structural damage. Whether or not a geotechnical investigation is warranted will be determined on a project-by-project basis.

Project Area Shrink/Swell

The extent of expansive soils in the Project Area is not currently mapped.

Landslides

The geologic character of an area determines its potential for landslides. Steep slopes, the extent of erosion, and the rock composition of a hillside can aid in predicting the probability of slope failure. Common triggering mechanisms of slope failure include undercutting slopes by erosion or grading; saturation of marginally stable slopes by rainfall or irrigation; and shaking of marginally stable slopes during earthquakes.

Project Area Landslides

According to the Los Angeles Seismic Hazard Map, there are no landslide zones in Project Area. However, sections of slope on Elysian Park directly bordering the northern portion of the Plan Areas are relatively steep and may be subjected to instability and are designated as landslide zones.

Subsidence

Subsidence occurs at great depths below the surface when subsurface pressure is reduced by the withdrawal of fluids (e.g., groundwater, natural gas, or oil) resulting in sinking of the ground.

As shown in **Figure 4.6-1** the easternmost portion of the Los Angeles City Oil Field lies along the western edge of the Project Area with a small portion of the oil field located along Spring St in the Project Area.

Figure 4.6-1 Subsidence Risk Areas

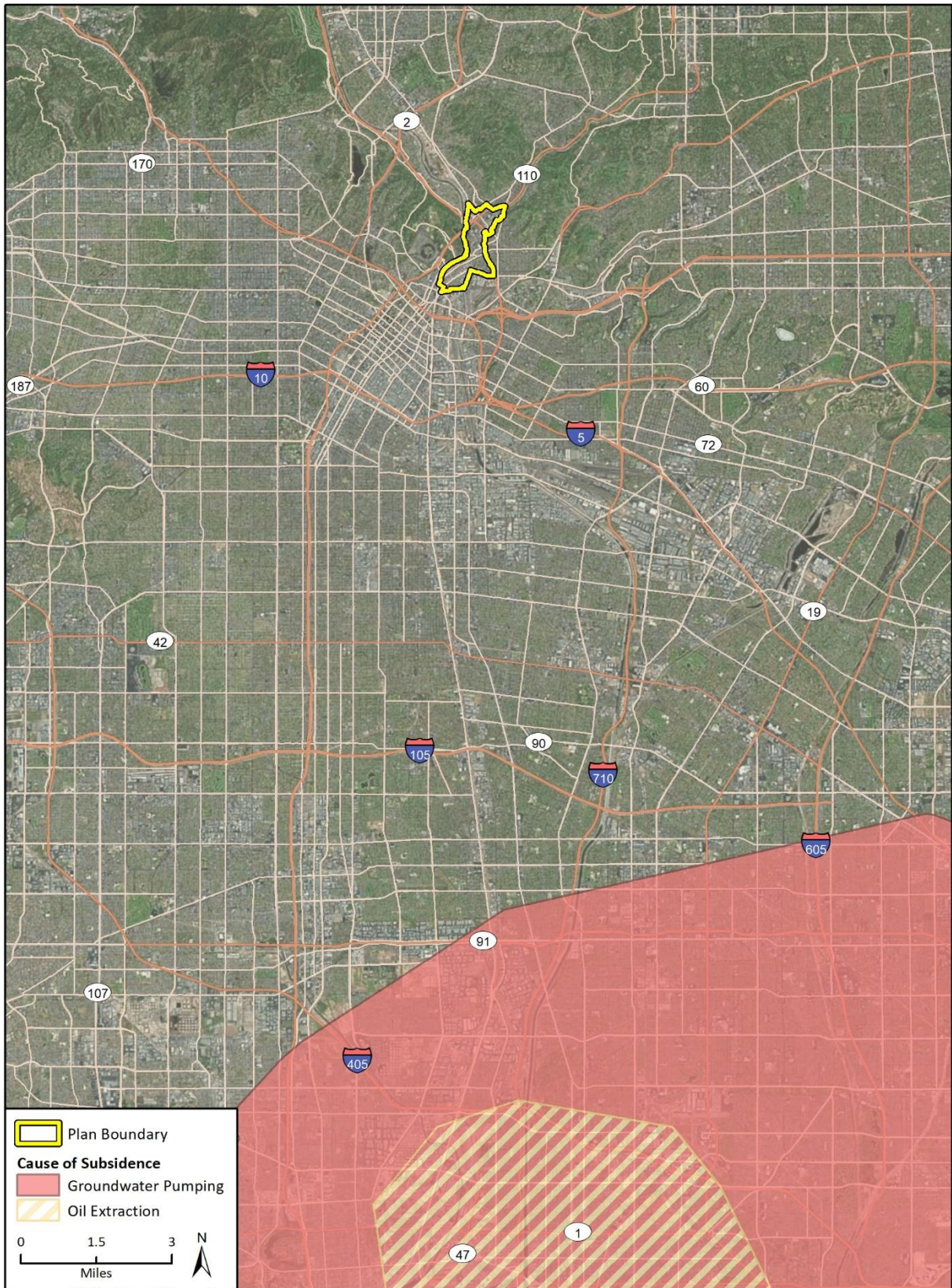


Fig 4.6-5 Subsidence Risk Areas

PALEONTOLOGICAL RESOURCES

Project Area

Project Area Paleontological Geologic Setting

The Cornfield Arroyo Seco Plan Area includes three mapped geologic units as shown in **Figure 4.6-2**: 1) Quaternary alluvial clay and sand (Qg); 2) Quaternary younger alluvium (Qa); and 3) the Monterey Formation (Tm) (Dibblee and Ehrenspeck 1989). The geology and paleontology of these geologic units is discussed below.

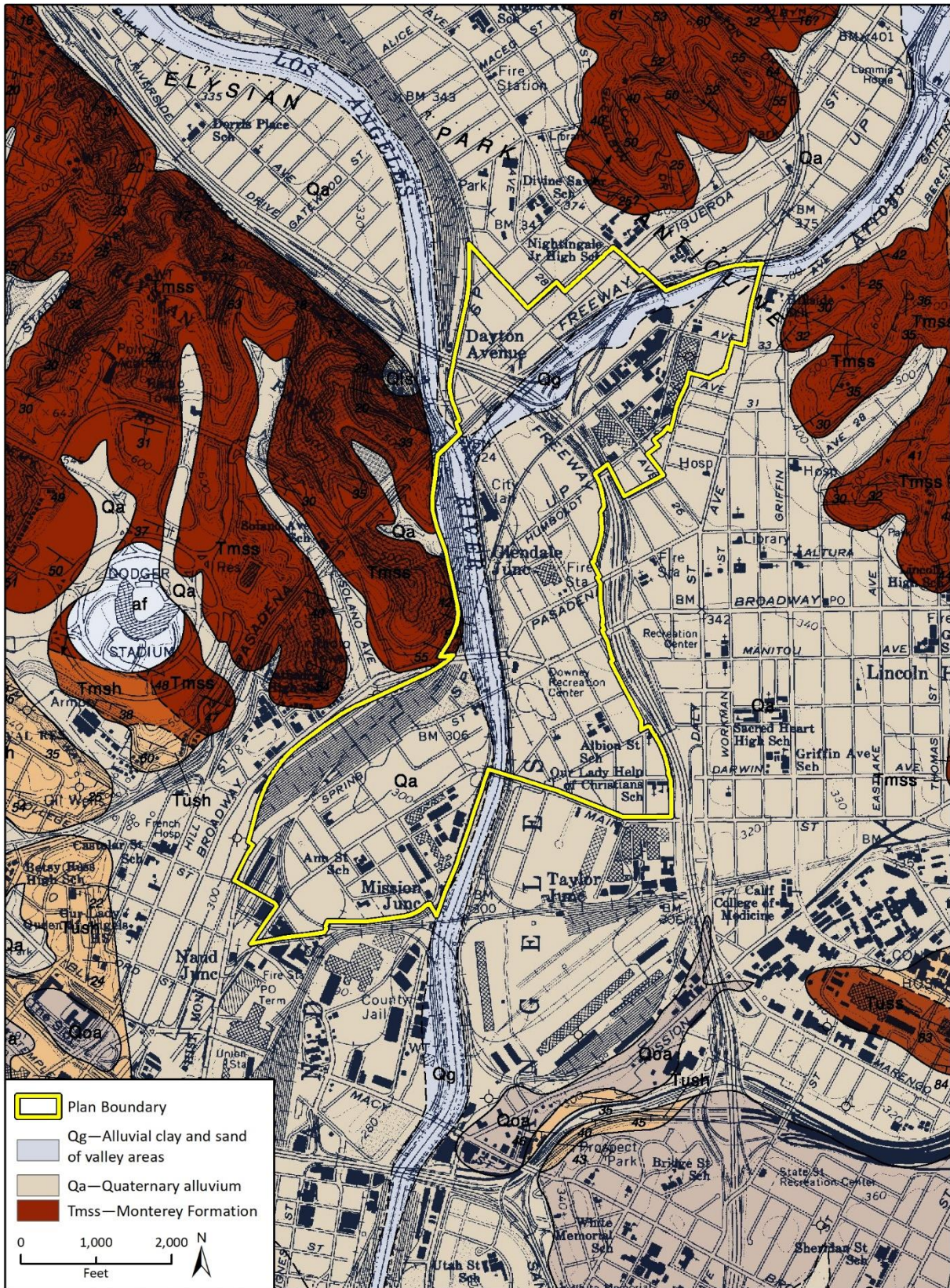
Quaternary Alluvium

The majority of the Project Area is underlain by Quaternary alluvium (Qa) of Holocene age locally consisting of unconsolidated sand, silt, and gravel typical of an alluvial floodplain. The Los Angeles River and Arroyo Seco are underlain by Quaternary alluvial clay and sand of valley areas (Qg) that are also of Holocene age. Holocene alluvial deposits are generally considered too young to preserve fossil resources (i.e., < 5,000 years old), but at unknown depths, these sediments may transition to older alluvial sediments or other geologic units like the Monterey Formation, which may contain scientifically significant fossils. Alluvial sediments of early Holocene and Pleistocene age have a well-documented record of abundant and diverse vertebrate fauna throughout California, especially in the Los Angeles Basin. Fossil specimens of whale, sea lion, horse, ground sloth, bison, camel, mammoth, dog, pocket gopher, turtle, ray, bony fish, shark, and bird have been reported (Agenbroad 2003; Bell et al. 2004; Jefferson 1989, 1991, 2010; Maguire and Holroyd 2016; Merriam 1911; Reynolds et al. 1991; Parkman 2005; PBDB 2022; Savage 1951; Savage et al. 1954; Scott and Cox 2008; Springer et al. 2009; Stirton 1951; Tomiya et al. 2011; Wilkerson et al. 2011; Winters 1954; UCMP 2022). Existing information discusses the general range of geologic unit thicknesses in various regions of the Los Angeles Basin; however, specific information on the depth at which Holocene units mapped at the surface become old enough to support paleontological resources is not available (DWR 1961). While the precise depth of these high sensitivity sediments is unknown, it may be as few as five feet (Maguire and Holroyd 2016; Savage 1951). The erosive power of the Los Angeles River and Arroyo Seco likely produce a complex sequence of young Holocene (< 5,000 years old), old Holocene (> 5,000 years old), and Pleistocene alluvial sediments beneath the Project Area. The proximity of these alluvial deposits to exposures of the Monterey Formation means that this unit may also be encountered at shallow depths, particularly in the western part of the Cornfield Arroyo Seco Plan Area.

The Monterey Formation

The Monterey Formation is exposed in the western Project Area. The portion underlying the Project Area consists of tan to light gray, semi-friable arkosic sandstone (Tmss). The Monterey Formation is extensive and outcrops along coastal California from north of San Francisco to south of Los Angeles. It is named after exposures of diatomaceous shale and siltstone in the vicinity of Monterey and is easily recognized by its pale buff to white color (Berndemeyer et al. 2012, Norris and Webb 1990). The Monterey Formation is as much as one mile thick and can span several square miles but is typically a half a mile thick. Its lithology varies greatly but is generally dominated by finely laminated diatomaceous sediments with scarce terrigenous material.

Figure 4.6-2 Geologic Map of the Project Area



Imagery provided by: Dibblee, T.W. and Ehrenspeck, H.E. 1989. Geologic map of the Los Angeles quadrangle, Los Angeles County, California. Dibblee Geological Foundation, Dibblee Foundation Map DF-22, scale 1:24,000

The middle to late Miocene Monterey Formation is well known for producing marine vertebrates, plants, invertebrates, and microfossils from more than 1200 localities in California. Museum collections document dozens of vertebrate localities yielding large sea turtles, dolphins, whales, pinnipeds, sharks, fish, desmostylians, birds, and many other fauna (PBDB 2022; UCMP 2022). In addition, numerous species of scientifically important invertebrates, foraminifera, and plants, such as kelps and other large soft-bodied seaweeds have been recovered from the Monterey Formation. Typically, the fossil specimens within the Monterey Formation have been recovered from its diatomite and shale deposits, but the limestone and sandstone beds have also yielded abundant remains.

Project Area Paleontological Sensitivity

The Society for Vertebrate Paleontology (SVP) broadly defines significant paleontological resources as follows (SVP 2010, page 11):

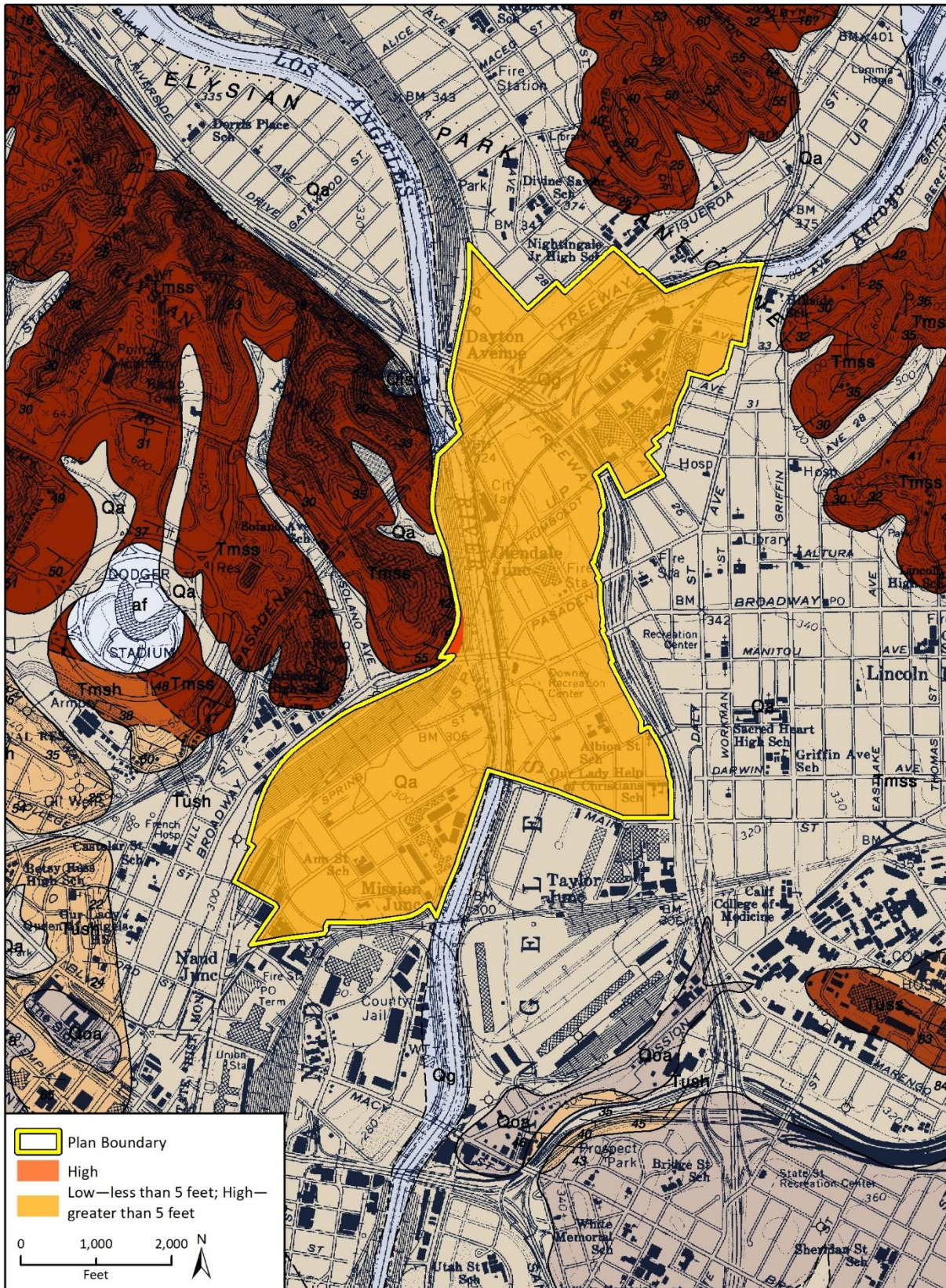
“fossils and fossiliferous deposits consist of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years).”

Significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, diagnostically important, or are common but have the potential to provide valuable scientific information for evaluating evolutionary patterns and processes, or which could improve our understanding of paleochronology, paleoecology, or depositional histories. New or unique specimens can provide new insights into evolutionary history; however, additional specimens of even well-represented lineages can be equally important for studying evolutionary patterns and processes, and evolutionary rates. Unidentifiable material can also provide useful data for dating geologic units if radiocarbon dating is possible. As such, common fossils (especially vertebrates) may be scientifically important, and therefore considered highly significant.

Project Area Paleontological Resources

The geologic units underlying the Project Area include units with low paleontological resource potential at the surface, and others with a high paleontological resource potential, as defined by the criteria set forth by the SVP (2010). The Monterey Formation (Tmss) has a high paleontological resource potential based on a history of yielding scientifically significant vertebrate fauna. The Holocene-age young alluvial-fan (Qa) and valley (Qg) deposits mapped within the Project Area have been determined to have a low paleontological resource potential at the surface but may overlay older alluvial units and/or the Monterey Formation. At depths below five feet, Quaternary younger alluvial-fan (Qa) and valley (Qg) deposits have a high paleontological resource potential. Sensitivity ratings for the sediments underlying Project Area are shown in **Figure 4.6-3**.

Figure 4.6-3 Paleontological Sensitivity of the Project Area



Imagery provided by: Dibblee, T.W. and Ehrenspeck, H.E. 1989. Geologic map of the Los Angeles quadrangle, Los Angeles County, California. Dibblee Geological Foundation, Dibblee Foundation Map DF-22, scale 1:24,000

REGULATORY FRAMEWORK

FEDERAL STANDARDS

Paleontological Resources Preservation Act

The Paleontological Resources Preservation Act (PRPA) was signed into law in 2009. It directs the Department of Agriculture and the Department of the Interior to implement comprehensive paleontological resource management programs on federal lands. The PRPA protects scientifically significant fossils on federal lands and provides a permitting system where researchers can collect and study scientifically significant fossils which will remain in the public trust. The act also allows for the collection of common plant and invertebrate fossils for personal, non-commercial use on federal lands. The PRPA requires the Secretaries of the Interior and Agriculture to manage and protect paleontological resources on federal land. The PRPA furthers the protection of fossils on federal lands by criminalizing the unauthorized removal of fossils.

Society for Vertebrate Paleontology (SVP) Standard Guidelines

The SVP has established standard guidelines that outline professional protocols and practices for conducting paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, and specimen preparation, identification, analysis, and curation. The PRPA of 2009 calls for uniform policies and standards that apply to fossils on all federal public lands. All federal land management agencies are required to develop regulations that satisfy the stipulations of the PRPA. As defined by the SVP, significant nonrenewable paleontological resources are:

Fossils and fossiliferous deposits here are restricted to vertebrate fossils and their taphonomic and associated environmental indicators. This definition excludes invertebrate or paleobotanical fossils except when present within a given vertebrate assemblage. Certain invertebrate and plant fossils may be defined as significant by a project paleontologist, local paleontologist, specialists, or special interest groups, or by lead agencies or local governments.

As defined by the SVP, significant fossiliferous deposits are:

A rock unit or formation which contains significant nonrenewable paleontologic resources, here defined as comprising one or more identifiable vertebrate fossils, large or small, and any associated invertebrate and plant fossils, traces, and other data that provide taphonomic, taxonomic, phylogenetic, ecologic, and stratigraphic information (ichnites and trace fossils generated by vertebrate animals, e.g., trackways, or nests and middens which provide datable material and climatic information). Paleontologic resources are considered to be older than recorded history and/or older than 5,000 years BP [before present].

Based on the significance definitions of the SVP, all identifiable vertebrate fossils are considered to have significant scientific value. This position is adhered to because vertebrate fossils are relatively uncommon, and only rarely will a fossil locality yield a statistically significant number of specimens of the same genus. Therefore, every vertebrate fossil found has the potential to provide significant new information on the taxon it represents, its paleoenvironment, and/or its distribution. Furthermore, all geologic units in which vertebrate fossils have previously been found are considered to have high sensitivity. Identifiable plant and invertebrate fossils are considered significant if found in association with vertebrate fossils or if defined as significant by project paleontologists, specialists, or local government agencies.

National Pollutant Discharge Elimination System (NPDES) Construction General Permit

NPDES was created by the Clean Water Act in 1972. Construction activities that disturb one or more acres of land surface are subject to the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (NPDES General Construction Permit) (Order No. 2012-0006-DWQ) adopted by the State Water Resources Control Board (SWRCB). Compliance with the permit requires each qualifying development project to file a Notice of Intent with the SWRCB. Permit conditions require development of a stormwater pollution prevention plan (SWPPP), which must describe the site, the facility, erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of construction sediment and erosion control measures, maintenance responsibilities, and non-stormwater management controls. Inspection of construction sites before and after storms is also required to identify stormwater discharge from the construction activity and to identify and implement erosion controls, where necessary.

In the City of Los Angeles, SWPPP requirements are enforced through the City's Building and Safety Department plan review and approval process. During the review process, development project plans are reviewed for compliance with the stormwater requirements. Plans and specifications are reviewed to ensure that the appropriate Best Management Practices (BMPs) are incorporated to address stormwater pollution prevention goals as they relate to erosion and sediment movement on the project site. Sediment and erosion control measures can include both stabilization and structural practices. Stabilization practices, which refer to methods of covering or maintaining existing soil cover, can include seeding, vegetation and tree preservation, and contouring of project design. Such measures prevent initial disturbance of soil that can enable subsequent potential erosion during construction activities. Structural practices involve the use of devices to divert, store, or limit runoff that can transport sediment offsite and can include use of silt fences, earth dikes, sedimentation basins, and sediment traps. These measures obstruct runoff flows to reduce erosion and other soil transport.

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act was enacted in 1977 to “reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program.” To accomplish this, the Earthquake Hazards Reduction Act established the National Earthquake Hazards Reduction Program (NEHRP). This program was substantially amended by the NEHRP Reauthorization Act of 2004 (Public Law 108-360).

NEHRP's mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improvement of building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results. The NEHRP designates the Federal Emergency Management Agency (FEMA) as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities. Programs under NEHRP help inform and guide local planning and building code requirements such as emergency evacuation responsibilities and seismic code standards such as those to which a project would be required to adhere.

International Building Code

The International Building Code (IBC) is published by the International Code Council (ICC). The scope of this code covers major aspects of construction and design of structures and buildings. The IBC has replaced the Uniform Building Code as the basis for the California Building Code (CBC) and contains provisions for structural engineering design. The 2021 IBC addresses the design and installation of structures and building systems through requirements that emphasize performance. The IBC includes codes governing

structural as well as fire- and life-safety provisions covering seismic, wind, accessibility, egress, occupancy, and roofs.

STATE STANDARDS

Seismic Safety Act

The California Seismic Safety Commission was established by the Seismic Safety Act in 1975 with the intent of providing oversight, review, and recommendations to the Governor and State Legislature regarding seismic issues. The commission's name was changed to Alfred E. Alquist Seismic Safety Commission in 2006. Since then, the Commission has adopted several documents based on recorded earthquakes, such as the 1994 Northridge earthquake, 1933 Long Beach earthquake, the 1971 Sylmar earthquake, etc. Some of these documents are listed as follows:

- Research and Implementation Plan for Earthquake Risk Reduction in California 1995 to 2000, report dated December 1994;
- Seismic Safety in California's Schools, 2004, "Findings and Recommendations on Seismic Safety Policies and Requirements for Public, Private, and Charter Schools," report dated December 1994;
- Findings and Recommendations on Hospital Seismic Safety, report dated November 2001;
- Commercial Property Owner's Guide to Earthquakes Safety, report dated October 2006; and
- California Earthquake Loss Reduction Plan 2007–2011, report dated July 2007.

California Division of Oil, Gas, and Geothermal Resources (CalGEM)

CalGEM regulates production of oil and gas, as well as geothermal resources, within the State of California. CalGEM requirements in preparation of environmental documents under CEQA are defined in CCR, Title 14, Division 2, Chapter 2. Staff also assists operators in avoiding or reducing environmental impacts from the development of oil, gas, and geothermal resources in California, including subsidence. PRC Sections 3315, et seq. CalGEM regulations, which are defined in CCR, Title 14, Division 2, Chapter 4, include well design and construction standards, surface production equipment and pipeline requirements, and well abandonment procedures and guidelines to ensure effectiveness in preventing migration of oil and gas from a producing zone to shallower zones, including potable groundwater zones, as well as subsidence.

California Penal Code Section 622½

California Penal Code Section 622½ provides the following: "Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of archeological or historical interest or value, whether situated on private lands or within any public park or place, is guilty of a misdemeanor."

California Penal Code Section 623

California Penal Code Section 623 provides the following: "Except as otherwise provided in Section 599c, any person who, without the prior written permission of the owner of a cave, intentionally and knowingly does any of the following acts is guilty of a misdemeanor punishable by imprisonment in the county jail not exceeding one year, or by a fine not exceeding one thousand dollars (\$1,000), or by both such fine and imprisonment: (1) breaks, breaks off, cracks, carves upon, paints, writes or otherwise marks upon or in any manner destroys, mutilates, injures, defaces, mars, or harms any natural material found in any cave. (2) disturbs or alters any archaeological evidence of prior occupation in any cave. (3) kills, harms, or removes any animal or plant life found in any cave. (4) burns any material which produces any smoke or gas which is harmful to any plant or animal found in any cave. (5) removes any material found in any cave. (6) breaks,

forces, tampers with, removes or otherwise disturbs any lock, gate, door, or any other structure or obstruction designed to prevent entrance to any cave, whether or not entrance is gained.”

California Public Resources Code (PRC) Section 5097.5

PRC Section 5097.5 provides protection for cultural and paleontological resources, where Section 5097.5(a) states, in part, that:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.

California Building Code

The CBC, which is codified in Title 24 of the California Code of Regulations, Part 2, was promulgated to safeguard the public health, safety, and general welfare by establishing minimum standards related to structural strength, means of egress facilities, and general stability of buildings. The purpose of the CBC is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under State law, all building standards must be centralized in Title 24 or those standards are not enforceable. The provisions of the CBC apply to the construction, alteration, movement, replacement, location, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

The 2019 edition of the CBC is based on the 2018 International Building Code (IBC) published by the International Code Council. The code is updated triennially, and the 2019 edition of the CBC was published by the California Building Standards Commission on July 1, 2019, and became effective January 1, 2020. Every three years, the State adopts new codes (known collectively as the California Building Standards Code) to establish uniform standards for the construction and maintenance of buildings, electrical systems, plumbing systems, mechanical systems, and fire and life safety systems. Sections 17922, 17958 and 18941.5 of the California Health and Safety Code require that the latest edition of the California Building Standards Code apply to local construction 180 days after publication. The significant changes to Title 24 in the 2019 edition can be found at California Department of General Services website.

Appendix J of the CBC applies to grading, excavation, and earthwork construction, and prohibits grading from occurring without first having obtained a permit from the building official. A geotechnical report must be prepared and include the following:

- The nature and distribution of existing soils,
- Conclusions and recommendations for grading procedures,
- Soil design criteria for any structure of embankments required to accomplish the proposed grading, and
- Where necessary, slope stability studies, and recommendations and conclusions regarding site geology.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 was passed into law following the destructive February 9, 1971 Mw 6.6 San Fernando earthquake. The Act provides a mechanism for reducing losses from surface fault rupture on a statewide basis. The intent of the Act is to ensure public safety by prohibiting the siting of most structures for human occupancy across traces of active faults that constitute a potential hazard to structures from surface faulting or fault creep. This Act requires the State Geologist to establish regulatory zones known as “Earthquake Fault Zones” around the surface traces of active faults and to issue appropriate maps. Before a project can be permitted within an Alquist-Priolo Earthquake Fault Zone, the City of Los Angeles requires a geologic investigation to demonstrate that the proposed building(s) will not be constructed across active faults. If an active fault is found, structures for human occupancy must be set back from the fault by approximately 50 feet. This Act groups faults into categories of active, potentially active, and inactive. Historic and Holocene age faults are considered active, Late Quaternary and Quaternary age faults are considered potentially active, and pre-Quaternary age faults are considered inactive.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 was passed into law following the destructive October 17, 1989 Mw 6.9 Loma Prieta earthquake. The Act directs the California Geological Survey (CGS) to delineate Seismic Hazard Zones. The purpose of the Act is to reduce the threat to public health and safety and to minimize the loss of life and property by identifying and mitigating seismic hazards. Cities and counties are directed to use seismic hazard zone maps developed by CGS in their land-use planning and permitting processes. The Act requires Cities and counties to regulate development projects that involve structures for human occupancy, excluding single-family dwellings that are less than two stories and are not part of a development of four or more dwellings. Cities and counties must ensure that geologic and soil conditions are investigated and appropriate mitigation measures, if any, are incorporated into development plans. The State Mining and Geology Board provides additional regulations and policies to assist municipalities in preparing the Safety Element of their General Plan and encourages land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety. Under PRC Section 2697, cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard. The requirement for a report may be waived if the city finds that no undue seismic hazard exists, based on information resulting from studies conducted on sites in the immediate vicinity of the project and of similar soil composition to the project site. Each city or county shall submit one copy of each geotechnical report, including mitigation measures, to the State Geologist within 30 days of its approval.

California Code of Regulations, Title 14, Section 4307 and Section 1427

Title 14, Section 4307 states that “no person shall remove, injure, deface or destroy any object of paleontological, archaeological, or historical interest or value.” Section 1427 “recognizes that California’s archaeological resources are endangered by urban development and population growth and by natural forces....Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of archaeological or historical interest or value, whether situated on private lands or within any public park or place, is guilty of a misdemeanor. It is a misdemeanor to alter any archaeological evidence found in any cave, or to remove any materials from a cave.”

LOCAL STANDARDS

City of Los Angeles Conservation Element

The City's General Plan Conservation Element recognizes paleontological resources in Section 3: "Archeological and Paleontological" (II-3), specifically the La Brea Tar Pits, and identifies protection of paleontological resources as an objective (II-5). The General Plan identifies site protection as important, stating, "Pursuant to CEQA, if a land development project is within a potentially significant paleontological area, the developer is required to contact a bonafide paleontologist to arrange for assessment of the potential impact and mitigation of potential disruption of or damage to the site. Section 3 of the Conservation Element, adopted in September 2001, includes policies for the protection of paleontological resources. As stated therein, it is the City's policy that paleontological resources be protected for historical, cultural research, and/or educational purposes. Section 3 also includes the objective of identifying and protecting of significant paleontological sites and/or resources known to exist or that are identified during "land development, demolition, or property modification activities." Section 5 of the Conservation Element recognizes the City's responsibility for identifying and protecting its cultural and historical heritage. The Conservation Element establishes the policy to continue to protect historic and cultural sites and/or resources potentially affected by proposed land development, demolition, or property modification activities, with the related objective to protect important cultural and historical sites and resources for historical, cultural, research, and community educational purposes (City of Los Angeles 2001).

City of Los Angeles Safety Element

The City's General Plan Safety Element, which was previously adopted in 1996, addresses public safety risks due to natural disasters, including seismic events and geologic conditions, and sets forth guidance for emergency response during such disasters. The City Council adopted the updated Safety Element on November 24, 2021. The Safety Element offers a high-level overview of how the City plans for disasters and references readers to other implementation documents, including the Local Hazard Mitigation Plan, where more detailed information is available, and also provides maps of designated areas within Los Angeles that are considered susceptible to earthquake-induced hazards, such as fault rupture and liquefaction. The 2021 General Plan Safety Element has three goals and they are associated with various objectives, policies, and implementation programs.

Goal 1: Hazard Mitigations

A city where potential injury, loss of life, property damage and disruption of the social and economic life of the City due to hazards is minimized (City of Los Angeles 2021).

Goal 2: Emergency Response

A city that responds with the maximum feasible speed and efficiency to disaster events so as to minimize injury, loss of life, property damage and disruption of the social and economic life of the City and its immediate environs.

Goal 3: Disaster Recovery

A city where private and public systems, services, activities, physical condition and environment are reestablished as quickly as feasible to a level equal to or better than that which existed prior to the disaster.

Los Angeles Municipal Code (LAMC)

Municipal Code Chapter IX, Article 1, Building Code, (the LABC), incorporates the CBC, to provide geotechnical hazard prevention regulations. In general, the LAMC includes requirements for construction and ground disturbance that could affect geologic risks, as well as standards for building foundations, earthquake/seismic structural designs, and development within landslide susceptible areas. Division 18 of Article 1, in adopting the CBC, provides guidance for development located on expansive soils; Division 70 provides general construction, grading and site excavation requirements and restricts issuance of grading permits for development in landslide areas; and Division 88 establishes standards for structural seismic resistance for existing buildings (LAMC). Division 70 includes provisions for managing and reducing erosion during construction activities, especially as it relates to controlling stormwater pollution from sediments. Specifically, per the LAMC, project applicants are required to incorporate any best management practices necessary to control stormwater pollution in accordance with the “Development Best Management Practices Handbook, Part A Construction Activities” as adopted by the Board of Public Works.

The Los Angeles Department of Building and Safety (LADBS) has the authority to withhold building permit issuance if a project cannot mitigate potential hazards to the project or which are associated with the project. Throughout the permitting, design, and construction phases of a building project, LADBS engineers and inspectors confirm that the requirements of the LAMC pertaining specifically to geoseismic and soils conditions are being implemented by project architects, engineers, and contractors.

The function of the City’s Building Code, which comprises Chapter IX of the LAMC, is to protect life safety and ensure compliance with the LAMC. Chapter IX addresses numerous topics, including earthwork and grading activities, import and export of soils, erosion and drainage control, and general construction requirements that address flood and mudflow protection, landslides, and unstable soils. Additionally, the LAMC includes specific requirements addressing seismic design, grading, foundation design, geologic investigations and reports, soil and rock testing, and groundwater.

Specifically, Chapter IX of LAMC Div. 18, Sec. 91.1803, requires a Final Geotechnical Report with final design recommendations prepared by a California-registered geotechnical engineer and submitted to the LADBS for review prior to issuance of a grading permit. Final foundation design recommendations must be developed during final project design, and other deep foundation systems that may be suitable would be addressed in the Final Geotechnical Report. All earthwork (i.e., excavation, site preparation, any fill backfill placement, etc.) must be conducted with engineering control under observation and testing by the Geotechnical Engineer and in accordance with LADBS.

Hillside Construction Regulation (HCR)

The HCR Supplemental Use District, effective March 2017 and updated in May 2018, was established by Ordinance No. 184827 to provide additional protections that would address the cumulative construction-related impacts of multiple single-family houses in hillside areas. All single-family home development projects within the HCR District shall comply with LAMC Section 13.20. However, if a Haul Route approval by the Board of Building and Safety Commissioners is required for import and/or export of 1,000 cubic yards or more, then the conditions or “Hauling Truck Operations Standards” set by the Board of Building and Safety Commissioners during the Haul Route approval process shall prevail. In addition, the builder of any single-family home development exceeding 17,500 square feet in HCR Districts needs to file for a Site Plan Review discretionary approval.

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the State CEQA Guidelines the, a project would have a significant impact related to geology and soils if it would:

- Directly or indirectly cause potential adverse effects, including the risk of loss, injury, or death involving: (Threshold 4.6-1)
 - i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?
 - ii) Strong seismic ground shaking
 - iii) Seismic-related ground failure, including liquefaction
 - iv) Landslides
- Result in substantial soil erosion or the loss of topsoil (Threshold 4.6-2)
- Be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction or collapse (Threshold 4.6-3)
- Be located on expansive soil, as defined in **Table 18-1-B** of the Uniform Building Code (1994), creating substantial risks to life or property (Threshold 4.6-4)
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater (Threshold 4.6-5)
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature (Threshold 4.6-6)

METHODOLOGY

Baseline information for the analysis was compiled from a review of data and reports published by state agencies, environmental documents for projects in the vicinity, as well as information compiled and evaluated by the City of Los Angeles related to local topography, geologic and soil conditions, and seismic hazards. The result of the effort is a general and qualitative analysis of the types of geologic hazards that could be expected relative to the implementation of the Proposed Project.

Independent of the CEQA process, there is a comprehensive regulatory framework implemented at the State and City levels to mitigate potential hazards associated with geologic and soil conditions. The design-controllable aspects of building foundation support, protection from seismic ground motion, and soil instability are governed by existing regulations. Compliance with these regulations is required, not optional. Project applicants must demonstrate the proposed project complies with these regulations by incorporating these regulations in the project's design before permits for project construction are issued. The analysis presented herein assumes compliance with all applicable laws, regulations, and standards, as part of the initial CEQA baseline and future conditions. In 2015, the California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District (CBIA v. BAAQMD)*, held that CEQA generally does not require a lead agency to consider the impacts of the existing environment on the future residents or users of a project. However, if a project exacerbates a condition in the existing environment, the lead agency is required to analyze the impact of that exacerbated condition on the environment, which

may include future residents and users within the Project Area. The decision from *CBIA v. BAAQMD* will inform the analysis of Appendix G thresholds provided above.

The identification of impacts is based on the potential for reasonably anticipated development from the Proposed Project to create or exacerbate geologic or seismic hazards based on review of available information regarding the types of geologic and seismic hazards present in the Project Area specifically as well as the types of reasonably anticipated development. The analysis focuses on whether or not new development would increase the potential for a particular hazard. Applicable regulations, such as the CBC, LABC, and NPDES General Construction Permit, are considered for the analysis of each potential impact.

The analysis of paleontological resources and unique geological features identifies the likelihood of ground disturbing activities to encounter rock units with potential for containing significant paleontological resources, which is considered high in quaternary alluvial fan deposits exhibiting a composition conducive to the preservation of fossil resources. Paleontological resources in the Project Area were evaluated qualitatively based on general information about Project Area conditions. In the absence of an inventory of unique geological resources, the potential for such resources to be present and impacted is generally assessed.

PROJECT IMPACTS

Threshold 4.6-1	<p>Directly or indirectly cause potential adverse effects, including the risk of loss, injury, or death involving:</p> <ul style="list-style-type: none"> i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42 ii) Strong seismic ground shaking iii) Seismic-related ground failure, including liquefaction iv) Landslides
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Impact 4.6-1 **Proposed Project:** Because the Project would not exacerbate exposure to geologic hazards and reasonably anticipated development from the Project would comply with currently applicable seismic regulations and building standards, the Project would not increase exposure to seismic hazards. Reasonably anticipated development may result in exposure of people or structures to geologic hazards.. However, development in the Project Area would likely replace older structures with new seismic safety compliant structures and may actually improve seismic safety. Thus, although new development would be exposed to existing geologic hazards, it would not increase the potential for such hazards or create new hazards and; as a result, there would be *no impact* related to increased exposure to seismic hazards.

Project Impacts

In light of the California Supreme Court ruling in *CBIA v. BAAQMD*, which held that CEQA generally does not require a lead agency to consider the impacts of the existing environment on the future residents or users of a project, the potential for substantial adverse effects on people or structures from the rupture of a known earthquake, strong seismic ground shaking, seismic-related ground failure (including liquefaction) or landslides, which would result from an existing environmental condition, would not be an impact under CEQA unless the Proposed Project exacerbated the existing environmental condition.

The type of development that would occur under the Project is typical of urban environments and would not involve mining operations, deep excavation into the Earth, or boring of large areas creating unstable seismic conditions or stresses in the Earth's crust that would result in the rupture of a fault. The Proposed Project would increase development potential, thereby potentially increasing the number of people and structures exposed to seismic ground shaking or seismic related ground failure (including liquefaction or landslides); however, it would not cause or accelerate existing geologic hazards, including altering the underlying soil or groundwater characteristics that govern liquefaction or landslide potential and replacement of older structures with new structures that comply with current seismic standards would generally improve seismic safety. While the future development would not increase the risk of an earthquake, construction can have the effect of changing soil conditions that may increase the potential for landslide or liquefaction. However, with compliance with existing regulatory standards, including Chapter 18 of the CBC and all other excavation and grading requirements in the CBC and LABC, future development under the Proposed Project would not change the soil conditions that would increase the risk to structures or persons from future seismic related ground failure, including landslides or liquefaction. Therefore, the Proposed Project would have *no impact* with respect to the rupture of a known earthquake fault, strong seismic ground shaking or seismic-related ground failure (including liquefaction) or landslides.

The following information about the risk of rupture of known earthquake fault, strong seismic ground shaking, and seismic-related ground failure (including liquefaction) or landslides from existing conditions and that risk to existing or future residents in the Project Area is for informational purposes.

No Earthquake Fault Zones or identified active faults cross through the Project Area; therefore, neither residents nor future structures would be exposed to increased risk from potential fault rupture, and the Project Area development would not be subject to buffering requirements of the Alquist-Priolo Earthquake Fault Zoning Act.

The Project Area is located in a region of high potential for seismic activity, similar to most of Southern California. Several potentially active fault systems could generate substantial damage to Project Area structures. All of Los Angeles is generally subject to large magnitude earthquakes and is located within Seismic Zone 4, designated as having the highest national seismic potential (UBC 1997). However, relative to other areas in Southern California, the Project Area is currently designated as having an average expected ground shaking potential from earthquakes, according to the California Department of Conservation's (DOC) California Earthquake Shaking Potential Map (DOC 2016). Reasonably anticipated development from the Proposed Project would involve new construction, including larger, taller buildings, more dense development. This could increase the Project Area's population as well as work and leisure visitors to the Project Area from current conditions. As such, additional structures and people could be exposed to the potential effects of seismic ground shaking from regionally generated earthquakes upon implementation of the Project. However, reasonably anticipated development from the Project would not increase the potential for earthquakes or otherwise exacerbate ground shaking potential in Project Area. Moreover, in many cases, new development would replace older buildings subject to seismic damage with structures built to current seismic standards, which would decrease the risk of damage to people and structures.

Continued implementation of City regulations and requirements on all new development would minimize ground shaking hazards through requiring implementation of current geotechnical practices and compliance with CBC requirements, which include specific structural seismic safety provisions. As required by CBC Chapter 16 for the construction of new buildings or structures, specific engineering design and construction measures would be implemented to minimize the potential for adverse impacts to human life and property caused by seismically induced ground shaking. Chapter 33 of the CBC requires all new development to comply with specific geologic design parameters and geotechnical recommendations, which would be incorporated into individual development projects to minimize the potential for adverse impacts. In addition, Policy 1.1.6 of the Safety Element of the City General Plan encourages development to comply with applicable state and federal planning and development regulations, including the Alquist-Priolo

Earthquake Fault Zoning Act and the Seismic Hazards Mapping Act. Compliance with applicable regulations and policies would minimize the risk of exposure to hazards associated with seismic ground shaking.

Development in the Project Area could be susceptible to liquefaction risk, especially given that the Project would allow for increased density of development throughout the Project Area. However, construction in liquefaction zones would not increase liquefaction potential and new structures would be built to current/improved future building, structural and seismic codes per the requirements of the CBC. Construction would comply with existing regulations, as included in Chapter 18 of the CBC, to ensure that building foundations are properly anchored and stabilized to withstand damage from potential liquefaction. All new construction in liquefaction-prone areas would be required to prepare a geotechnical report. Additionally, for properties with mapped maximum considered earthquake spectral response, as determined by Section 1613 of the CBC, a liquefaction potential study of the property is required. Required compliance with the recommendations identified in the project-specific geotechnical evaluation, the LABC, and any specific requirements established by Los Angeles Department of Public Works (LADPW) and/or the City's Engineer would ensure that future development would not be exposed to substantial risks associated with liquefaction.

Strong ground motion can worsen existing unstable slope conditions, particularly if improper construction has already destabilized the underlying soil structure on hillslopes. Seismically-induced landslides can overrun structures, people or property, sever utility lines, and block roads, thereby hindering rescue operations after an earthquake. Slope stability depends on many factors and their interrelationships. Rock type and pore water pressure are arguably the most important factors, as well as slope steepness due to natural or human-made undercutting. Where slopes have failed before, they may fail again. According to the Los Angeles Seismic Hazard Map, there are no landslide zones in Project Area. However, sections of slope on Elysian Park directly bordering the northern portion of the Project Area are relatively steep and may be subjected to instability and are designated as landslide zones. The Project would accommodate development of high density residential, and mixed use development projects in the Project Area. However, these developments would not be subject to potential landslide risk. Furthermore, compliance with CBC standards would require an assessment of landslide hazards and the incorporation of design measures into structures to mitigate these hazards. Also, any development on steep terrain would require site-specific slope stability design to ensure adherence to the standards contained in Appendix Chapter A33, Excavation and Grading, of the CBC, as well as California Division of Occupational Safety and Health (DOSH, CAL/OSHA) requirements for shoring and stabilization. Any development in areas susceptible to landslides would be required to implement site-specific measures that would generally reduce landslide potential and, as such, would not increase landslide hazards on adjacent properties.

Implementation of the Proposed Project would not exacerbate existing geologic hazards. Moreover, compliance with applicable regulations, as described above, for all new Project Area development would achieve applicable seismic safety standards and thus reduce risks to future Proposed Project residents, tenants and other users. In addition, future Project Area development would not increase the potential for seismic related geological hazards and, in some cases, may reduce the potential for property damage and/or safety concerns by replacing older structures with new structures built to current seismic standards. Thus, impacts would be *less than significant*.

Mitigation Measures

Significant impacts have not been identified; therefore, mitigation is not required for the Proposed Project.

Threshold 4.6-2	Result in substantial soil erosion or the loss of topsoil
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Impact 4.6-2 **Proposed Project:** Reasonably anticipated development from the Project would not result in substantial soil erosion and loss of topsoil because it would be required to comply with state and local applicable regulations and standards. The impact would be *less than significant*.

Project Impacts

Soil erosion is the result of actions of water and wind. The likelihood of erosion is higher with an increase in slope, narrowing of runoff channels, and removal of groundcover. As discussed in the Environmental Setting above, most of the Project Area's topography is relatively flat, with relatively steep slopes ascending towards Broadway and Elysian Park along the north side of the Project Area. Loose and disturbed soils are more prone to erosion by water and wind. There is a low potential for soil erosion as the ground surface is almost entirely paved and the underlying soils are not exposed to the elements. This impermeable surface cover decreases the infiltration of water into the underlying soils, which could increase the amount and velocity of runoff, and potentially erosion, in downstream locations. Reasonably anticipated development from the Project would involve construction activities such as stockpiling, grading, excavation, paving, and other earth-disturbing activities.

As discussed under federal, state and local requirements, construction activities that disturb one or more acres of land surface are subject to the NPDES General Construction Permit process, which would require development of a SWPPP that outlines project-specific BMPs to control erosion, sediment release, and otherwise reduce the potential for discharge of pollutants from construction into stormwater. Typical BMPs include, but are not limited to, installation of silt fences, erosion control blankets, and anti-tracking pads at site exits to prevent off-site transport of soil material.

Because the Project Area is almost entirely built out, the potential for erosion is primarily limited to temporary effects of possible topsoil loss at project construction sites. For construction activities, Section D of LAMC Article 4.4, *Stormwater and Urban Runoff Pollution Control*, requires owners or developers to implement stormwater pollution control requirements for construction activities depicted in the project plans, which are subject to approval by the Department of Building and Safety. The Director of the Department may require additional and/or alternative site-specific BMPs or conditions, if needed. The BMPs would be in accordance with the provisions contained in the "Planning and Land Development Handbook For Low Impact Development (LID), Part B Planning Activities" and would be designed to capture and treat runoff from construction sites such as through stabilization of construction entrance roadways and on-site retention of eroded sediments and pollutants. The City and PRC Section 2697 require the preparation of a site-specific geotechnical report to evaluate soils issues. For sites where grading activities would occur on one or more acre, construction activities would be subject to the statewide General Construction Permit required by the State Water Resources Control Board in compliance with the federal NPDES program, which would require preparation and implementation of a SWPPP that includes additional site-specific BMPs to reduce potential stormwater pollution from onsite erosion. Construction activities would also be required to comply with CBC Chapter 70 standards, which are designed to ensure implementation of appropriate measures during grading and construction to control erosion and storm water pollution. Therefore, erosion from demolition and construction activities associated with future development within the Project Area would be controlled through implementation of the requirements and BMPs contained in existing regulations, including the NPDES Construction General Permit and LAMC.

While new reasonably expected construction activities from the Proposed Project may slightly increase the potential for construction related soil erosion, consistent enforcement of CBC requirements and NPDES permit conditions, enacted through the LAMC requirements, would minimize runoff and pollution from construction sites, and ensure compliance with the Regional Water Quality Control Board (RWQCB) Water

Quality Control Plan and its regulations. Further, BMPs for post-construction erosion and sediment control would remain in effect, which would improve future erosion conditions. Compliance with the regulations discussed above would reduce the risk of soil erosion from construction activities such that there would be no substantial change in risk compared to current conditions with existing development. Impacts related to soil loss would be *less than significant*.

Mitigation Measures

Significant impacts have not been identified; therefore, mitigation is not required for the Proposed Project.

Threshold 4.6-3	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse
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Impact 4.6-3 **Proposed Project:** Reasonably anticipated development from the Proposed Project would be subject to existing requirements, regulations and policies provided in the LABC, which would ensure that reasonably anticipated development from the Project would not increase or otherwise alter the potential for impacts related to on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse compared to existing conditions. Impacts would be *less than significant*.

Project Impacts

See also discussion of landslides and liquefaction in Impact 4.6-1. Lateral spreading occurs as a result of liquefaction; accordingly, liquefaction-prone areas would also be susceptible to lateral spreading. Thus, the entire Project Area would therefore be susceptible to lateral spreading.

The Project would guide the transition of a vehicular-oriented industrial and public facility area into a cluster of mixed-use, pedestrian-oriented neighborhoods. These new developments would be located in areas susceptible to liquefaction risk. However, new reasonably anticipated development from the Proposed Project would not increase the potential for liquefaction or otherwise increase the potential for exposure to liquefaction-related damage because, as discussed below, future development under the Project would be required to comply with building standards and be designed to withstand potential liquefaction and lateral spreading hazards. In addition, by replacing older structures with new structures built to current standards, future projects involving redevelopment of properties would reduce the potential for liquefaction-related damage. Under the provisions of LABC, all new construction would be required to first assess the potential for liquefaction at the building site, and then provide design recommendations to mitigate the site's liquefaction potential. Construction in liquefaction zones would be built to current/improved future building, structural and seismic codes per the requirements of the CBC. Construction would comply with existing regulations, as included in Chapter 18 of the CBC, to ensure that building foundations are properly anchored and stabilized to withstand damage from potential liquefaction.

Although new developments would be susceptible to potential liquefaction, as mentioned previously, the Project Area does not include areas designated as landslide or subsidence zones. Furthermore, construction would primarily involve infill development of uses that already exist in those areas and future development would be required to comply with Division 18, *Soils and Foundations*, of the LABC, which adopted Chapter 18 of the CBC by reference. Therefore, future development would be required to comply with the CBC regarding the minimum standards for structural design and site development. The CBC, which is based on the UBC, has been modified for California conditions with more detailed and/or more stringent regulations. The CBC requires that "classification of the soil at each building site shall be determined when required by the building official" and that "the classification shall be based on observation and any necessary test of the

materials disclosed by borings or excavations.” Section 91.1803 and Section 91.1804 of the LAMC reference the CBC standards for excavation, grading, and earthwork construction; fills and embankments; expansive soils; foundation investigations; and liquefaction potential and soils strength loss. Thus, an acceptable degree of soil stability can be achieved for soil materials by the CBC-required incorporation of soil treatment programs (replacement, grouting, compaction, drainage control, etc.) in the excavation and construction plans to address site-specific soil conditions. In addition to the CBC regulations, State oil and gas laws (including but not limited to, Public Resources Code Sections 3315, et seq.), extensively regulate the operation of oil and gas wells to ensure that subsidence does not occur to threaten people or property. Adherence to these requirements would achieve accepted safety standards relative to unstable geologic units or soils. In addition, although reasonably anticipated development from the Proposed Project would potentially be subject to these hazards, it would not increase the potential for landslides (non-seismic related), liquefaction (non-seismic related) lateral spreading, subsidence, or collapse. Therefore, impacts would be *less than significant*.

Mitigation Measures

Significant impacts have not been identified; therefore, mitigation is not required for the Proposed Project.

Threshold 4.6-4	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.
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Impact 4.6-4 **Proposed Project:** Reasonably anticipated development from the Proposed Project may involve new development in areas with expansive soils but would not create substantial risk to people or structures as all future development would be subject to applicable standards of the CBC. Impacts would be *less than significant*.

Project Impacts

As discussed in Section 4.6.2, *Environmental Setting*, a majority of the land surface in the Project Area is covered in structures and pavement, which limits the extent of exposed surface soils. The Project Area is generally underlain by Quaternary alluvial soils overlying Tertiary age sedimentary deposits. The alluvium is generally comprised of both stream channel and floodplain deposits of the Los Angeles River consisting of unconsolidated silt, sand, and gravel. Older alluvium consisting of river terrace deposits is mapped along the east side of the river. These deposits are described as dissected silt, sand, and gravel, which are generally considered to have high potential to be expansive. However, LABC regulations would require underlying soils for each new individual development site in the Project Area to be evaluated for the presence of expansive soils and remediated as necessary to reduce potential damage risk.

Reasonably anticipated development from the Project may be exposed to risks associated with expansive soils but would not increase soil expansiveness or increase exposure of existing development in the Project Area to such hazards. All future development would be required to comply with applicable provisions of the CBC with regard to soil hazard-related design and in adherence to Policy 1.1.6 of the Safety Element of the City General Plan, which assures compliance with applicable local, state, and federal planning and development regulations to minimize risks from natural hazards. The CBC requires a site-specific soil investigation for any new development that identifies potentially unsuitable soil conditions in a preliminary soil report. Because development under the Proposed Project would not increase the potential for soil expansion and would comply with applicable LABC regulations, there would be no change in the exposure of people or existing structures to risks associated with expansive soils. Impacts would be *less than significant*.

Mitigation Measures

Significant impacts have not been identified; therefore, mitigation is not required for the Proposed Project.

Threshold 4.6.5	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater
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Impact 4.6-5 **Proposed Project:** The entire Project Area is served by the City’s sewer system. Use of septic systems or other alternative wastewater disposal systems would not be needed in the Project Area. *No impact* would occur.

Project Impacts

The Project Area is currently almost entirely built out with established utility infrastructure and associated services. Sewer services are provided by the Los Angeles Sanitation Department. Reasonably anticipated development from the Project would be required to connect to the existing sewer system. Therefore, development under the Proposed Project would not require the use of septic tanks and *no impact* would occur.

Mitigation Measures

Significant impacts have not been identified; therefore, mitigation is not required for the Proposed Project.

Threshold 4.6-6	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature
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Impact 4.6-6 **Proposed Project:** Implementation of the Project could significantly impact unique paleontological or a unique geologic feature. Mitigation Measures 4.6-6(a) and 4.6-6(b) would minimize potential impacts during excavation activities. Impacts to paleontological resources would be *less than significant with mitigation*.

Project Impacts

As described under Existing Conditions, the majority of the Project Area is underlain by Quaternary alluvium (Qa) of Holocene age locally consisting of unconsolidated sand, silt, and gravel typical of an alluvial floodplain which is defined as low paleontological sensitivity at the surface. However, these sediments increase in age with depth, and subsurface sediments may have high paleontological sensitivity as few as five feet below ground surface. Therefore, paleontological resources may be present in fossil-bearing sediments in relatively shallow depths below much of the Project Area. Ground disturbing activities that include excavation greater than five feet below ground surface have the potential to damage or destroy an unknown quantity of paleontological resources in this area. In addition, the Monterey Formation (Tmss) along the western edge of the Project Area bordering Broadway and Elysian Park has high paleontological sensitivity based on a history of yielding scientifically significant vertebrate fauna. Ground-disturbing activities in geologic units in the Project Area, thus, have the potential to damage or destroy an unknown quantity of paleontological resources.

In general, the potential for a specific development to result in negative impacts to paleontological resources is directly proportional to the amount of ground disturbance associated with the development; thus, the higher the amount of ground disturbances within geological units with a known paleontological sensitivity, the greater the potential for adverse impacts to paleontological resources. Development involving major

building foundation construction (i.e., high rises) and subsurface parking would have a high potential for major excavation that could impact subsurface resources. The area of high sensitivity along the western edge of Project Area is primarily confined to a landscaped hillside area. Because development in or immediately adjacent to this hillside area would not occur, development in this portion of the Project Area has low potential to disturb resources. Nevertheless, there is potential for ground disturbing activities for future development throughout the Project Area. Therefore, activities resulting from any reasonably anticipated development from the Proposed Project, which includes construction-related and earth-disturbing actions, could damage or destroy fossils in these geologic units, resulting in a *potentially significant* impact.

Mitigation Measures

For all discretionary projects that are excavating at least two subterranean levels below the ground surface, the following measures shall be conducted to identify and avoid potential impacts to such resources:

4.6-6(a) Paleontological Resources

- **Retention of Qualified Paleontologist.** The project applicant shall retain a Qualified Paleontologist prior to excavations. The Qualified Paleontologist shall direct all mitigation measures related to paleontological resources. A qualified professional paleontologist is defined by the Society of Vertebrate Paleontology (SVP) standards (SVP 2010) as an individual preferably with an M.S. or Ph.D. in paleontology or geology who is experienced with paleontological procedures and techniques, who is knowledgeable in the geology of California, and who has worked as a paleontological mitigation project supervisor for a least two years (SVP 2010).
- **Paleontological Worker Environmental Awareness Program.** Prior to the start of construction, the Qualified Paleontologist or their designee shall conduct a paleontological Worker Environmental Awareness Program (WEAP) training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff.
- **Paleontological Monitoring.** Full-time paleontological monitoring shall be conducted during the initial phases of ground disturbing construction activities (i.e., grading, trenching, foundation work) within sediments with a high paleontological sensitivity. Paleontological monitoring shall be conducted by a qualified paleontological monitor, who is defined as an individual who has experience with collection and salvage of paleontological resources and meets the minimum standards of the SVP (2010) for a Paleontological Resources Monitor. The duration and timing of the monitoring shall be determined by the Qualified Paleontologist based on the observation of the geologic setting from initial ground disturbance, and subject to the review and approval by the City of Los Angeles. If the Qualified Paleontologist determines that full-time monitoring is no longer warranted, based on the specific geologic conditions once the full depth of excavations has been reached, they may recommend that monitoring be reduced to periodic spot-checking or ceased entirely. Monitoring shall be reinstated if any new ground disturbances are required, and reduction or suspension shall be reconsidered by the Qualified Paleontologist at that time. In the event of a fossil discovery by the paleontological monitor or construction personnel, all work in the immediate vicinity of the find shall cease. A Qualified Paleontologist shall evaluate the find before restarting construction activity in the area. If it is determined that the fossil(s) is (are) scientifically significant, the Qualified Paleontologist shall complete the following conditions to mitigate impacts to significant fossil resources:
 - **Salvage of Fossils.** If fossils are discovered, the paleontological monitor shall have the authority to halt or temporarily divert construction equipment within 50 feet of the find until the monitor and/or lead paleontologist evaluate the discovery and determine if the fossil may

be considered significant. Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. Bulk matrix sampling may be necessary to recover small invertebrates or microvertebrates from within paleontologically sensitive deposits.

- **Treatment of Paleontological Resources.** Once salvaged, significant fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection (such as the Natural History Museum of Los Angeles County), along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the Qualified Paleontologist.
- **Final Paleontological Mitigation Report.** Upon completion of ground disturbing activity (and curation of fossils if necessary) the Qualified Paleontologist shall prepare a final report describing the results of the paleontological monitoring efforts associated with the project. The report shall include a summary of the field and laboratory methods, an overview of the project geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) including their scientific significance, and recommendations. The report shall be submitted to the City of Los Angeles. If the monitoring efforts produced fossils, a copy of the report shall also be submitted to the designated museum repository.

4.6-6(b) Treatment of Paleontological Resources

For discretionary projects, the City shall require that all paleontological resources identified on a project site be assessed and treated. A report shall be prepared according to current professional standards that describes the resource, how it was assessed, and disposition.

4.6-6(c) Notification of Intent to Excavate Language

For all projects not subject to 4.6-6(a) that are seeking excavation or grading permits, the Department of Building and Safety shall issue the following notice and obtain an acknowledgement of receipt of the notice from applicants:

- California Penal Code Section 622-1/2 provides the following: “Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of archeological or historical interest or value, whether situated on private lands or within any public park or place, is guilty of a misdemeanor.”
- California Penal Code Section 623 provides the following: “Except as otherwise provided in Section 599c, any person who, without the prior written permission of the owner of a cave, intentionally and knowingly does any of the following acts is guilty of a misdemeanor punishable by imprisonment in the county jail not exceeding one year, or by a fine not exceeding one thousand dollars (\$1,000), or by both such fine and imprisonment: (1) breaks, breaks off, cracks, carves upon, paints, writes or otherwise marks upon or in any manner destroys, mutilates, injures, defaces, mars, or harms any natural material found in any cave. (2) disturbs or alters any archaeological evidence of prior occupation in any cave. (3) kills, harms, or removes any animal or plant life found in any cave. (4) burns any material which produces any smoke or gas which is harmful to any plant or animal found in any cave. (5) removes any material found in any cave. (6) breaks, forces, tampers with, removes or otherwise disturbs any lock, gate, door, or any other structure or obstruction designed to prevent entrance to any cave, whether or not entrance is gained.”

- PRC Section 5097.5 provides protection for cultural and paleontological resources, where Section 5097.5(a) states, in part, that: “No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.”
- California Code of Regulations, Title 14, Section 4307 states that “no person shall remove, injure, deface or destroy any object of paleontological, archaeological, or historical interest or value.” Section 1427 “recognizes that California’s archaeological resources are endangered by urban development and population growth and by natural forces....Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of archaeological or historical interest or value, whether situated on private lands or within any public park of place, is guilty of a misdemeanor. It is a misdemeanor to alter any archaeological evidence found in any cave, or to remove any materials from a cave.”
- Best practices to ensure unique geological and paleontological resources are not damaged include but are not limited to the following steps:
 - Prior to excavation and grading activities, a qualified paleontologist prepares a resource assessment using records from the Natural History Museum of Los Angeles County.
 - If in the assessment, the soil is identified as potentially containing paleontological resources, a qualified paleontologist monitors excavation and grading activities in soils that have not been previously disturbed, to identify, record, and evaluate the significance of any paleontological finds during construction.
 - If paleontological resources are uncovered (in either a previously disturbed or undisturbed area), all work ceases in the area of the find until a qualified paleontologist has evaluated the find in accordance with federal, state, and local guidelines.
 - If fossils are discovered, a qualified paleontologist shall recover them. Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. In this case, the paleontologist would have the authority to temporarily direct, divert or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner. Handline and disposition of fossils is done at the direction and guidance of a qualified paleontologist.
 - Personnel of the project would not collect or move any paleontological materials or associated materials.
 - If cleared by the qualified paleontologist, construction activity would continue unimpeded on other portions of the project site.
 - Construction activities in the area where resources were found would commence once the identified resources are properly assessed and processed by a qualified paleontologist and if construction activities were cleared by the qualified paleontologist.

Significance After Mitigation

Implementation of Mitigation Measures 4.6-1(a), 4.6-1(b) and 4.6-1(c) would reduce impacts to paleontological resources to a *less than significant level* by ensuring that potential resources are identified and either further avoided or recovered. Therefore, impacts to paleontological resource would be **less than significant with mitigation**.

CUMULATIVE IMPACTS

Exposure to Seismic Hazards

Continued growth throughout Los Angeles would cumulatively expose more people to existing seismic hazards. However, new development in the Project Area would not increase the potential for earthquakes or associated hazards (surface rupture, liquefaction, landsliding). Compliance with applicable CBC requirements would ensure that new development conforms to current seismic standards and that it would not expose current residents or existing property to increased hazards (such as from an increase in landslide potential). As discussed under Impact 4.6-1, Future development under the Proposed Project would not exacerbate any seismic hazards and, as a result, would not cumulatively contribute to seismic hazards. All new development throughout the Project Area would continue to comply with applicable provisions of the CBC and other applicable regulations. By replacing older development with new structures built to current safety standards, implementation of the Project would cumulatively reduce the potential for seismic hazards to affect people or property.

The Proposed Project would not have cumulatively considerable impact and cumulative impacts would be **less than significant** related to seismic hazards.

Soil Erosion

Continued growth in the Project Area would involve grading and excavation that could temporarily, but cumulatively, indirectly increase the potential for soil erosion. However, new development in the Project Area would be subject to applicable requirements of the NPDES General Construction Permit and Section D of LAMC Article 4.4, Stormwater and Urban Runoff Pollution Control. Compliance with these requirements would generally address potential cumulative impacts related to soil erosion. Also, reasonably anticipated development in the Project Area would be subject to the same federal and local requirements as other projects in the City. As discussed under Impact 4.6-2, above, these requirements would help reduce potential impacts related to Project Area soil disturbance to a less than significant level. and potential impacts would not be anticipated to have a cumulatively considerable impact.

The Proposed Project would not have cumulatively considerable impact and cumulative impacts would be **less than significant** related to soil erosion.

Unstable geologic units

Continued growth throughout Los Angeles would cumulatively expose more people to existing hazards associated with unstable geologic units (e.g., liquefaction, landsliding). However, new development would not increase the potential for geologic instability. Soil and geologic conditions are site-specific and do not have additive effects. As such, changes to geologic conditions from development at one site would not affect geologic conditions at another development site. Compliance with applicable CBC requirements would ensure that new development conforms to current standards related to geologic stability and that it would not expose current residents or existing property to increased hazards. As discussed under Impact 4.6-3, reasonably anticipated development in the Project Area similarly would not increase the potential for geologic hazards. All new development throughout the Project Area and the City would continue to comply with applicable provisions of the CBC and other applicable regulations. By replacing older development with new structures built to current standards, implementation of the Project would cumulatively reduce the potential for hazards related to geologic instability to affect people or property.

The Proposed Project would have **less than significant** related to unstable geologic units.

Expansive Soils

Continued development throughout Los Angeles would cumulatively increase the potential for exposure to expansive soil-related issues. However, neither citywide development nor, as discussed under Impact 4.6-4, development in the Project Area specifically would increase the potential for soil expansion or otherwise increase exposure of existing people or property to hazards associated with expansive soils.

The Proposed Project would have *less than significant cumulative impacts* related to expansive soils.

Septic tanks/alternative wastewater treatment

Most of Los Angeles is served by sewer systems, though certain areas continue to utilize alternative wastewater treatment systems. Continued growth in the City could incrementally increase the number of residences using such wastewater treatment systems; however, because the Project Area is completely served by sewers, reasonably anticipated Project Area development would not contribute to any cumulative impacts related to alternative wastewater treatment.

The Proposed Project would have *no cumulatively considerable impact and no cumulative impact* related to septic tanks/alternative wastewater treatment.

Paleontological Resources

Cumulative development throughout Los Angeles could potentially disturb known and currently unknown paleontological resources that could be present throughout the City. The nature and magnitude of such impacts would depend on the nature and location of individual future developments; however,, it is anticipated that citywide development would have the potential to disturb paleontological resources. Potentially significant cumulative paleontological resource impacts could, however, be mitigated to below a level of significance through resource avoidance or recovery on a case-by-case basis.

As discussed under Impact 4.6-6, above, the Project could potentially disturb paleontological resources that may be present in the Project Area. However, mitigation measure 4.6-1(a), (b), (c) is expected to reduce to a less than significant level.

The Proposed Project's cumulative impacts would not be cumulatively considerable related to paleontological resources and cumulative impacts would have be *less than significant with mitigation*.

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4.7 GREENHOUSE GAS EMISSIONS

This section evaluates potential impacts related to greenhouse gas (GHG) emissions. GHGs are emitted by both natural processes and human activities. The accumulation of GHGs in the atmosphere regulates Earth's temperature. The State of California has undertaken initiatives designed to address the effects of GHGs, and to establish targets and emission reduction strategies for GHG emissions in California. The GHG data supporting this section is included as Appendix E to this Draft Environmental Impact Report (EIR). The analysis of GHG emissions and climate change is unique under California Environmental Quality Act (CEQA), largely because of the global nature of climate change. Typical CEQA analyses address local actions that have local – or regional – impacts, whereas climate change analyzes the relationship between local activities and the resulting potential, if any, for global environmental impacts. Based on this, the focus of GHG emission analysis is on cumulative impacts. As provided by the State Natural Resources Agency in the latest update to the CEQA Guidelines: “In determining the significance of a project's greenhouse gas emissions, the lead agency should focus its analysis on the reasonably foreseeable *incremental contribution* of the project's emissions to the effect of climate change.” (15064.4(b).)

ENVIRONMENTAL SETTING

GLOBAL CLIMATE CHANGE

Earth's natural warming process is known as the “greenhouse effect.” Certain atmospheric gases act as an insulating blanket for solar energy to keep the global average temperature in a suitable range for life support. These greenhouse gases (GHGs) keep the average surface temperature of the Earth close to 60 degrees Fahrenheit (°F). Without the natural greenhouse effect, the Earth's surface would be about 61°F cooler (California Environmental Protection Agency [CalEPA] 2006). It is normal for Earth's temperature to fluctuate over extended periods of time. Over the past one hundred years, Earth's average global temperature has generally increased by one degree Fahrenheit. In some regions of the world, the increase has been as much as four degrees Fahrenheit.

Scientists studying the particularly rapid rise in global temperatures during the late twentieth century believe that natural variability alone does not account for that rise. Rather, human activity spawned by the industrial revolution has likely resulted in increased emissions of carbon dioxide and other forms of GHGs, primarily from the burning of fossil fuels (i.e., during motorized transport, electricity generation, consumption of natural gas, industrial activity, manufacturing, etc.) and deforestation, as well as agricultural activity and the decomposition of solid waste (C2ES 2011).

GHG Components and Effects

The California Global Warming Solutions Act of 2006 (discussed in the following pages) defined GHGs to include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), sulfur hexafluoride (SF₆), and nitrogen trifluoride. Black carbon also contributes to global warming, but it is a solid particle or aerosol, not a gas. A general description of each GHG discussed in this report is provided in **Table 4.7-1** (Description of Identified Greenhouse Gases). CO₂ is the most abundant GHG. Other GHGs are less abundant but have higher global warming potential (discussed below) than CO₂. Thus, emissions of other GHGs are frequently expressed in the equivalent mass of CO₂, denoted as CO₂e. Forest fires, decomposition, industrial processes, landfills, and consumption of fossil fuels for power generation, transportation, heating, and cooking are the primary sources of GHG emissions.

TABLE 4.7-1 DESCRIPTION OF GREENHOUSE GASES

GHG	General Description
CO₂	Carbon Dioxide. CO ₂ is an odorless, colorless GHG, which has both natural and man-made sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing; manmade sources of CO ₂ are burning coal, oil, natural gas, and wood.
CH₄	Methane. CH ₄ is a flammable gas and is the main component of natural gas. When one molecule of CH ₄ is burned in the presence of oxygen, one molecule of CO ₂ and two molecules of water are released. There are no ill health effects from CH ₄ . A natural source of CH ₄ is the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain CH ₄ , which is extracted for fuel. Other sources are from landfills, fermentation of manure, and cattle.
N₂O	Nitrous Oxide. N ₂ O is a colorless GHG. High concentrations can cause dizziness, euphoria, and sometimes slight hallucinations. N ₂ O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used in rocket engines, race cars, and as an aerosol spray propellant.
HFCs	Hydrofluorocarbons. HFCs are synthetic man-made chemicals that are used as a substitute for chlorofluorocarbons (CFCs) for automobile air conditioners and refrigerants. CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at Earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. Because they destroy stratospheric ozone, the production of CFCs was stopped as required by the Montreal Protocol in 1987.
PFCs	Perfluorocarbons. PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane and hexafluoroethane. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.
SF₆	Sulfur Hexafluoride. SF ₆ is an inorganic, odorless, colorless, non-toxic, and nonflammable gas. SF ₆ is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.
Black Carbon¹	Black Carbon. Black carbon is the most strongly light-absorbing component of particulate matter emitted from burning fuels such as coal, diesel, and biomass.
SOURCE: Association of Environment Professionals (AEP). 2007. <i>Alternative Approaches to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents</i> . June, 2007.	
¹ Black carbon contributes to global warming, but it is a solid particle or aerosol, not a gas.	

Global Warming Potential

Global Warming Potential (GWP) is one type of simplified index based upon radiative properties that is used to estimate the potential future impacts of emissions of different gases upon the climate system in a relative sense. GWP is based on a number of factors, including the radiative efficiency (heat-absorbing ability) of each gas relative to that of CO₂, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years) relative to that of CO₂. A summary of the atmospheric lifetime and GWP of selected gases is presented in **Table 4.7-2**.

TABLE 4.7-2 ATMOSPHERIC LIFETIMES AND GLOBAL WARMING POTENTIALS			
GHG	Lifetime (Years)	Global Warming Potential (20-Year)	Global Warming Potential (100-Year)
Carbon Dioxide	100	1	1
Nitrous Oxide	121	264	273
Nitrogen Trifluoride	500	12,800	16,100
Sulfur Hexafluoride	3,200	17,500	23,500
Perfluorocarbons	3,000-50,000	5,000-8,000	7,000-11,000
Black Carbon	days to weeks	270-6,200	100-1,700
Methane	12	84	30
Hydrofluorocarbons	Uncertain	100-11,000	100-12,000

SOURCE: CARB, 2013. *Climate Change Scoping Plan First Update*, October 2013. USEPA 2022
 "Global Warming Potential" is a relative measure of how much heat a greenhouse gas traps in the atmosphere, as compared to carbon dioxide.

Statewide Climate Change

The California Environmental Protection Agency (CalEPA) published a report titled *Scenarios of Climate Change in California: An Overview, Climate Scenarios report*, in February 2006 that, while not adequate for a California Environmental Quality Act (CEQA) project-specific or cumulative analysis, is generally instructive about the future impacts of global warming on California.

In addition, on December 2, 2009, the California Natural Resources Agency released its California Climate Adaptation Strategy report that details many vulnerabilities arising from climate change with respect to matters such as temperature extremes, sea level rise, wildfires, floods and droughts and precipitation changes. This report responds to the Governor's Executive Order S-13-2008 that called on State agencies to develop California's strategy to identify and prepare for expected climate impacts.

According to these reports, substantial temperature increases arising from increased GHG emissions potentially could result in a variety of impacts to the people, economy, and environment of California. This includes an associated projected increase in extreme conditions, with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. Under the emissions scenarios of the Climate Scenarios report, the impacts of global climate change in California have the potential to include, but are not limited to, the areas of public health, water resources, agriculture, forests and landscapes, and rising sea levels. The potential effects of climate change are detailed in the section below.

The California Air Resources Board (CARB) has prepared a state-wide emissions inventory covering 2000 to 2020, which demonstrates that GHG emissions have decreased by 30 percent over that period (CARB 2022a). However, the 2019 to 2020 decrease in emissions is likely due in large part to the impacts of the COVID-19 pandemic. Economic recovery from the pandemic may result in emissions increases over the next few years. As such, the total 2020 reported emissions are likely an anomaly, and any near-term increases in annual emissions should be considered in the context of the pandemic. **Table 4.7-3** shows GHG emissions from 20010 to 2020 in California. The transportation sector represents California's largest source of GHG emissions and contributed nearly 37 percent of total annual emissions. Over the last three years, emissions from the transportation sector have decreased, and has dropped 17 percent drop over the past ten years.

TABLE 4.7-3 CALIFORNIA GREENHOUSE GAS EMISSIONS INVENTORY

Sector	Annual CO ₂ e Emissions (Million Metric Tons)										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Transportation	163	157	157	157	158	162	165	167	165	162	136
Industrial	88	86	81	83	85	83	82	82	82	80	73
Electric Power	90	89	99	93	90	86	70	64	65	60	60
Commercial and Residential	46	46	39	39	36	36	37	38	37	41	39
Agriculture	34	34	35	34	34	33	32	32	32	31	32
High Global Warming Potential	14	15	16	17	18	19	19	20	21	21	21
Recycling and Waste	8	8	8	8	8	8	9	9	9	9	9
Emissions Total	443	435	435	431	429	427	414	412	411	404	370

SOURCE: CARB 2022a

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources though potential impacts related to future air temperatures and precipitation patterns. Scientific modelling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. The year 2022 was the sixth warmest year since global records began in 1880 at 0.86°C (1.55°F) above the 20th century average of 13.9°C (57.0°F). This value is 0.13°C (0.23°F) less than the record set in 2016 and it is only 0.02°C (0.04°F) higher than the last year's (2021) value, which now ranks as the seventh highest. The 10 warmest years in the 143-year record have all occurred since 2010, with the last nine years (2014–2022) ranking as the nine warmest years on record. Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature obtained from station observations are in agreement that Land-Surface Air Temperature as well as sea surface temperatures have increased. The annual global surface temperature has increased at an average rate of +0.14°F (+0.08°C) per decade since 1880; however, since 1981 the average rate of increase is more than twice that rate (+0.32°F / +0.18°C). (National Oceanic and Atmospheric Administration 2023). In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (Intergovernmental Panel on Climate Change [IPCC] 2014 and 2018).

According to California's Fourth Climate Change Assessment, state-wide temperatures from 1986 to 2016 were approximately 1°F to 2°F higher than those recorded from 1901 to 1960. Potential impacts of climate change in California may include loss in water supply from snowpack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years (California Natural Resource Agency [CNRA]2018). While there is growing scientific consensus about the possible effects of climate change at a global and state-wide level, current scientific modelling tools are unable to predict what local impacts may occur with a similar degree of accuracy. In addition to state-wide projections, California's Fourth Climate Change Assessment includes regional reports that summarize climate impacts and adaptation solutions for nine regions of the state as well as regionally specific climate change case studies (CNRA2018). Below is a summary of some of the potential effects that could be experienced in California as a result of climate change.

Air Quality

Higher temperatures, which are conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and

therefore its indirect effects, are uncertain. As temperatures have increased in recent years, the area burned by wildfires throughout the state has increased, and wildfires have been occurring at higher elevations in the Sierra Nevada Mountains (CNRA 2018). If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality could worsen. Severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state. With increasing temperatures, shifting weather patterns, longer dry seasons, and more dry fuel loads, the frequency of large wildfires and area burned is expected to increase. (CNRA 2021).

Water Supply

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Year-to-year variability in state-wide precipitation levels has increased since 1980, meaning that wet and dry precipitation extremes have become more common (California Department of Water Resources 2018). This uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. However, the average early spring snowpack in the western United States, including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 5.9 inches along the central and southern California coast (CNRA2018). The Sierra snowpack provides the majority of California's water supply by accumulating snow during the state's wet winters and releasing it slowly during the state's dry springs and summers. A warmer climate is predicted to reduce the fraction of precipitation falling as snow and result in less snowfall at lower elevations, thereby reducing the total snowpack (California Department of Water Resource 2008; CNRA 2018). The State of California projects that average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern California will decline by approximately 66 percent from its historical average by 2050 (CNRA2018).

Hydrology and Sea Level Rise

Climate change could affect the intensity and frequency of storms and flooding (CNRA 2018). Furthermore, climate change could induce substantial sea level rise in the coming century. Rising sea level increases the likelihood of and risk from flooding. The rate of increase of global mean sea levels between 1993 to 2022, observed by satellites, is approximately 3.4 millimeters per year, double the twentieth century trend of 1.6 millimeters per year (World Meteorological Organization 2013; National Aeronautics and Space Administration 2023). Global mean sea levels in 2013 were about 0.23 meter higher than those of 1880 (National Oceanic and Atmospheric Administration 2022). Sea levels are rising faster now than in the previous two millennia, and the rise will probably accelerate, even with robust GHG emission control measures. The most recent Intergovernmental Panel on Climate Change (IPCC) report predicts a mean sea level rise ranging between 0.25 to 0 1.01 meters by 2100 with the sea level ranges dependent on a low, intermediate, or high GHG emissions scenario (IPCC 2021). A rise in sea levels could erode 31 to 67 percent of southern California beaches and cause flooding of approximately 370 miles of coastal highways during 100-year storm events. This would also jeopardize California's water supply due to saltwater intrusion and induce groundwater flooding and/or exposure of buried infrastructure (CNRA 2018). Furthermore, increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to manage impacts from storm events.

Agriculture

California has a \$50 billion annual agricultural industry that produces over a third of the country's vegetables and two-thirds of the country's fruits and nuts (California Department of Food and Agriculture 2020). Higher CO₂ levels can stimulate plant production and increase plant water-use efficiency. However,

if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent; water demand could increase as hotter conditions lead to the loss of soil moisture; crop-yield could be threatened by water-induced stress and extreme heat waves; and plants may be susceptible to new and changing pest and disease outbreaks (CNRA2018). In addition, temperature increases could change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (California Climate Change Center 2006).

Ecosystems and Wildlife

Climate change and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. Increasing concentrations of GHGs are likely to accelerate the rate of climate change. Scientists project that the annual average maximum daily temperatures in California could rise by 4.4 to 5.8°F in the next 50 years and by 5.6 to 8.8°F in the next century (CNRA 2018). Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals related to (1) timing of ecological events; (2) geographic distribution and range; (3) species' composition and the incidence of non-native species within communities; and (4) ecosystem processes, such as carbon cycling and storage (Parmesan 2006; CNRA2018).

Citywide Climate Change

According to Los Angeles' Green New Deal 2019 Sustainable City Plan, the city has reduced GHG emissions to 25 percent below 1990 levels as of 2017 (City of Los Angeles 2019). The city is currently striving to supply 55 percent renewable energy by 2025; 80 percent by 2036; and 100 percent by 2045. The *Sustainable City pLAN* is described in more detail below under, *Regulatory Framework*.

REGULATORY FRAMEWORK

Climate change and GHG emissions are governed by an evolving body of laws, regulations, and case law. Below are summaries of key regulations; however, the discussion below should not be considered exhaustive of this growing body of regulation.

INTERNATIONAL

Intergovernmental Panel on Climate Change

The World Meteorological Organization (WMO) and United Nations Environmental Program (UNEP) established the IPCC in 1988. The goal of the IPCC is to evaluate the risk of climate change caused by human activities. Rather than performing research or monitoring climate, the IPCC relies on peer-reviewed and published scientific literature to make its assessment. While not a regulatory body, the IPCC assesses information (i.e., scientific literature) regarding human-induced climate change and the impacts of human-induced climate change and recommends options to policy makers for the adaptation and mitigation of climate change. The IPCC reports its evaluations in special reports called assessment reports. The latest assessment report (i.e., Fifth Assessment Report, consisting of three working group reports and a synthesis report based on the first three reports) was published in 2013. In its 2013 report, the IPCC stated that global temperature increases since 1951 were extremely likely attributable to man-made activities (greater than 95 percent certainty).¹ The IPCC anticipates the release of the Sixth Assessment Report in 2022.²

¹ IPCC, Climate Change 2013 The Physical Science Basis, 2013.

² IPCC, AR6 Synthesis Report: Climate Change 2022. Available online at: <https://www.ipcc.ch/report/sixth->

U.S.-China Climate Agreement

In November 2014, the United States and China made a joint announcement to cooperate on combatting climate change and promoting clean energy. In the U.S., then President Obama announced a climate target to reduce GHG emissions by 26 to 28 percent below 2005 levels by 2025. In China, then President Xi Jinping announced a climate target to reduce peak CO₂ emissions by 2030 and to increase the renewable energy share across all sectors to 20 percent by 2030. China will need to build an additional 800 to 1,000 gigawatts of nuclear, wind, solar, and other zero emission generation capacity by 2030 to reach this target. Together, the United States and China have agreed to: expand joint clean energy research and development at the U.S.-China Clean Energy Research Center, advance major carbon capture, use and storage demonstrations, enhance cooperation on HFCs, launch a climate- smart/low-carbon cities initiative, promote trade in green goods, and demonstrate clean energy on the ground.

Paris United Nations Framework Convention on Climate Change

A new international climate change agreement was adopted at the Paris United Nations Framework Convention on Climate Change Conference in December 2015. The prior two climate conferences in Warsaw (2013) and Lima (2014) decided that countries were to submit their proposed emissions reduction targets for the 2015 conference as “intended nationally determined contributions” prior to the Paris conference. The European Union has committed to an economy wide, domestic GHG reduction target of 40 percent below 1990 levels by 2030. The United States set its intended nationally determined contribution to reduce its GHG emissions by 26 to 28 percent below its 2005 level by 2025 and to make best efforts to reduce emissions by 28 percent. These targets are set with the goal of limited global temperature rise to well below 2 degrees Celsius and getting to an 80 percent emission reduction by 2050. As of 2017, however, the United States withdrew from the Paris agreement.

North American Climate, Clean Energy, and Environment Partnership Action Plan

The North American Climate, Clean Energy, and Environment Partnership Action Plan was announced by Prime Minister Justin Trudeau, President Barack Obama, and President Enrique Peña Nieto on June 29, 2016, at the North American Leaders Summit in Ottawa, Canada. This Action Plan identifies the deliverables to be achieved and activities to be pursued by the three countries as part of this enduring Partnership. The three leaders declared their common vision in a historic North American Climate, Clean Energy, and Environment Partnership, described in a Leaders’ Statement and Action Plan that details the actions our leaders will pursue. These actions include:

- Setting a target to increase clean power to 50 percent of the electricity generated across North America by 2025
- Reducing methane emissions from the oil and gas sector by 40 to 45 percent by 2025
- Strengthening standards for energy efficiency and vehicle emissions, including aligning energy efficiency standards that will amount to over \$4 billion per year in annual savings for United States businesses and consumers by 2025.
- Strengthening vehicle efficiency, improving fuel quality, and reducing tailpipe pollutants.
- Affirming their support for joining and implementing the Paris Agreement this year and committing to work together to address climate issues through the Montreal Protocol, International Civil Aviation Organization, G-20, and other forums.

assessment-report-cycle/, 2022.

- Celebrating our strong environmental cooperation, including expanding cooperation on early warning systems for natural disasters, supporting habitat for migratory species including Monarchs and birds, and developing action plans to combat wildlife trafficking.

FEDERAL

Clean Air Act

The U.S. Supreme Court ruled in *Massachusetts v. Environmental Protection Agency*, 127 S. Ct. 1438 (2007), that CO₂ and other GHGs are pollutants under the Clean Air Act (CAA), which the U.S. Environmental Protection Agency (USEPA) must regulate if it determines they pose an endangerment to public health or welfare. On December 7, 2009, the USEPA issued an “endangerment finding” under the Clean Air Act, concluding that current and projected GHG emissions threaten the public health and welfare of current and future generations and that motor vehicles contribute to GHG pollution (USEPA 2017). These findings provide the basis for adopting new national regulations to mandate GHG emission reductions under the federal Clean Air Act. The USEPA’s endangerment finding paves the way for federal regulation of GHGs.

Under the Consolidated Appropriations Act of 2008 (HR 2764), Congress established mandatory GHG reporting requirements for some emitters of GHGs. In addition, on September 22, 2009, the USEPA issued the Final Mandatory Reporting of Greenhouse Gases Rule. The rule requires annual reporting to the USEPA of GHG emissions from large sources and suppliers of GHGs, including facilities that emit 25,000 metric tons (MT) or more a year of GHGs.

Corporate Average Fuel Economy (CAFE) Standards

In response to the *Massachusetts v. Environmental Protection Agency* ruling, President George W. Bush issued Executive Order 13432 in 2007, directing the USEPA, the United States Department of Transportation (USDOT), and the United States Department of Energy (USDOE) to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. The National Highway Traffic Safety Administration (NHTSA) subsequently issued multiple final rules regulating fuel efficiency for and GHG emissions from cars and light-duty trucks for model year 2011 and later for model years 2012-2016, and 2017-2021. In March 2020, the USDOT and the USEPA issued the final Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, which amends existing CAFE standards and tailpipe carbon dioxide emissions standards for passenger cars and light trucks and establishes new standards covering model years 2021 through 2026.³ These standards set a combined fleet wide average of 36.9 to 37 for the model years affected.⁴

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011 the USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO₂ emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the USEPA, this regulatory program would reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines. Building on the first phase of standards, in August 2016, the EPA and NHTSA finalized Phase 2 standards for medium and heavy-duty vehicles through model

³ U.S. Environmental Protection Agency, Final Rule for Model Year 2021 - 2026 Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, published April 30, 2020.

⁴ National Highway Traffic Safety Administration (NHTSA), Corporate Average Fuel Economy standards.

year 2027 that will improve fuel efficiency and cut carbon pollution. The Phase 2 standards are expected to lower CO₂ emissions by approximately 1.1 billion metric tons.⁵

Global Change Research Act (1990)

In 1990, Congress passed—and the President signed—Public Law 101-606, the Global Change Research Act.⁶ The purpose of the legislation was: “...to require the establishment of a United States Global Change Research Program aimed at understanding and responding to global change, including the cumulative effects of human activities and natural processes on the environment, to promote discussions towards international protocols in global change research, and for other purposes.” To that end, the Global Change Research Information Office was established in 1991 to serve as a clearinghouse of information. The Act requires a report to Congress every four years on the environmental, economic, health and safety consequences of climate change; however, the first and only one of these reports to date, the National Assessment on Climate Change, was not published until 2000. In February 2004, operational responsibility for GCRIO shifted to the U.S. Climate Change Science Program.

National Fuel Efficiency Policy

On May 19, 2009, the president announced a new National Fuel Efficiency Policy aimed at increasing fuel economy and reducing GHG pollution. This policy is expected to increase fuel economy by more than five percent by requiring a fleet-wide average of 35.5 miles per gallon by 2016 starting with model year 2012.

Federal Vehicle Standards

In response to the *Massachusetts v. Environmental Protection Agency* ruling discussed above, the Bush Administration issued an Executive Order on May 14, 2007, directing the USEPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008.

On October 10, 2008, the National Highway Traffic Safety Administration (NHTSA) released a final environmental impact statement analyzing proposed interim standards for passenger cars and light trucks in model years 2011 through 2015. The NHTSA issued a final rule for model year 2011 on March 30, 2009 (NHTSA 2009).

On May 7, 2010, the USEPA and the NHTSA issued a final rule regulating fuel efficiency and GHGs from motor vehicles for cars and light-duty trucks for model years 2012–2016 (USEPA and NHTSA 2010). On May 21, 2010, the President issued a memorandum to the Secretaries of Transportation and Energy, and the Administrators of the USEPA and the NHTSA calling for the establishment of additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure (GPO 2010). In response to this directive, USEPA and NHTSA issued a Supplemental Notice of Intent announcing plans to propose stringent, coordinated federal GHG and fuel economy standards for model year 2017-2025 light-duty vehicles (GPO 2011). The agencies proposed standards projected to achieve 163 grams/mile of CO₂ in model year 2025, on an average industry fleet wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. California has announced its support of this national program (CARB 2011a). The final rule was adopted in October 2012 and NHTSA intends to set standards for model years 2022-2025 in future rulemaking (USEPA and NHTSA 2012; NHTSA 2012).

⁵ U.S. EPA, EPA and NHTSA Adopt Standards to Reduce GHG and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles for Model Year 2018 and Beyond, August 2016.

⁶ Global Change Research Act (Public Law 101-606, 104 Stat. 3096-3104). 1990. Available online at: <https://www.govinfo.gov/content/pkg/STATUTE-104/pdf/STATUTE-104-Pg3096.pdf>

Heavy-Duty Engines and Vehicles Fuel Efficiency Standards

In addition to the regulations applicable to cars and light-duty trucks, on August 9, 2011, the USEPA and the NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks, which apply to vehicles from model years 2014 through 2018 (USEPA and NHTSA 2016). The USEPA and the NHTSA adopted standards for CO₂ emissions and fuel consumption, respectively, tailored to each of three main vehicle categories: (1) combination tractors, (2) heavy-duty pickup trucks and vans, and (3) vocational vehicles. According to the USEPA, this program will reduce GHG emissions and fuel consumption for affected vehicles by six percent to 23 percent.

Energy Independence and Security Act

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law (GPO 2007). Among other key measures, the EISA would do the following, which would aid in the reduction of national GHG emissions, both mobile and non-mobile:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.⁷
- Prescribe or revise standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labelling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.
- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the USEPA and NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green jobs.”

National Fuel Efficiency Policy

On May 19, 2009, the president announced a new National Fuel Efficiency Policy aimed at increasing fuel economy and reducing GHG pollution. This policy is expected to increase fuel economy by more than five percent by requiring a fleet-wide average of 35.5 miles per gallon by 2016 starting with model year 2012.

Fuel Economy Standards

On September 15, 2009, the USEPA and the Department of Transportation’s National Highway Traffic Safety Administration (NHTSA) issued a joint proposal to establish a national program consisting of new standards for model year 2012 through 2016 light-duty vehicles that will reduce GHG emissions and improve fuel economy. The proposed standards were to be phased in and require passenger cars and light-duty trucks to comply with a declining emissions standard. In 2012, passenger cars and light-duty trucks were required to meet an average emissions standard of 295 grams of CO₂ per mile and 30.1 miles per gallon. By 2016, the vehicles were required to meet an average standard of 250 grams of CO₂ per mile and

⁷ According to the United States Energy Information Administration, 36 billion gallons of fuel represents approximately 26 percent of current gasoline consumption.

35.5 miles per gallon. The final standards were adopted by the USEPA and Department of Transportation on April 1, 2010.

On December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA (42 United States Code Section 7521):

Endangerment Finding: The Administrator found that the current and projected concentrations of the six key well-mixed GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) in the atmosphere threaten the public health and welfare of current and future generations.

Cause or Contribute Finding: The Administrator found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.

While these findings do not impose additional requirements on industry or other entities, this action is a prerequisite to finalizing the USEPA's proposed GHG emissions standards for light-duty vehicles, which were jointly proposed by the USEPA and the NHTSA. On April 1, 2010, the USEPA and NHTSA issued final rules requiring that by the 2016 model-year, manufacturers must achieve a combined average vehicle emission level of 250 grams CO₂ per mile, which is equivalent to 35.5 miles per gallon as measured by USEPA standards. According to Midterm Evaluation of Light-Duty Vehicle GHG Emission Standards and Corporate Average Fuel Economy Standards for Model Years 2022-2025, issued by the NHTSA, USEPA and ARB on July 18, 2016, CAFE standards for passenger cars and light trucks increased from an average fuel economy of 34.1 miles per gallon (mpg) by model year 2016 to 38.3 mpg by model year 2021 and 46.3 mpg by model year 2025 (NHTSA et al 2016). Executive Order 13693

Issued on June 10, 2015, Executive Order 13693 — Planning for Federal Sustainability in the Next Decade — revokes multiple prior Executive Orders and memoranda including Executive Order 13514. The goal of Executive Order 13693 is to maintain federal leadership in sustainability and GHG emission reductions. This Executive Order outlines forward-looking goals for federal agencies in the area of energy, climate change, water use, vehicle fleets, construction, and acquisition. Federal agencies shall, where life-cycle cost-effective, beginning in 2016:

- Reduce agency building energy intensity as measured in British Thermal Units per square foot by 2.5 percent annually through 2025.
- Improve data center energy efficiency at agency buildings.
- Ensure a minimum percentage of total building electric and thermal energy shall be from clean energy sources.
- Improve agency water use efficiency and management (including storm water management); and
- Improve agency fleet and vehicle efficiency and management by achieving minimum percentage GHG emission reductions.

Executive Order 13783

Issued on March 28, 2017, Executive Order 13783 — Promoting Energy Independence and Economic Growth — revokes multiple prior Executive Orders and memoranda including Executive Order 13653, the Power Sector Carbon Pollution Standards, Presidential Memorandum – Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment, and Presidential Memorandum – Climate Change and National Security, as well as other federal reports and provisions. Executive Order 13783 represents a reversal on federal climate policy relative to the work of previous administrations and

its objective is to reduce the regulatory framework applicable to GHG emissions to spur fossil fuel production. This Executive Order “established a national policy to promote the clean and safe development of our energy resources while reducing unnecessary regulatory burdens” (Federal Register 2017). The order also “directs the USEPA to review existing regulations, orders, guidance documents and policies that potentially burden the development or use of domestically produced energy resources.” As of April 2020, the Council on Environmental Quality (CEQ) is considering updating its National Environmental Policy (NEPA) implementing regulations and has issued a Notice of Proposed Rulemaking that incorporates Executive Order 13783 (Council on Environmental Quality 202). How these proposed rule changes will affect GHG emissions cannot be predicted at this time.

Executive Order 13795

Issued on April 28, 2017, Executive Order 13795 — Implementing an America-First Offshore Energy Strategy — directs the “policy of the United States to encourage energy exploration and production, including on the Outer Continental Shelf, in order to maintain the Nation’s position as a global energy leader and foster energy security and resilience for the benefit of the American people, while ensuring that any such activity is safe and environmental responsible” (Federal Register 2017). The objective of the order is to expand the opportunity for offshore energy development by removing restrictions on resource exploration and extraction. This Executive Order prioritizes the development of offshore energy resources over the protection of National Marine Sanctuaries and authorizes the review and potential revision or withdrawal of the Bureau of Ocean Energy Management’s Proposed Rule entitled “Air Quality Control, Reporting, and Compliance,” 81 Federal Register 19718 and any other related rules and guidance. The implications of implementing Executive Order 13795 with regards to the national GHG emissions inventory cannot be reasonably determined at this time.

Presidential Executive Order 13990

President Biden signed Executive Order 13990 – Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis — on January 20, 2021. The order directs all executive departments and agencies to immediately review and, as appropriate and consistent with applicable law, take action to address the promulgation of Federal regulations and other actions during the 2017–2021 executive tenure that conflict with the following national objectives: to improve public health and protect the environment; to ensure access to clean air and water; to limit exposure to dangerous chemicals and pesticides; to hold polluters accountable, including those who disproportionately harm communities of color and low-income communities; to reduce GHG emissions; to bolster resilience to the impacts of climate change; to restore and expand our national treasures and monuments; and to prioritize both environmental justice and the creation of the well-paying union jobs necessary to deliver these goals.⁸

Presidential Executive Order 14008

President Biden signed Executive Order 14008 – Tackling the Climate Crisis At Home and Abroad — on January 27, 2021. The order affirmed the United States as rejoining the Paris Agreement and expressed its commitment to exercising leadership in promoting global climate ambition to meet the climate challenge.⁹

⁸ Federal Register, Executive Order 13990 of January 20, 2021: Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, Vol. 86, No. 14, January 25, 2021.

⁹ Federal Register, Executive Order 14008 of January 27, 2021: Tackling the Climate Crisis at Home and Abroad, Vol. 86, No. 19, February 1, 2021.

STATE

California Air Resources Board

The California Air Resources Board (CARB), a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the Federal Government and the local air districts. The SIP is required for the State to take over implementation of the Federal Clean Air Act. CARB also has primary responsibility for adopting regulations to meet the State's goal of reducing GHG emissions. The State has met its goals to reduce GHG emissions to 1990 levels by 2020. Subsequent State goals include reducing GHG emissions to 40 percent below 1990 levels by 2030 and to 85 percent below 1990 levels by 2045.

Statewide GHG Reduction Targets and Scoping Plans

Executive Order S-3-05, Assembly Bill 32, Senate Bill 32, 2017 Scoping Plan (CARB), Executive Order B-55-18, Cap-and-Trade Program, Senate Bill 350, Senate Bill 1383, Senate Bill 97, Senate Bill 375, Emission Performance Standards, Renewable Portfolio Standards (SB 1078, SB 107, SB X 1-2, and SB 100), Assembly Bill 1493, Low Carbon Fuel Standard (Executive Order S-01-07), Advanced Clean Cars Program, Senate Bill 743, California Integrated Waste Management Act (AB 341), California Appliance Efficiency Regulations, California Green Building Code (California Code of Regulations Title 24)

Executive Order S-3-05

Executive Order S-3-05, issued in June 2005, established GHG emissions targets for the State, as well as a process to ensure the targets are met. The order directed the Secretary for California EPA to report every two years on the State's progress toward meeting the Governor's GHG emission reduction targets. As a result of this executive order, the California Climate Action Team (CCAT), led by the Secretary of the California Environmental Protection Agency (CalEPA), was formed. The CCAT is made up of representatives from a number of State agencies and was formed to implement global warming emission reduction programs and reporting on the progress made toward meeting state-wide targets established under the Executive Order. The CCAT reported several recommendations and strategies for reducing GHG emissions and reaching the targets established in the Executive Order (CalEPA 2006). The state-wide GHG targets are as follows:

- By 2010, reduce to 2000 emission levels.
- By 2020, reduce to 1990 emission levels: and
- By 2050, reduce to 80 percent below 1990 levels.

However, with the adoption of the California Global Warming Solutions Act of 2006, also known as Assembly Bill (AB) 32, discussed below, the Legislature did not adopt the 2050 horizon-year goal from Executive Order No. S-3-05. In the last legislative session, the Legislature rejected legislation to enact the Executive Order's 2050 goal.¹⁰

¹⁰ The original version of SB 32 as introduced in the Legislature contained a commitment to the 2050 goal, but this commitment was not included in the final version of the bill. See:

The original mandate for the CCAT was to develop proposed measures to meet the emission reduction targets set forth in E.O. S-3-05. The CCAT has since expanded and currently has members from 18 state agencies and departments. The CCAT also has ten working groups, which coordinate policies among their members. The working groups and their major areas of focus are:

- Agriculture: Focusing on opportunities for agriculture to reduce GHG emissions through efficiency improvements and alternative energy projects, while adapting agricultural systems to climate change.
- Biodiversity: Designing policies to protect species and natural habitats from the effects of climate change.
- Energy: Reducing GHG emissions through extensive energy efficiency policies and renewable energy generation.
- Forestry: Coupling GHG mitigation efforts with climate change adaptation related to forest preservation and resilience, waste to energy programs and forest offset protocols.
- Land Use and Infrastructure: Linking land use and infrastructure planning to efforts to reduce GHG from vehicles and adaptation to changing climatic conditions.
- Oceans and Coastal: Evaluating the effects of sea level rise and changes in coastal storm patterns on human and natural systems in California.
- Public Health: Evaluating the effects of GHG mitigation policies on public health and adapting public health systems to cope with changing climatic conditions.
- Research: Coordinating research concerning impacts of and responses to climate change in California.
- State Government: Evaluating and implementing strategies to reduce GHG emissions resulting from state government operations; and
- Water: Reducing GHG impacts associated with the state's water systems and exploring strategies to protect water distribution and flood protection infrastructure.

The CCAT is responsible for preparing reports that summarize the state's progress in reducing GHG emissions. The CCAT Report was published in December 2010. The CCAT Report discusses mitigation and adaptation strategies, state research programs, policy development, and future efforts.

Assembly Bill 32 (State-wide GHG Reductions)

The California Global Warming Solutions Act of 2006 (AB 32) was signed into law in September 2006 after considerable study and expert testimony before the Legislature. The law instructs the CARB to develop and enforce regulations for the reporting and verifying of state-wide GHG emissions. AB 32 directed CARB to set a GHG emission limit based on 1990 levels, to be achieved by 2020. AB 32 set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner (Legislative Council of California 2006a).

https://leginfo.legislature.ca.gov/faces/billVersionsCompareClient.xhtml?bill_id=201520160SB32&cversion=20150SB3299IN
 T. In addition, the Supreme Court recently held in *Cleveland National Forest Foundation et al. v San Diego Association of Governments (SANDAG)* (S223603, July 13, 2017) that SANDAG did not abuse its discretion in declining to adopt the 2050 goal as a measure of significance in an analysis of the consistency of projected 2050 greenhouse gas emissions with the goals in Executive Order S-3-05. Although it stated that “we do not hold that the analysis of greenhouse gas impacts employed by SANDAG in this case will necessarily be sufficient going forward. CEQA requires public agencies like SANDAG to ensure that such analysis stay in step with evolving scientific knowledge and state regulatory schemes.”

The heart of AB 32 is the requirement to reduce state-wide GHG emissions to 1990 levels by 2020. AB 32 required CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions. CARB accomplished the key milestones set forth in AB 32, including the following:

June 30, 2007. Identification of discrete early action GHG emissions reduction measures. On June 21, 2007, CARB satisfied this requirement by approving three early action measures (CARB 2007a). These were later supplemented by adding six other discrete early action measures (CARB 2007b).

January 1, 2008. Identification of the 1990 baseline GHG emissions level and approval of a state-wide limit equivalent to that level and adoption of reporting and verification requirements concerning GHG emissions. On December 6, 2007, CARB approved a state-wide limit on GHG emissions levels for the year 2020 consistent with the determined 1990 baseline (CARB 2007c).

January 1, 2009. Adoption of a scoping plan for achieving GHG emission reductions. On December 11, 2008, CARB adopted *Climate Change Scoping Plan: A Framework for Change* (Scoping Plan), discussed in more detail below (CARB 2008).

January 1, 2010. Adoption and enforcement of regulations to implement the “discrete” actions. Several early action measures have been adopted and became effective on January 1, 2010 (CARB 2007a; CARB 2007b).

January 1, 2011. Adoption of GHG emissions limits and reduction measures by regulation. On October 28, 2010, CARB released its proposed cap-and-trade regulations, which would cover sources of approximately 85 percent of California's GHG emissions (CARB 2011b). CARB's Board ordered its Executive Director to prepare a final regulatory package for cap-and-trade on December 16, 2010 (CARB 2010).

January 1, 2012. GHG emissions limits and reduction measures adopted in 2011 became enforceable.

As noted above, CARB adopted the Scoping Plan in 2008 to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions for various categories of emissions. CARB determined that achieving the 1990 emission level by 2020 would require an approximately 28.5 percent reduction of GHG emissions in the absence of new laws and regulations (referred to as “business as usual” or “No Action Taken”). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction measures by both entities, and identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program. Key elements of the Scoping Plan include the following (CARB 2008):

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards.
- Achieving a state-wide renewable energy mix of 33 percent.
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions.
- Establishing targets for transportation related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets.
- Adopting and implementing measures pursuant to existing state laws and policies, such as California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and

- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.

In connection with preparation of the supplement to the Functional Equivalent Document, CARB released revised estimates in 2011 of the expected 2020 emission reductions in consideration of the economic recession and the availability of updated information from development of measure specific regulations. Incorporation of revised estimates in consideration of the economic recession reduced the projected 2020 emissions from 596 metric tons of CO₂ equivalent (MT CO₂e) to 545 million MT CO₂e (MMT CO₂e) (CARB 2011c). Under this scenario, achieving the 1990 emissions level in 2020 would require a reduction of GHG emissions of 118 MMT CO₂e, or 21.7 percent. This revised reduction represents a 6.8 percentage point reduction from the 28.5 percent level determined in CARB's 2008 Scoping Plan. The 2020 AB 32 baseline was also updated to account for measures incorporated into the inventory, including Pavley (vehicle model-years 2009 to 2016) and the renewable portfolio standard (12 percent to 20 percent). Inclusion of these measures further reduced the 2020 baseline to 507 MMT CO₂e. As a result, based on both the 2007-09 economic recession and the availability of updated information from development of measure-specific regulations, achieving the 1990 emission level would now require a reduction of GHG emissions of 80 MMT CO₂e or a reduction by approximately 16 percent (down from the 28.5 percent level determined in CARB's 2008 Scoping Plan) by 2020 in the "business as usual" or No Action Taken condition (CARB 2011c; CARB 2011d).

On October 1, 2013, CARB released a discussion draft first update to the Scoping Plan. The discussion draft recalculates 1990 GHG emissions using *Intergovernmental Panel on Climate Change Fourth Assessment Report* released in 2007. Using the AR4 global warming potentials (ratio of time integrated or GWP), the 427 MMT CO₂e 1990 emissions level and 2020 GHG emissions limit would be slightly higher, at 431 MMT CO₂e (CARB 2013). Based on the revised estimates of expected 2020 emissions identified in the 2011 supplement to the Functional Environmental Document and updated 1990 emissions levels identified in the draft first update to the Scoping Plan, achieving the 1990 emission level would require a reduction of 76 MMT CO₂e (down from 507 MMT CO₂e) or a reduction by approximately 15 percent (down from 28.5 percent) to achieve in 2020 emissions levels in the "business as usual" or No Action Taken condition (CARB 2011c; CARB 2011d; CARB 2013). Two updates to the Scoping Plan have occurred since 2008. The latest update was adopted in December 2017 and is discussed below as it relates to Executive Order B-30-15 and Senate Bill 32.

Senate Bill 1 (SB 1) and Senate Bill 1017 (SB 1017) (Million Solar Roofs)

SB 1 and SB 1017, enacted in August 2006, set a goal to install 3,000 megawatts of new solar capacity by 2017 – with a stated intent to move the state toward a cleaner energy future and help lower the cost of solar systems for consumers. The Million Solar Roofs Program is a ratepayer-financed incentive program aimed at transforming the market for rooftop solar systems by driving down costs over time. It provides up to \$3.3 billion in financial incentives that decline over time.

Executive Order B-30-15 and Senate Bill 32

CARB also aims to reduce GHG emissions substantially by 2030. As California moves closer to reaching the 2020 GHG emission reduction goal, state legislation has focused on furthering GHG emission reduction targets. Executive Order B-30-15 was issued on April 2015, establishing a mid-term GHG reduction target for California of 40 percent below 1990 levels by 2030 (discussed in further detail below). In 2016, the Legislature passed SB 32 with the companion bill AB 197, which further mandates the 2030 target and provides additional direction to CARB on strategies to reduce GHG emissions. The bill targets reductions from the leading GHG emitters in the state. Transportation is the largest sector of GHG emissions in the state and will be a primary subject for reductions. Through advances in technology and improved public

transportation, the state plans to reduce GHG emissions from transportation sources to assist in meeting the 2030 reduction goal.

CARB adopted the 2017 Scoping Plan on December 14, 2017 in response to Executive Order B-30-15 and SB 32, which provides a framework for achieving the 2030 target. To meet reduction targets, the 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, as well as implementation of recently adopted policies, such as SB 350 and SB 1383 (see below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally-appropriate quantitative thresholds consistent with a statewide per capita goal of six MT CO_{2e} by 2030 and two MT CO_{2e} by 2050 (CARB 2017a). The 2017 Scoping Plan in particular emphasized the importance in the role of local agencies in setting policies to reduce Vehicle Miles Traveled (VMT) through land use planning:

Local land use decisions play a particularly critical role in reducing GHG emissions associated with the transportation sector, both at the project level, and in long-term plans, including general plans, local and regional climate action plans, specific plans, transportation plans, and supporting sustainable community strategies developed under SB 375.

While the State can do more to accelerate and incentivize these local decisions, local actions that reduce VMT are also necessary to meet transportation sector-specific goals and achieve the 2030 target under SB 32. Through developing the Scoping Plan, CARB staff is more convinced than ever that, in addition to achieving GHG reductions from cleaner fuels and vehicles, California must also reduce VMT. Stronger SB 375 GHG reduction targets will enable the State to make significant progress toward needed reductions, but alone will not provide the VMT growth reductions needed; there is a gap between what SB 375 can provide and what is needed to meet the State's 2030 and 2050 goals. In its evaluation of the role of the transportation system in meeting the statewide emissions targets, CARB determined that VMT reductions of 7 percent below projected VMT levels in 2030 (which includes currently adopted SB 375 SCSs) are necessary. In 2050, reductions of 15 percent below projected VMT levels are needed. A seven percent VMT reduction translates to a reduction, on average, of 1.5 miles/person/day from projected levels in 2030. It is recommended that local governments consider policies to reduce VMT to help achieve these reductions, including land use and community design that reduces VMT; transit oriented development; street design policies that prioritize transit, biking, and walking; and increasing low carbon mobility choices, including improved access to viable and affordable public transportation and active transportation opportunities. It is important that VMT reducing strategies are implemented early because more time is necessary to achieve the full climate, health, social, equity, and economic benefits from these strategies (CARB 2017a).

California's future climate strategy will require increased focus on integrated land use planning to support livable, transit-connected communities, and conservation of agricultural and other lands. Accommodating population and economic growth through travel- and energy-efficient land use provides GHG-efficient growth, reducing GHGs from both transportation and building energy use be further reduced at the project level through implementing energy-efficient cost of transportation impacts continues to evolve. The CEQA Guidelines are being updated to focus the analysis of transportation impacts on VMT. Office of Planning and Research (OPR)'s Technical Advisory includes methods of analysis of transportation impacts, approaches to setting significance thresholds, and includes examples of VMT mitigation under CEQA (CARB 2017a).

2022 Update to the Climate Change Scoping Plan

In response to the passage of AB 1279 and the identification of the 2045 GHG reduction target, CARB published the Final 2022 Climate Change Scoping Plan in November 2022 (CARB 2022a). The 2022 Update builds upon the framework established by the 2008 Climate Change Scoping Plan and previous updates while identifying new, technologically feasible, cost-effective, and equity-focused path to achieve California's climate target. The 2022 Update includes policies to achieve a significant reduction in fossil fuel combustion, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands (NWL) to reduce emissions and sequester carbon, and the capture and storage of carbon.

The 2022 Update assesses the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan, addresses recent legislation and direction from Governor Newsom, extends and expands upon these earlier plans, and implements a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045, as well as taking an additional step of adding carbon neutrality as a science-based guide for California's climate work. As stated in the 2022 Update, "The plan outlines how carbon neutrality can be achieved by taking bold steps to reduce GHGs to meet the anthropogenic emissions target and by expanding actions to capture and store carbon through the state's NWL and using a variety of mechanical approaches" (CARB 2022a). Specifically, the 2022 Update:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 and a reduction in anthropogenic emissions by 85 percent below 1990 levels.
- Recognizes that the technology and regulations do not exist yet to reach the targets.
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California's most impacted communities as driving principles throughout the document.
- Incorporates the contribution of NWL to the State's GHG emissions, as well as their role in achieving carbon neutrality.
- Relies on the most up-to-date science, including the need to deploy all viable tools to address the existential threat that climate change presents, including carbon capture and sequestration, as well as direct air capture.
- Evaluates the substantial health and economic benefits of taking action.
- Identifies key implementation actions to ensure success.

In addition to reducing emissions from transportation, energy, and industrial sectors, the 2022 Update includes emissions and carbon sequestration in NWL and explores how NWL contribute to long-term climate goals. Under the Scoping Plan Scenario, California's 2030 emissions are anticipated to be 48 percent below 1990 levels, representing an acceleration of the current SB 32 target. Cap-and-Trade regulation continues to play a large factor in the reduction of near-term emissions for meeting the accelerated 2030 reduction target. Every sector of the economy will need to begin to transition in this decade to meet our GHG reduction goals and achieve carbon neutrality no later than 2045. The 2022 Update approaches decarbonization from two perspectives, managing a phasedown of existing energy sources and

technologies, as well as increasing, developing, and deploying alternative clean energy sources and technology.

The Scoping Plan also identifies the strategies local agencies can take to help the State meet its goals. Specifically, the Scoping Plan identifies the following priority GHG reduction strategies for local agencies: VMT reduction, Transportation Electrification, and Building Decarbonization.

Senate Bill 350

Adopted on October 7, 2015, SB 350 supports the reduction of GHG emissions from the electricity sector through a number of measures, including requiring electricity providers to achieve a 50 percent renewables portfolio standard by 2030, a cumulative doubling of statewide energy efficiency savings in electricity and natural gas by retail customers by 2030.

Senate Bill 1383

Approved by the governor in September 2016, SB 1383 requires the CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. SB 1383 requires the strategy to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels
- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

SB 1383 also requires CalRecycle, in consultation with the state board, to adopt regulations that achieve specified targets for reducing organic waste in landfills.

Senate Bill 97

Per SB 97, which was signed into law on August 24, 2007, the California Natural Resources Agency adopted amendments to the State CEQA Guidelines, which address the specific obligations of public agencies when analyzing GHG emissions under CEQA to determine a project's effects on the environment (codified as Public Resources Code [PRC] 21083.05). Specifically, PRC 21083.05 states, “[t]he Office of Planning and Research and the Natural Resources Agency shall periodically update the guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions.”

Renewable Portfolio Standards (SB 1078, SB 107, SB X 1-2, and SB 100)

Established in 2002 under SB 1078, and accelerated in 2006 under SB 107, again in 2011 under SB X 1-2, and most recently in September 2018 under SB 100, California's Renewable Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 40 percent by 2024, 50 percent by 2026, 60 percent by 2030, and 100 percent by 2045 (Legislative Council of California 2002; Legislative Council of California 2006b). The 33 percent standard is consistent with the RPS goal established in the Scoping Plan (CARB 2008). As interim measures, the RPS requires 20 percent of retail sales to be sourced from renewable energy by 2013, and 25 percent by 2016. Initially, the RPS provisions applied to investor-owned utilities, community choice aggregators, and electric service providers. SB X 1-2 added, for the first time, publicly owned utilities to the entities subject to RPS. The expected growth in RPS to meet the standards in effect in 2008 is not reflected in the “business as usual” calculation in the AB 32 Scoping Plan, discussed below. In other words, the Scoping Plan's “business as usual” 2020 does not take credit for implementation of RPS that occurred after its adoption (CARB 2008).

GHG Emissions Standards for Baseload Generation

SB 1368, which was signed into law on September 29, 2006, prohibits any retail seller of electricity in California from entering into a long-term financial commitment for baseload generation if the GHG emissions are higher than those from a combined-cycle natural gas power plant. This performance standard (i.e., reducing long-term GHG emissions as a result of electrical baseload generation) applies to electricity generated both within and outside of California, and to publicly owned as well as investor-owned electric utilities.

Mobile Source Reductions

AB 1493 (Chapter 200, Statutes of 2002), enacted on July 22, 2002, required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles whose primary use is non-commercial personal transportation manufactured in and after 2009. In 2004, CARB approved the Pavley regulation to require automakers to control GHG emissions from new passenger vehicles for the 2009 through 2016 model years. Upon adoption of subsequent federal GHG standards by the U.S. EPA that preserved the benefits of the Pavley regulations, the Pavley regulations were revised to accept compliance with the federal standards as compliance with California's standards in the 2012 through 2016 model years. This is referred to as the "deemed to comply" option.

In January 2012, CARB approved GHG emission regulations which require further reductions in passenger vehicle GHG emissions for 2017 and subsequent vehicle model years. As noted above, in August 2012, the U.S. EPA and U.S. DOT adopted GHG emission standards for model year 2017 through 2025 vehicles. On November 15, 2012, CARB approved an amendment that allows manufacturers to comply with the 2017-2025 national standards to meet State law. Automobile manufacturers generally comply with these standards through a combination of improved energy efficiency in vehicle equipment (e.g., air conditioning systems) and engines, as well as sleeker aerodynamics, use of strong but lightweight materials, and lower-rolling resistance tires (CARB 2017b).

In 2018, the U.S. EPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE) which would roll back fuel economy standards and revoke California's waiver. The rule amended certain average fuel economy and GHG standards for passenger cars covering model years 2021 through 2026. On March 30, 2020, the SAFE Rule was finalized and published in the Federal Register, commencing a review period. Subsequent legal challenges from a coalition of states, including California, and private industry groups were issued. In August 2021, U.S. EPA proposed to revise and strengthen the emissions standards for passenger cars and light trucks for model years 2023-2026.

On September 27, 2019, the U.S. EPA withdrew the waiver it had previously provided to California for the State's GHG and ZEV programs under Section 209 of the CAA. The withdrawal of the waiver was effective November 26, 2019. In response, several states, including California, filed a lawsuit challenging the withdrawal of the U.S. EPA waiver (*State of California vs. Chao*). In March 2022, the U.S. EPA reinstated California's authority under the CAA to implement its own GHG emissions standards and zero emission vehicle sales mandates (U.S. EPA 2022d).

Low Carbon Fuel Standard

Executive Order S-01-07 (January 18, 2007) requires a 10 percent or greater reduction in the average fuel carbon intensity for transportation fuels in California regulated by CARB. CARB identified the Low Carbon Fuel Standard (LCFS) as a Discrete Early Action item under AB 32, and the final resolution (09-31) was issued on April 23, 2009 (CARB 2009). In 2009, CARB approved for adoption the LCFS regulation, which became fully effective in April 2010 and is codified at Title 17, California Code of Regulations (CCR),

Sections 95480-95490. The LCFS will reduce GHG emissions by reducing the carbon intensity of transportation fuels used in California by at least 10 percent by 2020.

Advanced Clean Cars Program

In January 2012, CARB approved the Advanced Clean Cars Program, a new emissions-control program for model year 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, the new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

CEQA Guidelines Section 15064.3.

CEQA Guidelines Section 15064.3 describes specific considerations for evaluating a project's transportation impacts and states that, generally, vehicle miles traveled is the most appropriate measure of transportation impacts. The section also states provides some guidance for evaluating land use projects stating that generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact and projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

CEQA Guidelines Section 15064.4.

CEQA Guidelines Section 15064.4 requires that, in performing environmental review under CEQA, an agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. The lead agency has discretion to determine whether to quantify GHG emissions, and/or rely on a qualitative analysis or performance-based standards.

In determining the significance of a project's GHG emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. The lead agency should consider the following factors, among others, when determining the significance of impacts from GHG emissions on the environment.

- The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (see, e.g., section 15183.5(b)). Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or

strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

Lastly, a lead agency may use a model or methodology to estimate GHG resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use.

Senate Bill 743

SB 743, adopted September 27, 2013, encourages land use and transportation planning decisions and investments that reduce VMT, which contribute to GHG emissions, as required by AB 32. Key provisions of SB 743 include reforming aesthetics and parking CEQA analysis for certain urban infill projects and eliminating the measurement of auto delay, including Level of Service (LOS), as a metric that can be used for measuring traffic impacts in transit priority areas. SB 743 requires the Governor's (OPR) to develop revisions to the CEQA Guidelines establishing criteria for determining the significance of transportation impacts of projects within transit priority areas that promote the "...reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." It also allows OPR to develop alternative metrics outside of transit priority areas.

Title 24 Building Energy Efficiency Standards

The California Code of Regulations (CCR) Title 24 is referred to as the California Building Standards Code. It consists of a compilation of several distinct standards and codes related to building construction, including plumbing, electrical, interior acoustics, energy efficiency, and accessibility for persons with physical and sensory disabilities. The California Building Standards Code's energy-efficiency and green building standards are outlined below. The 2022 California Buildings Standards Code (the most recent iteration of the code) was adopted by reference with applicable local amendments in City of Los Angeles Municipal Code (Ordinance No. 186,488) in August 2022. These standards are updated every three years and the project will be subject to the 2022 California Building Standards when they go into effect on January 1, 2023.

CCR Title 24, Part 6 is the Building Energy Efficiency Standards or California Energy Code. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. New construction and major renovations must demonstrate their compliance with the current Energy Code through submittal and approval of a Title 24 Compliance Report to the local building permit review authority and the California Energy Commission (CEC).

California Green Building Standards Code

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11, first in 2009 as a voluntary code, which then became mandatory effective on January 1, 2011 (as part of the 2010 California Building Standards Code). The 2022 CALGreen includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures. It also includes voluntary tiers with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory CALGreen standards and may adopt additional amendments for stricter requirements.

The mandatory standards applicable to air quality require:

- Minimum 20 percent reduction in indoor water use relative to specified baseline levels;¹¹
- Waste Reduction:
 - Minimum 65 percent non-hazardous construction/demolition waste diverted from landfills;
 - Non-residential and multi-family dwellings with five or more units: Provide readily accessible areas identified for the depositing, storage and collection of nonhazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastic, organic waste, and metals; and/or
 - Non-residential: Reuse and/or recycling of 100 percent of trees, stumps, rocks, and associated vegetation soils resulting from primary land clearing;
- Inspections of energy systems to ensure optimal working efficiency;
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards; and
- Electric Vehicle (EV) Charging for New Construction:¹²
 - One- and two-family dwellings and town houses with attached private garages: Dedicated circuitry to facilitate installation of electric vehicle (EV) charging;
 - Multi-family dwellings and hotels/motels with less than 20 units/rooms: Designation of at least 10 percent of the total number of parking spaces shall be EV capable and at least 25 percent of the total number of parking spaces shall be EV-ready;
 - Multi-family dwellings and hotels/motels with greater than 20 units/rooms: Designation of at least 10 percent of the total number of parking spaces shall be EV capable, at least 25 percent of the total number of parking spaces shall be EV-ready, and at least 5 percent of the total number of parking spaces shall be equipped with a Level 2 charging station;
 - Non-residential land uses shall comply with the following EV charging requirements based on the number of passenger vehicle parking spaces:
 - 0-9: no EV capable spaces or charging stations required;
 - 10-25: 4 EV capable spaces but no charging stations required;
 - 26-50: 8 EV capable spaces of which 2 must be equipped with charging stations;
 - 51-75: 13 EV capable spaces of which 3 must be equipped with charging stations;
 - 76-100: 17 EV capable spaces of which 4 must be equipped with charging stations;
 - 101-150: 25 EV capable spaces of which 6 must be equipped with charging stations;
 - 151-200: 35 EV capable spaces of which 9 must be equipped with charging stations; and
 - More than 200: 20 percent of the total available parking spaces of which 25 percent must be equipped with charging stations;

¹¹ Similar to the compliance reporting procedure for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CALGreen water reduction requirements must be demonstrated through completion of water use reporting forms. Buildings must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CALGreen or a reduced per-plumbing-fixture water use rate.

¹² EV Capable = a vehicle space with electrical panel space and load capacity to support a branch circuit and necessary raceways to support EV charging; EV-ready = a vehicle space which is provided with a branch circuit and any necessary raceways to accommodate EV charging stations, including a receptacle for future installation of a charger (see 2022 California Green Building Standard Code, Title 24 Part 11 for full explanation of mandatory measures, including exceptions).

- Non-residential land uses shall comply with the following EV charging requirements for medium- and heavy-duty vehicles: warehouses, grocery stores, and retail stores with planned off-street loading spaces shall install EV supply and distribution equipment, spare raceway(s) or busway(s) and adequate capacity for transformer(s), service panel(s), or subpanel(s) at the time of construction based on the number of off-street loading spaces as indicated in Table 5.106.5.4.1 of the California Green Building Standards;
- Bicycle Parking:
 - Non-residential short-term bicycle parking for projects anticipated to generate visitor traffic: permanently anchored bicycle racks within 200 feet of visitor entrance for 5 percent of new visitor motorized vehicle parking spaces with a minimum of one 2-bike capacity rack; and/or
 - Non-residential buildings with tenant spaces of 10 or more employees/tenant-occupants: secure bicycle parking for 5 percent of the employee/tenant-occupant vehicle parking spaces with a minimum of one bicycle parking facility.
- Shade Trees (Non-Residential):
 - Surface parking: minimum No. 10 container size or equal shall be installed to provide shade over 50 percent of the parking within 15 years (unless parking area covered by appropriate shade structures and/or solar);
 - Landscape areas: minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years; and/or
 - Hardscape areas: minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years (unless covered by applicable shade structures and/or solar or the marked area is for organized sports activities).

The voluntary standards include:

- Deconstruct existing buildings and reuse applicable salvaged materials;
- Residential – Cool Roofs: have a thermal mass over the roof membrane, including green roofs weighing a minimum of 25 pounds per square foot or roof areas covered by solar photovoltaic panels and building integrated solar thermal panels;
- Residential – Reduce nonroof heat island for 50 percent of sidewalks, patios, driveways or other paved areas;
- One- and two-family dwelling units and townhouses with attached garages: install a dedicated 208/250-volt branch circuit for EV charging;
- Residential Bicycle Parking:
 - Multi-family/hotel/motel short-term parking: provide permanently anchored bicycle racks within 100 feet of visitor’s entrance for 5 percent of visitor motorized vehicle parking capacity (minimum one 2-bike capacity rack);
 - Multi-family buildings long-term parking: provide acceptable on-site bicycle parking for at least one bicycle per every two dwelling units; and/or
 - Hotel/motel long-term parking: provide one acceptable on-site bicycle parking space for every 25,000 square feet but not less than two spaces;
- Tier I:
 - Stricter energy efficiency requirements;

- Stricter water conservation requirements for specific fixtures;
 - minimum 65 percent reduction in construction waste with third-party verification, Minimum 10 percent recycled content for building materials;
 - Minimum 20 percent permeable paving;
 - Minimum 20 percent cement reduction;
 - Multi-family developments/hotels/motels: minimum 35 percent of total parking spaces shall be EV ready and for projects with 20 or more dwelling units/rooms a minimum of 10 percent of the total number of parking spaces shall be equipped with EV charging stations.
- Tier II:
 - Stricter energy efficiency requirements,
 - Stricter water conservation requirements for specific fixtures;
 - Minimum 75 percent reduction in construction waste with third-party verification,
 - Minimum 15 percent recycled content for building materials;
 - Minimum 30 percent permeable paving;
 - Minimum 25 percent cement reduction; and/or
 - Multi-family developments/hotels/motels: minimum 40 percent of total parking spaces shall be EV ready and for projects with 20 or more dwelling units/rooms, a minimum of 15 percent of the total number of parking spaces shall be equipped with EV charging stations.

Cap-and-Trade Program

As mentioned above, the Scoping Plan identifies a cap-and-trade program as one of the strategies the State will employ to reduce GHG emissions that cause climate change. The cap-and-trade program is implemented by CARB and “caps” GHG emissions from the industrial, utility, and transportation fuels sections, which account for roughly 85 percent of the State’s GHG emissions. The program works by establishing a hard cap on about 85 percent of total state-wide GHG emissions. The cap starts at expected business-as-usual emissions levels in 2012 and declines two to three percent per year. Originally with a planning horizon of 2020, the recent approval of AB 398 in July 2017 extended the program until 2030. Fewer and fewer GHG emissions allowances are available each year, requiring covered sources to reduce their emissions or pay increasingly higher prices for those allowances. The cap level is set in 2030 to ensure California complies with SB 32’s emission reduction target of 40 percent below 1990 GHG emission levels.

The scope of GHG emission sources subject to cap-and-trade in the first compliance period (2013-2014) includes all electricity generated and imported into California (the first deliverer of electricity into the State in the “capped” entity and that one that will have to purchase allowances as appropriate), and large industrial facilities emitting more than 25,000 MT CO_{2e} per year (e.g., oil refineries and cement manufacturers). The scope of GHG emission sources subjected to cap-and-trade during the second compliance period (2015-2017) expands to include distributors of transportation fuels (including gasoline and diesel), natural gas, and other fuels. The regulated entity will be the fuel provider that distributes the fuel upstream (not the gas station). In total, the cap-and-trade program is expected to include roughly 350 large businesses, representing about 600 facilities. Individuals and small businesses will not be regulated.

Under the program, companies do not have individual or facility-specific reduction requirements. Rather, all companies covered by the regulation are required to turn in allowances¹³ in an amount equal to their

¹³ “Allowance” means a limited tradable authorization to emit up to one metric ton of carbon dioxide equivalent.

total GHG emissions during each phase of the program. The program gives companies the flexibility to either trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more will have to turn in more allowances. Companies that can cut their emissions will have to turn in fewer allowances. Furthermore, as the cap declines, total GHG emissions are reduced. On October 20, 2011, CARB's Board adopted the final cap-and-trade regulation. The cap-and-trade program began on January 1, 2012, with an enforceable compliance obligation beginning with the 2013 GHG emissions (CARB 2018b). In July 2017, the State Legislature passed legislation to extend the cap-and-trade program to 2030 (Office of the Governor 2017).

Sustainable Communities and Climate Protection Act (Senate Bill 375)

The Sustainable Communities and Climate Protection Act of 2008, or SB 375 (Chapter 728, Statutes of 2008), establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions, was adopted by the State on September 30, 2008. SB 375 finds that the "transportation sector is the single largest contributor of greenhouse gases of any sector."¹⁴ Under SB 375, CARB is required, in consultation with the Metropolitan Planning Organizations, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. SCAG is the Metropolitan Planning Organization in which the City of Los Angeles is located in. CARB set targets for 2020 and 2035 for each of the 18 metropolitan planning organization regions in 2010, and updated them in 2018.¹⁵ In March 2018, the CARB updated the SB 375 targets for the SCAG region to require an 8 percent reduction by 2020 and a 19 percent reduction by 2035 in per capita passenger vehicle GHG emissions.¹⁶ As discussed further below, SCAG has adopted an updated Regional Transportation Plan / Sustainable Community Strategies (RTP/SCS) subsequent to the update of the emission targets. The 2020–2045 RTP/SCS is expected to reduce per capita transportation emissions by 19 percent by 2035, which is consistent with SB 375 compliance with respect to meeting the State's GHG emission reduction goals.¹⁷

Under SB 375, the target must be incorporated within that region's Regional Transportation Plan (RTP), which is used for long-term transportation planning, in a Sustainable Communities Strategy (SCS). Certain transportation planning and programming activities would then need to be consistent with the SCS; however, SB 375 expressly provides that the SCS does not regulate the use of land, and further provides that local land use plans and policies (e.g., general plans) are not required to be consistent with either the RTP or SCS.

The California Climate Crisis Act (Assembly Bill 1279)

AB 1279 was passed on September 16, 2022 and declares the State would achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045. In addition, achieve and maintain net negative greenhouse gas emissions and ensure that by 2045, statewide anthropogenic greenhouse gas emissions are reduced to at least 85% below the 1990 levels. The bill would require updates to the scoping plan (once every five years) to implement various policies and strategies that enable carbon dioxide removal solutions and carbon capture, utilization, and storage technologies.

¹⁴ State of California, Senate Bill No. 375, September 30, 2008.

¹⁵ CARB, Sustainable Communities & Climate Protection Program – About. <https://ww2.arb.ca.gov/ourwork/programs/sustainable-communities-climate-protection-program/about>. Accessed May 2022.

¹⁶ CARB, SB 375 Regional Greenhouse Gas Emissions Reduction Targets, <https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf>. Accessed May 2022.

¹⁷ SCAG, Final 2020–2045 RTP/SCS, Chapter 0: Making Connections, p. 5, May 7, 2020.

Clean Energy, Jobs, and Affordability Act of 2022 (Senate Bill 1020)

Adopted on September 16, 2022, SB 1020 creates clean electricity targets for eligible renewable energy resources and zero-carbon resources to supply 90 percent of retail sale electricity by 2035, 95 percent by 2040, 100 percent by 2045, and 100 percent of electricity procured to serve all state agencies by 2035. This bill shall not increase carbon emissions elsewhere in the western grid and shall not allow resource shuffling.

REGIONAL

South Coast Air Quality Management District (SCAQMD) Policies

SCAQMD adopted a “Policy on Global Warming and Stratospheric Ozone Depletion” on April 6, 1990. The policy commits the SCAQMD to consider global impacts in rulemaking and in drafting revisions to the AQMP. In March 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy.

SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds. SCAQMD proposed the use of a percent emission reduction target (e.g., 30 percent) to determine significance for commercial/residential projects that emit greater than 3,000 metric tons per year. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for stationary source/industrial projects where SCAQMD is the lead agency. However, SCAQMD has yet to adopt a GHG significance threshold for land use development or transportation projects and has formed a GHG CEQA Significance Threshold Working Group to further evaluate potential GHG significance thresholds.

The GHG CEQA Significance Threshold Working Group is tasked with providing guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. Members of the working group included government agencies implementing CEQA and representatives from various stakeholder groups that will provide input to the SCAQMD staff on developing CEQA GHG significance thresholds. The Working Group discussed multiple methodologies for determining project significance. These methodologies included categorical exemptions, consistency with regional GHG budgets in approved plans, a numerical threshold, performance standards, and emissions offsets. The GHG CEQA Significance Threshold Working Group has not convened since 2008.

Southern California Association of Governments (SCAG) – 2020-2045 RTP/SCS

SCAG functions as the Metropolitan Planning Organization (MPO) for six counties, including Los Angeles County, wherein the project site is located. As the designated MPO, SCAG is required by federal law to prepare and update a long-range regional transportation plan, keep up with CAA requirements, monitor system performance, and develop SCS to achieve GHG reduction targets set by the CARB.

On September 1, 2020, SCAG’s Regional Council adopted an updated Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) known as the 2020-2045 RTP/SCS or Connect SoCal.¹⁸ The 2020-2045 RTP/SCS is a long-range visioning plan that builds upon and expands land use and transportation strategies of the 2016-2040 RTP/SCS to increase mobility options and achieve a more sustainable growth pattern. The 2020-2045 RTP/SCS projects growth in employment, population, and households at the regional, county, city, town and neighborhood levels. These projections take into account economic and demographic trends, as well feedback from SCAG’s jurisdictions. The 2020-2045 RTP/SCS “Core Vision” centers on maintaining and better managing the transportation network for moving people

¹⁸ SCAG, 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments, Adopted September 3, 2020.

and goods, while expanding mobility choices by locating housing, jobs and transit closer together and increasing investment in transit and complete streets.¹⁹ The 2020-2045 RTP/SCS continues efforts to better align transportation investments and land use decisions to improve mobility and reduce GHGs by bringing housing, jobs and transit closer together. SCAG has determined that the 2020-2045 RTP/SCS would achieve the applicable GHG emissions reduction target for automobiles and light trucks of 19 percent per capita reduction by 2035, relative to 2005 levels, as established by CARB for the region.²⁰

LOCAL

GreenLA Climate Action Plan

The City of Los Angeles has issued guidance promoting sustainable development to reduce GHG emissions citywide in the form of a Climate Action Plan (CAP). The objective of GreenLA is to reduce GHG emissions 35 percent below 1990 levels by 2030 (Los Angeles 2007). GreenLA identifies goals and actions designed to make the City a leader in confronting global climate change. The measures would reduce emissions directly from municipal facilities and operations and create a framework to address citywide GHG emissions. GreenLA lists various focus areas in which to implement GHG reduction strategies. Focus areas include energy, water, transportation, land use, waste, port, airport, and ensuring that changes to the local climate are incorporated into planning and building decisions. City goals for each focus area are identified as follows:

Energy

- Increase the generation of renewable energy.
- Encourage the use of mass transit.
- Develop sustainable construction guidelines.
- Increase citywide energy efficiency; and
- Promote energy conservation.

Water

- Decrease per capita water use to reduce electricity demand associated with water pumping and treatment.

Transportation

- Power the city vehicle fleet with alternative fuels; and
- Promote alternative transportation (e.g., mass transit and rideshare).

Other Goals

- Create a more livable City through land use regulations.
- Increase recycling.
- Reduce emissions generated by activity associated with the Port of Los Angeles and regional airports.

¹⁹ SCAG, A Plan Summary for Connect SoCal, Adopted September 3, 2020.

²⁰ CARB, Executive Order G-20-239 Southern California Association of Governments' 2020 Sustainable Communities Strategy CARB Acceptance of GHG Quantification Determination, October 30, 2020.

- Create more city parks, promoting the environmental economic sector; and
- Adapt planning and building policies to incorporate climate change policy.

In order to provide detailed information on action items discussed in GreenLA, the City published an implementation document titled ClimateLA (Los Angeles 2008). ClimateLA presents the existing GHG inventory for the City, describes enforceable GHG reduction requirements, provides mechanisms to monitor and evaluate progress, and includes mechanisms that allow the plan to be revised in order to meet targets. By 2030, the plan aims to reduce GHG emissions by 35 percent from 1990 levels, which were estimated to be approximately 54.1 million metric tons.

Therefore, the City will need to lower annual GHG emissions to approximately 35.1 million metric tons per year by 2030. To achieve these reductions the City has developed strategies that focus on energy, water use, transportation, land use, waste, open space and greening, and economic factors. To reduce emissions from energy usage, ClimateLA proposes the following goals: increase the amount of renewable energy provided by the Los Angeles Department of Water and Power (LADWP); present a comprehensive set of green building policies to guide and support private sector development; reduce energy consumed by City facilities and utilize solar heating where applicable; and help citizens to use less energy. With regard to waste, ClimateLA sets the goal of reducing or recycling 70 percent of trash by 2015. With regard to open space and greening, ClimateLA includes the following goals: create 35 new parks; revitalize the Los Angeles River to create open space opportunities; plant one million trees throughout the City; identify opportunities to “daylight” streams; identify promising locations for stormwater infiltration to recharge groundwater aquifers; and collaborate with schools to create more parks in neighborhoods.

Sustainable City pLAN (pLAN)

In addition to GreenLA, Mayor Eric Garcetti released Los Angeles’s first-ever pLAN on April 8, 2015 (Los Angeles 2015). The pLAN is a roadmap to achieving short-term results and sets a path to strengthen and transform the City in future decades. Recognizing the risks posed by climate change, Mayor Garcetti set time-bound outcomes on climate action, most notably to reduce GHG emissions by 45percent by 2025, 60 percent by 2035, and 80 percent by 2050, all against a 1990 baseline. Through the completion and verification of the GHG inventory update, the City concluded that:

- The City accounted for approximately 36.2 million metric tons of CO₂e in 1990.
- The City's most recent inventory shows that emissions fell to 29 million metric tons of CO₂e in 2013: and
- Los Angeles’ emissions are 20 percent below the 1990 baseline as of 2013, putting Los Angeles nearly halfway to the 2025 pLAN reduction target of 45 percent. In addition, the 20 percent reduction exceeds the 15 percent statewide goal listed in the First Update to the AB 32 Scoping Plan.

L.A.’s Green New Deal

The City of Los Angeles addressed the issue of global climate change in Green LA, An Action Plan to Lead the Nation in Fighting Global Warming (“LA Green Plan/ClimateLA”) in 2007. This document outlines the goals and actions the City has established to reduce the generation and emission of GHGs from both public and private activities.

In April 2019, the Green New Deal (Sustainable City Plan 2019), was released, consisting of a program of actions designed to create sustainability-based performance targets through 2050 designed to advance

economic, environmental, and equity objectives.²¹ L.A.'s Green New Deal is the first four-year update to the City's first Sustainable City pLAn that was released in 2015.²² It augments, expands, and elaborates L.A.'s vision for a sustainable future and tackles the climate emergency with accelerated targets and new aggressive goals.

While not a plan adopted solely to reduce GHG emissions, within the Green New Deal, "Climate Mitigation," or reduction of GHG is one of eight explicit benefits that help define its strategies and goals. These include reducing GHG emissions through near-term outcomes:

- Reduce potable water use per capita by 22.5 percent by 2025; 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050.
- Reduce building energy use per square feet for all building types 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050 (from a baseline of 68 mBTU/sq.ft in 2015).
- All new buildings will be net zero carbon by 2030 and 100 percent of buildings will be net zero carbon by 2050.
- Increase cumulative new housing unit construction to 150,000 by 2025; and 275,000 units by 2035.
- Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035.
- Increase the percentage of all trips made by walking, biking, micro-mobility/matched rides, or transit to at least 35 percent by 2025, 50 percent by 2035, and maintain at least 50 percent by 2050.
- Reduce VMT per capita by at least 13 percent by 2025; 39 percent by 2035; and 45 percent by 2050.
- Increase the percentage of electric and zero emission vehicles in the city to 25 percent by 2025; 80 percent by 2035; and 100 percent by 2050.
- Increase landfill diversion rate to 90 percent by 2025; 95 percent by 2035 and 100 percent by 2050.
- Reduce municipal solid waste generation per capita by at least 15 percent by 2030, including phasing out single-use plastics by 2028 (from a baseline of 17.85 lbs. of waste generated per capita per day in 2011).
- Eliminate organic waste going to landfill by 2028.
- Reduce urban/rural temperature differential by at least 1.7 degrees by 2025; and 3 degrees by 2035.

Ensure the proportion of Angelenos living within 1/2 mile of a park or open space is at least 65 percent by 2025; 75 percent by 2035; and 100 percent by 2050.

Green Building Program

The purpose of the City's 'Green Building Program is to reduce the use of natural resources, create healthier living environments and minimize the negative impacts of development on local, regional, and global ecosystems. The program consists of a Standard of Sustainability and Standard of Sustainable Excellence. The program addresses five key areas:

- Site: location, site planning, landscaping, storm water management, construction and demolition recycling.

²¹ City of Los Angeles. LA's Green New Deal, 2019.

²² City of Los Angeles, Sustainable City pLAn, April 2015.

- Water Efficiency: efficient fixtures, wastewater reuse, and efficient irrigation.
- Energy & Atmosphere: energy efficiency, and clean/renewable energy.
- Materials & Resources: materials reuse, efficient building systems, and use of recycled and rapidly renewable materials; and
- Indoor Environmental Quality: improved indoor air quality, increased natural lighting, and improved thermal comfort/control.

The Standard of Sustainability establishes a requirement for non-residential projects at or above 50,000 square feet of floor area, high-rise residential (above six stories) projects at or above 50,000 square feet of floor area, or low-rise residential (six stories or less) of 50 or more dwelling units within buildings of at least 50,000 square feet of floor area to meet the intent of the U.S. Green Building Council's 'Leadership in Energy and Environmental Design (LEED) Certified level. The Standard also applies to existing buildings that meet the minimum thresholds described above when redevelopment construction costs exceed a valuation of 50 percent of the existing building's replacement cost.

The voluntary Standard of Sustainable Excellence establishes an incentive program for projects that register with the LEED program, contract with a certified LEED professional, and can demonstrate how the project will achieve LEED certification at a Silver or higher level. These projects are eligible for priority processing services within the Department of City Planning and expedited services within the Bureau of Engineering. The Department of Building and Safety provides priority plan check processing and Priority Service Planning is offered by the LADWP.

Los Angeles Green Building Code

The City has adopted the Green Building Code to reduce the City's 'Carbon footprint. The Green Building Code is applicable to new buildings and alterations with building valuations over \$200,000 (residential and non-residential). The Green Building Code is based on the 2013 California Green Building Standards Code, commonly known as CalGreen that was developed and mandated by the state to attain consistency among the various jurisdictions within the state; reduce the building's 'energy and water use; and reduce waste (see discussion of CalGreen, above).

Existing Buildings Energy and Water Efficiency (EBEWE) Ordinance

Effective in 2017, the EBEWE Ordinance makes public the annual energy and water consumption of all buildings over 20,000 square feet in the City. Beginning in 2017, privately owned buildings that are 20,000 square feet or more and buildings owned by the City that are 7,500 or more are required to be benchmarked, and owners must disclose annual energy and water consumption. Privately owned buildings that are 100,000 square feet or more must begin benchmarking reporting by December 1, 2017, and smaller buildings must begin reporting over the following two years. This Ordinance is designed to facilitate the comparison of buildings' energy and water consumption, and reduce building operating costs, leading to reduced GHG emissions.

Building Decarbonization Ordinance

Effective in January 23, 2023, the Building Decarbonization Ordinance is an ordinance amending Divisions 2, 4, and 5 of Article 9 of Chapter IX of the Los Angeles Municipal Code (LAMC) to require all new buildings to be all-electric buildings. This is a critical first step to take action to reduce carbon emissions in new building constructions by ensuring newly constructed buildings rely on electricity than on fossil fuels. Exceptions to the ordinance apply to

- 1) Projects with approval from the Department of Building and Safety with paid application fees prior to April 1, 2023.
- 2) Cooking equipment contained within kitchens located in a public use area, as defined in the California Building Code Chapter 2, such as restaurants, commissaries, and cafeterias provided the electrical infrastructure is installed in accordance with Section 99.05.106.14.1.
- 3) Gas-powered emergency life-safety systems, including emergency backup.
- 4) Gas-powered process equipment in I-2, F and L Occupancy Groups provided the electrical infrastructure is installed in accordance with Section 99.05.106.14.1.

City of Los Angeles General Plan

The City of Los Angeles does not have a General Plan Element specific to Global Warming and GHG emissions. However, the following goals and objectives from the Air Quality Element of the City of Los Angeles General Plan would also serve to reduce GHG emissions:

Goal 2 Less reliance on single-occupant vehicles with fewer commute and non-work trips.

Objective 2.1 Reduce work trips as a step towards attaining trip reduction objectives necessary to achieve regional air quality goals.

Objective 2.2 Increase vehicle occupancy for non-work trips by creating disincentives for single passenger vehicles, and incentives for high occupancy vehicles.

Goal 4 Minimal impact of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.

Objective 4.2 Reduce vehicle trips and vehicle miles traveled associated with land use patterns.

Goal 5 Energy Efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels, and the implementation of conservation measures including passive methods such as site orientation and tree planting.

***Objective 5.1* Increase energy efficiency of City facilities and private developments. Mobility Plan 2035**

Mobility Plan 2035, updated in September 2016, serves as the Mobility Element of the General Plan. Mobility Plan 2035 establishes new street designations, classifies each of the City's arterial streets and incorporates a "complete street" policy framework (i.e., the idea that transportation facilities should be designed for all types of users, including pedestrians, cyclists, and trucks, as well as passenger vehicles), thus providing a foundation for future policies and principles promoting residents' interaction with their streets. Discussed in detail in Section 4.10, *Land Use and Planning*, Mobility Plan 2035 also promotes equitable land use decisions that result in fewer vehicle trips by providing greater proximity and access to jobs, destinations, and other neighborhood services. The Mobility Element sets a goal to reduce VMT 20% by plan horizon.

City of Los Angeles Solid Waste Programs and Ordinances

The recycling of solid waste materials also contributes to reduced energy consumption. Specifically, when products are manufactured using recycled materials, the amount of energy that would have otherwise been consumed to extract and process virgin source materials is reduced as well as disposal energy averted. In 1989, California enacted AB 939, the California Integrated Waste Management Act, which establishes a

hierarchy for waste management practices such as source reduction, recycling, and environmentally safe land disposal.

The City has developed and is in the process of implementing the Solid Waste Integrated Resources Plan, also referred to as the Zero Waste Plan, whose goal is to lead the City towards being a “zero waste” City by 2030. These waste reduction plans, policies, and regulations, along with Mayoral and City Council directives, have increased the level of waste diversion for the City to 76 percent as of 2013. The RENEW LA Plan aims to achieve a zero waste goal through reducing, reusing, recycling, or converting the resources not going to disposal and achieving a diversion rate of 90 percent or more by 2025. The City has also approved the Waste Hauler Permit Program (Ordinance No. 181,519, LAMC Chapter VI, Article 6, Section 66.32-66.32.5), which requires private waste haulers to obtain AB 939 Compliance Permits to transport construction and demolition waste to City-certified construction and demolition waste processors. The City’s Exclusive Franchise System Ordinance (Ordinance No. 182,986), among other requirements, sets a maximum annual disposal level and diversion requirements for franchised waste haulers to promote waste diversion from landfills and support the City’s zero waste goals. These programs reduce the number of trips to haul solid waste and therefore reduce the number of petroleum-based fuels and energy used to process solid waste.

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines, impacts related to GHG emissions from the project would be significant if the project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

To answer the Appendix G questions above for the Project, the City of Los Angeles will rely on the following project-specific threshold of significance to assess the environmental impacts associated with GHG emissions for the Proposed Project:

- Consistency with AB 32, SB 32, and AB 1279 (through demonstration of conformance with the 2022 Scoping Plan), the Sustainable City pLAn, GreenLA, and relevant components of the City’s General Plan.

The basis for a project specific threshold is provided as follows. The City has not adopted specific GHG significance thresholds. SCAQMD has not adopted a GHG significance threshold for land use development projects, although it has adopted significance thresholds for industrial-type projects for which it is the lead agency (SCAQMD 2010). Those industrial thresholds are not relevant to the Proposed Project, as the only projects for which the SCAQMD serves as the lead agency are those involving the adoption of air quality rules or regulations, or projects that have not gone through CEQA environmental review via another lead agency. No such projects would occur under implementation of the Proposed Project. In the absence of adopted thresholds for land use development projects based on SCAQMD guidance, the City has the discretion to use a significance threshold relevant to the Proposed Project.

On November 30, 2015, the California Supreme Court issued an opinion on GHG significance thresholds for CEQA in the case *Center for Biological Diversity et al. vs. California Department of Fish and Wildlife*.

The following discussion is paraphrased from that case, which assessed the use of GHG significance thresholds.

The Court stated that California air pollution control officials and air quality districts have made several proposals for numerical thresholds. Multiple agencies' efforts at framing GHG significance issues have not yet coalesced into any widely accepted set of numerical thresholds but have produced a certain level of consensus on the value of AB 32 consistency as a criterion. Neither AB 32 nor that CARB Scoping Plan set out a mandate or method for CEQA analysis of GHG emissions from a proposed project. A 2007 CEQA amendment, however, required the preparation, adoption, and periodic update of guidelines for mitigation of GHG impacts. The resulting state direction was that a lead agency should attempt to describe, calculate or estimate the amount of GHG emissions a project will emit, but recognized that agencies have discretion in how to do so. It goes on to provide that when assessing the significance of GHG emissions, the agency should consider these factors among others: (1) the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The Court also acknowledged that the scope of global climate change and the fact that GHGs, once released into the atmosphere, are not contained in the local area of their emission means that the impacts to be evaluated are global rather than local. For many air pollutants, the significance of their environmental impact may depend greatly on where they are emitted; for GHG, it does not. For projects that are designed to accommodate long-term growth in California's population and economic activity in a sustainable manner, such as the Proposed Project, this fact gives rise to an argument that a certain amount of GHG emissions is as inevitable as population growth. Under this view, a significance criterion framed in terms of efficiency and conservation in land use (as compared to a business-as-usual [BAU] pattern of growth) is superior to a simple numerical threshold because CEQA is not intended as a population control measure.

This consideration favors consistency with AB 32's statewide goals as a permissible significance criterion for project GHG emissions. Meeting statewide reduction goals does not preclude all new development. Rather, the Scoping Plan, the State's roadmap for meeting AB 32's target, assumes continued growth and depends on increased efficiency and conservation in land use and transportation from all Californians. To the extent a project incorporates efficiency and conservation measures sufficient to contribute its portion of the overall GHG reductions necessary for the entire State, one can reasonably argue that its impact is not cumulatively considerable, because it would be helping to solve the cumulative problem of GHG emissions as envisioned by California law. Given the reality of growth, some GHG emissions from new housing and commercial developments are inevitable. The critical CEQA question is the cumulative significance of a project's GHG emissions and, as discussed previously, from a climate change point of view it does not matter where in the State those emissions are produced. Under these circumstances, evaluating the significance of a project's GHG emissions with respect to their effect on the State's efforts to meet its long-term goals is a reasonable threshold.

The Court found there are potential options for analyzing cumulative significance of a project's GHG emissions, including:

- Business-as-usual (BAU) Model. BAU comparison based on the Scoping Plan methodology if supported by substantial evidence that the metric used supports what level of reduction from

business as usual a new land use development at the proposed location must contribute to comply with state goals.

- Consistency with AB 32's goal in whole or in part by looking at compliance with regulatory programs designed to reduce GHG; provided the project complies with or exceeds the regulations that were adopted by CARB, or state agencies to comply with Scoping Plan; and provided, the significance analysis only relates to impacts within the area governed by the regulation – e.g., reliance on Title 24 energy efficiency rules that are intended to reduce GHG from building would not address GHG impacts from transportation. And/or showing consistency with local GHG reduction plans, (e.g., climate action plan), to provide a basis for the tiering or streamlining of project-level CEQA analysis, including as consistent with CEQA Guidelines Section 15183.3.
- Relying on numerical thresholds for significance for GHG.

As discussed in the Regulatory Setting above, Section 15064.4 was amended in 2019 to incorporate the holding in Center for Biological Diversity case as well as others. That section now directs lead agencies as follows:

Section 15064.4. Determining the Significance of Impacts from Greenhouse Gas Emissions.

(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency shall make a good- faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

- (1) Quantify greenhouse gas emissions resulting from a project; and/or
- (2) Rely on a qualitative analysis or performance based standards.

(b) In determining the significance of a project's greenhouse gas emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. A lead agency should consider the following factors, among others, when determining the significance of impacts from greenhouse gas emissions on the environment:

- (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
- (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions (see, e.g., section 15183.5(b)). Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's 'incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the

project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

(c) A lead agency may use a model or methodology to estimate greenhouse gas emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use.

Based on the above legal standards, the City finds analyzing the Project's GHG emissions through consistency with the state's laws and programs to address climate change, including AB 32, SB 32, SB 375, 2022 Scoping Plan, regional plans to address climate change consistent with state laws and plans, including the 2020-2045 SCS/RTP, and local plans, ordinances and policies to address climate change, including GreenLA, Sustainable City pLAn, and L.A.'s Green New Deal is the appropriate threshold. Calculating and analyzing per-capita GHG emissions, while not a threshold of significance, is a useful indicator as to whether regional GHG impacts are consistent with the 2022 Scoping Plan, AB 32 and SB 32. Per-capita GHG emissions reflects on average GHG emissions taking into account population density. The 2020-2045 RTP/SCS indicates that the SCAG region will achieve a 19 percent reduction in per-capita passenger vehicle GHG emissions by 2035 relative to 2005 levels. With that said, there is no adopted City or CAP per-capita GHG emission target or other numerical criteria adopted as a threshold of significance that would be applicable to the Proposed Project. Using consistency with AB 32's statewide goal for GHG reduction, among the other regulations, standards and policies, rather than a numerical threshold, as a significance criterion is also consistent with the broad guidance provided by Section 15064.4 of the CEQA Guidelines. Section 15064.4, to reflect that there is no iron-clad definition of significance. Section 15064.4 was not intended to restrict agency discretion in choosing a method for assessing GHG emissions, but rather to assist lead agencies in investigating and disclosing all that they reasonably can, regarding a project's GHG emissions impact.

METHODOLOGY

Calculating GHG Emission

GHG emissions result from both direct and indirect sources. Direct emissions include emissions from fuel combustion in vehicles and natural gas combustion from stationary sources. Indirect sources include off-site emissions occurring as a result of electricity and water consumption and solid waste. In addition, construction activities would result in direct and indirect emissions.

As GHGs are evaluated on a regional basis, the following analysis addresses the Project as it pertains to the region. Mobile source emissions were estimated using VMT data presented in Section 4.15, *Transportation and Traffic*.

Area source emissions related to existing and future demand for water, wastewater treatment and conveyance, solid waste disposal, and energy were obtained using the California Emissions Estimator Model (CalEEMod). GHG emissions result from the energy use to supply, distribute, and treat water and wastewater, as well as from solid waste disposal by landfilling, recycling, or composting as methane and CO₂ gas is emitted in the process.

The energy use estimates generated in the 2022.1v CalEEMod utilizes the 2019 Building Energy Efficiency Standards (Title 24). This is a conservative assumption since the energy use estimates do not account for potential energy efficiency measures required by subsequent Title 24 updates in 2022, 2025, and 2028. In addition, energy emissions estimates take into account California's Renewable Portfolio Standards (RPS)

requiring retail sellers of electric services to increase procurement from eligible renewable energy resources to 60 percent by 2030 per SB 100. The analysis uses a carbon intensity factor for Los Angeles Department of Water and Power (LADWP) from reporting year 2019 (California Air Pollution Control Officer Association 2022)) and does not take into account utility compliance with RPS standards over time. As of 2010, LADWP achieved its RPS goal of 20 percent of retail sales generated by carbon neutral sources and in 2017 LADWP achieved its RPS goal of 25 percent (LADWP 2013; 2017).

It is anticipated that future conservation (as a result of increased pressure to conserve and increased prices) will result in more efficient energy use by all sectors resulting in reduced energy demand. As energy providers and water suppliers respond to SB 32 and the 2022 Scoping Plan, emission rates associated with power and water delivery are anticipated to decrease. It is anticipated that the state and region will comply with SB 32, but at the present time sector-specific improvements, beyond those associated with RPS identified above, cannot be quantified for this analysis.

GHG emissions would also be generated by construction activity. No specific development projects have been proposed as part of the Proposed Project, and an annualized quantification of construction emissions would be speculative. In addition, construction-related GHG emissions would be a negligible percentage of total regional emissions when considering the emissions generated by mobile sources. As stated by the 2016-2040 SCAG RTP/SCS Programmatic Environmental Impact Report (PEIR), construction related emissions presented for 2040 account for less than 0.3 percent of annual mobile source emissions (SCAG 2020). A similar percentage is expected for construction emissions related to the Proposed Project. Construction emissions are discussed below based on this assumption and amortized over 30 years in accordance with SCAQMD recommendations.

Consistency Evaluation With 2022 Scoping Plan Update

Appendix D, Local Actions, of the 2022 Scoping Plan Update includes “recommendations intended to build momentum for local government actions that align with the State’s climate goals, with a focus on local GHG reduction strategies (commonly referred to as climate action planning) and approval of new land use development projects, including through environmental review under the California Environmental Quality Act (CEQA).” (Page 4 of Appendix D.)

The State encourages local governments to adopt a CEQA-qualified Climate Action Plan (CAP) addressing the three priority areas (transportation electrification, VMT reduction, and building decarbonization). However, the State recognizes that almost 50% of jurisdictions do not have an adopted CAP, among other reasons because they are costly, requiring technical expertise, staffing, funding. Additionally, CAPs need to be monitored and updated as State targets change and new data is available. Jurisdictions that wish to take meaningful climate action (such as preparing a non-CEQA-qualified CAP or as individual measures) aligned with the State’s climate goals in the absence of a CEQA-qualified CAP are advised to look to the three priority areas when developing local climate plans, measures, policies, and actions: (transportation electrification, VMT reduction, and building decarbonization). “By prioritizing climate action in these three priority areas, local governments can address the largest sources of GHGs within their jurisdiction.” (Page 9 of Appendix D.)

The State also recognizes in Appendix D, Local Actions, of the Scoping Plan that each community or local area has distinctive situations and local jurisdictions must balance the urgent need for housing while demonstrating that a Project is in alignment with the State’s Climate Goals. The State calls for the climate crisis and the housing crisis to be confronted simultaneously. Jurisdictions should avoid creating targets that are impossible to meet as a basis to determine significance. Ultimately, targets that make it more difficult to achieve statewide goals by prohibiting or complicating projects that are needed to support the State’s climate goals, like infill development, low-income housing or solar arrays, are not consistent with the State’s goals. The State also recognizes the lead agencies’ discretion to develop evidence-based

approaches for determining whether a project would have a potentially significant impact on GHG emissions.

PROJECT IMPACTS

Threshold 4.7-1	Whether the Project is consistent with SB 32, SB 375 (through demonstration of conformance with the 2016–2040 RTP/SCS), the 2022 Scoping Plan, the Sustainable City pLAN and GreenLA?
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Impact 4.7-1 **Proposed Project:** Implementation of the Project would be consistent with the applicable GHG emission reduction goals, policies, and objectives found in the City’s General Plan, SCAG’s 2020-2045 RTP/SCS, the 2022 Scoping Plan, and regional and local plans. This impact would be *less than significant*.

Project Impacts

GHG Emissions Generation

Reasonably anticipated development from the Proposed Project would generate GHG emissions through individual project construction and operation during the twenty plus year planning horizon of the Proposed Project. GHG emissions would specifically arise from direct sources such as motor vehicles, natural gas consumption, solid waste handling/treatment, and indirect sources such as electricity generation.

Table 4.7-4 compares current annual GHG emissions for the Project Area to 2040 emissions without and with the Project. Total emissions and per capita emissions are shown. The 2040 without Proposed Project was included for informational purposes and was not relied on for impact analysis or conclusions. The emissions estimates include some known emission control requirements (such as Pavley regulations and RPS) but does not take into account anticipated laws (such as increasingly stringent Title 24 standards, refinery regulations, and the Cap-and-Trade program) that will further reduce future GHG emissions.

Total annual GHG emissions generated in the Project Area, based on the 2040 reasonably anticipated development under the Proposed Project, would be greater than existing emissions by approximately 123,821 MT CO_{2e}. This represents an increase of about 147 percent as compared to existing conditions, whereas the population of the Project Area is projected to grow more than ninefold and the number of Project Area jobs is projected to grow by about 52 percent. The Proposed Project would increase emissions by approximately 9,821 MT CO_{2e}, or approximately five percent as compared to future (2040) without Proposed Project scenario. In addition, the Proposed Project would increase the population of the Project Area by 58 percent and would decrease the number of Project Area jobs by 20 percent as compared to future (2040) without Proposed Project. Consequently, despite the overall increase in GHG emissions generated in the Project Area, per capita GHG emissions would decrease. As illustrated in **Table 4.7-4**, per capita GHG emissions are estimated at 14 MT CO_{2e} in 2021, 5.4 MT CO_{2e} in future (2040) without Proposed Project, and 3.6 MT CO_{2e} in future (2040) with implementation of the Proposed Project.

The existing to future (2040) with Proposed Project change represents a 74 percent drop in per capita emissions, which can be attributed to a combination of state-mandated GHG emission reduction strategies and the fact that implementation of the Proposed Project would lower per capita VMT due to the location of jobs and housing in close proximity to each other and creation of substantial opportunities to use such transportation modes as transit, bicycling, and walking. In addition, the Proposed Project would comply with each iteration of the Title 24 requirements, which would increase the amount of electric vehicle spaces and solar panels. On December 19, 2022, the City of Los Angeles published Ordinance 187714 in Article 9 of Chapter IX of the Los Angeles Municipal Code would require all new buildings to be constructed all-electric. By guiding development near transit corridors and encouraging creative mixed land uses, the

Proposed Project creates an efficient strategy for reasonably foreseeable development in the region, consistent with AB 32, SB 32 and the 2020-2045 RTP/SCS. This reduction in per capita emissions would also contribute to meeting the statewide 2050 goal of 2 MT CO₂e per capita. The per capita reduction in GHG emissions demonstrates compliance with regional, state, and federal efforts to reduce climate impacts from development and transportation. Finally, it should be recognized that although total GHG emissions in the Project Area would incrementally increase due to the relatively large amount of growth anticipated, the growth projection for the Proposed Project is within the overall growth projection for the City. Thus, the population growth and associated GHG emissions associated with implementation of the Proposed Project would not add to overall citywide emissions, but rather would concentrate development in the Project Area rather than in other parts of the City. Because of the proximity of jobs and housing and enhanced opportunities for transit use in the Project Area, it is anticipated that focusing growth in the Project Area would reduce citywide emissions as compared to accommodating more of the projected growth in other parts of the City.

TABLE 4.7-4 PROJECT AREA GREENHOUSE GAS EMISSIONS						
	Annual GHG Emissions (MT CO₂e)					
	Existing (2021)		2040 Without Project		2040 With Project	
Source Type	Total	Per Capita²	Total	Per Capita²	Total	Per Capita²
Transportation ¹	44,666	7.4	86,529	2.4	101,422	1.8
Area	576	0.1	4,801	0.1	4,873	0.1
Energy	33,081	5.5	90,283	2.5	85,625	1.5
Waste	2,435	0.4	7,674	0.2	8,463	0.1
Water	3,384	0.6	8,850	0.2	7,574	0.1
Construction Emissions ³	4	<0.1	8.7	<0.1	10.1	<0.1
Total	84,146	14.0	198,146	5.4	207,967	3.6

NOTES: ¹Transportation emissions are based on GHG emission rates from EMFAC2017 that include implementation of the Pavley regulations. All other values were identified for the associated source activity as calculated by CalEEMod Version 2020.4.0

² Per capita values equal emissions divided by population estimates from Section 4.12, *Population and Housing*.

³ Construction related emissions are estimated at 0.3 percent of annual mobile source emissions amortized over 30 years (SCAG 2016).

Regional Perspective

To assess future GHG emission reductions resulting from a development project, the future condition is often compared to a BAU condition – typically the proposed development without the various GHG reduction measures. For a Specific Plan project, BAU is much more difficult to determine and would be entirely speculative to quantify. While the future conditions with the existing community plan identifies what is reasonably foreseeable to occur in the Project Area if the Proposed Project were not to proceed, it is not a complete picture of BAU for the region. The Proposed Project is a planned response to forecast growth, so if growth does not occur in the Project Area, it could occur elsewhere in the City or SCAG region. The Proposed Project combines sustainable strategies (e.g., proximity to transit, mixed-use, increased density) to respond to state, regional and local policies aimed at reducing GHG emissions. If development were to occur elsewhere in a less sustainable fashion (BAU), regional emissions would be greater. However, for land use plans such as the Proposed Project, full quantification of BAU is not possible because, at this scale, it is not possible to anticipate where growth would go and how different it would be as compared to the project in terms of proximity to transit, mix of uses and density. Therefore, a comparison of the Proposed Project's emissions in the future to emissions under BAU is not possible.

In consideration of the objectives of SB 375 and the goals of the 2020–2045 RTP/SCS, per-capita CO₂ emissions from passenger and light duty vehicles were analyzed. By integrating the Forecasted

Development Pattern with a suite of financially constrained transportation investments, the 2020–2045 RTP/SCS can reach its regional per-capita GHG emissions reduction goal from passenger and light duty vehicles by 19 percent relative to 2005 levels by 2035. The 2016–2040 RTP/SCS determined that the 2005 per-capita CO₂ emissions from passenger and light duty vehicles within the SCAG region were 23.8 pounds per day.

Table 4.7-5 presents the forecast population, total Project Area daily CO₂ emissions from passenger and light-duty vehicles, and per-capita CO₂ emissions within the Project Area under existing conditions (2021), future (2040) without Proposed Project, and the future (2040) with Proposed Project.

TABLE 4.7-5 PROJECT AREA SB 375 PASSENGER VEHICLE PER-CAPITA CO₂ EMISSIONS			
	Existing Conditions (2021)	2040 Without Project	2040 With Project
Resident Population	6,027	36,021	56,501
Daily CO ₂ Emissions (Pounds)	278,961	538,389	630,992
Per Capita Emissions (Pounds)	46.3	14.9	11.2
Comparison to 2005 SCAG Regional Per Capita Emissions Level (Percent Increase or Decrease)	95%	-37%	-53%
NOTES: Transportation emissions are based on GHG emission rates for passenger and light duty vehicles from EMFAC2017 and include implementation of the Pavley regulations.			
¹ Per capita value equal emission divided by population estimates from Section 4.12, <i>Population and Housing</i> .			

As shown in **Table 4.7-5**, implementation of the future (2040) with Proposed Project would reduce per-capita CO₂ emissions from passenger and light duty vehicles by approximately 35.1 pounds per day relative to Existing Conditions. Under the Proposed Project, per-capita CO₂ emissions would be reduced by approximately 53 percent relative to the 2005 SCAG Regional baseline levels examined under SB 375. The 53 percent reduction by 2040 as compared to 2005 levels resulting from the Proposed Project exceeds the 19 percent reduction target of the 2020–2045 RTP/SCS by 2035. Therefore, the Proposed Project is consistent with SB 375.

Based on the plan-level analysis, the Project would decrease per-capita emissions in the Project Area compared to existing conditions and, therefore, considered in isolation, would contribute to reducing emissions in California below existing emissions and would contribute to AB 32 and SB 32 GHG reduction goals. The Proposed Project is not occurring in isolation; it is part of a regional strategy (contained in the 2020–2045 RTP/SCS) to direct growth to urban areas in order to achieve the following:

- Undertake modern, efficient construction techniques that result in using less energy and less water as compared to less dense development.
- Create a mix of uses that encourages pedestrian and bicycle activity, reducing vehicle trips; and
- Develop areas in close proximity to transit in order to reduce vehicular trips.

The Proposed Project would also be consistent with the City’s Sustainable City pLAN and Green New Deal by accommodating growth while providing transportation options. This strategy would result in lower per capita emissions than less dense growth and would contribute to the City reaching the 2025 Sustainable City pLAN reduction target of 45 percent.

Finally, it should be recognized that although total GHG emissions in the Project Area would incrementally increase due to the relatively large amount of growth anticipated in this area of the City, the growth projection for the Proposed Project is within the overall growth projection for the City. Thus, the population

growth and associated GHG emissions associated with implementation of the Proposed Project would not add to overall citywide emissions but would concentrate development in the Project Area rather than in other parts of the City. Because of the proximity of jobs and housing and enhanced opportunities for transit use in the Proposed Project, it is anticipated that focusing growth in the Project Area would reduce citywide emissions as compared to accommodating more of the projected growth in other parts of the City.

Consistency with State and Regional Plans, Policies, and Regulations

Consistency with AB 32, SB 32, and AB 1279 and 2022 Scoping Plan

The Proposed Project is consistent with the goals of AB 32, SB 32, AB 1279, and the associated CARB Scoping Plans, which call for strategies to reduce Statewide GHG emissions. As discussed previously, jurisdictions that want to take meaningful climate action aligned with the State's climate goals should look to the following three priority areas:

- transportation electrification,
- VMT reduction, and
- building decarbonization.

To assist local jurisdictions, the 2022 Scoping Plan Update presents a non-exhaustive list of impactful GHG reduction strategies that can be implemented by local governments within the three priority areas (Priority GHG Reduction Strategies for Local Government Climate Action Priority Areas).

As there are currently no specific development projects associated with the Proposed Project, the following discussion generally illustrates how the City will ensure GHG emissions from these priority areas are reduced to the maximum extent feasible.

Transportation Electrification. The priority GHG reduction strategies for local government climate action related to transportation electrification are discussed below and would support the Scoping Plan action to have 100 percent of all new passenger vehicles to be zero-emission by 2035 (see Table 2-1 of the Scoping Plan).

- *Convert local government fleets to zero-emission vehicles (ZEV)*

The CARB approved the Advanced Clean Cars II rule which codifies Executive Order N-79-20 and requires 100 percent of new cars and light trucks sold in California be zero-emission vehicles by 2035. The State has also adopted AB 2127, which requires the CEC to analyze and examine charging needs to support California's EVs in 2030. This report would help decision-makers allocate resources to install new EV chargers where they are needed most.

The City of LA Green New Deal (Sustainable City pLAn 2019) identifies a number of measures to reduce VMT and associated GHG emissions. Such measures that would support the local reduction strategy include converting all city fleet vehicles to zero emission where technically feasible by 2028. Starting in 2021, all vehicle procurement followed a "zero emission first" policy for City fleets. The Green New Deal also establishes a target to increase the percentage of zero emission vehicles to 25 percent by 2025, 80 percent by 2035 and 100 percent by 2050. In order to achieve this goal, the City would build 20 Fast Charging Plazas throughout the City. The City would also install 28,000 publicly available chargers by 2028 to encourage adoption of ZEVs.

The City's goals of converting the municipal fleet to zero emissions and installation of EV chargers throughout the City would be consistent with the Scoping Plan goals of transitioning to EVs. Although this measure mainly applies to City fleets, the Proposed Project would not conflict with these goals. Furthermore, as individual development projects are proposed within the Project Area, each project would be evaluated on a case-by-case basis to determine the appropriate number of EV chargers to be installed. Installation of additional EV chargers would encourage adoption of EVs.

- *Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans)*

The State has adopted AB 1236 and AB 970, which require cities to adopt streamline permitting procedures for EV charging stations. As a result, the City updated Section IX of the LAMC, which requires most new construction to designate 30 percent of new parking spaces as capable of supporting future electric vehicle supply equipment (EVSE). This would exceed the CALGreen 2022 requirements of 20 percent of new parking spaces as EV capable. The ordinance also requires new construction to install EVSE at 10 percent of total parking spaces. This requirement also exceeds the CALGreen 2022 requirements of installing EVSE for 25 percent of EV capable parking spaces which is approximately five percent of total parking spaces. The City has also implemented programs to increase the amount of EV charging on city streets, EV carshare, and incentive programs for apartments to be retrofitted with EV chargers.

The City's goals of installing EV chargers throughout the City would be consistent with the Scoping Plan goals of transitioning to EVs. As individual development projects are proposed within the Project Area, each project would be evaluated on a case-by-case basis to determine the appropriate number of EV chargers to be installed. Based on the City's updates to Section IX of the LAMC, many of the future development projects within the Project Area would exceed the CALGreen 2022 requirement.

VMT Reduction. The priority GHG reduction strategies for local government climate action related to VMT reduction are discussed below and would support the Scoping Plan action to reduce VMT per capita 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045.

- *Reduce or eliminate minimum parking standards in new developments*
- *Implement parking pricing or transportation demand management pricing strategies*

The City of Los Angeles Mobility Plan 2035 contains measures and programs related to VMT reduction throughout the City. With regard to parking standards, the Proposed Project does not include minimum automobile parking requirements in new developments. These reduction strategies and TDM programs would serve to reduce minimum parking standards and reduce vehicle trips. Individual discretionary projects, including those within the area of the Proposed Project, currently are reviewed, and would continue to be reviewed, using the City's VMT trip calculator. As part of that review, if individual projects have the potential to significantly impact VMT, the calculator allows the applicant to identify project design features that reduce VMT and if such PDFs are not available it identifies suggested mitigation measures. See **Section 4.15, Transportation & Traffic**.

- *Implement Complete Streets policies and investments, consistent with general plan circulation element requirements*

The City of Los Angeles Mobility Plan 2035 established a "Complete Streets" planning framework which resulted in the City of Los Angeles Complete Streets Design Guide in 2015, consistent with California's

Complete Streets Act of 2008. A supplemental update to the Complete Streets Design Guide was adopted in 2020.

The Complete Streets Design Guide provides a number of measures to increase public access to electric shuttles, car sharing and walking. The Design Guide establishes guidelines for establishing on-street parking for car sharing. The City has also established BlueLA which is a car sharing network consisting of more than 100 electric vehicles located throughout the City. In addition, under the Green New Deal, the City would install 28,000 publicly available chargers by 2028 and introduce 135 new electric DASH buses. While this reduction strategy mainly applies to City traffic circulation, the Proposed Project would not conflict with the strategy. See also below for consistency analysis with the City's Mobility Plan 2035.

- *Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, etc.*
- *Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking*
- *Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing the allowable density of a neighborhood)*
- *Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert "greenfield" land to urban uses (e.g., green belts, strategic conservation easements)*

These reduction strategies are supported through implementation of SB 375 which requires integration of planning processes for transportation, land-use and housing and generally encourages jobs/housing proximity, promote transit-oriented development (TOD), and encourages high-density residential/commercial development along transit corridors. To implement SB 375 and reduce GHG emissions by correlating land use and transportation planning, SCAG adopted the 2020–2045 RTP/SCS, also referred to as Connect SoCal. The 2020–2045 RTP/SCS' "Core Vision" prioritizes the maintenance and management of the region's transportation network, expanding mobility choices by co-locating housing, jobs, and transit, and increasing investment in transit and complete streets. See above for a detailed discussion of consistency with SB 375 and the 2020-2045 RTP/SCS.

On a local level, the City has developed the Complete Streets Design Guide which provides a number of reduction strategies to increase public access to electric shuttles, car sharing and walking, continues to build out networks in the Mobility Plan for pedestrians, bicyclists, and transit users, has implemented an EV car sharing network, and is working towards increasing publicly available chargers, and introducing new electric DASH buses. See also below for consistency analysis with the City's Mobility Plan 2035.

The Proposed Project would provide for infill development within existing urbanized areas that would concentrate new development consistent with the overall growth pattern encouraged in the RTP/SCS. The Proposed Project would provide for increasing jobs in proximity to housing.

- *VMT reduction through affordable housing*

As California continues to experience a severe housing shortage, the State must plan for more than 2.5 million residential units over the next eight years, and no less than one million of those residential units must be affordable to lower-income households (California Department of Housing and Community Development 2022). This represents more than double the housing planned for during the last eight years.

The housing crisis and the climate crisis must be confronted simultaneously, and it is possible to address the housing crisis in a manner that supports the State's climate and regional air quality goals.²³ CAPCOA's Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (CAPCOA's Handbook) provides a VMT reduction measurement for incorporation of low-income housing. Measure T-4 (Integrate Affordable and Below Market Rate Housing) shows a 28.6 percent reduction in VMT for low-income units in comparison to market rate units.

The Scoping Plan references two studies related to housing affordability/income and VMT. One study indicates (Table 5 of the referenced study) that as compared to moderate-income units, VMT is reduced by 10.2% for low-income households, 25.2% for very low-income households and 32.5% for extremely low-income (ELI) households in Metro areas. The other study indicates that the difference in daily VMT for ELI and very low-income households in Department of Housing and Community Development TOD areas vs. non-TOD is -20.9 VMT and -17.6 VMT per day respectively.

A study commissioned by Caltrans based on Los Angeles area survey data, shows VMT reductions by income level as compared to a base case, with lower income units, especially ELI units, showing a substantial reduction in VMT as compared to other income levels (Caltrans 2018).

The Caltrans study indicates that ELI housing generates a fraction of the VMT of other types of affordable housing no matter where they are located. If a low-income multi-family unit (7.65 VMT in an urban neighborhood according to the Caltrans study) is generically representative of an affordable unit an ELI unit (with 0.45 VMT) would have just 6% of the VMT of a low-income unit (94% reduction) or 3% of a median-income unit in a suburban neighborhood (97% reduction).

The City's Housing Element of the General Plan provides planning guidance in meeting housing needs identified in the SCAG Regional Housing Needs Assessment (RHNA). The current RHNA goal for affordable housing within the City is approximately forty percent of new construction. However, the City's projections show affordable housing comprising twenty percent of new construction, which falls short of the forty percent RHNA goal. In order to address this shortfall, the Housing Element identifies measures to encourage development of affordable housing such as revising density bonuses for affordable housing; identify locations which are ideal for funding programs to meet low-income housing goals; and rezone areas to encourage low-income housing. The Housing Element estimates that implementation of these measures would increase housing production at all income ranges compared to previous cycles.

The City's 20-percent goal of low-income housing for new construction is applicable on a citywide basis and not applicable to an individual project. The Planning Department Housing Division found, based on market studies and experiences of other agencies, that mandating 20-percent affordable housing on individual projects is likely to reduce overall housing production, including low-income housing, in the City and would be contrary to City and State policies. Pushing more housing outside of the City would be contrary to the Scoping Plan, as infill housing production in the City, which is a highly urbanized city with billions of dollars invested in transit infrastructure, lower average VMT than the SCAG region, is called for in the 2022 Scoping Plan. The City has implemented a highly successful Transit Oriented Communities (TOC) program as well as other City programs that facilitate the production of low-income (LI), very-low-income (VLI) and extremely-low-income (ELI) housing in proximity to transit. In general, development in proximity to transit has much lower trip generation and vehicle trip lengths than development not adjacent to transit.

As further detailed in **Section 4.13, Population and Housing**, the Proposed Project, while focused mostly on job growth, does accommodate current and anticipated housing demand in the Project Area, including

affordable housing. In addition to the City's affordable housing regulations and policies, the Proposed Project also includes affordable housing incentives through community benefit systems. This program will allow developers to provide or otherwise cause the creation of specific community benefits in return for access to above-baseline density and other property development standards. Maximum FAR may be achieved through participation in the various incentive systems. Development exceeding development rights may be permitted by producing a range of public benefits including affordable housing.

For purposes of evaluating consistency with affordable housing targets relative to GHG reduction goals, the City of Los Angeles considers citywide housing production and does not require individual projects to meet specific targets as all levels of housing affordability are needed in the City particularly in proximity to transit.

Building Decarbonization. The priority GHG reduction strategies for local government climate action related to electrification are discussed below and would support the Scoping Plan actions regarding meeting increased demand for electrification without new fossil gas-fire resources and all electric appliances beginning in 2026 (residential) and 2029 (commercial) (see Table 2-1 of the Scoping Plan).

- *Adopt all-electric new construction reach codes for residential and commercial uses*

California's transition away from fossil fuel-based energy sources will bring the Proposed Project's GHG emissions associated with building energy use down to zero as the City's electric supply becomes 100 percent carbon free. California has committed to achieving this goal by 2045 through SB 100, the 100 Percent Clean Energy Act of 2018. SB 100 strengthened the State's RPS by requiring that 60 percent of all electricity provided to retail users in California come from renewable sources by 2030 and that 100 percent come from carbon-free sources by 2045. The land use sector will benefit from RPS because the electricity used in buildings will be increasingly carbon-free, but implementation does not depend (directly, at least) on how buildings are designed and built.

The City has updated the LAMC with requirements for all new buildings, with some exceptions to be all-electric, which will reduce GHG emissions related to natural gas combustion. Space heating, water heating and cooking for non-restaurant uses would be required to be powered by electricity. In future years, the LADWP will be required to increase the amount of renewable energy in the power mix to comply with SB 100 requirements. The combination of the all-electric LAMC regulations and increasing availability of renewable energy will serve to reduce GHG emissions from sources traditionally powered by natural gas. Unless exempt, all new buildings proposed and constructed through the Proposed Project horizon year will be subject to this section of the LAMC.

- *Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient systems (such as Energy Star-rated equipment and equipment controllers)*

This reduction strategy would support the Scoping Plan action regarding electrification of appliances in existing residential buildings (see Table 2-1 of the Scoping Plan). The City and Los Angeles Department of Water and Power has established rebate programs to promote use of energy-efficient products and home upgrades. Under the LADWP's Consumer Rebate Program (CRP), residential customers would receive rebates for energy-efficient upgrades such as Cool Roofs, Energy Star Windows, HVAC upgrades, pool pumps and insulation upgrades. Such upgrades would serve to reduce wasteful energy and water usage and associated GHG emissions. While it is unknown at this time if future development projects within the Project Area would involve retrofit of existing buildings, each project would be reviewed on a case-by-case basis to determine if these strategies are relevant and applicable.

Consistency With SB 375 and SCAG RTP/SCS

The State of California has adopted plans and policies designed to reduce regional and local GHG emissions. SB 375 requires that each MPO prepare an SCS in the RTP that demonstrates how the region will meet greenhouse gas emissions targets. SB 375 establishes a collaborative relationship between MPOs and CARB to establish GHG emissions targets for each region in the state. Under the guidance of the goals and objectives adopted by SCAG's Regional Council, the 2020–2045 RTP/SCS was developed to provide a blueprint to integrate land use and transportation strategies to help achieve a coordinated and balanced regional transportation system. The 2020–2045 RTP/SCS represents the culmination of several years of work involving dozens of public agencies, 191 cities, hundreds of local, county, regional and state officials, the business community, environmental groups, as well as various nonprofit organizations. Adoption of the 2020–2045 RTP/SCS substantiated that the growth forecasts for the SCAG region, taking into account efforts to reduce climate change impacts from GHG emissions, were consistent with the goals of SB 375.

The 2020–2045 RTP includes an SCS, as required by SB 375. The primary goal of the SCS is to provide a vision for future growth in southern California that will decrease per capita GHG emissions from passenger vehicles. However, the strategies contained in the 2020–2045 RTP/SCS will produce benefits for the region far beyond simply reducing GHG emissions. The SCS integrates the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The regional vision of the SCS maximizes current voluntary local efforts that support the goals of SB 375. The SCS focuses the majority of new housing and job growth in high-quality transit areas and other opportunity areas on existing main streets, in downtowns, and on commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development. The underlying purpose of the Proposed Project is to plan for and accommodate foreseeable growth in the Project Area, consistent with the growth strategies of the City as provided in the City's General Plan Framework Element, as well as the policies of SB 375 and the SCS. The Proposed Project would allow for concentrated, mixed-use development adjacent to transit corridors in order to conserve resources, protect existing residential neighborhoods, and improve air quality by reducing the reliance on cars. The Project is expected to contribute to reductions in per capita GHG emissions when viewed at the regional level, as detailed above. Thus, the Proposed Project would be entirely consistent with the SCS and SB 375 goals. As illustrated in **Table 4.7-5**, the Proposed Project would contribute to reductions in per capita GHG vehicle emissions. As a result, and as illustrated in **Table 4.7-6**, the Proposed Project would be consistent with SCS and SB 375 goals.

TABLE 4.7-6 CONSISTENCY ANALYSIS OF THE PROPOSED PROJECT WITH THE SCAG 2020-2045 RTP/SCS	
Objective	Project Consistency
<p>Focus Growth Near Destinations & Mobility. Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations) Identify ways to “right size” parking requirements and promote alternative parking strategies (e.g., shared parking or smart parking)</p>	<p>Consistent The Project would increase approximately 18,024 affordable mixed-income housing units in the Project Area through the 2040. The additional housing would be prioritized in locations near existing and anticipated jobs, amenities, services and transit resources. In addition, the Project intent is to transition the Project Area into a cluster of mixed-used, pedestrian-oriented neighborhoods. This would support opportunities for walking, bicycling, and connectivity to neighboring communities. Therefore, the Proposed Project would be consistent with 2020 RTP/SCS focus growth near destinations & mobility strategy.</p>
<p>Promote Diverse Housing Choices Preserve and rehabilitate affordable housing and prevent displacement. Create incentives and reduce regulatory barriers for building context-sensitive accessory dwelling units to increase housing supply.</p>	<p>Consistent The Proposed Project would accommodate additional housing in the Project Area by expanding the residential Urban Village zoning designation to more parcels within the Project Area and allowing 100 percent affordable housing developments in the Urban Innovation and Urban Center zones. The Project’s affordable housing zoning incentives would be recalibrated and updated to require more affordable housing for those development projects seeking additional FAR rights. Therefore, the Project would be consistent with the 2020 RTP/SCS promote diverse housing choices strategy.</p>
<p>Support Implementation of Sustainability Policies Continue to support long range planning efforts by local jurisdiction</p>	<p>Consistent The project would be consistent with the City of Los Angeles’ Green LA and Sustainable City pLAN/Green New Deal. In addition, it would be constructed in accordance with Building Energy Efficiency Standards and the Green Building Code for Los Angeles. Therefore, the Proposed Project would support long-range planning efforts by the local jurisdiction.</p>
<p>Promote a Green Region Promote more resource efficient development focused on conservation, recycling, and reclamation</p>	<p>Consistent The Proposed Project would update the environmental conservation and performance standards of the existing Specific Plan to reflect current regulatory conditions. The conservation standards are intended to reduce energy demand, recycle water and decrease demand for potable water, reduce waste and use of new materials, and reduce demand on natural resources. Therefore, the Proposed Project would promote environmental conservations with the Project Area.</p>

Consistency with Local Plans, Policies, and Regulations

The City of Los Angeles GreenLA Climate Action Plan

The City of Los Angeles enacted its GreenLA CAP in 2007 to outline strategies for reducing the City’s emissions of GHG and consequent effects on climate change. The CAP’s primary long-term objective is to establish a framework for implementing GHG emissions reduction efforts that would achieve a goal of reducing citywide emissions to 35 percent below 1990 levels by 2030. With regard to planning, elements of the CAP designed to aid in regional GHG reductions include promotion of high-density housing close to major transportation arteries, implementation of transit-oriented development, and expanding availability of City land for housing, mixed-use development, parks, and open space. The Proposed Project would add substantial multi-family housing to the Project Area and incorporate transit-oriented development. Furthermore, implementation of the Proposed Project would encourage pedestrian-friendly, mixed-use neighborhoods that would require less use of passenger vehicles. The Proposed Project promotes a sustainable Project Area and would allow for a more dense, integrated land use and transportation environment that would encourage the use of active transportation. The Proposed Project encourages sustainable and transit oriented development with form regulations that prioritize pedestrian walkability, with no minimum parking requirements. Together, these regulations encourage increased use of transit resources and support a shift in travel mode. The combination of these strategies is consistent with the goals of GreenLA. **Table 4.7-7** illustrates the Proposed Project’s consistency with the City’s GreenLA CAP.

TABLE 4.7-7 CONSISTENCY ANALYSIS OF THE PROPOSED PROJECT WITH THE CITY’S GREENLA CAP	
Objective	Project Consistency
Energy Transform Los Angeles into the model of an energy efficient city.	Consistent As shown in Table 4.7-4 , Proposed Project per capita GHG emissions would be within state targets. In addition, the Project’s developments would be designed and operated to meet the applicable requirements of CalGreen and the City’s Green Building Code. Therefore, the Proposed Project would support local energy efficiency policies.
Transportation Lower the environmental impact and carbon intensity of transportation.	Consistent As illustrated in Table 4.7-4 , implementation of the Project would result in a reduction in per capita GHG emissions by 2040.
Transportation Focus on mobility for people, not cars.	Consistent As discussed in Section 4.15, <i>Transportation and Traffic</i> , the Project area provides access to a range of transportation options. The Proposed Project also includes policies that support reductions in vehicle miles traveled and ultimately GHG emissions, such as policies promoting active transport through the development of walkable streets and the expansion of bicycle and pedestrian facilities. While total daily VMT would increase from existing conditions to 2040 with Project conditions, per capita VMT would decrease from 55 to 17 VMT per capita daily (based on population values summarized in Section 4.12, <i>Population, Housing and Employment</i>). Moreover, a number of policies contained in the Project support the development of pedestrian-oriented development with universal accessibility.
Transportation Create a more livable city.	Consistent The entire Project Area is well-served by existing and planned transit and many of the mixed-use residences permitted would occur in high activity areas, such as in proximity to transit corridors and along major arterials.

The City of Los Angeles Sustainable City pLAN/Green New Deal

The City’s Sustainability City pLAN is the City’s sustainability planning document that embraces both short- and long-term goals to improve equity, the City’s economy, and the environment. Focus areas for the environmental aspect of the City’s Sustainability City pLAN includes improving local water supply, increasing local electricity supply from solar, incentivizing energy efficient buildings, reducing atmospheric carbon, reducing waste destined for landfills, and embracing climate leadership. **Table 4.7-8** below compares the goals and objectives of the Proposed Project with those of the City’s Sustainability City pLAN.

TABLE 4.7-8 CONSISTENCY ANALYSIS OF THE PROPOSED PROJECT WITH THE CITY’S SUSTAINABLE CITY PLAN/ GREEN NEW DEAL	
Objective	Project Consistency
<p>Renewable Energy LADWP will supply 55 percent renewable energy by 2025; 80 percent by 2036; and 100 percent by 2045. Increase cumulative megawatts by 2025; 2035; and 2050 of: Local solar to 900-1,500 MW; 1,500-1,800 MW; and 1,950 MW. Energy storage capacity to 1,654-1,750 MW; 3,000 MW; and 4,000 MW. Demand response (DR) programs to 234 MW (2025) and 600 MW (2035).</p>	<p>Consistent. While this action primarily applies to the City and LADWP, LADWP is required to generate electricity that would increase renewable energy resources to 33 percent by 2020, 44 percent by 2024, 60 percent by 2030, and 100 percent by 2045 under SB 100. Because LADWP would provide electricity service to the Project Area, the Project would use electricity consistent with the requirements of SB 100 and City goals.</p>
<p>Local Water Lead by example through reduced energy consumption in municipal buildings. Source 70 percent of L.A.’s water locally and capture 150,000 acre-feet per year of stormwater by 2035. Recycle 100 percent of all wastewaters for beneficial reuse by 2035. Build at least 10 new multi-benefit stormwater capture projects by 2025; 100 by 2035; and 200 by 2050. Reduce potable water use per capita by 22.5 percent by 2025; and 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050 Install or refurbish hydration stations at 200 sites, prioritizing municipally-owned buildings and public properties such as parks, by 2035</p>	<p>Consistent As discussed in Section 4.17, <i>Utilities and Service Systems</i>, the Project would increase the water demand but minimize per capita water use through water efficient design. In addition, the Proposed Project would be required to comply with the City’s water use restrictions on timing, area, frequency, and duration of specified allowable water usage. The Project would also be required to comply with the Title 24 standards for Water Efficiency and Conservation that are in effect at the time of development. These standards include actions such as separate water submeters for subsystems, prescriptive reduced flow rates for water and fixtures, and plumbing fixtures and fittings.</p>
<p>Clean and Healthy Buildings All new buildings will be net zero carbon by 2030; and 100 percent of buildings will be net zero carbon by 2050. Reduce building energy use per sf for all building types 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050.</p>	<p>Consistent The project would be constructed in accordance with the applicable requirements of CalGreen and the City’s Green Building Code.</p>
<p>Waste and Resource Recovery Increase landfill diversion rate to 90 percent by 2025; 95 percent by 2035; and 100 percent by 2050. Reduce municipal solid waste generation per capita by at least 15 percent by 2030, including phasing out single-use plastics by 2028. Eliminate organic waste going to landfill by 2028 Increase proportion of waste products and recyclables</p>	<p>Consistent As discussed in Section 4.17, <i>Utilities and Service Systems</i>, future Project Area development would participate in City recycling and waste diversion programs. The Proposed Project would comply with existing City and state programs would achieve consistency with this measure.</p>

TABLE 4.7-8 CONSISTENCY ANALYSIS OF THE PROPOSED PROJECT WITH THE CITY'S SUSTAINABLE CITY PLAN/ GREEN NEW DEAL	
Objective	Project Consistency
productively reused and/or repurposed within Los Angeles County to at least 25 percent by 2025; and 50 percent by 2035.	
<p>Mobility and Transit</p> <p>Increase the percentage of all trips made by walking, biking, micro-mobility/matched rides or transit to at least 35 percent by 2025; 50 percent by 2035; and maintain at least 50 percent by 2050.</p> <p>Reduce vehicle miles traveled per capita by at least 13 percent by 2025; 39 percent by 2035; and 45 percent by 2050.</p> <p>Ensure Los Angeles is prepared for Autonomous Vehicles (AV) by the 2028 Olympic and Paralympic Games.</p>	<p>Consistent</p> <p>As discussed in Section 4.15, <i>Transportation and Traffic</i>, the Project would minimize per capita vehicle trips and vehicle miles traveled by enhancing access to walking, bicycling, and transit. Therefore, the Project would be consistent in reducing per capita daily trips and VMT.</p>

In addition, individual development projects constructed within the Project Area would be required to comply with the Los Angeles Green Building Code. The City's Green Building Code includes energy and water saving measures that reduce GHG emissions below 2013 Title 24 requirements. It promotes sustainable building practices by creating a series of requirements and incentives for developers to meet the U.S. Building Council's Energy and Design standards. The Green Building Code includes the following key mandatory measures for non-residential and high-rise residential buildings related to GHG reduction:

- **Short-Term Bicycle Parking:** If a development project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passersby, for five percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack.
- **Long-Term Bicycle Parking:** For buildings with over 10 occupants, provide secure bicycle parking for five percent of motorized vehicle parking capacity, with a minimum of one space. Acceptable parking facilities shall be convenient from the street and may include:
 - Covered, lockable enclosures with permanently anchored racks for bicycles.
 - Lockable bicycle rooms with permanently anchored racks.
 - Lockable, permanently anchored bicycle lockers.
- **Designated Parking:** Provide designated parking, by means of permanent marking or a sign, for any combination of low-emitting, fuel-efficient, and carpool/van pool vehicles as described in Table 5.106.5.2 of the Green Building Code.
- **Energy Conservation:** Provide electric vehicle supply wiring for a minimum of five percent of the total number of parking spaces.
- **Energy Conservation:** A project must exceed the California Energy Code requirements, based on the 2008 Energy Efficiency Standards, by 15 percent using an Alternative Calculation Method approved by the California Energy Commission.
- **Energy Conservation:** Each appliance provided and installed shall meet Energy Star requirements if an Energy Star designation is applicable for that appliance.
- **Renewable Energy:** Provide future access, off-grid pre-wiring, and space for electrical solar systems.

Because the Project would be consistent with the goals of GreenLA and the Sustainable City pLAn/Green New Deal, and future development projects within the Project Area would be required to comply with the City’s Green Building Code, the Proposed Project would be consistent with the City’s strategies for reducing GHG.

The City of Los Angeles General Plan Framework Element

The General Plan’s guiding document for the City of Los Angeles is the Framework Element, which provides a strategy for long-range growth and development. The Proposed Project focuses on providing 100 percent affordable, mixed-income housing, and permanent supportive housing that has access to public transit through the 2040 buildout year. **Table 4.7-9** discusses consistency of the Proposed Project with the City of Los Angeles’ General Plan Framework Element.

The City of Los Angeles General Plan Air Quality Element

The City’s General Plan Air Quality Element, adopted in 2003, sets forth goals, objectives, and policies that aim to guide the City in implementing its air quality improvement programs and strategies. The Air Quality Element recognizes that air quality strategies must be integrated into land use and transportation decisions and aims to facilitate consistency with regional Air Quality, Growth Management, Mobility, and Congestion Management Plans. **Table 4.7-10** shows objectives contained in the City’s Air Quality Element applicable to reducing GHG emissions and how the Proposed Project’s goals and objectives satisfy these objectives.

The City of Los Angeles General Plan Mobility Element

As discussed in Section 4.15, *Transportation and Traffic*, the citywide Ordinance on Transportation Demand Measures (TDM) and Trip Reduction Measures (Ordinance No. 168,700) would continue to be implemented within the Project Area. This Ordinance calls for several measures to be taken by non-residential developments in an effort to reduce single-occupancy vehicle trips. As illustrated in **Table 4.7-11**, the Proposed Project would be consistent with the City’s Mobility Plan 2035.

As discussed below, the Proposed Project would concentrate development around transit, comprise a wide mix of uses, and better accommodate pedestrians and bicyclists. By accommodating new residential and non-residential development in an urbanized area with good access to transit, the Proposed Project would encourage a transportation mode shift from private vehicles to public transit. These characteristics are anticipated to reduce per capita GHG emissions associated with cars and light trucks. The Project would be consistent with AB 32, SB 375, the 2020-2045 RTP/SCS, regional and local strategies to reduce GHG, and can be expected to contribute to reductions in per capita GHG emissions when viewed at the regional level. Therefore, impacts related to GHG emissions under the Proposed Project would be *less than significant*.

TABLE 4.7-9 CONSISTENCY ANALYSIS OF THE PROPOSED PROJECT WITH THE CITY OF LOS ANGELES GENERAL PLAN FRAMEWORK ELEMENT (1995)	
Objective	Project Consistency
<p>3.15 Focus mixed commercial/ residential uses, neighborhood-oriented retail, employment opportunities, and civic and quasi-public uses around urban transit stations, while protecting and preserving surrounding low-density neighborhoods from the encroachment of incompatible land uses.</p>	<p>Consistent As discussed in Section 4.15, <i>Transportation and Traffic</i>, the Project Area is well served by public transit, including regional rail service, many local and rapid bus lines, and the Metro. Metro, the primary transit provider in the region, also maintains the Gold (L) Line light rail route that intersects the Project Area as it runs east-west between East Los Angeles and Azusa via Downtown. Pedestrian facilities primarily consist of sidewalks adjacent to roadways, and a limited bicycle network is provided. The transportation network in the Project Area is primarily auto- and bus transit-oriented.</p>

TABLE 4.7-9 CONSISTENCY ANALYSIS OF THE PROPOSED PROJECT WITH THE CITY OF LOS ANGELES GENERAL PLAN FRAMEWORK ELEMENT (1995)	
Objective	Project Consistency
<p>3.16 Accommodate land uses, locate and design buildings, and implement streetscape amenities that enhance pedestrian activity.</p>	<p>Consistent The Project includes policies that support reductions in vehicle miles traveled and ultimately GHG emissions, such as policies promoting active transport through the development of walkable streets and the expansion of bicycle and pedestrian facilities. While total daily VMT would increase from existing conditions to 2040 with Project conditions, total daily VMT per service population would decrease from 28.7 to 15.2 (based on population values summarized in Section 4.12, <i>Population, Housing and Employment</i>).</p>
<p>4.2 Encourage the location of new multi-family housing development to occur in proximity to transit stations, along some transit corridors, and within some high activity areas with adequate transitions and buffers between higher-density developments and surrounding lower-density residential neighborhoods.</p>	<p>Consistent The Project would update and recalibrate incentives to deliver more affordable units, while being simpler to understand and implement. The current incentive system would be replaced with a new base and bonus system (Community Benefits Program), similar to that found in the proposed new Zoning Code for the Downtown Plan, intended to establish a clearer set of objective standards for projects that wish to build beyond their base zoning. The main incentive used to garner public benefits under the Proposed Project is through floor area rights (depicted as Floor Area Ratio, or FAR).</p>
<p>9.40 Ensure efficient and effective energy management in providing appropriate levels of lighting for private outdoor lighting for private streets, parking areas, pedestrian areas, security lighting, and other forms of outdoor lighting and minimize or eliminate the adverse impact of lighting due to light pollution, light trespass, and glare.</p>	<p>Consistent As discussed in Section 4.5.2, <i>Regulatory Setting</i>, of the Energy Section of this EIR, future development in the Project Area would be required to comply with energy efficiency lighting and light pollution reduction requirements included in the 2019 California Building Code, including the CalGreen Code, and the Los Angeles Building Code and Los Angeles Green Building Code (LAMC Chapter IX); the Los Angeles Building Code and Green Building Code largely incorporate and amend the 2013 California Building Code and CalGreen Code, respectively. For example, Subsection 99.05.106.8 of the Los Angeles Green Building Code sets restrictions on residential outdoor lighting, and Section 99.04.211.4 requires residences to be constructed with solar-ready features as specified in the California Energy Code. Lighting requirements and potential light pollution and glare impacts would be less than significant, as discussed in Section 4.1, <i>Aesthetics</i>.</p>

TABLE 4.7-10 CONSISTENCY ANALYSIS OF THE PROPOSED PROJECT WITH THE CITY OF LOS ANGELES GENERAL PLAN AIR QUALITY ELEMENT (1992)	
Objective	Project Consistency
<p>Objective 1.1 Reduce air pollutants consistent with the Regional Air Quality Management Plan (AQMP), increase traffic mobility, and sustain economic growth citywide.</p>	<p>Consistent As discussed in Section 4.2, <i>Air Quality</i>, Project development would generate emissions exceeding SCAQMD significance thresholds. However, growth under the Proposed Project would be consistent with SCAG forecasts upon which the AQMP is based. In addition, the Project Area includes a wide range of transportation options and consequently, as discussed in Section 4.15, <i>Transportation and Traffic</i>, per capita vehicle miles traveled (VMT) in the Project Area are forecast to remain well below City and regional averages.</p>
<p>Objective 2.1 Reduce work trips as a step towards attaining trip reduction objectives necessary to achieve</p>	<p>Consistent The Proposed Project would reduce work trips by promoting development near major transit hubs, promoting development of residences near employment, improving and expanding pedestrian, bicycle, and transit facilities, and supporting complete communities with a mix of residences</p>

TABLE 4.7-10 CONSISTENCY ANALYSIS OF THE PROPOSED PROJECT WITH THE CITY OF LOS ANGELES GENERAL PLAN AIR QUALITY ELEMENT (1992)	
Objective	Project Consistency
regional air quality goals.	and community-serving uses. While total daily VMT would increase from existing conditions to 2040 with Proposed Project conditions, per capita VMT would decrease from 55 to 17 VMT per capita daily (based on population values summarized in Section 4.12, <i>Population, Housing and Employment</i>).
Objective 2.2 Increase vehicle occupancy for non-work trips by creating disincentives for single passenger vehicles and incentives for high occupancy vehicles.	Consistent The Project Area is well served by public transit and a variety of enhancements to public transit are proposed. While total daily VMT would increase from existing conditions to 2040 with Project conditions, total daily VMT per service population would decrease from 28 to 15.2 (based on population values summarized in Section 4.12, <i>Population, Housing and Employment</i>). In addition, the Project promotes higher vehicle occupancy.
Objective 5.1 Increase energy efficiency of City facilities and private developments.	Consistent. As discussed in Section 4.5.2, <i>Regulatory Setting</i> , of the Energy Section of this EIR, the City’s Green Building Code would enforce the application of the 2019 CalGreen standards and would apply to all new buildings, all additions, and any alterations with building valuations over \$200,000. In addition, the Proposed Project contains the following passive energy efficiency policies relating to City facilities and private developments that would result in reductions of per capita GHG emissions: This is a conservative assumption since potential energy efficiency measures required by subsequent Title 24 updates in 2022, 2025, and 2028 are not included.
3.1 Increase the portion of work trips made by transit to levels that are consistent with the goals of the AQMP and Congestion Management Plan	Consistent See response to General Plan Air Quality Element Objective 2.1.
3.2 Reduce vehicular traffic during peak periods.	Consistent See response to General Plan Air Quality Element Objective 2.1. The overall reduction in per capita vehicle trips and vehicle miles traveled would also reduce peak period traffic.
4.2 Reduce vehicle trips and vehicle miles traveled associated with land use patterns.	Consistent See response to General Plan Air Quality Element Objective 2.1. Reasonably anticipated development from the Project would include a mix of residential, service-oriented, and job-generating uses that would encourage transit use, walking, and bicycling while minimizing travel distances and vehicle miles traveled.
5.2 Have a portion of the City’s service fleet be comprised of alternative fuel powered vehicles, subject to availability of funding, and practical feasibility.	Consistent The Project does not contain any policies specifically aimed at improving City’s service fleet’s efficiency or alternative fuel use. However, the Project does not involve management of the City’s service fleet and would not obstruct the City’s ambition in implementing the City’s General Plan Air Quality Element Objective 5.2.
5.3 Reduce the use of polluting fuels in stationary sources.	Consistent The Proposed Project does not contain any policies specifically aimed at reducing polluting fuels in stationary sources. However, the Proposed Project does not include construction industrial uses that could become a stationary source; therefore, implementation of the Project would not create any obstructions to implement the City’s General Plan Air Quality Element Objective 5.3.

TABLE 4.7-11 CONSISTENCY ANALYSIS OF THE PROPOSED PROJECT WITH THE CITY OF LOS ANGELES MOBILITY ELEMENT – MOBILITY PLAN 2035 (2016)	
Objective	Project Consistency
4.2 Meet a 9 percent per capita GHG reduction for 2020 and a 16 percent per capita reduction for 2035.	Consistent As illustrated in Table 4.7-4 , implementation of the Proposed Project would result in a 66 percent reduction in per capita GHG emissions by 2040 in comparison to existing conditions, which substantially exceeds the Mobility Element's reduction goals for 2020 and 2035.
4.3 Convert 100 percent of City General Services Division vehicle fleet to alternative fuels and/or zero emission vehicles by 2035.	Consistent See the response to General Plan Air Quality Element Objective 5.2. Although the Project does not include specific policies to implement this objective, it would not preclude conversion of the City's vehicle fleet.
4.4 Convert 100 percent of City refuse collection trucks and street sweepers to alternative fuels by 2020.	Consistent See response to General Plan Air Quality Element Objective 5.2. Although the Project does not include specific policies to implement this objective, it would not preclude conversion of the City's vehicle fleet.
4.5 Reduce transportation-related energy use by 95 percent and reduce maintenance requirements of City vehicle fleet.	Consistent See response to General Plan Air Quality Element Objective 5.2. Additionally, although implementation of the Proposed Project would result in an increase in net transportation energy consumption by 2040, as discussed in Section 4.5, <i>Energy</i> , the Project Area would have a 69 percent decrease in per capita transportation energy consumption by 2040.

CUMULATIVE IMPACTS

GHG and climate change are, by definition, cumulative impacts. The geographic scope for considering cumulative impacts related to GHG emissions is the state of California. Although GHG emissions have worldwide repercussions, the contribution of the project to the impact is addressed in light of the goals for reducing statewide emissions.

Statewide GHG emissions are an existing significant cumulative impact. As such, the state has established the following statewide emissions reductions targets:

- By 2020, reduce GHG emissions to 1990 levels
- By 2030, reduce GHG emissions to 40 percent below 1990 levels
- By 2050, reduce GHG emissions to 80 percent below 1990 levels

GHG impacts are assessed in a cumulative context since no single project can cause a discernible change to the climate. Therefore, cumulative significance is based on the same thresholds as the Proposed Project. In the absence of any adopted numeric threshold, the significance of the Project's GHG emissions is evaluated consistent with *CEQA Guidelines* Section 15064.4(b) by considering whether the Proposed Project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. For the Project, the most directly applicable adopted regulatory plans to reduce GHG emissions are the 2022 Scoping Plan, 2020-2045 SCS/RTP, the LA Green Plan/Climate LA, the Sustainable City pLAn/Green New Deal, and the City of Los Angeles General Plan's Framework, Air Quality, and Mobility Element. The Proposed Project's GHG emissions were evaluated based on per capita CO₂e emissions, and the 2020-2045 RTP/SCS regional per-capita GHG emissions target from passenger and light duty vehicles from 2005 levels. The Proposed Project would provide affordable, market rate, and mixed-income residential units accessible to

public transit and parks. The buildout of the project would decrease 74 percent per capita GHG emissions and decrease passenger per capita GHG emissions from existing conditions by 53 percent below the 2005 emissions target. The Proposed Project would comply with the 2022 California Building Code, including the CalGreen Code, and the Los Angeles Building Code and Los Angeles Green Building Code. This is a conservative assumption since the energy use estimates do not account for potential energy efficiency measures required by subsequent Title 24 updates in 2025 and 2028. In addition, the Proposed Project would apply conservation standards that are intended to reduce energy demand, recycle water and decrease demand for potable water, reduce waste and use of new materials, and reduce demand on natural resources.

Therefore, the Project would be consistent with the 2022 Scoping Plan, 2020-2045 RTP/SCS, regional and local strategies to reduce GHG, and can be expected to contribute to reductions in per capita GHG emissions when viewed at the regional level. Thus, based on the *CEQA Guidelines* for determining the significance of GHG emissions, while cumulative impacts are significant, the Proposed Project's contribution would not be considerable.

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4.8 HAZARDS AND HAZARDOUS MATERIALS

This section addresses potential impacts associated with risk of upset related to hazardous materials, airports, wildfires, emergency access, and hazards to schools from implementation of the updated Cornfield Arroyo Seco Plan (CASP) Plan (or “Proposed Project” or “Project”) in the existing CASP area of Los Angeles (or “Project Area”).

ENVIRONMENTAL SETTING

HAZARDOUS MATERIALS

The term “hazardous material” can have varying definitions for different regulatory programs. For the purpose of this EIR, the term “hazardous materials” refers to both hazardous materials and hazardous waste. The California Health and Safety Code Section 25501(n)(1) defines hazardous materials as any material that “because of its quantity, concentrations, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.” Hazardous materials include but are not limited to hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or environment.

A material is hazardous if it exhibits one or more of the following characteristics: toxicity, ignitability, corrosivity, and reactivity (Code of Regulations, Title 22). These types of hazardous materials are defined below:

- **Toxic Substances.** Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability, or even death. For example, such substances can cause disorientation, acute allergic reactions, asphyxiation, skin irritation, or other adverse health effects if human exposure exceeds certain levels. (The level depends on the substances involved and is chemical-specific.) Carcinogens (substances that can cause cancer) are a special class of toxic substances. Examples of toxic substances include benzene (a component of gasoline and suspected carcinogen) and methylene chloride (a common laboratory solvent and a suspected carcinogen).
- **Ignitable Substances.** Ignitable substances are hazardous because of their ability to burn. Gasoline, hexane, and natural gas are examples of ignitable substances.
- **Corrosive Materials.** Corrosive materials can cause severe burns. Corrosives include strong acids and bases such as sodium hydroxide (lye) or sulfuric acid (battery acid).
- **Reactive Materials.** Reactive materials may cause explosions or generate toxic gases. Explosives, pure sodium or potassium metals (which react violently with water), and cyanides are examples of reactive materials.

Soil and groundwater can become contaminated by hazardous material releases in a variety of ways, including permitted or illicit use and accidental or intentional disposal or spillage. Before the 1980s, most land disposal of chemicals was unregulated, with the result that numerous industrial properties and public landfills became dumping grounds for unwanted chemicals. The largest and most contaminated of these sites became Superfund sites, so named for their eligibility to receive cleanup money from a federal fund

established under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA; see Section 4.8.3, *Regulatory Framework*, for more details about CERCLA). The National Priorities List (NPL) is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to guide the United States Environmental Protection Agency (USEPA) in determining which sites warrant further investigation. Sites are added to the NPL following a hazard ranking system.

In addition to soil and groundwater contamination, the following substances may occur throughout the City in older buildings or products. The effects of these substances and where they are commonly present are explained below.

Asbestos Containing Materials (ACMs)

Asbestos is a naturally occurring fibrous material that was widely used in structures built between 1945 and 1989 for its fireproofing and insulating properties. ACMs were banned by USEPA between the early 1970s and 1991 under the authority of the federal Clean Air Act (CAA) and the Toxic Substances Control Act (TSCA) due to their harmful health effects. Exposure to asbestos increases risk of developing lung disease, such as lung cancer, mesothelioma (a type of cancer), or asbestosis (a type of chronic, non-cancer lung disease) (USEPA 2021a). Common ACMs include vinyl flooring and associated mastic, wallboard and associate joint compound, plaster, stucco, acoustic ceiling spray, ceiling tiles, heating system components, and roofing materials. Commercial/industrial structures are affected by asbestos regulations if damage occurs or if remodeling, renovation, or demolition activities disturb ACMs. Since many of the structures in the Project Area were constructed before 1989, there is a potential for the presence of ACMs to exist in a wide variety of building materials in the Project Area.

Lead and Lead-Based Paint (LBP)

Lead is a naturally occurring metallic element. Because of its toxic properties, lead is regulated as a hazardous material. Excessive exposure to lead can result in the accumulation of lead in the blood, soft tissues, and bones. Children are particularly susceptible to potential lead-related health problems because it is easily absorbed into developing systems and organs. Lead can affect almost every organ and system in the body and can result in behavior and learning problems, lower IQ and hyperactivity, hearing problems, and anemia in children, and cardiovascular effects, decreased kidney function, and reproductive problems in adults (USEPA 2021b). Among its numerous uses and sources, lead can be found in paint, water pipes, solder in plumbing systems, and in soils around buildings and structures painted with LBP. LBP was primarily used during the same time period as ACMs. Commercial/industrial structures are affected by lead-based paint regulations if the paint is in a deteriorated condition or if remodeling, renovation, or demolition activities disturb LBP surfaces. Since many of the residential structures within the Project Area were constructed before 1978, there is potential for structures to contain paints and coatings with detectable or elevated concentrations of lead.

Polychlorinated Biphenyls (PCBs)

PCBs are mixtures of up to 209 individual chlorinated compounds. There are no known natural sources of PCBs. PCBs have been used as coolants and lubricants in transformers, capacitors, and other electrical equipment because they do not burn easily and are good insulators. The manufacture of PCBs was banned in the United States in 1979 by the TSCA because of evidence that they build up in the environment and can cause a variety of harmful health effects. Health risks include cancer as well as non-cancer effects on the immune system, reproductive system, nervous system, endocrine system, such as a decrease in the size of the thymus gland, decreased birth weight and gestational age for children born to women exposed to PCBs, and decreased thyroid hormone levels (USEPA 2021c). Products made before 1979 that may contain

PCBs include old fluorescent lighting fixtures and electrical devices containing PCB capacitors, and old microscope and hydraulic oils.

EXISTING ENVIRONMENTAL SETTING

Hazardous Materials Sites

The locations where hazardous materials are used, stored, treated and/or disposed of comes to the attention of regulatory agencies through various means, including licensing and permitting, enforcement actions, and anonymous tips. To the extent possible, the locations of these businesses and operations are recorded in several database lists maintained by various State, federal, and local regulatory agencies. In some cases, businesses that use hazardous materials in quantities greater than certain established thresholds are required to file business plans with the Los Angeles County Fire Department (LAFD). Other businesses that engage in the transport, storage, treatment, or disposal of hazardous materials are required to maintain detailed records of all their hazardous materials-related activities. Federal, State, and local agencies enforce regulations applicable to hazardous waste generators and users, and the LAFD Health Hazardous Materials Division tracks and inspect hazardous materials handlers to ensure appropriate reporting and compliance.

Permitted uses of hazardous materials include those facilities that use hazardous materials or handle hazardous wastes in accordance with current hazardous materials and hazardous waste regulations. The use and handling of hazardous materials from these sites is considered low risk, although there can be instances of unintentional chemical releases. In such cases, the site would be tracked in the environmental databases as an environmental case. Permitted sites without documented releases are, nevertheless, potential sources of hazardous materials in the soil and/or groundwater (compared to sites where there are no hazardous materials used or stored) because of accidental spills, incidental leakage, or spillage that may have gone undetected. Many of the facilities are permitted for more than one hazardous material use, and therefore could appear in more than one database.

The potential to encounter hazardous materials in soil and groundwater in the Project Area was based on a search of federal, State, and local regulatory databases that identify permitted hazardous materials uses, environmental cases, and spill sites.

The following databases were searched for hazardous sites:

- California Department of Toxic Substance Control (DTSC) EnviroStor Database
- State Water Resources Control Board (SWRCB) GeoTracker Database
- USEPA Superfund Enterprise Management System (SEMS) Database in Envirofacts

The EnviroStor database contains information on properties in California where hazardous substances have been released or where the potential for a release exists. The GeoTracker database contains information on properties in California for sites that require cleanup, such as leaking underground storage tank (LUST) sites, which may impact, or have potential impacts, to water quality, with emphasis on groundwater. The SEMS database lists Superfund sites that are found on the NPL.

Hazardous Material Sites

Hazardous materials sites in the Project Area identified in applicable databases are discussed below.

DTSC EnviroStor Database

A search of this database was conducted on February 4, 2022 and identified eight “Active” sites in the Project Area. An “Active” site identifies that an investigation and/or remediation is currently in progress and that DTSC is actively involved, either in a lead or support capacity. **Table 4.8-1** lists the “Active” EnviroStor-listed cleanup sites in the Project Area. **Figure 4.8-1** and **Table 4.8-3** present the EnviroStor-listed (and GeoTracker-listed) cleanup sites in the Project Area, including the aforementioned nine active sites as well as a number of sites that are inactive or do not require further action (a full table is included as Appendix G).

TABLE 4.8-1 “ACTIVE” ENVIROSTOR SITES IN THE PROJECT AREA					
Label	Site Name	Address	City	Site Type	Status
1	140-154 N Avenue 21	140-154 N Avenue 21	Los Angeles	Voluntary Cleanup	Active
6	Avenue 34	West Avenue 34 and Pasadena Avenue	Los Angeles	Voluntary Cleanup	Active
18	Cornfield Site	1245 N. Spring Street	Los Angeles	Voluntary Cleanup	Active
27	Jaybee Site at Lincoln Heights - LADWP	301 West Avenue 26	Los Angeles	Voluntary Cleanup	Active
29	Kennington	3209 Humboldt Street	Los Angeles	Voluntary Cleanup	Active
33	LADWP Main Street Center	1630 N Main St Ste 16	Los Angeles	Corrective Action	Active
71	Welch's Uniform Facility (Former)	3505 Pasadena Avenue	Los Angeles	Voluntary Cleanup	Active
75	William Mead Homes	1300 Cardinal Street	Los Angeles	State Response or NPL	Active

The following is a discussion of the eight “Active” sites in the Project Area as listed in the DTSC EnviroStor Database:

1. **140-154 N Avenue 21** – 140-154 North Avenue 21: The Site is currently developed with a 14,400 square-foot industrial building. The Site is currently owned by the Los Angeles Department of Water and Power (LADWP). Previous occupants include U.P.A., which leased the site from 2013 to 2017 and used it as a warehouse, and prior to that, Veolia Transportation, which used the Site as a garage and service area for bus and trolley maintenance. The Site’s past uses that caused contamination include a railroad maintenance shop and vehicle maintenance. This led to potential contaminated soil, soil vapor, and “other” groundwater (uses other than drinking water). The potential contaminants of concern include dichloroethane (EDC), tetrachloroethylene (PCE), toluene, and trichloroethylene (TCE). The DTSC is overseeing the evaluation and cleanup of contamination on the Site, including a Remedial Investigation Workplan approved October 30, 2019.
2. **Avenue 34** – West Avenue 34 and Pasadena Avenue: The Site is approximately 5.03 acres in size and has been historically developed with industrial uses. By 1920, the Site was developed and occupied by the Los Angeles Sand & Gravel Company, which occupied the property until at least 1928, and terminated by 1938. By 1948, areas of the Site were redeveloped with six industrial structures, occupied by Steel Framing & Building Corporation in 1951, and ITT Cannon Industries, Inc. from at least 1964 to 1970. The Site was occupied by American Caster Co. from 1977 until the property was purchased by Mr. Eric Ortiz in 1999. The current owners of the Site are R Cap Avenue 34, LLC and R Cap Avenue Two, LLC. The Site is currently unoccupied. The owners demolished the unoccupied buildings on the Site to construct a 400+ unit apartment complex with underground parking and ground floor retail development. The development project (Project) was approved on October 8, 2020, by the Los Angeles City Planning Commission, which found that the Project was

assessed in Mitigated Negative Declaration, No. ENV-2016-273-MND adopted on August 22, 2017, and the addendum dated December 2019.

The Site has been subject to a prior enforcement action and cleanup in 1984, when the City of Los Angeles filed 12 criminal charges against American Caster Co., after the joint city-county Hazardous Waste Strike Force discovered 252, 52-gallon drums of organic solvents buried throughout the property, as well as toxic chemicals discharged into the City's sewer system, as part of a 2½-month investigation.¹ Additionally, the Site's past uses that caused contamination include a machine shop, manufacturing - electronic, and manufacturing - metal. The activities on the Site led to potential contaminated soil, soil vapor, and "other" groundwater (uses other than drinking water). Site assessments conducted between 2019 and 2021 identified the presence of chemicals of concerns (COCs) at the site including tetrachloroethylene (PCE), trichloroethene (TCE), and total petroleum hydrocarbons (TPH) in soil gas and soil; lead, arsenic, and hexavalent chromium in isolated occurrences in soil; and generally low concentrations of PCE, TCE, TPH, and dichloroethane (cis,1,2-DCE) in groundwater.

The DTSC and the Site owners have entered into a Standard Voluntary Agreement (Agreement) to review a Phase 1 and a Soils Management Plan, and DTSC's review determined that additional investigation is required prior to redevelopment. DTSC and the Site owners entered into an amendment of the Agreement and continue characterizing the Site under DTSC oversight. DTSC accepted the Phase 2 investigation results, and a transmittal of supplemental soil and groundwater data, and approved the Site Characterization Work Plan that proposes additional investigations at the Site. Subsequently, a Site Characterization Report and Draft Removal Action Workplan, which proposes excavation and implementation of a soil vapor extraction system, was reviewed and approved by DTSC for public comment. The Site Characterization Report and Draft Removal Action Workplan concludes that the nature and extent of chemical releases on the Site has been generally characterized and recommended cleanup of these chemical releases to protect future users of the site; DTSC concurred with this conclusion. A public comment period was held from November 10, 2021 through December 20, 2021, and a public meeting was held on December 1, 2021. Responses to the received public comments were provided on March 18, 2022. The Removal Action Workplan (RAW) approval, dated March 18, 2022, required minor revisions be corrected and a revised RAW submitted to DTSC and that the community update and response to public comments also be attached. As Responsible Agency under the California Environmental Quality Act (CEQA), DTSC filed a Notice of Determination for the approved the RAW on April 1, 2022, including an Addendum dated April 2022 to the Avenue 34 Project Mitigated Negative Declaration, and the determination that the RAW will not have a significant effect on the environment. Lastly, the RAW approval also required that a remedial design implementation plan (RDIP) be submitted for DTSC that details procedures for sampling and analytical testing, details of ongoing groundwater monitoring, transportation procedures, an operation and maintenance plan for soil vapor extraction, a health and safety plan, and an air monitoring plan. The RDIP was approved on July 22, 2022, with implementation of the RAW and RDIP beginning on August 3, 2022. Separate from the DTSC action, on May 4, 2022, the Los Angeles City Council passed a motion to direct the Los Angeles Bureau of Sanitation to lead off-site testing of wastewater, stormwater, and soil relative to the Site.

3. **Cornfield Site** – 1245 North Spring Street: The Site is a 32-acre abandoned railyard located near downtown Los Angeles. The Site was acquired by the State of California Department of Parks and Recreation to turn the Site into a State Park. The Site's past uses that caused contamination include vehicle storage/refueling, railroad maintenance shop, and railroad right of way. This led to potential contaminated soil and "other" groundwater (uses other than drinking water). The potential

¹ <https://www.latimes.com/environment/story/2022-04-30/an-old-toxic-dump-brings-new-worries-for-lincoln-heights>

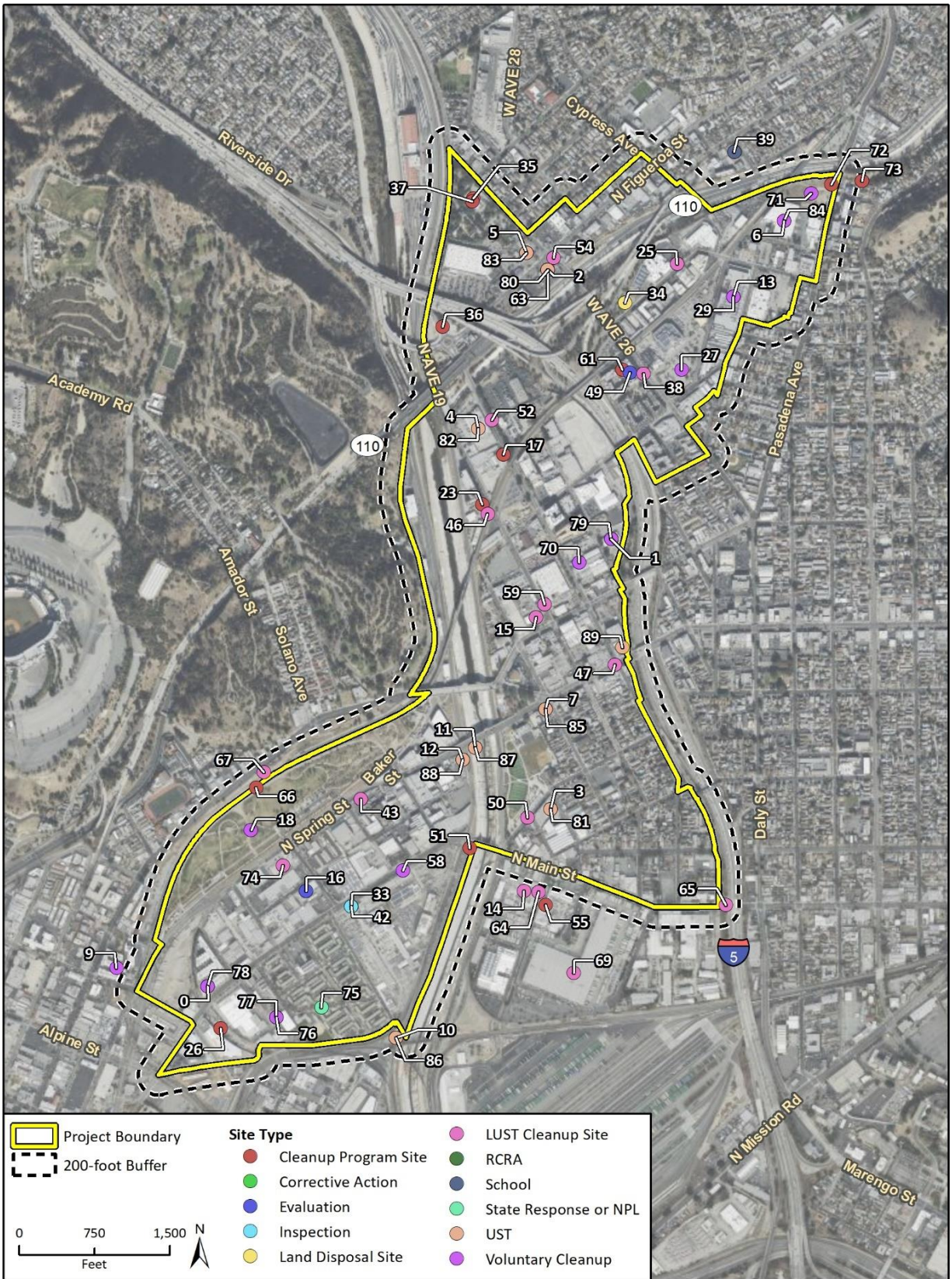
contaminants of concern include arsenic, lead, and TPH-motor oil. Several investigations have been conducted over the years with the most recent ones being conducted under the oversight of DTSC. The DTSC is overseeing the evaluation and cleanup of contamination on the Site, with the majority of the Site having been remediated.

4. **Jaybee Site at Lincoln Heights - LADWP** – 301 West Avenue 26: The Site is owned by the Los Angeles Department of Water and Power. A major part of the Site has been paved and that has been used as an employee parking lot since its purchase in 1989. The rest of the Site is vacant and has not been developed. Jaybee Manufacturing Corporation, a hardware manufacturer operated at the Site from 1970 to 1989. Other operators at this Site include Rod Forge Shop, D&B Pump and Supply, and Peerless Pump. The Site's previous owner performed the removal of an underground storage tank and contaminated soil in 1990. Previous investigation reports which contain the results of environmental media sampling conducted at the Site indicate that the soils are contaminated with Total Petroleum Hydrocarbons, Lead, Trichloroethylene, Tetrachloroethylene, Napthalene, Toluene and Xylenes. Groundwater is impacted by PCE, TCE, cis- and trans-1,2-Dichloroethene, and 1,1-dichloroethene. The DTSC is overseeing the evaluation and cleanup of contamination on the Site, including a Removal Action Workplan approved February 14, 2023.
5. **Kennington** – 3209 Humboldt Street: The Site is currently a large warehouse-type building with cement flooring and an adjoining parking lot that is also paved. The Site's past uses that caused contamination include battery manufacturing and electronic manufacturing. This led to potential contaminated soil and "other" groundwater (uses other than drinking water). The potential contaminants of concern include lead, polychlorinated biphenyls (PCBs), tetrachloroethylene (PCE), and trichloroethylene (TCE). A land use covenant was recorded on the property which set forth land use restrictions and site management requirements, including prohibiting activities that disturb the remedy and monitoring systems without approval.
6. **LADWP Main Street Center** – 1630 North Main Street, Suite 16: A hazardous waste facility permit, issued to LADWP on August 10, 1983, allowed the facility to store up to 60 55-gallon drums of hazardous waste. LADWP did not renew the permit and requested the closure of the hazardous waste storage unit. A closure plan was implemented and investigation detected concentrations of hazardous waste exceeding the cleanup criteria, as well as VOCs in soil gas samples. LADWP entered into a Corrective Action Consent Agreement in August 1999 with the DTSC for its Main Street Center. The Consent Agreement requires LADWP to identify and further investigate all solid waste management units (SWMUs) and areas of concern (AOCs) at the site as part of a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) process. Cleanup is ongoing with a cleanup complete due date of 2028.
7. **Welch's Uniform Facility (Former)** – 3505 Pasadena Avenue: The Site was formerly a commercial linen and apparel laundering and delivery service facility that was established circa 1920 and operated until approximately 1988. All buildings associated with the previous operation were removed in 1993, and the Site is now a vacant parcel. The development of a proposed warehouse building is anticipated for the Site. The Site is currently enrolled in a Voluntary Cleanup Agreement executed on June 17, 2007, between the DTSC and AmeriPride, now owned by ARAMARK. A soil vapor extraction (SVE) system, which extracted volatile organic compound (VOC) impacted vapors from eleven SVE wells, operated at the site from December 2013 until July 2015 when it was shut down for rebound testing. The soil vapor rebound testing indicated that all concentrations were below the respective soil vapor cleanup goals, and the cumulative soil vapor risk was evaluated and determined to be below the established risk levels. This information was presented to DTSC in the Request for NFA of the SVE system and Site Closure letter, dated April 20, 2016. DTSC subsequently approved the no further action (NFA) and decommissioning of the SVE system in their letter dated August 17, 2016. The SVE system was decommissioned and removed from the Site, and the eleven SVE wells and eight soil vapor monitoring points were

decommissioned in December 2016. The Site continues monitoring activities. The primary constituent of concern in groundwater at the site is PCE. Groundwater monitoring continues at the site on a semi-annual basis. During the most recent groundwater monitoring event, in October 2020, the highest PCE concentration at the Site was 24 micrograms per liter (ug/L), observed in monitoring well MW-3. In 2021, groundwater monitoring transitioned to monitoring on an annual basis. On August 3, 2022, a land use covenant was recorded prohibiting activities which disturb the remedy and monitoring systems without approval, as well as any residential, hospital, school, and day care center uses. On April 12, 2023, Phase I and Phase II Environmental Site Assessments were reviewed pursuant to the Voluntary Cleanup Agreement, Docket No. HSA-FY22/23090 entered between DTSC and Pasadena XC LLC, on March 22, 2023, relative to the proposed warehouse building on the Site.

8. **William Mead Homes** – 1300 Cardinal Street: The Site is currently developed with a 415-unit public housing developed owned by the Housing Authority of the City of Los Angeles (HACLA). The Site's past uses that caused contamination include an oil field. This led to potential contaminated soil and "other" groundwater (uses other than drinking water). The potential contaminants of concern include aqueous solution with metals, oil/water separation sludge, unspecified oil containing waste, and waste oil and mixed oil. HACLA entered into a Consent Order with DTSC to perform required remedial actions. Contaminated soils were excavated and replaced with clean soil from August 2004 to June 2005. On December 3, 2013, a deed restriction was recorded on the property prohibiting excavation of contaminated soils without DTSC review and approval, as well as a prohibition on activities which disturb the soil below a specified depth without DTSC review and approval of a Soils Management Plan. In November 2021, HACLA received a Choice Neighborhoods Planning Grant from the U.S. Department of Housing and Urban Development (US HUD) to support the development of a comprehensive neighborhood Transformation Plan that will outline a strategy for the replacement of the existing public housing units at William Mead Homes. The Transformation Plan is an approximately two-year process that will include the development of a master plan that will allow HACLA to move forward with the preferred redevelopment plan for William Mead. At this time, the timeline and details associated with the future William Mead master plan and any future development on the Site is unknown.

Figure 4.8-1 GeoTracker and EnviroStor Sites in the Project Area



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 Additional data provided by GeoTracker and EnviroStor, 2022.

Fig 4.8-1 GeoTracker and EnviroStor Sites

SWRCB GeoTracker Database

A search of this database was conducted on February 4, 2022 and identified six “Open” cleanup sites in the Project Area and 32 cases that were completed and closed. A completed and closed site indicates that a closure letter or other formal decision document has been issued for the site. Open sites are categorized as “Assessment and Interim Remedial Action,” “Remediation,” “Site Assessment,” “Verification Monitoring,” “Reopen Case,” “Eligible for Closure,” or “Inactive” for sites where no regulatory oversight activities are being conducted by the Lead Agency. **Table 4.8-2** lists the “Open” GeoTracker-listed cleanup sites in the Project Area. **Figure 4.8-1** and **Table 4.8-3** present the GeoTracker-listed (and EnviroStor-listed) sites in the Project Area (a full table is included as Appendix G).

TABLE 4.8-2 “OPEN” GEOTRACKER SITES IN THE PROJECT AREA					
Label	Site Name	Address	City	Site Type	Status
11	Bortz Oil	1746 Spring St N	Los Angeles	Cleanup Program Site	Open - Inactive
13	Cannon Electrical	3209 Humboldt St	Los Angeles	Cleanup Program Site	Open - Inactive
17	Commercial/Industrial Property	405 N San Fernando Rd	Los Angeles	Cleanup Program Site	Open - Site Assessment
23	Former Lincoln Heights Jail	401 N Ave 19	Los Angeles	Cleanup Program Site	Open - Site Assessment
66	Union Pacific Railroad - Cornfield Yard	1245 N Spring St	Los Angeles	Cleanup Program Site	Open - Verification Monitoring
72, 73	Welch's Uniform Rental (former)	3505 Pasadena Ave	Los Angeles	Cleanup Program Site	Open - Inactive

The following is a discussion of the six “Active” sites in the Project Area as listed in the SWRCB GeoTracker Database:

1. **Bortz Oil** – 1746 North Spring Street: The Site was formerly used to manufacture and distribute various petroleum products. This led to potential contaminated soil and “other” groundwater (uses other than drinking water). The potential contaminants of concern include volatile organics (8260B VOCs). Soils closure was granted by DTSC in August 2002, after a Covenant to Restrict Land Use (Covenant) for the Spring Street parcel was finalized and notarized with the Los Angeles County Recorder’s office. The Covenant specifies the implementation of land use restrictions for the property to provide acceptable protection of human safety and the environment. The Covenant specifies that Site use will be restricted to commercial and industrial activities and prohibits drilling for drinking water without prior written consent of DTSC. The Site currently has a Cleanup Program Site status under the State Water Resources Control Board’s Site Cleanup Program.
2. **Cannon Electrical** – 3209 Humboldt Street: See “Kennington” above.
3. **Commercial/Industrial Property** – 405 North San Fernando Road: The Site is developed with a vacant industrial building that was formerly used for food processing. No potential contaminants of concern have been identified and no cleanup actions exist on this site per GeoTracker. The Site has an “Open - Site Assessment” status on GeoTracker as the owner of the property entered into an assessment/remedial action agreement with the Site Mitigation Unit of the County of Los Angeles Fire Department.
4. **Former Lincoln Heights Jail** – 401 North Avenue 19: The Site is developed with a City-owned structure that was the former Lincoln Heights Jail. On December 20, 2018, the Site Mitigation Unit of the County of Los Angeles Fire Department referred the site to the California Regional Water

Quality Control Board for regulatory oversight, including review of the soil sampling and analysis plan. The Site has an “Open - Site Assessment” status on GeoTracker as Site assessment is ongoing.

5. **Union Pacific Railroad – Cornfield Yard** – 1245 North Spring Street: See “Cornfield Site” above.
6. **Welch’s Uniform Rental (former)** – 3505 Pasadena Avenue: See “Welch’s Uniform Facility (Former)” above.

Sites outside of the Project Area not identified above could also have releases that may affect the Project Area. In addition to hazardous materials used and generated in the Project Area, there is potential for uncontrolled release of hazardous materials from vehicular accidents on U.S. Highway 101, Interstate 10, and Interstate 110.

USEPA Superfund Enterprise Management System (SEMS) Database in Envirofacts

A search of the USEPA database of Superfund sites revealed no Superfund sites or NPL sites in the Project Area (USEPA 2021d). However, the DTSC EnviroStor database, discussed above, lists one “State Response or NPL” site in the Project Area. This site is not listed on the SEMS database, and therefore is interpreted to be a “State Response” site. According to EnviroStor, DTSC is listed as the lead cleanup oversight agency for this site.

Use, Transport, and Abatement of Hazardous Materials

The use of hazardous materials is typically associated with industrial land uses. Activities such as manufacturing, plating, cleaning, refining, and finishing, frequently involve chemicals that are considered hazardous when accidentally released into the environment. There are several clusters of industrial uses scattered throughout the Project Area, including the area generally east of the Los Angeles River and south of the Arroyo Seco Parkway (SR-110).

To a lesser extent, hazardous materials may also be used by various commercial enterprises, as well as residential uses. Dry cleaners, in particular, use cleaning agents considered to be hazardous materials. Hardware stores typically stock paints and solvents, as well as fertilizers, herbicides, and pesticides. Swimming pool supply stores stock acids, algacides, and caustic agents. In fact, most commercial businesses occasionally use commonly available cleaning supplies which, when used in accordance with manufacturers’ recommendations, are considered safe by the state of California, but when handled improperly can be considered hazardous. Private residences also use and store commonly available cleaning materials, paints, solvents, swimming pool and spa chemicals, as well as fertilizers, herbicides, and pesticides.

If improperly handled, hazardous materials can result in public health hazards through human contact with contaminated soil or groundwater, or through airborne releases of vapors, fumes, or dust. There is also the potential for accidental or unauthorized releases of hazardous materials that would pose a public health concern. The use, transport, and disposal of hazardous materials and wastes are required to occur in accordance with federal, State, and local regulations. In accordance with such regulations, the transport of hazardous materials and wastes can only occur with transporters who have received training and appropriate licensing. Additionally, hazardous waste transporters are required to complete and carry a hazardous waste manifest, which is a set of forms, reports, and procedures designed to seamlessly track hazardous waste.

TABLE 4.8-3 GEOTRACKER AND ENVIROSTOR SITES IN THE PROJECT AREA					
Label	Site Name	Address	City	Site Type	Status
0	1101 N Main	1101 N Main St	Los Angeles	Voluntary Cleanup	No Further Action
1	140-154 N Avenue 21	140-154 N Ave 21	Los Angeles	Voluntary Cleanup	Active
2	76 Station #0857	2250 Figueroa St N.	Los Angeles	LUST Cleanup Site	Completed - Case Closed
3	Albion Dairy (former)	1739 Albion St	Los Angeles	LUST Cleanup Site	Completed - Case Closed
4	Angelica Textile Services	451 San Fernando Rd N	Los Angeles	LUST Cleanup Site	Completed - Case Closed
5	Arco Facility No. 9663	2251 Figueroa St N	Los Angeles	LUST Cleanup Site	Completed - Case Closed
6	Avenue 34	W Ave 34 and Pasadena Ave	Los Angeles	Voluntary Cleanup	Active
7	Bill's Automotive	1796 Spring St N	Los Angeles	LUST Cleanup Site	Completed - Case Closed
9	Blossom Plaza	900 N Broadway	Los Angeles	Voluntary Cleanup	Certified
10	BNSF Mission Tower Site	1430 Bolero Ln	Los Angeles	Cleanup Program Site	Completed - Case Closed
11	Bortz Oil	1746 Spring St N	Los Angeles	Cleanup Program Site	Open - Inactive
12	Bortz Oil Company	1746 N Spring St	Los Angeles	State Response or NPL	Certified O&M - Land Use Restrictions Only
13	Cannon Electrical	3209 Humboldt Ave	Los Angeles	Cleanup Program Site	Open - Inactive
14	Cemex Company	625 Lamar	Los Angeles	LUST Cleanup Site	Completed - Case Closed
15	Central Traffic Yard	1831 Pasadena Ave	Los Angeles	LUST Cleanup Site	Completed - Case Closed
16	Champion Brass Mfg. Co.	1460 Naud St	Los Angeles	Evaluation	Refer: 1248 Local Agency
17	Commercial/Industrial Property	405 N San Fernando Rd	Los Angeles	Cleanup Program Site	Open - Site Assessment
18	Cornfield Site	1245 N Spring St	Los Angeles	Voluntary Cleanup	Active
23	Former Lincoln Heights Jail	401 N Ave 19	Los Angeles	Cleanup Program Site	Open - Site Assessment
25	Heath & Company Facility	3225 Lacy St	Los Angeles	LUST Cleanup Site	Completed - Case Closed
26	International Bank Property	943 N Main St	Los Angeles	Cleanup Program Site	Completed - Case Closed
27	Jaybee Site at Lincoln Heights - LA DWP	301 W Ave 26	Los Angeles	Voluntary Cleanup	Active
29	Kennington	3209 Humboldt St	Los Angeles	Voluntary Cleanup	Active
33	LA Department Water & Power	1630 N Main St Ste 16	Los Angeles	Corrective Action	Active
34	Lacy's Street Dump	400 26th Ave	Los Angeles	Land Disposal Site	Completed - Case Closed

TABLE 4.8-3 GEOTRACKER AND ENVIROSTOR SITES IN THE PROJECT AREA					
Label	Site Name	Address	City	Site Type	Status
35	Lawry's California Center	570 Ave 26 W	Los Angeles	Cleanup Program Site	Completed - Case Closed
36	Lawry's Center	528 San Fernando Rd	Los Angeles	Cleanup Program Site	Completed - Case Closed
37	Lawry's Matthew Site	570 W 26th Ave	Los Angeles	Cleanup Program Site	Completed - Case Closed
38	Lincoln Heights Service DPW	3101 Artesian St	Montecito Heights	LUST Cleanup Site	Completed - Case Closed
39	Loreto Street Elementary School Addition	3408 Arroyo Seco Ave	Los Angeles	School	Inactive - Withdrawn
42	Main Street Center	1630 N Main St Ste 16	Los Angeles	Inspection	No Action
43	Main Street Dairy (former)	1620 Spring St N	Los Angeles	LUST Cleanup Site	Completed - Case Closed
46	N E Municipal Building	401 Ave 19 N	Montecito Heights	LUST Cleanup Site	Completed - Case Closed
47	NASA Oil Service Station	2001 Broadway N	Los Angeles	LUST Cleanup Site	Completed - Case Closed
49	Proposed AMCAL Multi-Housing Development	306-360 W Ave 26	Los Angeles	Evaluation	Refer: 1248 Local Agency
50	Ross Swiss Dairies	1739 Albion St	Montecito Heights	LUST Cleanup Site	Completed - Case Closed
51	Sage Property	1667 N Main St	Los Angeles	Cleanup Program Site	Completed - Case Closed
52	San Fernando Consolidated Facility	452 San Fernando Rd	Los Angeles	LUST Cleanup Site	Completed - Case Closed
54	Shell	2600-2606 Figueroa St N	Los Angeles	LUST Cleanup Site	Completed - Case Closed
55	Smiland Paint Company	620 Lamar St	Los Angeles	Cleanup Program Site	Completed - Case Closed
58	So Cal Gas/LA Main St MGP	1630 N Main St	Los Angeles	Voluntary Cleanup	Inactive - Needs Evaluation
59	Supply & Maintenance, Fire Sh.	140 Ave 19 N	Montecito Heights	LUST Cleanup Site	Completed - Case Closed
61	The E.B. Malone Corporation	306-360 Ave 26	Los Angeles	Cleanup Program Site	Completed - Case Closed
63	Tosco S.S. #0857	2250 Figueroa St N	Los Angeles	LUST Cleanup Site	Completed - Case Closed D
64	Transit Mixed Concrete Company	625 Lamar St	Montecito Heights	LUST Cleanup Site	Completed - Case Closed
65	Tuneup Masters Shop #67	2131 Main St N	Los Angeles	LUST Cleanup Site	Completed - Case Closed
66	Union Pacific Railroad - Cornfield Yard	1245 N Spring St	Los Angeles	Cleanup Program Site	Open - Verification Monitoring

TABLE 4.8-3 GEOTRACKER AND ENVIROSTOR SITES IN THE PROJECT AREA					
Label	Site Name	Address	City	Site Type	Status
67	Union Pacific/Railroad Company	1322 Broadway N	Los Angeles	LUST Cleanup Site	Completed - Case Closed
69	UPS Main ST. Lamar Hub	1800 Main St N	Los Angeles	LUST Cleanup Site	Completed - Case Closed
70	Victor Industrial Battery	138 N San Fernando Rd	Los Angeles	Voluntary Cleanup	Certified O&M - Land Use Restrictions Only
71	Welch's Uniform Facility (Former)	3505 Pasadena Ave	Los Angeles	Voluntary Cleanup	Active
72	Welch's Uniform Rental (former)	3505 Pasadena Ave	Los Angeles	Cleanup Program Site	Open - Inactive Site
73	Welch's Uniform Rental Site (former)	3505 Pasadena Ave	Los Angeles	Cleanup Program Site	Open - Inactive Site
74	Western Brassworks	1440 Spring St	Los Angeles	LUST Cleanup Site	Completed - Case Closed
75	William Mead Homes	1300 Cardinal St	Los Angeles	State Response or NPL	Active
76	WITCO/Allied Kelite Division	1250 N Main Street	Los Angeles	Voluntary Cleanup	No Further Action
77	Main Street Center	1630 N Main St Ste 16	Los Angeles	RCRA	Undergoing Closure
78	Broadway Oil 176 Inc	2001 N Broadway	Los Angeles	Underground Storage Tank (UST)	Permitted UST
79	City of LA - PW - Street Services	452 N San Fernando Rd	Los Angeles	UST	Permitted UST
80	Danny K. Wong	117 Wilhardt St	Los Angeles	UST	Permitted UST
81	G&M Oil Co. #88	2601 N Figueroa St	Los Angeles	UST	Permitted UST
82	Gabel's Cosmetics Inc	126 S Ave 18 UN 3	Los Angeles	UST	Permitted UST
83	Hancor Shell	2600 N Figueroa St	Los Angeles	UST	Permitted UST
84	LAFD - Supply & Maintenance	140 N Ave 19	Los Angeles	UST	Permitted UST
85	Lincoln Heights Service Center	3101 Artesian St	Los Angeles	UST	Permitted UST
86	Main Street Center and Receiving Station A and Dis	1630 N Main St	Los Angeles	UST	Permitted UST
87	Mission School Transportation Inc.	201 W Sotello St	Los Angeles	UST	Permitted UST
88	Tesoro (USA) 63279	2251 N Figueroa St	Los Angeles	UST	Permitted UST
89	United #5605	2250 N Figueroa St	Los Angeles	UST	Permitted UST

Use, Transport, and Abatement of Hazardous Materials

Hazardous materials use is primarily concentrated in the industrial and manufacturing areas of the western, central, and eastern portions of the Project Area where light and heavy industry are present. Most transportation of hazardous materials through and within the Project Area consists of trucks that travel along freeways and major thoroughfares in the Project Area.

OIL FIELDS AND WELLS

Oil fields and oil production activities present a variety of hazards in urbanized areas, including toxic air contaminants and dust from oil production, and the potential of contaminant release into an aquatic environment. Unconstrained oil seepage from oil fields and wells can contaminate the soil and groundwater aquifers.

The Project Area does not contain any active oil or gas wells (Department of Conservation [DOC] 2022a). The easternmost portion of the Los Angeles City Oil Field lies along the western edge of the Project Area, with a small portion (approximately two acres) of the oil field located along North Spring Street in the Project Area. However, one plugged core hole well is located in the Project Area: API Number 0403719045, which is an exploratory core hole drilled for geological information (DOC 2022a). **Figure 4.8-2** includes the location of the sole oil well (now plugged) in the Project Area.

METHANE GAS

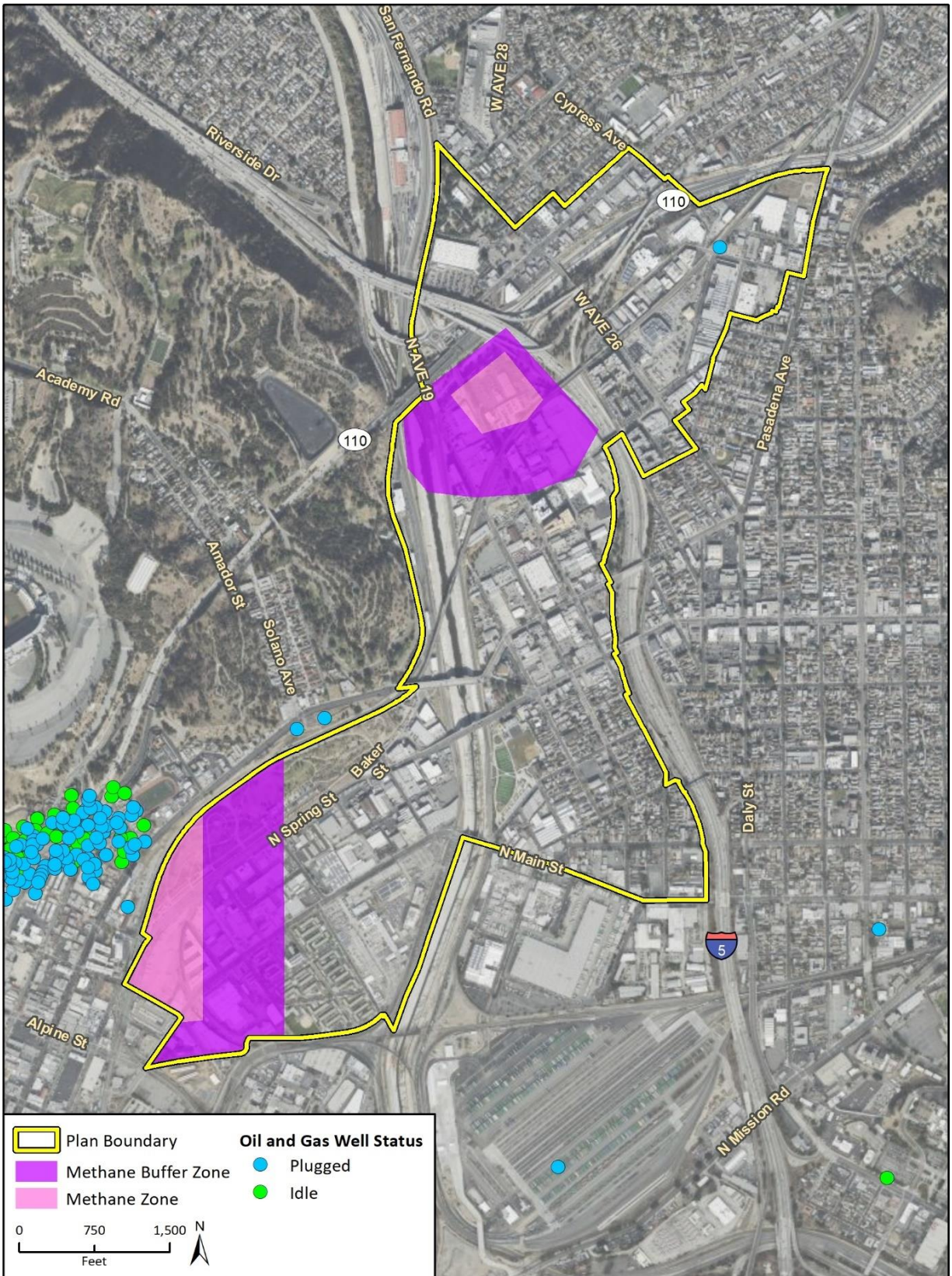
Methane gas is produced by anaerobic decay of organic matter deep under the Earth's surface and is the major component of natural gas, about 87 percent by volume. In common usage, deposits rich in natural gas (i.e., methane) are called natural gas fields. At room temperature and standard pressure, methane is a colorless, odorless gas. While not toxic, it is highly flammable and may form explosive mixtures with air. Methane is also an asphyxiant and may displace oxygen in an enclosed space; however, the concentrations at which flammable or explosive mixtures form are much lower than the concentration at which asphyxiation risk is significant. Thus, the main concern with methane gas is the risk of explosion if methane seeps and accumulates in an enclosed space with air (County of Los Angeles 2020).

The easternmost portion of the Los Angeles City Oil Field lies along the western edge of the Project Area, with a small portion (approximately two acres) of the oil field located along North Spring Street in the Project Area. As shown in **Figure 4.8-2**, the Project Area includes two areas designated by the City as Methane Zones or Methane Buffer Zones. Properties within these zones require methane testing and/or mitigation for construction projects (City of Los Angeles 2004).

AIRPORTS

The Project Area is not located within two miles of a public airport or public use airport and therefore is not subject to airport-related hazards. The airports nearest to the Project Area are Hollywood Burbank Airport, located approximately 10 miles northwest of the Project Area, and San Gabriel Valley Airport, located approximately 10 miles east of the Project Area; both of these airports are located in Los Angeles County (not within the City of Los Angeles). Los Angeles International Airport is located approximately 12 miles southwest of the Project Area.

Figure 4.8-2 Oil and Gas Wells and Methane Zones in the Project Area



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Additional data provided by California Department of Conservation, 2019.

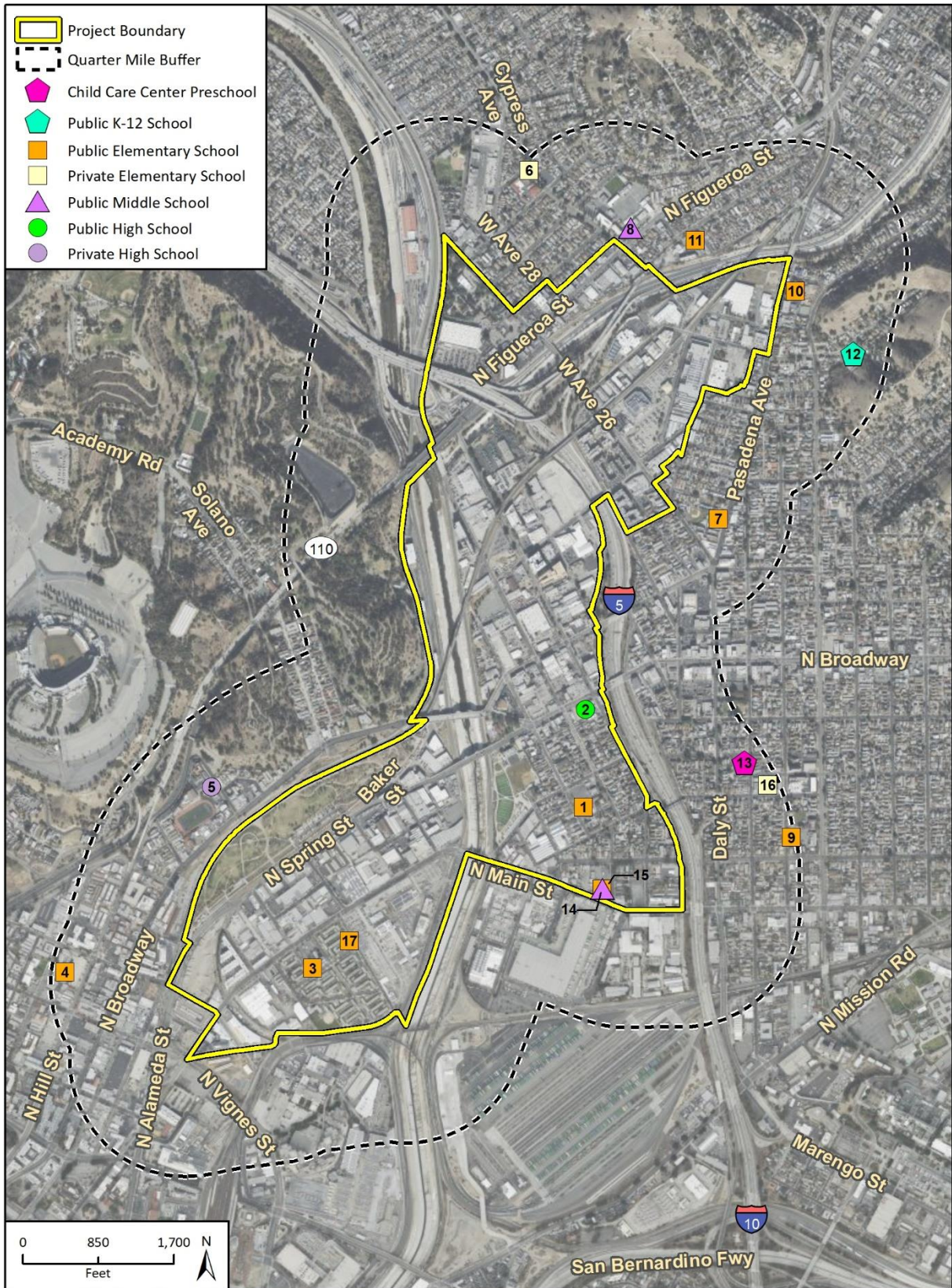
SCHOOLS

School locations require consideration because individuals particularly sensitive to hazardous materials exposure use these facilities. Additional protective regulations apply to projects that could use or disturb potentially hazardous products near or at schools. The California Public Resources Code requires projects that would be located within 0.25 mile of a school and might reasonably be expected to emit or handle hazardous materials to consult with the school district regarding potential hazards.

There are 17 educational facilities (defined as colleges, high schools, elementary schools, preschools, or nursery schools) within the Project Area or 0.25 mile of the Project Area, including six within the Project Area and 11 within 0.25 mile of the Project Area. **Table 4.8-4** and **Figure 4.8-3** identify the following facilities: 10 elementary schools (four in the Project Area and six within 0.25 mile of the Project Area), two middle schools (one in the Project Area and one within 0.25 mile of the Project Area), two high schools (one in the Project Area and one within 0.25 mile of the Project Area), and one public K-12 school within 0.25 mile of the Project Area.

TABLE 4.8-4 EDUCATIONAL FACILITIES IN OR WITHIN 0.25 MILE OF THE PROJECT AREA			
Facility No.	Facility Name	Address	Type of School
1	Albion Street Elementary School	322 South Avenue 18	Public Elementary School
2	Alliance Susan and Eric Smidt Technology High School	211 South Avenue 20	Public High School
3	Ann Street Elementary School	126 East Bloom Street	Public Elementary School
4	Castelar Street Elementary School	840 Yale Street	Public Elementary School
5	Cathedral High School	1253 Bishops Road	Private High School
6	Divine Saviour School	624 Cypress Avenue	Private Elementary School
7	El Rio Community School	2635 Pasadena Avenue	Public Elementary School
8	Florence Nightingale Middle School	3311 North Figueroa St	Public Middle School
9	Griffin Avenue Elementary School	2025 Griffin Avenue	Public Elementary School
10	Hillside Elementary School	120 East Avenue 35	Public Elementary School
11	Loreto Street Elementary School	3408 Arroyo Seco Ave	Public Elementary School
12	Los Angeles Leadership Academy	234 East Avenue 33	Public K-12 School
13	Plaza de la Raza Head Start	2141 Workman Street	Child Care Center Preschool
14	PUC Excel Charter Academy	1855 North Main Street	Public Middle School
15	PUC Milagro Charter	1855 North Main Street	Public Elementary School
16	Sacred Heart Elementary School	2109 Sichel Street	Private Elementary School
17	William Mead Head Start/State Preschool	120 Leroy Street	Child Care Center Preschool

Figure 4.8-3 Educational Facilities in or within 0.25 mile of the Project Area



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Additional data provided by the California Department of Education, 2021.

Fig 4.8-3 Educational Facilities_20220315

WILDLAND FIRE HAZARDS

The California Department of Forestry and Fire Protection (CAL FIRE) identifies fire hazard areas and fire-threatened communities at the wildland urban interface. CAL FIRE maps identify fire hazard severity zones in the State and local responsibility areas. Wildland fire protection in California is the responsibility of either the State, local government, or the federal government. A designated State Responsibility Area (SRA) is the area "in which the financial responsibility of preventing and suppressing fires is primarily the responsibility of the state" (Public Resources Code Section 4125). Local responsibility areas (LRA) include incorporated cities, cultivated agricultural lands, and portions of the desert. LRA fire protection is typically provided by city fire departments, fire protection districts, counties, and by CAL FIRE under contract to local government.

Classification of a zone as moderate, high, or very high fire hazard is based on a combination of how a fire will behave and the probability of flames and embers threatening buildings.

CAL FIRE has identified the entire Project Area as being located within the "Non-Very High Fire Hazard Severity Zone" in the Local Responsibility Area for incorporated cities (CAL FIRE 2011). This indicates that the Project Area is not subject to wildfire hazards.

EMERGENCY RESPONSE PLANS

The City of Los Angeles Emergency Management Department (EMD) is comprised of five divisions: administrative services, community preparedness and engagement, operational readiness, planning, and training and exercise. The EMD works with City departments, municipalities and with community-based organizations to ensure that the City and its residents have the resources and information they need to prepare, respond, and recover from emergencies, disasters, and significant events (City of Los Angeles 2022). Within the EMD, the Emergency Operations Organization (EOO) is the operational department responsible for the City's emergency preparations (planning, training, and mitigation), response and recovery operations. The EOO centralizes command and information coordination to enable its unified chain-of-command to operate efficiently and effectively in managing the City's resources. The Emergency Operation Center (EOC) is the focal point for coordination of the City's emergency planning, training, response, and recovery efforts. EOC processes follow the National All-Hazards approach to major disasters such as fires, floods, earthquakes, acts of terrorism and large-scale events in the City that require involvement by multiple City departments.

The Los Angeles Fire Department (LAFD) is responsible for rescue and provision of medical care to victims of fires and other emergencies. Key to a successful rapid response is LAFD's goal of maintaining adequate response distances from any given fire outbreak to the closest fire station. See Section 4.13, *Public Services*, of this Draft EIR, for further details about the LAFD.

Emergency Response in the City of Los Angeles

Emergency response throughout the City is managed by the Emergency Management Department (EMD) which is comprised of five divisions, including the administrative services division, community preparedness and engagement division, operational readiness division, planning division, and training and exercise division (City of Los Angeles 2022). The Emergency Operations Organization (EOO) is the centralized operational department of the EMD, which implements the Safety Element of the General Plan. The EOO is a "department without walls" as it works with all of the City's departments to prepare for, respond to, and recover from emergencies, disasters, and significant events (City of Los Angeles 1996). The EOO also coordinates emergency response planning with other jurisdictions' emergency service organizations (City of Los Angeles 2017a). The Emergency Operations Center (EOC) is the operations

center which is the focal point for the coordination of the City's emergency planning, training, response, and recovery efforts. The EOC is a state-of-the-art facility comprised of a Main Coordination Room (MCR), Media Center, Training Room, Management Section Room, Public Information Officer Room, Executive Conference Room, six flexible-use Break Out Rooms (includes Business Operations Center), Amateur Radio Operations Room and two storage rooms (City of Los Angeles 2022).

Project Area Emergency Response

The City's General Plan Safety Element specifies several disaster routes in the Project Area. Disaster routes typically parallel major north-south and east-west traffic corridors. Disaster routes within and adjacent to the Project Area include U.S. 101, I-110, I-10, W. 1st Street, W. Cesar Chavez Avenue, E. 4th Street east of Alameda Street, S. Figueroa Street, Alameda Street, and S. San Pedro Street south of Temple Street (County of Los Angeles 2018).

REGULATORY FRAMEWORK

Hazardous materials and waste can pose a potential hazard to human health and the environment when improperly treated, stored, transported, disposed of, or otherwise managed. Federal, State, and local programs that regulate the use, storage, and transportation of hazardous materials and hazardous waste are in place to prevent unwanted consequences. These regulatory programs are designed to reduce the risk that hazardous substances may pose to people and businesses under normal daily circumstances and as a result emergencies and disasters.

FEDERAL

Primary federal agencies with responsibility for hazardous materials management include the USEPA, U.S. Department of Labor's Occupational Safety and Health Administration (OSHA), and U.S. Department of Transportation (USDOT).

U.S. Environmental Protection Agency

The USEPA's mission is to protect human health and the environment. USEPA takes action to reduce risks associated with exposure to chemicals in commerce, indoor and outdoor environments, and products and food. USEPA continues to oversee the introduction and use of pesticides, improve their Integrated Risk Information System (IRIS) program, reduce radon risks, identify and address children's health risks in schools and homes, and improve chemical management practices. Oversight of chemical storage and manufacturing in coordination with their interagency partners remains a key focus of USEPA, as well as efforts to reduce urban air toxins.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as "Superfund," was enacted by Congress on December 11, 1980. This law provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites, providing for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified. CERCLA also enabled the revision of the National Contingency Plan. The National Contingency Plan provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The National Contingency Plan also establishes the National

Priorities List, which is a list of contaminated sites warranting further investigation by the EPA. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986 (USEPA 2022).

Resource Conservation and Recovery Act

The 1976 federal Resource Conservation and Recovery Act (RCRA) (42 United States Code [USC] secs. 6901-6992k), amended and revised the Solid Waste Disposal Act to give USEPA authority to regulate hazardous waste from “cradle to grave.” This includes regulating the generation, transportation, treatment, storage, and disposal of hazardous waste. Under RCRA regulations, generators of hazardous waste must register and obtain a hazardous waste activity identification number. RCRA allows individual states to develop their own programs for the regulation of hazardous waste as long as they are at least as stringent as RCRA.

The 1986 amendments to RCRA enabled USEPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. STs are regulated under Subtitle I of RCRA and its regulations, which establish construction standards for USTs installed after December 22, 1988, as well as standards for upgrading existing USTs and associated piping. Since 1998, all non-conforming tanks were required to be either upgraded or closed.

Toxic Substances Control Act (TSCA)

In 1976, TSCA (15 USC Sections 2601–2671) established a system of evaluation in order to identify chemicals which may pose hazards. TSCA is enforced by the USEPA through inspections of places in which ACMs are manufactured, processed, and stored and through the assessment of administrative and civil penalties and fines, as well as injunctions against violators. TSCA establishes a process by which public exposure to hazards may be reduced through manufacturing, distribution, use and disposal restrictions or labeling of products. PCBs are hazardous materials regulated by the USEPA under the TSCA. These regulations ban the manufacture of PCBs (as of 1979), although the continued use of existing PCB-containing equipment is allowed. PCBs were formerly used in such applications as hydraulic fluids, plasticizers, adhesives, fire retardants, and electrical transformers, among others. TSCA also contains provisions controlling the continued use and disposal of existing PCB-containing equipment. The disposal of PCB wastes is also regulated by TSCA (40 CFR 761), which contains life cycle provisions similar to those in RCRA. In addition to TSCA, provisions relating to PCBs are contained in the Hazardous Waste Control Law (HWCL), which lists PCBs as hazardous waste.

Under TSCA, the USEPA has enacted strict requirements on the use, handling, and disposal of ACMs. These regulations included the phasing out of friable asbestos and ACMs in new construction materials beginning in the early 1970s. In 1989, the USEPA banned most uses of asbestos in the country. Although most of the ban was overturned in 1991, the current banned product categories include corrugated paper, rollboard, commercial paper, specialty paper, flooring felt, and any new uses. TSCA also establishes USEPA’s Lead Abatement Program regulations, which provide a framework for lead abatement, risk assessment, and inspections. Those performing these services are required to be trained and certified by USEPA (USEPA 1996).

Hazardous Materials Transportation Act (HMTA)

The USDOT prescribes strict regulations for the safe transportation of hazardous materials, including requirements for hazardous waste containers and licensed haulers who transport hazardous waste on public roads. The Secretary of the USDOT receives the authority to regulate the transportation of hazardous materials from the Hazardous Materials Transportation Act (HMTA), as amended and codified in 49 USC Section 5101 et seq. The Secretary of Transportation is authorized to issue regulations to implement the requirements of 49 USC. The Pipeline and Hazardous Materials Safety Administration (PHMSA), formerly

the Research and Special Provisions Administration, was delegated the responsibility to write the hazardous materials regulations, which are contained in Title 49 of the CFR Parts 100-185. Title 49 of the CFR, which contains the regulations set forth by the HMTA, specifies requirements and regulations with respect to the transport of hazardous materials. It requires that every employee who transports hazardous materials receive training to recognize and identify hazardous materials and become familiar with hazardous materials requirements. Under the HMTA, the Secretary of Transportation “may authorize any officer, employee, or agent to enter upon, inspect, and examine, at reasonable times and in a reasonable manner, the records and properties of persons to the extent such records and properties relate to: (1) the manufacture, fabrication, marking, maintenance, reconditioning, repair, testing, or distribution of packages or containers for use by any "person" in the transportation of hazardous materials in commerce; or (2) the transportation or shipment by any "person" of hazardous materials in commerce.”

Occupational Safety and Health Act of 1970

The Occupational Safety and Health Act of 1970, which is implemented by the federal OSHA, contains provisions with respect to hazardous materials handling. OSHA was created to assure safe and healthful working conditions by setting and enforcing standards and by providing training, outreach, education, and assistance. OSHA provides standards for general industry and construction industry on hazardous waste operations and emergency response. OSHA requirements, as set forth in 29 CFR Section 1910, et. seq., are designed to promote worker safety, worker training, and a worker’s right-to-know. The U.S. Department of Labor has delegated the authority to administer OSHA regulations to the state of California. The California OSHA program (Cal/OSHA) (codified in the California Code of Regulations [CCR], Title 8, or 8 CCR generally and in the Labor Code secs. 6300-6719) is administered and enforced by the Division of Occupational Safety and Health (DOSH). Cal/OSHA is very similar to the OSHA program. Among other provisions, Cal/OSHA requires employers to implement a comprehensive, written Injury and Illness Prevention Program (IIPP) for potential workplace hazards, including those associated with hazardous materials.

In addition, pursuant to OSHA, a developer that undertakes a construction project that involves the handling of contaminated site conditions must prepare and implement a Health and Safety Plan (HASP) that sets forth the measures that would be undertaken to protect those that may be affected by the construction project. While a HASP is prepared and implemented pursuant to OSHA, the HASP is not subject to regulatory review and approval, although a HASP is typically appended to a Soil Management Plan if this document is required by the Certified Unified Program Agency (CUPA), which is the LAFD with regard to the Project Area. The HASP, if required, would be prepared in accordance with the most current OSHA regulations, including 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response and 29 CFR 1926, Construction Industry Standards, as well as other applicable federal, State, and local laws and regulations.

Research and Special Programs Administration (RSPA)

The RSPA regulations cover definition and classification of hazardous materials, communication of hazards to workers and the public, packaging and labeling requirements, operational rules for shippers, and training. They apply to interstate, intrastate, and foreign commerce by air, rail, ships, and motor vehicles, and also cover hazardous waste shipments. The RSPA’s Federal Highway Administration (FHWA) is responsible for highway routing of hazardous materials and highway safety permits. The U.S. Coast Guard regulates bulk transport by vessel. The hazardous material regulations include emergency response provisions, including incident reporting requirements. Reports of major incidents go to the National Response Center, which in turn is linked with CHEMTREC, a service of the chemical manufacturing industry that provides details on most chemicals shipped in the United States.

Federal Emergency Management Act (FEMA)

FEMA was established in 1979 via executive order and is an independent agency of the federal government. In March 2003, FEMA became part of the U.S. Department of Homeland Security with the mission to lead the effort in preparing the nation for all hazards and effectively manage federal response and recovery efforts following any national incident. FEMA also initiates proactive mitigation activities, trains first responders, and manages the National Flood Insurance Program and the U.S. Fire Administration.

Disaster Mitigation Act of 2000

Disaster Mitigation Act (42 U.S.C. §5121) provides the legal basis for FEMA mitigation planning requirements for state, local, and Indian Tribal governments as a condition of mitigation grant assistance. It amends the Robert T. Stafford Disaster Relief Act of 1988 (42 U.S.C. §5121-5207) by repealing the previous mitigation planning provisions and replacing them with a new set of requirements that emphasize the need and creates incentives for state, Tribal, and local agencies to closely coordinate mitigation planning and implementation efforts. This Act reinforces the importance of pre-disaster infrastructure mitigation planning to reduce disaster losses nationwide and the streamlining of the administration of federal disaster relief and programs to promote mitigation activities. Some of the major provisions of this Act include:

- Funding pre-disaster mitigation activities;
- Developing experimental multi-hazard maps to better understand risk;
- Establishing state and local government infrastructure mitigation planning requirements;
- Defining how states can assume more responsibility in managing the Hazard Mitigation Grant Program (HMGP); and
- Adjusting ways in which management costs for projects are funded.

The mitigation planning provisions outlined in Section 322 of this Act establish performance-based standards for mitigation plans and require states to have a public assistance program (Advance Infrastructure Mitigation [AIM]) to develop county government plans. The consequence for counties that fail to develop an infrastructure mitigation plan is the chance of a reduced federal share of damage assistance from 75 percent to 25 percent if the damaged facility has been damaged on more than one occasion in the preceding 10-year period by the same type of event.

Other Hazardous Materials Regulations

In addition to the USDOT regulations for the safe transportation of hazardous materials, other applicable federal laws also address hazardous materials. These include:

- Community Environmental Response Facilitation Act (CERFA) of 1992;
- Clean Water Act;
- Clean Air Act;
- Safe Drinking Water Act;
- Atomic Energy Act;
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

Federal Fire Safety Act (FFSA)

The FFSA of 1992 is different from other laws affecting fire safety as the law applies to federal operations, and there is no requirement for local action unless a private building owner leases space to the federal government. The FFSA requires federal agencies to provide sprinkler protection in any building, whether owned or leased by the federal government that houses at least 25 federal employees during their employment.

Title 40 Code of Federal Regulations

Title 40 of the CFR Part 264 “Standards for Owners of Hazardous Waste Treatment, Storage and Disposal Facilities,” establishes minimum national standards which define the acceptable management of hazardous waste. This standard applies to owners and operators of all facilities which treat, store, or dispose of hazardous waste.

STATE POLICIES AND REGULATIONS

The primary state agencies with jurisdiction over hazardous chemical materials management are the California Environmental Protection Agency (CalEPA) DTSC and the SWRCB. Other state agencies involved in hazardous materials management include California OSHA (Cal/OSHA) and the State Office of Emergency Services (Cal OES).

Authority for the statewide administration and enforcement of RCRA rests with Cal/EPA DTSC. While DTSC has primary state responsibility in regulating the generation, storage, and disposal of hazardous materials, DTSC may further delegate enforcement authority to local jurisdictions. In addition, DTSC is responsible and/or provides oversight for contamination cleanup and administers statewide hazardous waste reduction programs. DTSC operates programs to accomplish the following: (1) manage the aftermath of improper hazardous waste management by overseeing site cleanups; (2) prevent releases of hazardous waste by ensuring that those who generate, handle, transport, store, and dispose of wastes do so properly; and (3) evaluate soil, water, and air samples taken at sites.

The storage of hazardous materials in USTs is regulated by the SWRCB, which delegates authority to the Regional Water Quality Control Boards (RWQCBs) on the regional level, and typically to the local oversight agency or fire department on the local level.

The Cal/OSHA program is administered and enforced by the Division of Occupational Safety and Health (DOSH). Cal/OSHA is very similar to the federal OSHA program. For example, both programs contain rules and procedures related to exposure to hazardous materials during demolition and construction activities. In addition, Cal/OSHA requires employers to implement a comprehensive, written IIPP. An IIPP is an employee safety program for potential workplace hazards, including those associated with hazardous materials.

The Cal OES Hazardous Materials (HazMat) section under the Fire and Rescue Division coordinates statewide implementation of hazardous materials accident prevention and emergency response programs for all types of hazardous materials incidents and threats. In response to any hazardous materials emergency, the HazMat section staff is called upon to provide state and local emergency managers with emergency coordination and technical assistance.

California Hazardous Materials Release Response Plans and Inventory Law of 1985, Hazardous Waste and Substance Sites

The Business Plan Act requires preparation of Hazardous Materials Business Plans and disclosure of hazardous materials inventories, including an inventory of hazardous materials handled, plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures for businesses that handle, store, or transport hazardous materials in amounts exceeding specified minimums (California Health and Safety Code [HSC], Division 20, Chapter 6.95, Article 1). Statewide, DTSC has primary regulatory responsibility for management of hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the state. Local agencies are responsible for administering these regulations.

Several state agencies regulate the transportation and use of hazardous materials to minimize potential risks to public health and safety, including CalEPA and the California Emergency Management Agency. The California Highway Patrol and Caltrans enforce regulations specifically related to the transport of hazardous materials. Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roadways.

Hazardous Waste and Substances Sites (Cortese List)

Government Code Section 65962.5, amended in 1992, requires the CalEPA to develop and update annually the Hazardous Waste and Substances Sites (Cortese List), which is a list of hazardous waste sites and other contaminated sites. The Cortese List is a planning document used by the State, local agencies, and developers to comply with California Environmental Quality Act (CEQA) requirements pertaining to providing information about the location of hazardous materials release sites. While the Cortese List is no longer maintained as a single list, the following databases provide information that meet the Cortese List requirements:

- List of Hazardous Waste and Substances sites from the (DTSC EnviroStor database (HSC Sections 25220, 25242, 25356, and 116395);
- List of open and active LUST sites by County and Fiscal Year from the SWRCB GeoTracker database (HSC Section 25295);
- List of solid waste disposal sites identified by the SWRCB with waste constituents above hazardous waste levels outside the waste management unit (California Water Code [CWC] Section 13273[e] and 14 CCR Section 18051);
- List of “active” Cease and Desist Orders and Cleanup and Abatement Orders from the SWRCB (CWC Sections 13301 and 13304); and
- List of hazardous waste facilities subject to corrective action pursuant to HSC Section 25187.5, identified by the DTSC.

California Health and Safety Code, Division 20, Chapter 6.5, Hazardous Waste Control Law

The California Health and Safety Code, Division 20, Chapter 6.5, Hazardous Waste Control Law empowers DTSC to administer the state’s hazardous waste program and implement the federal program in California. CCR Titles 22 and 23 address hazardous materials and wastes. Title 22 defines, categorizes, and lists hazardous materials and wastes. Title 23 addresses public health and safety issues related to hazardous materials and wastes and specifies disposal options.

License to Transport Hazardous Materials – California Vehicle Code, Section 32000.5 et seq.

The California Department of Transportation (Caltrans) regulates hazardous materials transportation on all interstate roads. Within California, the State agencies with primary responsibility for enforcing federal and State regulations and for responding to transportation emergencies are the California Highway Patrol and Caltrans. Together, federal and State agencies determine driver-training requirements, load labeling procedures, and container specifications for vehicles transporting hazardous materials.

Underground Storage Tanks Program

The State regulates USTs through a program pursuant to HSC Division 20, Chapter 6.7, and CCR Title 23, Division 3, Chapter 16 and Chapter 18. The State's UST program regulations include among others, permitting USTs, installation of leak detection systems and/or monitoring of USTs for leakage, UST closure requirements, release reporting/corrective action, and enforcement. Oversight of the statewide UST program is assigned to the SWRCB which has delegated authority to the RWQCB and typically on the local level to the local oversight agency or fire department. The LAFD administers and enforces federal and state laws and local ordinances for USTs at the Project Area. Plans for the construction/installation, modification, upgrade, and removal of USTs are reviewed by LAFD Inspectors. If a release affecting groundwater is documented, the project file is transferred to the appropriate RWQCB for oversight.

Aboveground Petroleum Storage Act

In 1989, California established the Aboveground Petroleum Storage Act instituting a regulatory program covering ASTs containing specified petroleum products (HSC Sections 25270–25270.13). The Aboveground Petroleum Storage Act applies to facilities with storage capacities of 10,000 gallons or more or are subject to oil pollution prevention and response requirements under 40 CFR Part 112. Under the Aboveground Petroleum Storage Act, each owner or operator of a regulated aboveground storage tank (AST) facility must file biennially a storage statement with the SWRCB disclosing the name and address of the AST facility; the contact person for the facility; and the location, size, age, and contents of each AST that exceeds 10,000 gallons in capacity and that holds materials that are at least five percent petroleum. In addition, each owner or operator of a regulated AST must prepare a Spill Prevention Control and Countermeasure (SPCC) Plan in accordance with federal and State requirements (40 CFR Part 112 and HSC Section 25270.5[c]). The responsibility for inspecting ASTs and ensuring that Spill Prevention Control and Countermeasure Plans have been prepared lies with the RWQCBs.

Lead-Based Paint Regulations

Lead-based paint (LBP) is defined as any paint, varnish, stain, or other applied coating that has a one milligram per square centimeter (mg/cm^2) (5,000 microgram per gram [$\mu\text{g}/\text{g}$] or 0.5% by weight) or more of lead. The U.S. Consumer Product Safety Commission (16 CFR 1303) banned paint containing more than 0.06 percent lead for residential use in 1978. Therefore, residential buildings built before 1978 are much more likely to have LBP.

The demolition of buildings containing LBPs is subject to a comprehensive set of California regulatory requirements that are designed to assure the safe handling and disposal of these materials. Cal/OSHA has established limits of exposure to lead contained in dusts and fumes, which provides for exposure limits, exposure monitoring, and respiratory protection, and mandates good working practices by workers exposed to lead, particularly since demolition workers are at greatest risk of adverse exposure. Lead-contaminated debris and other wastes must also be managed and disposed of in accordance with applicable provisions of the California HSC.

California Occupational Safety and Health Act (Cal/OSHA) – California Labor Code, Section 6300 et seq.

Cal/OSHA is responsible for developing and enforcing workplace safety standards and ensuring worker safety in the handling and use of hazardous materials (8 CCR, Section 1529). Among other requirements, Cal/OSHA requires entities handling specified amounts of certain hazardous chemicals to prepare injury and illness prevention plans and chemical hygiene plans and provides specific regulations to limit exposure of construction workers to lead.

The California Occupational Safety and Health Act of 1973 addresses California employee working conditions, enables the enforcement of workplace standards, and provides for advancements in the field of occupational health and safety. The Act also created Cal/OSHA, the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA's standards are generally more stringent than federal regulations. Under the former, the employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure. The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings. At sites known or suspected to be contaminated by hazardous materials, workers must have training in hazardous materials operations and a HASP must be prepared. The HASP establishes policies and procedures to protect workers and the public from exposure to potential hazards at the contaminated site.

The Safe Drinking Water and Toxic Enforcement Act

The Safe Drinking Water and Toxic Enforcement Act (HSC Section 25249.5, et seq.), Proposition 65, lists chemicals and substances believed to have the potential to cause cancer or deleterious reproductive effects in humans. It also restricts the discharges of listed chemicals into known drinking water sources above the regulatory levels of concern, requires public notification of any unauthorized discharge of hazardous waste, and requires that a clear and understandable warning be given prior to a known and intentional exposure to a listed substance.

California Water Code

The CWC authorizes the SWRCB to implement provisions of the Clean Water Act, including the authority to regulate waste disposal and require cleanup of discharges of hazardous materials and other pollutants. In regard to construction dewatering discharge analysis and treatment, groundwater may be encountered during deeper excavations for the subterranean parking structure, building foundations, or other subterranean building components. Under the CWC, discharges of any such groundwater to surface waters, or any point sources hydrologically connected to surface waters, such as storm drains, is prohibited unless conducted in compliance with a Waste Discharge Requirement (WDR) permit. In addition to the CWC, these permits implement and are in compliance with the federal Clean Water Act's National Pollutant Discharge Elimination System (NPDES) program. In accordance with these legal requirements, dewatering, treatment, and disposal of groundwater encountered during construction activities would be conducted in accordance with the Los Angeles RWQCB's Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties, pursuant to adopted Order No. R4-2013-0095, or any other appropriate WDR permit identified by the Los Angeles RWQCB. Compliance with an appropriate WDR permit would include monitoring, treatment if appropriate, and proper disposal of any encountered groundwater in accordance with applicable water quality standards. If, for example, extracted groundwater contains total petroleum hydrocarbons (TPH) or other petroleum breakdown compounds in concentrations exceeding water quality standards, compliance with legal requirements would mandate treatment to meet published State water quality standards prior to discharge into a storm drain system.

Government Code Section 3229, Division 3 (California Geologic Energy Management Division [CalGEM])

In compliance with Section 3229, Division 3 of the California Public Resources Code, before commencing any work to abandon any well, the owner or operator shall request approval from CalGEM, formerly the Division of Oil, Gas, and Geothermal Resources (DOGGR), via a written notice of intention to abandon the well.

California Fire Code, Title 24, Part 9, Chapters 33, 50 and 57

The 2019 California Fire Code (CFC), written by the California Building Standards Commission, is based on the 2018 International Fire Code (IFC). The IFC is a model code that regulates minimum fire safety requirements for new and existing buildings, facilities, storage, and processes. The IFC addresses fire prevention, fire protection, life safety, and safe storage and use of hazardous materials in new and existing buildings, facilities, and processes.

The CFC, Chapter 9 of Title 24 of the CCR, was created by the California Building Standards Commission based on the International Fire code and is updated every three years. The overall purpose of the CFC is to establish the minimum requirements to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations. Chapter 49 of the CFC contains minimum standards for development in the wildland–urban interface and fire hazard areas. The CFC also provides regulations and guidance for local agencies in the development and enforcement of fire safety standards.

Uniform Fire Code

The Uniform Fire Code, Article 80 (Section 80.103 of the Uniform Fire Code as adopted by the State Fire Marshal pursuant to Health and Safety Code Section 13143.9), includes specific requirements for the safe storage and handling of hazardous materials. These requirements are intended to reduce the potential for a release of hazardous materials and for mixing of incompatible chemicals, and specify the following specific design features to reduce the potential for a release of hazardous materials that could affect public health or the environment:

- Separation of incompatible materials with a noncombustible partition;
- Spill control in all storage, handling, and dispensing areas; and
- Separate secondary containment for each chemical storage system. The secondary containment must hold the entire contents of the tank, plus the volume of water needed to supply the fire suppression system for a period of 20 minutes in the event of catastrophic spill.

California Governor’s Office of Emergency Services (Cal OES)

In 2009, the State of California passed legislation creating the Cal OES and authorized it to prepare a Standard Emergency Management System program (Title 19 CCR Section 2401 *et seq.*), which sets forth measures by which a jurisdiction should handle emergency disasters. In California, the Standard Emergency Management System provides the mechanism by which local government requests assistance. Non-compliance with the Standard Emergency Management System could result in the state withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster. Cal OES coordinates the state’s preparation for, prevention of, and response to major disasters, such as fires, floods, earthquakes, and terrorist attacks. During an emergency, Cal OES serves as the lead state agency for emergency management in the state. It also serves as the lead agency for mobilizing the state’s resources and obtaining

federal resources. Cal OES coordinates the state response to major emergencies in support of local government. The primary responsibility for emergency management resides with local government. Local jurisdictions first use their own resources, and as they are exhausted, obtain more from neighboring cities and special districts, the county in which they are located, and other counties throughout the state through the statewide mutual aid system (see discussion of Mutual Aid Agreements, below). California Emergency Management Agency (Cal-EMA) maintains oversight of the state's mutual aid system.

Emergency Managed Mutual Aid (EMMA) System

Cal OES developed the Emergency Managed Mutual Aid System in response to the 1994 Northridge Earthquake. The EMMA System coordinates emergency response and recovery efforts along the coastal, inland, and southern regions of California. The purpose of EMMA is to provide emergency management personnel and technical specialist to afflicted jurisdictions in support of disaster operations during emergency events. Objectives of the EMMA Plan is to provide a system to coordinate and mobilize assigned personnel, formal requests, assignment, training, and demobilization of assigned personnel; establish structure to maintain the EMMA Plan and its procedures; provide the coordination of training for EMMA resources, including Standard Emergency Management System training, coursework, exercises, and disaster response procedures; and to promote professionalism in emergency management and response. The EMMA Plan was updated in November 2012 and supersedes the 1997 EMMA Plan and November 2001 EMMA Guidance.

California Health and Safety Code, Title 22, Chapter 20 Hazardous Waste Permit Program

Title 22, Chapter 20 Hazardous Waste Permit Program, establishes provisions for the issuance and administration of hazardous waste permits pursuant to the Health and Safety Code. Regulations cover basic permitting requirements, such as application requirements, standard permit conditions, and monitoring and reporting requirements. Hazardous Waste Permits are required for the transfer, treatment, storage, and disposal of any waste which is hazardous waste pursuant to section 66261.3. Owners and operators of certain facilities require hazardous waste facility permits as well as permits under other programs for certain aspects of the facility operation.

California Code of Regulations, Division 4.5, Title 22

California Health and Safety Code and Title 22 regulates processes that produce hazardous waste. The Regulation requires an ID number, regulates accumulation of onsite hazardous materials, shipping and transport, emergency procedures, and worker training.

California Code of Regulations Title 23, Chapter 15 Discharges of Hazardous Waste to Land Section 2511(b)

California Code of Regulations Title 23, Chapter 15 Discharges of Hazardous Waste to Land Section 2511(b) pertains to water quality aspects of waste discharge to land. The regulation establishes waste and site classifications and waste management requirements for waste treatment, storage, or disposal in landfills, surface impoundments, waste piles, and land treatment facilities. Requirements are minimum standards for proper management of each waste category, which allow regional water boards to impose more stringent requirements to accommodate regional and site-specific conditions. In addition, the requirements of California Code of Regulations Title 23, Chapter 15 applies to cleanup and abatement actions for unregulated discharges to land of hazardous waste (e.g., spills).

California Fire Code, Title 24, Part 9, Chapters 33, 50 and 57

The 2022 California Fire Code, written by the California Building Standards Commission, is based on the 2021 International Fire Code. The International Fire Code (IFC) is a model code that regulates minimum fire safety requirements for new and existing buildings, facilities, storage, and processes. The IFC addresses fire prevention, fire protection, life safety, and safe storage and use of hazardous materials in new and existing buildings, facilities, and processes.

California Constitution Article XIII Section 35.

Section 35 of Article III of the California Constitution at subdivision (a)(2) provides: “The protection of the public safety is the first responsibility of local government and local officials have an obligation to give priority to the provision of adequate public safety services.” Section 35 of Article XIII of the California Constitution was adopted by the voters in 1993 under Proposition 172. Proposition 172 directed the proceeds of a 0.50 percent sales tax to be used exclusively for local public safety services. California Government Code Sections 30051-30056 provide rules to implement Proposition 172. Public safety services include fire protection. Section 30056 provides that cities are not allowed to spend less of their own financial resources on their combined public safety services in any given year compared to the 1992-93 fiscal year. Therefore, an agency is required to use Proposition 172 to supplement its local funds used on fire protection, as well as other public safety services. In *City of Hayward v. Trustee of California State University* (2015) 242 Cal. App. 4th 833, the court found that, Section 35 of Article XIII of the California Constitution requires local agencies to provide fire services and that it is reasonable to conclude that a lead agency will comply with that provision and ensure that public services are provided. (See *City of Hayward v. Trustee of California State University* (2015) 242 Cal. App. 4th 833, 847, stating “the city has a constitutional obligation to provide adequate fire protection services”.)

Title 8 California Code of Regulations (CCR) Sections 1270 and 6773

In accordance with CCR, Title 8 Sections 1270 “Fire Prevention” and 6773 “Fire Protection and Fire Equipment,” the Cal/OSHA has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hosing sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

California Health and Safety Code Section 13100-13135

California Health Safety Code Section 13100-13135 codifies regulations known as the “Regulations of the State Fire Marshal” and constitutes the Basic Building Design and Construction Standards of the State Fire Marshal. The regulations establish minimum standards for the preservation and protection of life and property against fire, explosion, and panic through requirements for fire protection and notification systems, fire protection devices, and fire suppression training.

REGIONAL**South Coast Air Quality Management District (SCAQMD) Rule 1113**

SCAQMD Rule 1133, Architectural Coatings, requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce volatile organic compound (VOC) emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

South Coast Air Quality Management District Rule 1166

SCAQMD Rule 1166, Volatile Organic Compound Emissions from Decontamination of Soil, requires that an approved mitigation plan be obtained from SCAQMD prior to commencing any of the following activities: 1) The excavation of a UST or piping which has stored VOCs; 2) The excavation or grading of soil containing VOC material including gasoline, diesel, crude oil, lubricant, waste oil, adhesive, paint, stain, solvent, resin, monomer, and/or any other material containing VOCs; 3) The handling or storage of VOC-contaminated soil [soil which registers >50 parts per million or greater using an organic vapor analyzer calibrated with hexane] at or from an excavation or grading site; and 4) The treatment of VOC-contaminated soil at a facility. This rule sets requirements to control the emission of VOCs from excavating, grading, handling, and treating VOC-contaminated soil as a result of leakage from storage or transfer operations, accidental spillage, or other deposition.

South Coast Air Quality Management District Rule 1403

SCAQMD Rule 1403, Asbestos Emissions from Renovation/Demolition Activities, regulates asbestos as a toxic material and controls the emissions of asbestos from demolition and renovation activities by specifying agency notifications, appropriate removal procedures, and handling and clean up procedures. Rule 1403 applies to owners and operators involved in the demolition or renovation of structures with ACMs, asbestos storage facilities, and waste disposal sites.

Waste Discharge Requirements

Effective on December 28, 2012, the Los Angeles RWQCB adopted Order No. R4-2012-0175, NPDES Permit No. CAS004001, Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges into the Coastal Watersheds of Los Angeles County. The permit establishes new performance criteria for new development and redevelopment projects in the coastal watersheds of Los Angeles County (with the exception of the city of Long Beach). Storm water and non-storm water discharges consist of surface runoff generated from various land uses, which are conveyed via the municipal separate storm sewer system and ultimately discharged into surface waters throughout the region (“storm water” discharges are those that originate from precipitation events, while “non-storm water” discharges are all those that are transmitted through an MS4 Storm Water Permit and originate from precipitation events). Discharges of stormwater and non-storm water from the MS4s, or storm drain systems, in the Coastal Watersheds of Los Angeles County convey pollutants to surface waters throughout the Los Angeles Region. Non-storm water discharges through an MS4 in the Los Angeles Region are prohibited unless authorized under an individual or general NPDES permit; these discharges are regulated by the Los Angeles County NPDES Permit, issued pursuant to CWA Section 402. Coverage under a general NPDES permit such as the Los Angeles County permit can be achieved through development and implementation of a project-specific SWPPP (CARB 2022).

Los Angeles County Airport Land Use Commission Comprehensive Land Use Plan (ALUC)

In Los Angeles County, the Regional Planning Commission has the responsibility for acting as the ALUC and for coordinating the airport planning of public agencies within the county. ALUC coordinates planning for the areas surrounding public use airports. The Los Angeles County Airport Land Use Plan (dually titled Comprehensive Land Use Plan) provides for the orderly expansion of Los Angeles County's public use airports and the area surrounding them. It is intended to provide for the adoption of land use measures that will minimize the public's exposure to excessive noise and safety hazards. In formulating this plan, the Los Angeles County ALUC has established provisions for safety, noise insulation, and the regulation of building height within areas adjacent to each of the public airports in the County.

Los Angeles County Operational Area Emergency Response Plan (ERP)

The County of Los Angeles developed the ERP to ensure the most effective allocation of resources for the maximum benefit and protection of the public in time of emergency. The ERP does not address normal day-to-day emergencies, or the well-established and routine procedures used in coping with them. Instead, the operational concepts reflected in this plan focus on potential large-scale disasters like extraordinary emergency situations associated with natural and man-made disasters and technological incidents which can generate unique situations requiring an unusual or extraordinary emergency response. The purpose of the plan is to incorporate and coordinate all facilities and personnel of County government, along with the jurisdictional resources of the cities and special districts within the County, into an efficient Operational Area organization capable of responding to any emergency using a Standard Emergency Management System, mutual aid, and other appropriate response procedures. The goal of the plan is to take effective life-safety measures and reduce property loss, provide for the rapid resumption of impacted businesses and community services, and provide accurate documentation and records required for cost-recovery.

LOCAL

The primary local agency with responsibility for implementing federal and state laws and regulations pertaining to hazardous materials management is the LAFD. The LAFD is the CUPA for the County of Los Angeles. A CUPA is a local agency that has been certified by CalEPA to implement the six state environmental programs within the local agency's jurisdiction. This program was established under the amendments to the California Health and Safety Code made by Senate Bill 1082 in 1994. The six consolidated programs are:

- Aboveground Storage Tanks SPCC requirements)
- California Accidental Release Prevention (CalARP)
- Hazardous Materials Release Response Plan and Inventory (Business Plans)
- Hazardous Waste (including Tiered Permitting)
- Underground Storage Tanks (USTs)
- Uniform Fire Code (UFC) Article 80 Hazardous Material Management Program (HMMP) and Hazardous Material Identification System (HMIS)

As the CUPA for County of Los Angeles, the LAFD maintains the records regarding location and status of hazardous materials sites in the county and administers programs that regulate and enforce the transport, use, storage, manufacturing, and remediation of hazardous materials. By designating a CUPA, Los Angeles County has accurate and adequate information to plan for emergencies and/or disasters and to plan for public and firefighter safety.

Participating Agency is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction on behalf of the CUPA. The LAFD has designated the Los Angeles County Department of Public Works, the Burbank Fire Department, the Pasadena Fire Department, and the Torrance Fire Department as Participating Agencies for the UST program.

The LAFD, in their role as the CUPA, also oversees and addresses issues relating to the presence and handling of contaminated soils that may be present at the Project Site. Any such hazardous materials that may be encountered would be managed (using tools, such as a Soil Management Plan [SMP]) in accordance with all relevant and applicable federal, state, and local laws and regulations that pertain to the use, storage, transportation and disposal of hazardous materials and waste. The SMP, if required, would describe the methodology to identify and manage (reuse or off-site disposal) contaminated soil during soil excavation and/or construction. The SMP would also provide protocols for confirmation sampling, segregation and

stockpiling, profiling, backfilling, disposal, guidelines for imported soil, and backfill approval from the City's Department of Building and Safety (DBS). The SMP would also describe the methodology to manage underground features that may be encountered during construction. In addition, the LAFD may consult with other agencies (e.g., DTSC and the LARWQCB) if the nature of the contamination warrants the involvement of these agencies.

City of Los Angeles Hazard Mitigation Plan

The City of Los Angeles has completed the 2017 Hazard Mitigation Plan (HMP) to lessen the vulnerability to disasters and demonstrate the City's commitment to reducing risks from natural hazards. An HMP serves as a guide for decision makers as they commit City resources to minimize the effects of natural hazards. The HMP is intended to integrate with existing planning mechanisms such as building and zoning regulations, long-range planning mechanisms, and environmental planning. The planning process includes conducting a thorough hazard vulnerability analysis, creating community disaster mitigation priorities, and developing subsequent mitigation strategies and projects.

Los Angeles Fire Code

At the local level, the LAFD monitors the storage of hazardous materials for compliance with local requirements. Specifically, businesses and facilities that store more than threshold quantities of hazardous materials as defined in Chapter 6.95 of the California Health and Safety Code are required to file an Accidental Risk Prevention Program with the LAFD. This program includes information such as emergency contacts, phone numbers, facility information, chemical inventory, and hazardous materials handling and storage locations. The LAFD also issues permits for hazardous materials handling and enforces California's Hazardous Materials Release Response Plans and Inventory Law (HSC Section 25500 et seq.). Basic requirements of California's Hazardous Materials Release Response Plans and Inventory Law include the development of detailed hazardous materials inventories used and stored on-site, a program of employee training for hazardous materials release response, identification of emergency contacts and response procedures, and reporting of releases of hazardous materials. Any facility that meets the minimum reporting thresholds (i.e., a mixture containing a hazardous material that has a quantity at any one time during the reporting year that is equal to, or greater than, 55 gallons for materials that are liquids, 500 pounds for solids, or 200 cubic feet for compressed gas) must comply with the reporting requirements and file a Business Emergency Plan (BEP) with the local administering agency.

The LAFD also administers the Fire Life Safety Plan Check and Fire Life Safety Inspections interpreting and enforcing applicable standards of the Fire Code, Title 19, Uniform Building Code, City, and National codes concerning new construction and remodeling. As part of the Fire Life Safety Plan Check and Fire Life Safety Inspections, businesses that store hazardous waste or hazardous materials in amounts exceeding the thresholds noted above are subject to review.

Section 91.7109.2 of the Los Angeles Municipal Code (LAMC) requires LAFD notification when an abandoned oil well is encountered during construction activities and requires that any abandoned oil well not in compliance with existing regulations be re-abandoned in accordance with applicable rules and regulations of DOGGR (currently known as CalGEM).

2021 Los Angeles and Ventura Counties NPDES Permit

Effective on September 11, 2021, the Los Angeles RWQCB adopted Order No. R4-2021-0105, NPDES Permit No. CAS004004, Waste Discharge Requirements and NPDES Permit for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles and Ventura Counties. The permit establishes new performance criteria for new development and redevelopment projects in the coastal watersheds of Los Angeles and Ventura Counties (with the exception of unincorporated cities). Storm water

and non-storm water discharges consist of surface runoff generated from various land uses, which are conveyed via the municipal separate storm sewer system and ultimately discharged into surface waters throughout the region (“storm water” discharges are those that originate from precipitation events, while “non-storm water” discharges are all those that are transmitted through an MS4 Storm Water Permit and originate from precipitation events). Discharges of storm water and non-storm water from the MS4s, or storm drain systems, in the Coastal Watersheds of Los Angeles and Ventura Counties convey pollutants to surface waters throughout the Los Angeles Region. Non-storm water discharges through an MS4 in the Los Angeles Region are prohibited unless authorized under an individual or general NPDES permit; these discharges are regulated by the Los Angeles County NPDES Permit, issued pursuant to CWA Section 402. Coverage under a general NPDES permit such as the Los Angeles County permit can be achieved through development and implementation of a project-specific SWPPP (LARWQCB 2021).

City of Los Angeles Emergency Management Department (EMD)

The City of Los Angeles EMD is comprised of four divisions and two units including administrative services division, communications division, community emergency management division, operations division, planning unit, and training exercise unit. The EMD works with City departments, municipalities and with community-based organizations to ensure that the City and its residents have the resources and information they need to prepare, respond, and recover from emergencies, disasters, and significant events. The Emergency Operations Organization (EOO) is the operational department responsible for the City’s emergency preparations (planning, training, and mitigation), response and recovery operations. The EOO centralizes command and information coordination to enable its unified chain-of-command to operate efficiently and effectively in managing the City’s resources.

The Emergency Operation Center (EOC) is the focal point for coordination of the City’s emergency planning, training, response, and recovery efforts. EOC processes follow the National All-Hazards approach to major disasters such as fires, floods, earthquakes, acts of terrorism and large-scale events in the City that require involvement by multiple City departments.

City of Los Angeles General Plan Safety and Conservation Elements

The City of Los Angeles General Plan was adopted in September 2001. The Safety Element of the General Plan, which received a targeted update in 2021, provides a contextual framework for understanding the relationship between hazard mitigation, response to a natural disaster, and initial recovery from a natural disaster. The Safety Element addresses hazardous materials relative to potential natural hazards.

The intent of the Conservation Element of the General Plan is the conservation and preservation of natural resources. Policies of the Conservation Element address the conservation of petroleum resources (i.e., oil and gas) and appropriate, environmentally sensitive extraction of petroleum deposits to protect the petroleum resources for the use of future generations and to reduce the City’s dependency on imported petroleum and petroleum products.

Policies from the Safety and Conservation Elements related to Hazards and Hazardous Materials are listed below in **Table 4.8-5**.

TABLE 4.8-5 RELEVANT GENERAL PLAN HAZARDOUS MATERIALS GOALS, OBJECTIVES, AND POLICIES	
Safety Element – Hazard Mitigation	
Goal 1	A city where potential injury, loss of life, property damage and disruption of the social and economic life of the City due to hazards is minimized.
Objective 1.1	Implement comprehensive hazard mitigation plans and programs that are integrated with each other and with the City’s comprehensive emergency response and recovery plans and programs.
Policy 1.1.1	Coordination. Coordinate information gathering, program formulation and program implementation between City agencies, other jurisdictions and appropriate public and private entities to achieve the maximum mutual benefit.
Policy 1.1.2	Disruption reduction. Reduce potential disruption due to disaster, with emphasis on critical facilities, governmental functions, infrastructure and information resource.
Policy 1.1.3	Facility/systems maintenance. Locate new critical facilities and infrastructure outside of hazard areas, especially VHFHSZs, when feasible. If no feasible alternative site exists, ensure that these facilities incorporate all necessary protections to allow them to continue to serve essential community needs during and after disaster events. Provide redundancy (back-up) systems and strategies for continuation of adequate critical infrastructure systems and services so as to assure adequate circulation, communications, power, transportation, water and other services for emergency response in the event of disaster related systems disruptions and the growing climate emergency.
Policy 1.1.4	Health/environmental protection. Protect the public and workers from the release of hazardous materials and protect City water supplies and resources from contamination resulting from release or intrusion resulting from a disaster event, including protection of the environment and public from potential health and safety hazards associated with program implementation.
Policy 1.1.5	Risk reduction. Reduce potential risk hazards due to natural disaster with a focus on protecting the most vulnerable people, places and systems.
Policy 1.1.7	Building Community Capacity. Build social cohesion and increase local resilience through community collaboration and education. Provide outreach and education on topics including: local hazards, disaster prevention and preparation and evacuation procedures with an emphasis on reaching vulnerable communities.
Policy 1.1.8	Land Use. Consider hazard information and available mitigations when making decisions about future land use. Maintain existing low density and open space designations in Very High Fire Hazard Severity Zones. Ensure mitigations are incorporated for new development in hazard areas such as VHFHSZs, landslide areas, flood zones and in other areas with limited adaptive capacity.
Objective 1.2	Confront the global climate emergency by setting measurable targets for carbon reduction that are consistent with the best available methods and data, center equity and environmental justice, secure fossil free jobs, and foster broader environmental sustainability and resiliency.
Goal 2	A city that responds with the maximum feasible speed and efficiency to disaster events so as to minimize injury, loss of life, property damage and disruption of the social and economic life of the City and its immediate environs.
Objective 2.1	Develop and implement comprehensive emergency response plans and programs that are integrated with each other and with the City’s comprehensive hazard mitigation and recovery plans and programs.
Policy 2.1.1	Coordination. Coordinate program formulation and implementation between City agencies, adjacent jurisdictions and appropriate private and public entities so as to achieve, to the greatest extent feasible and within the resources available, the maximum mutual benefit with the greatest efficiency of funds and staff.
Policy 2.1.2	Health and environmental protection. Develop and implement procedures to protect the environment and public, including animal control and care, to the greatest extent feasible within the resources available, from potential health and safety hazards associated with hazard mitigation and disaster recovery efforts.

TABLE 4.8-5 RELEVANT GENERAL PLAN HAZARDOUS MATERIALS GOALS, OBJECTIVES, AND POLICIES	
Safety Element – Hazard Mitigation	
Policy 2.1.3	Information. Develop and implement training programs and informational materials designed to assist property owners, tenants, and the general public in understanding and mitigating disaster risks and regulations that may impact their homes and business, with emphasis on reaching vulnerable communities.
Policy 2.1.4	Interim procedures. Develop and implement pre-disaster plans for interim evacuation, sheltering and public aid for disaster victims displaced from homes and for disrupted businesses. Plan to utilize park space and other public facilities in emergency situations. Plans should include provisions to assist businesses, which provide significant services to the public and plans for reestablishment of the financial viability of the City and assistance for residents to remain in the City.
Policy 2.1.5	Response. Develop, implement, and continue to improve the City’s ability to respond to emergency events. Participate in regularly scheduled disaster exercises to better prepare Police, Fire, Public Works and other City employees with disaster responsibilities.
Policy 2.1.6	Standards/Fire. Continue to maintain, enforce and upgrade requirements, procedures and standards to facilitate more effective fire suppression and Safety. A. Enforce peak water supply / fire flow requirements and ensure that new development is able to sufficiently source water, including in VHFHSZs. B. Enforce minimum roadway widths and clearances for evacuation and fire suppression. C. Maintain special fire-fighting units at the Port of Los Angeles, Los Angeles International Airport, and Van Nuys Municipal Airport capable of responding to special emergencies unique to the operations of those facilities. D. Coordinate with CALFIRE, local fire agencies, fire safe councils, private landowners, and other responsible agencies to identify the best method(s) of fuel modification to reduce the severity of future wildfires, including: Prescribed fire; Forest thinning; Grazing; Mechanical clearing; Hand clearing (piling, burning/chipping); Education; and Defensible space. E. Maintain mutual aid or mutual assistance agreements with local fire departments to ensure an adequate response in the event of a major earthquake, wildfire, urban fire, fire in areas with substandard fire protection, or other fire emergencies.
Policy 2.1.7	Building Community Capacity. Develop and implement strategies for involving volunteers, community groups, and civic organizations in emergency response activities.

TABLE 4.8-6 RELEVANT GENERAL PLAN HAZARDOUS MATERIALS GOALS, OBJECTIVES, AND POLICIES	
Safety Element – Disaster Recovery (Multi-Hazard)	
Goal 3	A city where private and public systems, services, activities, physical condition and environment are reestablished as quickly as feasible to a level equal to or better than that which existed prior to the disaster.
Objective 3.1	Develop and implement comprehensive disaster recovery plans which are integrated with each other and with the City’s comprehensive hazard mitigation and emergency response plans and programs.
Policy 3.1.1	Coordination. Coordinate between City departments, County and State agencies, local with each other, jurisdictions and with appropriate private and public entities prior to a disaster to plan and establish disaster recovery programs and procedures which will enable cooperative ventures, reduce potential conflicts, minimize duplication and maximize the available funds and resources to the greatest mutual benefit following a disaster.
Policy 3.1.2	Health/safety/environment. Develop and establish procedures for identification and abatement of physical and health hazards which may result from a disaster. Provisions shall include measures for protecting workers, the public and the environment from contamination or other health and safety hazards associated with the hazard in addition to abatement, repair and reconstruction programs.

TABLE 4.8-6 RELEVANT GENERAL PLAN HAZARDOUS MATERIALS GOALS, OBJECTIVES, AND POLICIES	
Safety Element – Disaster Recovery (Multi-Hazard)	
Policy 3.1.4	Interim services/systems. Develop and establish procedures prior to a disaster for immediate reestablishment and maintenance of damaged or interrupted critical infrastructure systems and services so as to provide communications, circulation, power, transportation, water and other necessities for movement of goods, provision of services and restoration of the economic and social life of the City and its environs pending permanent restoration of the damaged systems.
Policy 3.1.5	Restoration. Look to the future and rebuild based on the lessons of the past. Prior to a disaster, develop and establish procedures for securing assistance and expediting inspection and permitting activities to facilitate the rapid repair and rebuilding of those parts of the private and public sectors which were damaged or disrupted as a result of the disaster with an added consideration of future safety. Develop and establish procedures to enhance the resilience of buildings and infrastructure that are rebuilt following a disaster. Develop tools to ensure that vulnerable residents and business owners are included in community rebuilding efforts.
Conservation Element – Resource Management (Fossil Fuels) - Petroleum (Oil and Gas)	
Policy 1	Continue to encourage energy conservation and petroleum product reuse.
Policy 3	Continue to protect neighborhoods from potential accidents and subsidence associated with drilling, extraction and transport operations, consistent with California Department of Conservation, Division of Oil and Gas requirements
SOURCE: City of Los Angeles Conservation Element, 2001, and Safety Element 2021	
^a DOGGR is now known as CalGEM.	

Los Angeles Municipal Code (LAMC)

Zoning

One of the primary purposes of zoning is to segregate uses that are thought to be incompatible. With respect to hazards, the City uses zoning to separate businesses that use, store, transport, treat, or dispose of hazardous materials, or businesses that engage in potentially hazardous activities, such as manufacturing or refining, from residential areas and the general public.

Methane Zones and Methane Buffer Zones

The Methane Seepage Regulations, contained within LAMC Chapter IX, Article 1, Division 71 (Sections 91.7101 through 91.7109), establishes requirements for mitigation and other general building requirements to prevent potential environmental and harmful health effects that could be caused by the construction of buildings located in a defined Methane Hazard Zone within the City of Los Angeles. All new buildings and paved areas located in a Methane Zone or Methane Buffer Zone must comply with the requirements of LAMC Sections 91.7103 and 91.7104 and the Methane Mitigation Standards established by the Superintendent of Building. The Methane Mitigation Standards identify installation procedures, design parameters and test protocols for the methane gas mitigation system. As established under LAMC Section 91.106.4.1, LADBS has the authority to withhold permits on projects located within a Methane Zone or Methane Buffer Zone. Building permits may be issued upon submittal of detailed plans that show adequate protection against flammable gas incursion by providing the installation of suitable methane mitigation and monitoring systems.

Section 91.7109.2 of the LAMC requires LAFD notification when an abandoned oil well is encountered during construction activities and requires that any abandoned oil well not in compliance with existing regulations be re-abandoned in accordance with applicable rules and regulations of DOGGR (currently known as CalGEM).

The plugging and abandonment of onshore oil and gas wells are regulated by the CCR and Public Resource Code (PRC) as follows (DOC 2022b):

- CCR, Title 14, Division 2, Chapter 4, Subchapter 1: Onshore Well Regulations, Article 3: Requirements, Section 1723 - Plugging and Abandonment-General Requirements
- PRC, Division 3: Oil & Gas, Chapter 1: Oil and Gas Conservation, Article 4: Regulation of Operations, Section 3208.1

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance were developed based on Appendix G of the CEQA Guidelines. Implementation of the Proposed Project would have a significant impact related to hazards if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (Threshold 4.8-1)
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (Threshold 4.8-2)
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school (Threshold 4.8-3)
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and as a result, would it create a significant hazard to the public or the environment (Threshold 4.8-4)
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area (Threshold 4.8-5)
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (Threshold 4.8-6)
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires (Threshold 4.8-7)

METHODOLOGY

For the Proposed Project, this impact analysis addresses the potential to encounter hazardous substances in soil and groundwater during future Project-related construction in the Project Area. The evaluation was performed based on existing conditions in the Project Area, information in environmental databases, applicable regulations and guidelines, and future Project-induced development that may have the potential to introduce hazards. Relationships and proximities of potential future development to schools, airports, and fire hazard zones were also identified. The above significance criteria are used in this section as the basis for determining the significance of impacts related to hazards and hazardous materials.

It is reasonably assumed that development projects would comply with applicable regulatory requirements pertaining to hazardous materials during construction and operation. Individual businesses are subject to intense regulatory review as part of the permit and approval process, as well as being subject to regulations regarding hazardous materials use, storage, transportation, and disposal. In most cases, this regulatory review and regulatory compliance review ensures that adjacent populations are protected from unusual

hazards from such uses. While the proposed project may encourage greater redevelopment of older potentially contaminated sites, they are subject to the federal, state, and local policies and guidelines discussed above.

PROJECT IMPACTS

Threshold 4.8-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Impact 4.8-1 **Proposed Project:** Implementation of the Project would primarily introduce new residential, commercial, and light industrial development. Although certain heavy industrial facilities would remain and hazardous materials would continue to be transported through the Project Area, Plan implementation would not create a significant hazard to the public or environment related to the routine transport, use, or disposal of hazardous materials. This impact would be *less than significant*.

Project Impact

Construction Impacts

Implementation of the Proposed Project would include temporary construction impacts that are addressed in Impact 4.8-4.

Operational Impacts

The Proposed Project would allow for the development of new residential, commercial, and light industrial uses in the Project Area. The types of hazardous materials associated with operation of these uses in the Project Area would include small quantities of maintenance products (e.g., paints and solvents); oils, lubricants and refrigerants associated with building mechanical and HVAC systems; and grounds and landscape maintenance products formulated with hazardous substances, including fuels, cleaners and degreasers, solvents, paints, lubricants, adhesives, sealers, pesticides/herbicides, and industrial related chemicals. Heavy industrial uses would not be a permitted land use under the Proposed Project, and heavy industrial uses are not permitted by the zoning in the current CASP as well. Thus, implementation of the Project is not anticipated to generate substantial amounts of hazardous materials.

While the Proposed Project would accommodate additional dwelling units located in proximity to industrial uses, existing and future uses would be required to comply with existing safety standards related to the handling, use, and storage of hazardous materials, and applicable federal, state, and local laws and regulations. Moreover, although the placement of residences near industrial activity may increase the potential for exposure to existing hazards, it would not increase the use of hazardous materials or otherwise increase hazards to existing area residents. It would not be expected to increase, change, or exacerbate any risk currently existing from industrial uses that would impact the existing residents and businesses or future residents or businesses from development under the Proposed Project. As such, this would not be an environmental impact under CEQA. The Project would not create additional industrial-zoned parcels or additional parcels with an industrial land use designation. The routine transport, use, or disposal of hazardous materials within industrial areas, as with the entire Project Area, would be subject to applicable federal, state, and local regulations. Specifically, the USDOT Office of Hazardous Materials Safety prescribes regulations for the safe transportation of hazardous materials, as described in CFR Titles 40, 42, 45, and 49 and implemented by CCR Titles 17, 19, and 27, which requires appropriate documentation for all transport of hazardous waste offsite. Adherence to these regulations would reduce the likelihood and severity of accidents that have the potential to occur during transit.

To ensure that workers and others at individual development sites in the Project Area are not exposed to unacceptable levels of risk associated with the use and handling of hazardous materials, employers and businesses that handle large quantities of hazardous materials are required to implement existing hazardous materials regulations, with compliance monitored by the State (e.g., OSHA in the workplace or DTSC for hazardous waste) and the City. Compliance with applicable local, state, and federal regulations would ensure that impacts related to the use, transport, and disposal of hazardous materials under the Project would be *less than significant*.

Mitigation Measures

No significant impact would occur; therefore, mitigation is not required for the Proposed Project.

Threshold 4.8-2	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
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Impact 4.8-2 **Proposed Project:** Implementation of the Project would introduce new residential, commercial, and light industrial development uses and allow for redevelopment of existing uses. Construction and operational activities associated with these uses would not create increased potential for upset or accident conditions involving hazardous materials release. Redevelopment, renovation, and demolition of structures built before 1978 (for LBPs) and 1989 (for ACMs) could potentially release asbestos or lead into the atmosphere. In addition, future development would potentially occur within Methane Zones and Methane Buffer Zones and near oil wells. However, compliance with federal, State, and local requirements, would reduce this impact to a *less than significant* level.

Project Impact

Impacts associated with Project implementation relate to possible temporary exposure to asbestos, lead, and PCBs during demolition and/or renovation of older buildings, temporary and long-term exposure to methane, and long-term exposure to hazardous materials associated with operation of individual developments. Potential impacts related to disturbance of soil and/or groundwater contamination are evaluated under Impact 4.8-4.

Construction Impacts

Asbestos/Lead/PCB Exposure

Demolition and/or renovation activities in the Project Area would potentially encounter ACMs, LBP, and/or PCBs, depending on the age of structures to be renovated or demolished. ACMs were widely used in structures built between 1945 and 1989. LBPs were widely used in residential structures built between 1945 and 1978. PCBs were widely used in structures built or renovated between 1950 and 1979. It is therefore reasonable to assume that these materials could be encountered during rehabilitation and demolition of structures built during this time period. Thus, site workers and neighboring properties could potentially be exposed to ACMs, LBP, or PCBs if these materials are not removed and properly disposed of prior to renovation or demolition.

With respect to ACMs, SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities) requires the owner or operator of any demolition or renovation activity to complete a facility survey for the presence of asbestos prior to any demolition or renovation activity. The survey must include the inspection, identification, and quantification of all friable, and Class I and Class II non-friable ACMs. In instances

where friable ACMs are identified and could be disturbed by demolition or renovation activities, Rule 1403 also includes specific notification, removal, and disposal procedures for the ACMs. The individual conducting all work must be certified by Cal/OSHA. Compliance with Rule 1403 requirements would reduce the potential for impacts related to ACMs to a *less than significant* level.

Similarly, there are numerous regulations related to the handling of LBPs and PCBs in federal and State regulations (see e.g., Title 40 of the CFR and Title 22 of the CCR). Consequently, the impact related to the release of LBP or PCBs from individual construction projects that could be undertaken under the Proposed Project would be *less than significant*.

Oil Fields/Methane Exposure

As shown in **Figure 4.8-3**, the southwestern and northern-central portions of the Project Area have been designated as Methane Zones or Methane Buffer Zones (City of Los Angeles 2004). Methane and Methane Buffer Zones encompass all designations proposed in the Project and would accommodate a wide range of land uses including commercial, residential, public facility, civic, and industrial uses.

While not toxic, methane poses a hazard to humans because it is highly flammable and may form explosive mixtures with air. Methane is also an asphyxiant and may displace oxygen in an enclosed space; however, the concentrations at which flammable or explosive mixtures form are much lower than the concentration at which asphyxiation risk is significant. Thus, explosion due to the accumulation of methane in an enclosed area is the primary concern posed by methane. LAMC Section 91.7101 requires new buildings and paved areas in a Methane Zone or Methane Buffer Zone to follow Methane Mitigation Standard (as amended by Ordinance No. 175790) to incorporate a menu of measures to control methane intrusion emanating from geologic formations. The measures include requirements for site testing for methane hazard, methane mitigation systems, detection and ventilation systems, emergency procedures, potential application of the regulations outside the Methane Zone and Methane Buffer Zone, and other remedial measures, such as additional investigations and oil well abandonment (LADBS 2004). A project's specific mitigation requirements are determined based on the actual methane concentration and pressures detected in the subsurface at a project site. Mitigation measures may include both active and passive ventilation systems to provide an exchange of air, in conjunction with gas barriers (membranes under foundations), and sensors to monitor methane gas concentrations and pressure.

The Project Area also contains one plugged core hole well. Producing oil and gas wells can emit air toxics and dust, while idle wells can be a potential source of soil and groundwater contamination if not properly plugged and abandoned. LAMC Section 91.6105 prohibits the development of specific uses and buildings in proximity to an oil well casing. These include schools, sanitariums, an assembly occupancy (i.e., gathering place for 50 or more people), fuel manufacturing plant, or public utility generating, receiving, or distributing electricity, and buildings more than 400 square feet in area and taller than 36 feet in height. In addition, in accordance with LAMC Section 91.7109.2, any abandoned oil well encountered during construction is required to be evaluated by the LAFD and may be required to be re-abandoned in accordance with applicable rules and regulations of CalGEM.

Prior to soil disturbance in the vicinity of the plugged core hole well located within the Project Area, the applicant shall notify CalGEM of planned subsurface work in this area. The plugged oil well present onsite shall be evaluated by CalGEM to determine if the plugged oil well requires additional safety features. Section 1723 of the CCR, Plugging and Abandonment – General Requirements, CalGEM Construction Site Well Review Program per PRC Section 3208.1 (DOC 2022b), and the local permitting agencies shall also be consulted to evaluate whether any specific preconstruction requirements would apply to oil wells located within the Project Area construction footprint.

If required by CalGEM, oil well abandonment work, including sealing off oil and gas bearing units, pressure grouting, etc., must be performed by a State-licensed contractor under the regulatory oversight and approval of CalGEM. This re-abandonment work shall be conducted prior to conducting subsurface activities that disturb soil, and documentation of the work completed would be provided to the applicant. Undocumented oil wells within the Project Area would also be subject to this mitigation measure.

Compliance with existing regulations would ensure that the implementation of the Project would not create a significant hazard to the public or environment due to the release of methane or hazardous materials associated with oil production wells. Therefore, impacts related to methane and oil well hazards would be *less than significant*.

Operational Impacts

As discussed under Impact 4.8-1, future development in the Project Area would primarily involve residential and commercial uses, with limited light industrial activity. Such uses would include the use and storage of common hazardous materials similarly used in Project Area residences and businesses today, with similar risk of upset or accident conditions that would create health or safety risks. The extent and exposure of individuals to hazardous materials would be limited by the relatively small quantities of these materials that would be stored and used on individual properties and transported along roads throughout the Project Area. Although common maintenance products and chemicals may be used in new development projects, these hazardous materials would not pose any greater risk compared to other similar development or to existing conditions. Compliance with warning labels and storage recommendations from individual manufacturers would ensure people in the Project Area would not be exposed to unusual or significant risks from hazardous materials.

Furthermore, businesses that use, store, or transport large quantities of hazardous materials are required to comply with health and safety, and environmental protection laws and regulations previously described, which require businesses handling or storing certain amounts of hazardous materials to prepare a hazardous materials business plan. This plan includes an inventory of hazardous materials used or stored on-site and procedures to be used in the event of a significant or threatening significant release of a hazardous material. The hazardous materials plan must include a Safety Data Sheet (SDS) for each hazardous material used or stored. To accomplish this, and to otherwise provide a safe and healthy environment, businesses that use hazardous materials must implement health and safety policies and procedures. In addition, future development in the Project Area would be required to conform with applicable environmental review processes and environmental regulations related to hazardous materials storage, use and transport. Existing hazardous materials regulations would minimize the potential for the public to be exposed to adverse health or safety effects associated with the accidental release of hazardous materials into the environment.

In conclusion, all impacts related to release of hazardous materials from the use or transport of hazardous materials, methane zones, or oil and gas production uses would be *less than significant*.

Mitigation Measures

No significant impact would occur; therefore, mitigation is not required.

Threshold 4.8-3	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school
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Impact 4.8-3

Proposed Project: Implementation of the Project would primarily introduce new residential, commercial, and light industrial development that would not involve the use of large quantities of hazardous materials. Although new development could occur within 0.25 mile of existing schools, such development would not be expected to create hazards associated with hazardous materials use. Grading and construction activity could potentially result in the release of soil and/or groundwater contamination, which could potentially affect schools. However, implementation of Mitigation Measures 4.8-4(a) and (b) along with compliance with applicable regulations would ensure this impact would be *less than significant with mitigation*.

Project Impact

Seventeen educational facilities (defined as colleges, high schools, elementary schools, preschools, or nursery schools) are located in or within 0.25 mile of the Project Area, including six within the Project Area and 11 within 0.25 mile of the Project Area. This includes 10 elementary schools (four inside the Project Area and six within 0.25 mile of the Project Area), two middle schools (one in the Project Area and one within 0.25 mile of the Project Area), two high schools (one in the Project Area and one within 0.25 mile of the Project Area), and one public K-12 school within 0.25 mile of the Project Area. To ensure that workers and others at individual development sites within the Project Area are not exposed to unacceptable levels of risk associated with the use and handling of hazardous materials, employers and businesses are required to implement existing hazardous materials regulations, with compliance monitored by the State (e.g., OSHA in the workplace or DTSC for hazardous waste) and the City. Similarly, future development in the Project Area would be required to comply with applicable federal, State, and local environmental regulations related to new construction and hazardous materials storage, use, and transport. California Health and Safety Code Chapter 6.95 “Hazardous Materials Release Response Plans and Inventory” requires businesses that handle more than a specified number of hazardous materials to submit a Hazardous Materials Business Plan. Such businesses are required to provide emergency response plans and procedures, training program information, and a hazardous material chemical inventory disclosing hazardous materials stored, used, or handled. In addition, various federal, State, and local regulations and guidelines pertaining to abatement of, and protection from, exposure to asbestos, lead, and other hazardous materials have been adopted for demolition activities and would apply to all new development. All demolition or renovation that could result in the release of lead and/or asbestos must be conducted according to Cal/OSHA standards. Compliance with existing regulations would ensure that schools and the general public would not be exposed to any unusual or excessive risks related to hazardous materials during construction and operational activities.

The Project would not involve direct handling or emissions of hazardous materials within 0.25 mile of schools. Additionally, reasonably anticipated development from the Proposed Project in the Project Area will foreseeably comply with all applicable local, State, and federal laws and regulations, as described in Regulatory Framework, would regulate, control, or respond to hazardous waste transport, storage, disposal, and clean-up in order to ensure that hazardous materials do not pose a significant risk to nearby receptors. Thus, impacts related to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school due to future Project Area development would be less than significant.

As previously discussed, GeoTracker and EnviroStor identify the locations of hazardous material sites in the Project Area. As discussed in detail under Impact 4.8-4, a process to identify, and as necessary,

remediate soil and/or groundwater contamination exists and would normally address such hazards. However, because there is not a specific legal requirement to undertake a preliminary investigation to determine the possible presence of hazardous material contamination, it is possible that such contaminants could be overlooked. This could result in the release of hazardous materials during excavation and grading of individual construction sites, which could include potential grading up to 30 feet in total depth to encompass future development. Also, if within 0.25 mile of a school, such releases could have significant health and safety effects on school-aged children. Impacts related to the release of hazardous emissions during construction activities would be *potentially significant*.

Mitigation Measures

Mitigation Measure 4.8-4(a) and (b)

Significance After Mitigation

Implementation of Mitigation Measure 4.8-4 would reduce impacts to schools to a less than significant level by ensuring the identification, and as necessary, remediation of soil and/or groundwater contamination prior to excavation or grading on properties within 0.25 mile of schools. Impacts related to hazardous emissions would be *less than significant with mitigation incorporated*.

Threshold 4.8-4	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and as a result, would it create a significant hazard to the public or the environment
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Impact 4.8-4 **Proposed Project:** Expected development from the Project may occur on properties listed as hazardous material sites. The possible presence of soil or groundwater contamination on such sites could expose construction workers and residents or visitors on neighboring properties to hazards during construction of individual future developments. However, implementation of Mitigation Measures 4.8-4(a) and (b) along with compliance with applicable regulations would ensure project impacts would be *less than significant with mitigation incorporated*.

Project Impact

Government Code section 65962.5 requires the CalEPA/DTSC to develop an updated Cortese List. The DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List (DTSC 2022). The following resources were reviewed to provide hazardous material release information:

- SWRCB GeoTracker database (SWRCB 2022)
- DTSC EnviroStor database (DTSC 2022)
- USEPA SEMS database in Envirofacts (USEPA 2021d)

As previously discussed and shown in **Table 4.8-1**, **Table 4.8-2**, **Table 4.8-3**, and Appendix G, the Project Area contains numerous sites that are identified on various regulatory databases as being contaminated from the release of hazardous substances in the soil or groundwater. One of these sites is the HACLA William Mead Homes site, which was identified to be an active cleanup site according to the EnviroStor and GeoTracker databases, and is currently undergoing a U.S. HUD Transformation Plan process that would result in a redevelopment plan for William Mead Homes, although the timeline and details associated with any future development on that site is unknown. In addition to sites that are identified in state

databases, the Project Area may also include properties with unidentified hazardous material impacts that could involve grading at depths of 20 or 30 feet. Additionally, an oil well and various methane zones are present within the Project Area. Therefore, there is the potential for unidentified soil, soil vapor, and/or groundwater contamination to be present. Thus, construction activity that disturbs soil or groundwater could have the potential to result in the release of hazardous materials, which could adversely affect construction workers and/or neighboring properties. In addition, operation of redeveloped properties with known impacts remaining onsite have the potential to adversely affect onsite occupants. To address such possible concerns, it is common for a Phase I Environmental Site Assessment (ESA) to be conducted prior to excavation and construction activity. The purpose of the Phase I ESA is to identify recognized environmental conditions (RECs) associated with soil and groundwater contamination. The scope of work for the Phase I ESA consists of four elements: records review, site reconnaissance, interviews, and report preparation. The Phase I ESA determines whether there are any known contaminated sites located near the site or if current or historical uses of the site could have resulted in contamination of the soil or groundwater. Based on the results of the Phase I ESA, a Phase II ESA (subsurface investigation) may be warranted to determine whether any identified RECs involve contamination exceeding regulatory action levels. If contamination exceeding action levels is identified, additional subsurface investigations and/or remediation with regulatory oversight from an appropriate agency may be warranted. Depending on the level and type of contamination, the oversight agency could be the City, County of Los Angeles, RWQCB, DTSC, or USEPA. Remedial actions would typically involve removal and proper disposal, capping, or treatment of contaminated soil or groundwater, construction of vapor barriers, or other engineering controls.

The process described above would normally identify, and as necessary, assess and remediate soil, soil vapor, and/or groundwater contamination. Remediation of contamination exceeding regulatory action levels would address potential impacts during ground disturbance and improve conditions in the long term. However, because there is not a specific legal requirement for a Phase I ESA for all excavation or construction, there is the potential for soil, soil vapor, and/or groundwater contamination to go undetected. Thus, future grading and construction would have the potential to result in exposure of Project Area construction workers and occupants of neighboring properties, and onsite occupants during operation to releases of hazardous materials. This would be a *potentially significant impact*.

Mitigation Measures

The following mitigation measure is required to ensure that soil, soil vapor, and/or groundwater contamination that may be present on Project Area properties is identified, and as necessary, assessed and/or remediated.

MM 4.8-4(a) Database Review, Investigation, and Remediation

Prior to issuance of a grading permit, the following databases shall be consulted to determine whether or not the site to be graded is within 500 feet of an identified active hazardous material site:

- SWRCB GeoTracker database (SWRCB 2022)
- DTSC EnviroStor database (DTSC 2022)
- USEPA SEMS database in Envirofacts (USEPA 2021d)
- DTSC Hazardous Waste Tracking System (refer to <https://hwts.dtsc.ca.gov>)
- LAFD Certified Unified Program Agency (refer to the active, inactive, and historical inventory lists at <https://www.lafd.org/fire-prevention/cupa/public-records>)
- Los Angeles County Fire Department Health Hazardous Materials Division (refer to the active and inactive facilities, site mitigation, and California Accidental Release Prevention inventory lists at <https://fire.lacounty.gov/public-records-requests>)

- SCAQMD Facility Information Detail (refer to <https://xappprod.aqmd.gov/find>)
- RCRA Small-Quantity Generator or Large-Quantity Generator (refer to the U.S. EPA Envirofacts database at <https://enviro.epa.gov/index.html>)

If the site is identified in the above-listed databases within 500 feet of an identified active hazardous material site, or if the site to be graded is located on a site that:

1. Is located in an Oil Drilling District or located on or within 50 feet of a property identified by CalGEM as having an oil well or oil field (active or inactive);
2. Was currently and/or previously designated with an industrial use class or industrial zoning, in whole or in part;
3. Was previously or is currently used as a gasoline station or dry cleaning facility; or
4. The applicant or property owner are aware or have reason to be aware that the site was previously used for an industrial use, gasoline station, or dry cleaner; and
5. The site has not been previously remediated to the satisfaction of the relevant regulatory agency/agencies for any contamination associated with the above uses or site conditions,

The following process shall be followed prior to issuance of a grading permit:

- A Phase I ESA shall be conducted by a qualified environmental professional in accordance with State standards/guidelines and current professional standards, including the ASTM Standard Practice for Environmental Site Assessments.
- If the Phase I ESA identifies a REC and/or if recommended in the Phase I ESA, a Phase II ESA (subsurface investigation) shall be conducted by a qualified environmental professional to determine whether the identified potential sources have resulted in soil, groundwater, or soil vapor contamination exceeding regulatory action levels.
- If the Phase II ESA identifies contamination exceeding regulatory action levels, additional assessment, remediation, or corrective action (e.g., removal of contamination, in-situ treatment, soil capping) shall be conducted under the oversight of State and/or local agency officials (as necessary) and in full compliance with applicable State and federal laws and regulations. If remediation is determined to be necessary, the grading permit shall not be issued until the applicable regulatory agency has indicated that further remedial action is not required by issuing a No Further Action letter or that any remedial action can be implemented in conjunction with excavation and/or grading.

MM 4.8-4(b) Notification of Intent to Excavate Language

For all projects not subject to Mitigation Measure 4.8-4(a) that are seeking excavation or grading permits, the LADBS shall obtain the following acknowledgement and affidavit from the applicant:

- No known recognized soil or groundwater contamination exceeding regulatory action levels is present on-site. If contamination exceeding regulatory action levels is discovered during excavation, grading, or construction activities, the applicant and his/her/its contractors shall provide evidence of compliance with all applicable federal, State, and local regulations for remediation of hazardous materials, including but not limited to notifying the appropriate oversight agency (e.g., DTSC, RWQCB, LAFD) of the contamination, hiring a qualified environmental professional to conduct the necessary assessments and abatement (including soil sampling, preparing a remediation plan to adequately abate the hazardous materials, and ultimately obtaining necessary clearance letters from the oversight agency), and issuance of a No Further Action letter, if applicable, before

obtaining an occupancy permit. If oversight or approval by a regulatory agency is not required, a qualified environmental professional shall provide written verification of compliance with and completion of the remediation plan, such that the site meets the applicable standards for the proposed use, which shall be maintained pursuant to appropriate proof of compliance requirements.

Significance After Mitigation

As discussed in Regulatory Framework, contamination of soils and groundwater with hazardous materials is heavily regulated by multiple statutes and agencies. Compliance with applicable laws and mitigation measures will ensure minimal impact. Mitigation measures are provided to ensure that applicants are put on notice of the need to determine if there is contamination on Site and avoid impacts that may result from lack of detection. The above measures provide for processes to ensure that any development under the Proposed Project would not create a significant hazard to the public or environment during construction or operation. Thus, this impact would be *less than significant with mitigation incorporated*.

Threshold 4.8-5	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the area?
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Impact 4.8-5 **Proposed Project:** The Project Area is not located within two miles of a public airport or public use airport. As such, Plan implementation would have *no impact* with respect to airport-related hazards.

Project Impact

The Project Area is not located within two miles of a public airport or public use airport. The nearest public airports to the Project Area are Hollywood Burbank Airport and San Gabriel Valley Airport, which are approximately 10 miles from the Project Area, and no portion of the Project Area is within an airport safety zone for any of these airports. Impacts related to excessive noise generated by public airports will be addressed in Section 4.11, *Noise*. Therefore, *no impact* related to airport safety would result from Project implementation.

Mitigation Measures

No significant impact would occur; therefore, mitigation is not required for the Project.

Threshold 4.8-6 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Impact 4.8-6 **Proposed Project:** Future development resulting from the Proposed Project would increase traffic levels in and around the Project Area and would involve construction activity that could temporarily hinder access to individual properties. However, individual project applicants would be required to implement traffic management plans during construction and emergency response and evacuation plans would be adjusted as necessary to reflect changing Project Area conditions. Impacts would be *less than significant*.

Project Impact

Construction and operational activities associated with future Project Area development resulting in the Proposed Project could interfere with adopted emergency response or evacuation plans. For example, temporary construction activities such as temporary construction barricades within rights-of-way or other obstructions, could impede emergency access. Additionally, increased traffic intensity during operation could result in additional traffic within roadways, thereby potentially impeding emergency access. However, the Project Area is primarily a grid that provides multiple routes for emergency response and evacuation. In addition, the Project Area is crossed by multiple freeways that provide multiple points of regional access as well as multiple evacuation routes. Finally, the goals, objectives, and policies of the Safety Element of the Los Angeles City General Plan and the Los Angeles County Operational Area emergency response plan (ERP) provide guidance during unique situations requiring an unusual or extraordinary emergency response. Implementation of the ERP would also incorporate and coordinate all the facilities and personnel of County government, along with the jurisdictional resources of the cities and special districts in the County, into an efficient Operational Area organization capable of responding to any emergency using a Standard Emergency Management System, mutual aid and other appropriate response procedures. The City's General Plan Safety Element Policies 1.1.1, 2.1.1, and 3.1.1 call for coordination among City agencies and other jurisdictions to provide mutual assistance in the event of an emergency or natural disaster and establishment of disaster recovery programs. Compliance with these policies and plans would minimize potential interference with the City and County emergency response plans from construction and operational activities resulting from implementing the Proposed Project. The City's Emergency Operations Organization (EOO) implements the goals and policies of the Safety Element. The Safety Element outlines the scope of the EOO's on-going efforts to use experiences and new information to improve the City's hazard program. The EOO Master Plan and individual agency Emergency Response Plans set forth procedures for City personnel to follow in the event of an emergency situation stemming from natural disasters, technological incidents, and nuclear defense operations.

The City of Los Angeles Department of Transportation and LAFD would be responsible for ensuring that future development does not impair or physically interfere with an adopted emergency response or evacuation plan. As proposed, the Project assumes daily worker and truck trips to and from several simultaneous locations in the Project Area. The rough grading estimates equate to no more than 200,000 cubic yards of grading at any given time and for a wide range of probable construction activities which are expected to occur, such as site preparation and remediation, if necessary. As part of standard development procedures, plans would be submitted for review and approval to ensure that all new development has adequate emergency access and escape routes (clearly marked and delineated) in compliance with existing City regulations. Additionally, haul route permits would be reviewed and issued as part of the implementation of the Proposed Project and in compliance with the LAMC and LADBS policies. Nevertheless, the Project would not introduce any features that would preclude implementation of or alter these policies or procedures in any way. Additionally, the Project would not impair implementation of, or physically interfere with the ERP.

Based on the above, development and implementation of construction and traffic management plans for all construction activity would ensure that implementation of the Project would not impair or physically interfere with adopted emergency response or evacuation. Therefore, impacts related to emergency response plans and emergency evacuation plans would be *less than significant*.

Mitigation Measures

No significant impact would occur; therefore, mitigation is not required for the Project.

Threshold 4.8-7	Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires
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Impact 4.8-7 **Proposed Project:** No wildland fire hazard areas exist in the Cornfield Arroyo Seco Specific Plan Area. *No impact* associated with wildland fire risks will occur.

Project Impact

The entire Project Area is urbanized and lacks open hillside areas that are subject to wildland fire hazards. CAL FIRE has identified the entire Project Area as being located in the “Non-Very High Fire Hazard Severity Zone” in the Local Responsibility Area for incorporated cities (CAL FIRE 2022). This indicates that the Project Area is not subject to wildfire hazards. Therefore, *no impact* would occur.

Mitigation Measures

No significant impact would occur; therefore, mitigation is not required for the Project.

CUMULATIVE IMPACTS

The scope to analyze potential cumulatively considerable hazards and hazardous materials impacts is citywide.

Routine Transport, Use, or Disposal of Hazardous Materials

Impacts related to hazards and hazardous materials are generally site-specific and exposure to a hazard at one location generally does not increase hazards at another location. Therefore, although Citywide growth could potentially increase overall quantities of hazardous materials transported, use, and disposed in the City, impacts related to hazardous material transport, use, and disposal generally are not cumulative in nature. Further, as discussed under Impact 4.8-1, the Project would not foreseeably result in new development that would involve the use, storage, or transport of large quantities of hazardous materials. Moreover, businesses that transport, use, or dispose of hazardous materials throughout the City would be subject to federal, State, and local regulations, as discussed in Regulatory Framework, and compliance with these regulations would reduce the potential for any cumulative impacts to a less than significant level.

For these reasons, cumulative impacts related to hazardous material transport, use, and disposal would not be significant and the incremental effects of the Project related to hazardous material transport, use, and disposal would not be cumulatively considerable. Cumulative impacts would be *less than significant*.

Upset/Accident Involving Hazardous Materials

Impacts related to upsets and accidents involving hazardous materials are also generally site-specific and an accident at one location generally does not increase hazards at another location. Cumulative development could occur on properties listed on hazardous materials sites or involve the demolition of existing structures,

which may contain hazardous materials such as LBP and ACMs. Various regulations and guidelines pertaining to abatement of, and protection from, exposure to asbestos and lead have been adopted for demolition activities and would apply to all new development in the City and County. All demolition that could result in the release of lead and/or asbestos must be conducted according to Cal/OSHA standards.

As discussed under Impact 4.8-2, the Proposed Project would not foreseeably result in new development that would be expected to increase the potential for accidents involving hazardous materials. Additionally, businesses that transport or use hazardous materials throughout the City, including the Project Area, would be subject to federal, State, and local regulations. Therefore, although Citywide growth could increase the overall potential for accidents involving hazardous materials, impacts related to hazardous material accidents generally are not cumulative in nature.

For these reasons, the incremental effect of the Project related to accidents involving hazardous materials would not be cumulatively considerable and cumulative impacts would be *less than significant*.

Hazardous Materials Near Schools

As discussed above, impacts related to hazards and hazardous materials are generally site-specific and exposure to a hazard at one location generally does not increase hazards at another location. Therefore, although Citywide growth could potentially increase the overall potential for hazardous material emissions or releases to affect schools, such impacts generally are not cumulative in nature.

As discussed under Impact 4.8-3, the Proposed Project would not accommodate new development that would increase the use, storage, or transport of large quantities of hazardous materials near schools. Additionally, businesses that transport, use, or dispose of hazardous materials throughout the City, including the Project Area, would be subject to federal, State, and local regulations, as discussed in Regulatory Framework. Compliance with the applicable regulations and guidelines, identified in Regulatory Framework that pertain to abatement of, and protection from, exposure to ACMs, LBPs, and other hazardous materials, would ensure that schools would not be exposed to any unusual or excessive risks related to hazardous materials during construction and operational activities.

Compliance with applicable regulations and guidelines pertaining to abatement of, and protection from, exposure to hazardous materials would ensure that schools would not be exposed to any unusual or excessive risks related to hazardous materials during construction and operational activities. Furthermore, Mitigation required under Impact 4.8-4 would address any potential impacts in the Project Area related to the possible release of hazardous materials near schools from soil disturbance. For these reasons, the incremental effect of the Proposed Project with respect to use of hazardous materials near schools would not be cumulatively considerable and cumulative impacts would be *less than significant*.

Hazardous Material Sites

As discussed above, impacts related to the accidental release of soil or groundwater contaminants are site-specific and exposure to a hazard at one location generally does not increase hazards at another location. Therefore, although Citywide growth could potentially increase the overall potential for releases of hazardous materials from contaminated sites, such impacts generally are not cumulative in nature.

As discussed under Impact 4.8-4, the Proposed Project could involve disturbance of contaminated sites and thus result in the release of hazardous materials; however, such impacts would be localized in nature. Moreover, Mitigation Measures 4.8-4(a) and (b) would reduce impacts related to disturbance of contaminated sites to a less than significant level.

For these reasons, the incremental effect of the Proposed Project related to the release of hazardous material from such sites would not be cumulatively considerable and cumulative impacts would be *less than significant*.

Public Airports

Aircraft-related hazards occur only in the vicinity of airports or airstrips. Although citywide growth could increase the number of people who are exposed to aircraft-related hazards, such hazards would be localized in nature. In addition, new development would not increase the hazard.

Because no portion of the Project Area is located in the vicinity of a public airport, the Proposed Project would have no contribution to any cumulative impact related to these hazards.

For these reasons, the incremental effect of the Proposed Project with respect to potential for exposure to airport/airstrip-related hazards would not be cumulatively considerable and cumulative impacts would have *no impact*.

Emergency Response and Evacuation

Construction associated with cumulative development could potentially result in activities that may interfere with adopted emergency response or evacuation plans, primarily through the use of temporary construction barricades or other obstructions that could impede emergency access. However, such impacts would be localized and generally would not be cumulative in nature unless multiple construction projects were to occur simultaneously in close proximity to each other. The overall increase in traffic that may result from Citywide growth could also potentially hinder emergency response and/or evacuation. However, compliance with federal, state, and local regulations would prevent interference with adopted emergency plans. More specifically, compliance with City requirements on a project-by-project basis and periodic update of emergency response and evacuation plans to address changed conditions would ensure that cumulative impacts related to interference with adopted emergency plans, including temporary street closures and long-term increases in traffic, remain less than significant.

The Proposed Project's contribution to Citywide impacts would be similarly addressed through compliance with federal, state, and local regulations, including City requirements and periodic emergency response/evacuation plan updates.

For these reasons, the incremental effect of the Proposed Project with respect to emergency response and evacuation would not be cumulatively considerable and cumulative impacts would be *less than significant*.

Wildland Fire

Wildland fire hazards are limited to hillsides and similar areas that are subject to wildland fire. Although Citywide growth could increase the number of people who are exposed to wildland fire hazards, such hazards would be localized in nature. In addition, new development would not increase wildland fire potential. Because no portion of the Project Area is located in a wildland fire hazard area, the Proposed Project would have no contribution to any cumulative impact related to such hazards.

For these reasons, the incremental effect of the Proposed Project with respect to potential exposure to wildland fire hazards would not be cumulatively considerable and cumulative impacts would have *no impact*.

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4.9 HYDROLOGY AND WATER QUALITY

This section analyzes impacts to the City’s water quality and hydrological resources from implementation of the updated Cornfield Arroyo Seco Plan (CASP) Plan (or “Proposed Project” or “Project”) in the existing CASP area of Los Angeles (or “Project Area”).

ENVIRONMENTAL SETTING

TOPOGRAPHY

Citywide

The City of Los Angeles consists of flat basins defined by the San Gabriel, Santa Susana and Santa Monica Mountains, three major rivers, and the Pacific Ocean. Elevation ranges from 5,074 feet at Sister Elsie Peak in the San Gabriel Mountains to nearly mean sea level in the southwestern part of the City.

The landforms and topography of Los Angeles consist of mountains and hills that trend east to west (Traverse Ranges province) or north-northwest to south-southeast (Peninsular Ranges province). Los Angeles has a mild climate with an annual average temperature of 63.8 degrees Fahrenheit with an average high temperature of approximately 71.7 degrees Fahrenheit and an average low temperature of approximately 55.9 degrees Fahrenheit. Annual precipitation of the region averages approximately 18.67 inches. Precipitation occurs during the months of October through April, averaging approximately 2.6 inches per month (US Climate Data 2017). For planning purposes, the Los Angeles Regional Water Quality Control Board (LARWQCB) uses the California Department of Water Resources (DWR) classification system, which divides surface waters into hydrologic units, areas, and subareas, and groundwaters into major groundwater basins. The Los Angeles-San Gabriel Hydrologic Unit covers most of Los Angeles County and small areas of southeastern Ventura County. This drainage area totals 1,608 square miles. This hydrologic unit is urbanized and much of the area is covered with semi-permeable or non-permeable material (i.e., paved). The Los Angeles River, San Gabriel River, and Ballona Creek, which are the major drainage systems in Los Angeles County, drain the coastal watersheds of the Transverse Ranges.

Project Area

The Project Area lies in northeast Los Angeles. Most of the Project Area’s topography is relatively level, with no significant hillside areas or slopes, although there is a slight downslope from the northern boundary of the Project Area toward the southern boundary; elevations in the Project Area range from approximately 290 feet in the southeast corner of the Project Area to 380 feet in the northwest tip of the Project Area.

WATERSHEDS AND SURFACE WATER

Citywide

The Los Angeles River is the major watercourse that drains the San Gabriel Mountains. Its watershed covers a land area of over 834 square miles, including the eastern portions of the Santa Monica Mountains and western portions of the San Gabriel Mountains. The Los Angeles River is approximately 55 miles long from its headwaters to its mouth, and 32 miles of the river is within the City of Los Angeles. The Los Angeles River originates at the west end of the San Fernando Valley in the northwest corner of Los Angeles County. The river channel extends east to Glendale, where it turns and flows south to the Pacific Ocean.

The Los Angeles River is part of a network of dams, reservoirs, debris collection basins, and spreading grounds built by the Los Angeles County Flood Control District and the U.S. Army Corps of Engineers to minimize flooding. The floodplain starts in the northeast part of the City of Los Angeles at the Arroyo Seco confluence and then passes through the cities of Los Angeles, Bell, Bell Gardens, South Gate, Lynwood, Lakewood, Paramount, Compton, Bellflower, Carson, Gardena and Long Beach on the way to its terminus at the Pacific Ocean (Upper Los Angeles River Watershed Management Group [ULARWVG] 2014).

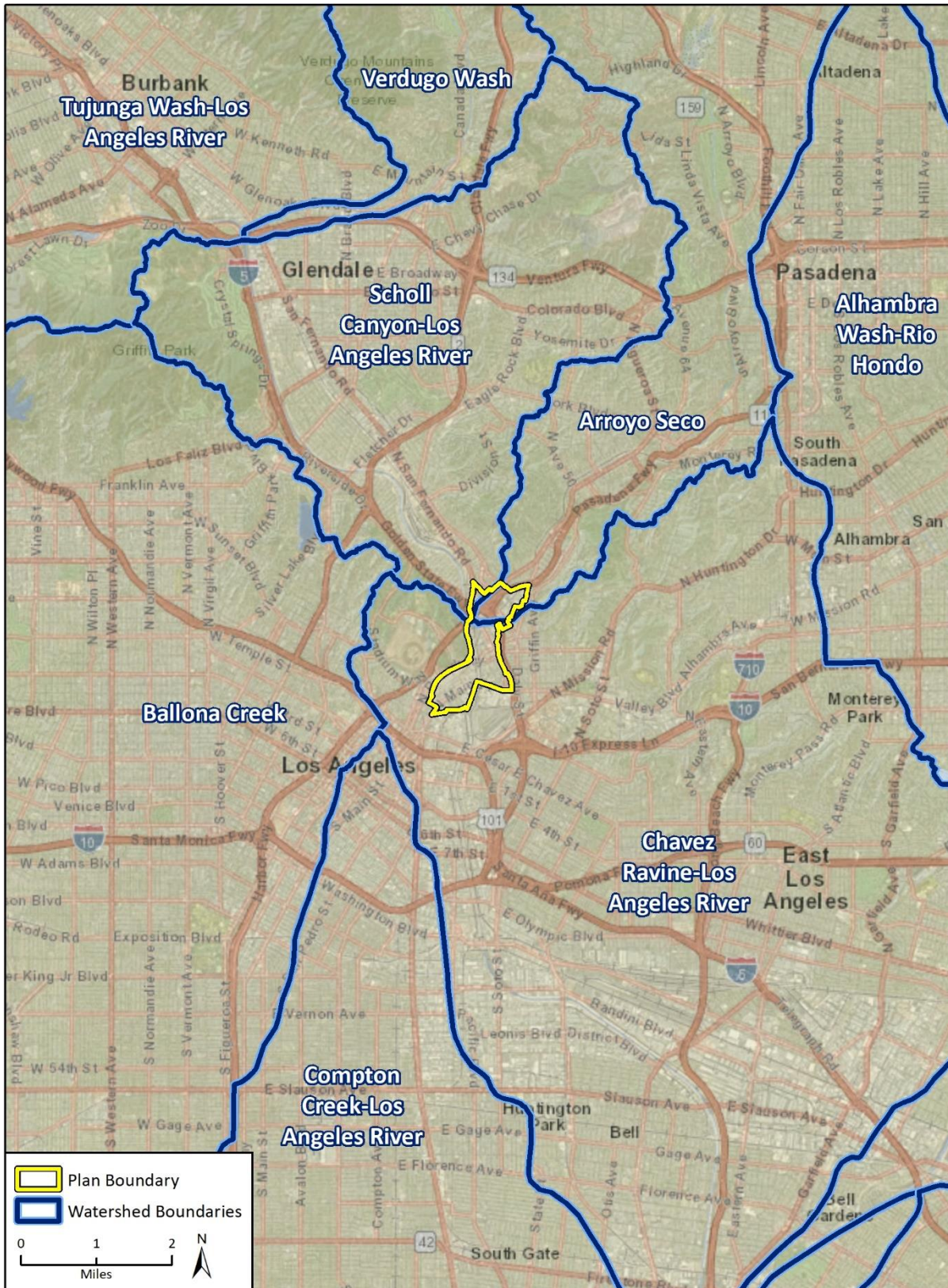
Project Area

The Project Area is located in the Lower Los Angeles River Watershed which overlies the Chavez Ravine sub-watershed and the Scholl Canyon sub-watershed.

The Arroyo Seco sub-watershed covers approximately 46 square miles of the Los Angeles Basin and consists of a stream that begins high in the San Gabriel Mountains and flows through the communities of La Canada Flintridge, Altadena, Pasadena, South Pasadena and Los Angeles, where it meets the waters of the Los Angeles River and continues on to the Pacific Ocean. It is bounded by the San Gabriel Valley to the east and the San Fernando Valley to the west and drains into the Los Angeles River at a confluence in Lincoln Heights.

The Lower Los Angeles River Watershed encompasses approximately 479 square miles and comprises the cities of Alhambra, Burbank, Calabasas, Glendale, Hidden Hills, La Canada Flintridge, Los Angeles, Montebello, Monterey Park, Pasadena, Rosemead, San Fernando, San Gabriel, San Marino, South Pasadena, and Temple City as well as the unincorporated areas of the County of Los Angeles. The Los Angeles River is approximately 55 miles long, and five of six reaches lie in the Upper Los Angeles River Watershed. The natural hydrology of the Los Angeles River has been altered by channelization and the construction of dams and flood control reservoirs. The Los Angeles River and many of its tributaries are lined with concrete for most or all of their length. Soft-bottomed segments of the Los Angeles River occur where groundwater upwelling prevents armoring of the river bottom (ULARWVG 2014). The Project Area is bounded by the Los Angeles River to the south and overlies the Chavez Ravine and Scholl Canyon sub-watersheds. Refer to **Figure 4.9-1** and **Figure 4.9-2**.

Figure 4.9-1 Watershed Boundaries



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GROUNDWATER

Citywide

The Los Angeles Department of Water and Power (LADWP) provides water service in the City. The LADWP uses several sources of local groundwater, including the Coastal Plain of Los Angeles Groundwater Basin - Central Sub-basin (Central Basin), San Fernando Basin, and Sylmar Basin. The Upper Los Angeles River Area (ULARA) watershed is the principal groundwater resource where the City produces local groundwater from the San Fernando and Sylmar Basins. The City also owns water rights in the Eagle Rock and West Coast Basins but does not pump its entitlement from these basins due to the lack of production facilities and contamination (LADWP 2021). More information on water supply can be found in Section 4.14, *Utilities and Service Systems*, of this EIR.

Central Basin

The Central Basin encompasses approximately 277 square miles of surface area, bounded on the north by a surface divide called the La Brea high, and on the northeast and east by emergent less permeable Tertiary rocks of the Elysian, Repetto, Merced and Puente Hills. The southeast boundary between Central Basin and Orange County Groundwater Basin roughly follows Coyote Creek, which is a regional drainage boundary. The Los Angeles and San Gabriel Rivers drain inland basins and pass across the surface of the Central Basin on their way to the Pacific Ocean. Historically, groundwater flow in the Central Basin has been from recharge areas in the northeast part of the sub-basin, toward the Pacific Ocean on the southwest (LADWP 2004).

Sylmar Basin

The Sylmar Basin, in the northern part of ULARA, is the second largest basin, and it consists of 5,600 acres and comprises 4.6 percent of the total valley fill. It is bounded on the north and east by the San Gabriel Mountains; on the west by a topographic divide in the valley fill between the Mission Hills and the San Gabriel Mountains; on the southwest by the Mission Hills; on the east by sedimentary rocks along the east bank of the Pacoima Wash; and on the south by the eroded south limb of the Little Tujunga Syncline. (Upper Los Angeles River Area Watermaster 2017).

San Fernando Basin

The San Fernando Basin is the largest source of groundwater in the City of Los Angeles and has been adjudicated since 1979. It covers approximately 226 square miles, bounded on the northwest by the Santa Susana Mountains, on the northeast by the San Gabriel Mountains, on the east by the San Rafael Hills, on the west by the Simi Hills, and on the south by the Santa Monica Mountains. The valley is drained by the Los Angeles River and its tributaries.

Project Area

The Project Area is underlain by the Central Basin, however water use within the area is provided by LADWP from a mix of sources and does not come directly from the Central Basin groundwater aquifers, as will be discussed under *Environmental Impacts*. No additional existing conditions information for the Central Basin is required beyond that described in the Citywide Groundwater subsection above.

WATER QUALITY

The primary source of urban pollution to surface and groundwater resources within the City, including the Proposed Project Area, is stormwater runoff from paved areas, which can contain hydrocarbons, sediments, pesticides, herbicides, toxic metals, and coliform bacteria.

In addition to common urban runoff contaminants, industrial contamination issues have led to restricted use of local groundwater pumping by the LADWP. Much of LADWP's pumping capacity has been impaired by contaminants, primarily volatile organic compounds (VOCs). In the San Fernando Basin, more than 80 of LADWP's 115 water supply wells have been removed from service or restricted in use. In the neighboring Sylmar Basin, contamination has caused two of three LADWP water supply wells to be removed from service. Two of ten LADWP water supply wells in the Central Basin were taken off line and demolished as a result of groundwater contamination issues. Water quality problems associated with hydrocarbon pollutants caused LADWP to discontinue utilizing its West Coast Basin facilities in 1980. Furthermore, declining groundwater levels and overdraft conditions have become concerns for Los Angeles basins where decades of expanding urbanization, increasing impervious hardscape, and channelization of stormwater runoff have diverted natural replenishment away from local aquifers. Aging wellfields and distribution system infrastructure have also presented challenges to the development and use of the City's local groundwater resources. Combined, these challenges have caused the City to renew its focus on sustainable management of its local groundwater basins. Responding to groundwater contamination issues has been a high priority for the City, particularly in the San Fernando Basin. Expanded basin remediation systems are under development to remove contamination from the local groundwater basin to restore the beneficial uses of this important basin (LADWP 2021).

As detailed further under Section 4.9-2, *Regulatory Setting*, the SWRCB is required to designate certain state surface waters as 'impaired' under Section 303(d) of the federal Clean Water Act and to generate Total Maximum Daily Loads (TMDLs) of identified pollutants in order to maintain beneficial uses of these waters. Most of the major surface waters of the City of Los Angeles and surrounding areas are on the most recent 303(d) listings, including the major coastal bays such as Santa Monica Bay, San Pedro Bay and the Los Angeles/Long Beach Outer Harbor, as well as the major river systems and most of their tributaries including the Los Angeles and San Gabriel Rivers and associated tributaries (SWRCB 2018).

Within the Project Area, the Los Angeles River Reach 3 and Arroyo Seco Reach 1 form a confluence into the Los Angeles River Reach 2. All three waters are 303(d) listed as impaired and have TMDLs for trash and indicator bacteria; the reaches of the Los Angeles River also have TMDLs for ammonia, nutrients, and copper, and Reach 2 of the Los Angeles River has a further TMDL for lead (SWRCB 2018). New sources of these pollutants sited within the Project Area, which may discharge to these waters will be required to comply with regulations under the LARWQCB's water quality control plan which apply to these waters.

LADWP's water system supplied four million customers with nearly 160 billion gallons of treated water in 2016. The City's water met and surpassed most federal and state drinking water standards set by the U.S. Environmental Protection Agency and the State of California, Water Resources Control board – Division of Drinking Water (LADWP 2017).

FLOOD HAZARDS

Flooding

Citywide

The major flooding causes in the City of Los Angeles are high-intensity storms. Water courses in the City can flood in response to a succession of intense winter rainstorms, usually between early November and late March. A series of such weather events can cause severe flooding in the City due to the large percentage of impervious area and the age and capacity of the drainage system. Other types of floods that may occur include flooding from dam and levee failure, and power-failure-induced flooding. In the City, large floods occur approximately every 5 to 6 years (City of Los Angeles 2017).

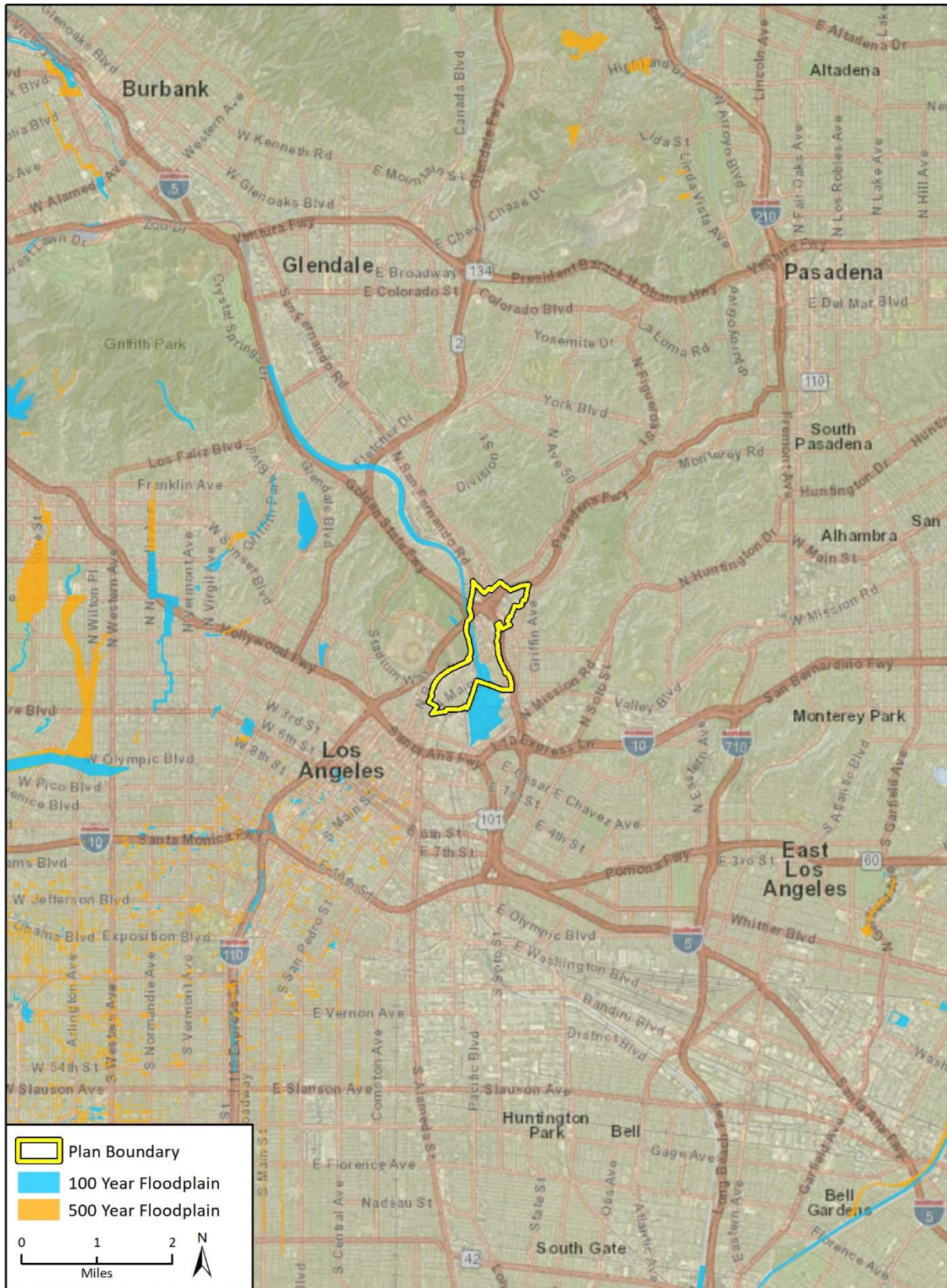
The Federal Emergency Management Agency (FEMA) has designated 100-year (one percent annual chance of flooding) and 500-year (0.2-percent annual chance of flooding) flood zones located throughout the City. According to the Safety Element of the General Plan, flood hazard areas subject to 100-year floods comprise 30 square miles within the City. At least 5,628 structures, 88 percent of them residential and 10 percent commercial or industrial, were located in the 100-year flood zone as of 2017 (City of Los Angeles 1996).

Portions of Los Angeles also fall within 500-year flood zones (City of Los Angeles 1996). A total of 38,927 structures, 89 percent residential and 9 percent commercial or industrial, are located in the 500-year flood zone (LA DWP 2017a).

Project Area

Potential flooding is not likely to occur in the Project Area from intense localized rainstorms and spillover from nearby flood control channels of the Los Angeles River. The Federal Emergency Management Agency (FEMA) establishes base flood heights for 100-year and 500-year flood zones, depicted in the Flood Insurance Rate Maps (FIRMs). As shown on **Figure 4.9-3**, the Project Area contains portions within the 100-year flood zone.

Figure 4.9-3 FEMA Flood Zones



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Additional data provided by FEMA, 2020.

Dam Inundation

Citywide

Dam failure events are infrequent and usually coincide with events such as earthquakes, landslides and excessive rainfall, but may also occur from water storage facility failure. The City of Los Angeles has 12 dams located within City boundaries, including Eagle Rock, Elysian, Ensino, Hansen Recreation Lake, Lopez, Los Angeles Reservoir, Lower Franklin #2, Mulholland, Riviera Reservoir, Santa Ynez Canyon, Silver Lake, and Stone Canyon. However, dams outside of the City boundaries may have potential to cause inundation within the City. These dams include 10th and Western, Big Tujunga, Devils Gate, Diederich Reservoir, Glen Oaks 968, Green Verdugo, Greystone, Laguna Basin, Pacoima, Palos Verdes Reservoir, Sepulveda, and Upper Franklin (Los Angeles County Enterprise Geographic Information Systems 2017).

Project Area

Small portions of the Project Area lie within the inundation area for the Elysian Reservoir, which could potentially inundate a portion of the Project Area in the immediate vicinity of the reservoir in the event of structural failure. The Elysian reservoir inundation area is approximately the same as the flood zone depicted in **Figure 4.9-3** (Los Angeles County Enterprise Geographic Information Systems 2017).

Tsunamis and Seiches

Citywide

Tsunamis are rare along the Los Angeles Coast. However, depending upon the magnitude of the tsunami, coastal areas of the City could be inundated, most notably in the San Pedro and Los Angeles Harbor areas, and in neighboring Santa Monica (City of Los Angeles 2017).

A seiche is a surface wave created when a body of water is shaken. Seiches may cause inundation if the wave overflows a containment wall, such as the wall of a reservoir, water storage tank, dam or other artificial body of water. Mitigation of potential seiche action has been implemented by LADWP through regulation of the level of water in its storage facilities and providing walls of extra height to contain seiches and prevent overflow. Dams and reservoirs are monitored during storms and measures are implemented in the event of potential overflow (City of Los Angeles 2017).

Project Area

The Project Area is northeast of the Pacific Ocean and is outside of a Tsunami Hazard Area (LADWP 2017). No portion of the Project Area is subject to seiches.

REGULATORY FRAMEWORK

Development in Los Angeles is subject to various local, state, and federal regulations regarding the use of water resources.

FEDERAL

Clean Water Act

The Clean Water Act (CWA) was established by the 1972 amendments to the former the Federal Water Pollution Control Act, was first introduced in 1948, with major amendments in the 1960s, 1970s and 1980s.

The CWA authorizes Federal, state, and local entities to cooperatively create comprehensive programs for eliminating or reducing the pollution of state waters and tributaries.

Section 303 of the CWA requires states to develop water quality standards to protect the beneficial uses of receiving waters. In accordance with California's Porter/Cologne Act, the Regional Water Quality Control Boards (RWQCBs) of the State Water Resources Control Board (SWRCB) are required to develop water quality objectives that ensure their region meets the requirements of Section 303 of the CWA. All of Los Angeles is within the Los Angeles RWQCB, District 4's jurisdiction.

Under Section 303(d) States are required to submit a list to the U.S. EPA identifying waters within its boundaries not meeting water quality standards (impaired waters) and the water quality parameter (i.e. pollutant) not being met. The Los Angeles River Reach 2 (located within the Project Area) is listed by the SWRCB as Impaired Waters under Section 303(d). Section 404 of the Clean Water Act prohibits the discharge of dredged or fill materials into Waters of the United States or adjacent wetlands without a permit from the U.S. Army Corps of Engineers. Discharges of fill material generally include placement of fill that is necessary for structure construction, site development fills for recreational, industrial, commercial, residential, and other uses. A Corps permit is required whether the work is permanent or temporary.

Federal Antidegradation Policy

The Federal Antidegradation Policy has been incorporated within the Clean Water Act and requires states to develop state-wide antidegradation policies and identify methods for implementing them. Pursuant to the Code of Federal Regulations, state antidegradation policies and implementation methods must, at a minimum, protect and maintain: (1) existing in-stream water uses; (2) existing water quality, where the quality of the waters exceeds levels necessary to support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource.

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) is the main federal law that ensures the quality of the Nation's drinking water. The SDWA was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply and its sources: rivers, lakes, reservoirs, springs, and groundwater wells. Under SDWA, the USEPA sets standards for drinking water quality and oversees the states, localities, and water suppliers that implement those standards. The SDWA regulates contaminants of concern in domestic water supply, including MCLs, and that the EPA has delegated the Cal Dept. of Public Health the responsible agency for administering California's drinking water program. MCLs are established under CCR Title 22, Div. 4, Ch. 15, Article 4 (Title 22 Standards).

National Flood Insurance Program

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 mandate the FEMA to evaluate flood hazards. FEMA provides flood insurance rate maps (FIRMs) for local and regional planners to promote sound land use and development practices, by identifying potential flood areas based on the current conditions. To delineate a FIRM, FEMA conducts engineering studies referred to as flood insurance studies (FIS). Using information gathered in these studies, FEMA engineers and cartographers delineate special flood hazard areas (SFHA) on FIRMs.

The Flood Disaster Protection Act requires owners of all structures within identified SFHAs to purchase and maintain flood insurance as a condition of receiving federal or federally-related financial assistance, such as mortgage loans from federally-insured lending institutions. Community members within designated areas are able to participate in the National Flood Insurance Program (NFIP) afforded by FEMA.

National Pollutant Discharge Elimination System

The 1972 CWA Amendments established the National Pollutant Discharge Elimination System (NPDES) permit program. The Program prohibits discharge of pollutants into the nation's waters without procurement of a NPDES permit from the United States Environmental Protection Agency (USEPA) or authorized State agency. The NPDES Permit Program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. Examples of pollutants include, but are not limited to, rock, sand, dirt, and agricultural, industrial, and municipal waste discharged into waters of the United States. The purpose of the permit is to translate general requirements of the Clean Water Act into specific provisions tailored to the operations of each organization that is discharging pollutants. .

The NPDES Program requires NPDES permits for: (1) Municipal Separate Storm Sewer Systems (MS4) Permit generally serving, or located in, incorporated cities with 100,000 or more people (referred to as municipal permits); (2) 11 specific categories of industrial activity (including landfills); and (3) construction activity that disturbs five acres or more of land. As of March 2003, Phase II of the NPDES Program extended the requirements for NPDES permits to numerous small municipal separate storm sewer systems, construction sites of one to five acres, and industrial facilities owned or operated by small municipal separate storm sewer systems, which were previously exempted from permitting. The NPDES Program is generally administered at the State and Regional levels.

In California, the USEPA Region 9 issues NPDES permits for any discharges into federal ocean waters. However, the remaining NPDES Program permitting authority has been delegated to the State for implementation through the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCB). The SWRCB establishes requirements prescribing the quality of point sources of discharge and establishes water quality objectives. These objectives are established based on the designated beneficial uses (e.g., water supply, recreation, and habitat) for a particular surface water body or groundwater basin. The SWRCB also oversees the NPDES Program's implementation throughout the State. To do so, it coordinates with and supports Regional Water Board efforts, and reviews RWQCB actions. The NPDES permits are issued to point source dischargers of pollutants to surface waters and are issued pursuant to California Water Code Chapter 5.5 that implements the CWA. Examples include, but are not limited to, public wastewater treatment facilities, industries, power plants, and groundwater cleanup programs discharging to surface waters (State Water Resources Control Board, Title 23, Chapter 9, Section 2200). Discharge limits, under the NPDES permits, for minerals and pollutants are established and regulated by the RWQCB.

STATE

Porter-Cologne Water Quality Act (California Water Code)

The Porter-Cologne Water Quality Control Act, also known as the California Water Code (CWC) Section §13000 et seq., established the legal and regulatory framework for California's water quality control. The CWC authorizes the SWRCB to implement the provisions of the CWA, including the authority to regulate waste disposal and require cleanup of discharges of hazardous materials and other pollutants.

Under the CWC, the State is divided into nine RWQCBs, which govern the implementation and enforcement of the CWC and the CWA. The Project Site is located within Region 4, also known as the LARWQCB. The RWQCBs develop and enforce water quality objectives and implement plans that will best protect California's waters, acknowledging areas of different climate, topography, geology, and hydrology. Each RWQCB is required to formulate and adopt a Water Quality Control Plan or Basin Plan for its region. The Basin Plan establishes beneficial use definitions for the various types of water bodies and serves as the basis for establishing water quality objectives, discharge conditions and prohibitions, and

must adhere to the policies set forth in the CWC and established by the SWRCB. In this regard, the LARWQCB issued the Los Angeles Basin Plan on August 29, 2014 for the Coastal Watersheds of Los Angeles and Ventura Counties, with subsequent amendments. The RWQCB is also given authority to issue waste discharge requirements, enforce actions against stormwater discharge violators, and monitor water quality.

Sustainable Groundwater Management Act (SGMA) of 2014

The Sustainable Groundwater Management Act of 2014 (SGMA) creates a framework for sustainable, local groundwater management in California. SGMA requires the designation of groundwater sustainability agencies (GSAs) by one or more local agencies and the adoption of groundwater sustainability plans (GSPs) for basins designated as medium- or high-priority by the California Department of Water Resources (DWR). SGMA grants new powers to GSAs, including the power to adopt rules, regulations, ordinances, and resolutions; regulate groundwater extractions; and to impose fees and assessments. SGMA also allows the State Water Resources Control Board (SWRCB) to intervene if local agencies will not or do not meet the SGMA requirements, in addition to mandating that critically over drafted basins be sustainable by 2040, and medium- or high-priority by 2042.

California Toxics Rule

In 2000, the California Environmental Protection Agency (Cal-EPA) promulgated the California Toxics Rule, which establishes water quality criteria for certain toxic substances to be applied to waters in the State. Cal-EPA promulgated this rule based on Cal-EPA's determination that the numeric criteria of specific concentrations of regulated substances are necessary for the State to protect human health and the environment. The California Toxics Rule establishes acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water such as inland surface waters and enclosed bays and estuaries that are designated by the LARWQCB as having beneficial uses protective of aquatic life or human health.

California State Water Resource Control Board (SWRCB)

The SWRCB was established through the California Porter Cologne Water Quality Act of 1969. At the State level, SWRCB has responsibility for the protection of water quality and sets Statewide policies and regulations for the implementation of water quality control programs mandated by federal and State water quality statutes and regulations. The SWRCB delegates to the nine RWQCBs the responsibility for the protection of water quality in each major drainage basin throughout the state. The LARWQCB has jurisdiction over the coastal drainages between Rincon Point (on the coast of western Ventura County) and the eastern Los Angeles County line. A more detailed discussion of the LARWQCB is presented below.

NPDES General Construction Activity Stormwater Permit (GCASP)

Pursuant to CWA Section 402(p) and the Porter-Cologne Water Quality Control Act, SWRCB has issued a Statewide NPDES General Permit, or GCASP, under Order No. 2009-0009-DWQ, NPDES No. CAR000002, which was adopted on September 2, 2009. The Order requires that prior to the beginning of construction activities, the permit applicant must obtain coverage under a GCASP permit by preparing and submitting a Notice of Intent (NOI) along with the appropriate fee to SWRCB. Construction activities subject to GCASP include clearing, grading, and disturbances to the ground, such as stockpiling or excavation, which results in soil disturbances of one acre of total land area or more.

Prior to obtaining the GCASP, an adequate Stormwater Pollution Prevention Plan (SWPPP) has to be prepared. The SWPPP specifies Best Management Practices (BMPs) that will prevent construction pollutants from contacting stormwater with the intent of keeping all products of erosion from moving off-site into receiving waters. BMPs are intended to diminish impacts to the Maximum Extent Practicable

(MEP), which is a standard developed by Congress to allow regulators the flexibility needed to shape programs to the site-specific nature of municipal stormwater discharges. The SWPPP has two major objectives: (1) to help identify the sources of sediment and other pollutants that affect the quality of stormwater discharges and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater as well as non-stormwater discharges. The SWPPP includes a description of: (1) the site, (2) erosion and sediment controls, (3) means of waste disposal, (4) implementation of approved local plans, (5) control of post-construction sediment and erosion control measures and maintenance responsibilities, and (6) non-stormwater management controls. Dischargers are also required to inspect their construction sites before and after storms to identify stormwater discharge associated with construction activity and to identify and implement controls where necessary.

BMPs are intended to diminish impacts to the MEP, which is a standard developed by Congress to allow regulators the flexibility needed to shape programs to the site-specific nature of municipal stormwater discharges. Reducing impacts to the MEP generally relies on BMPs that emphasize pollution prevention and source control, with additional structural controls as needed.

Within the City of Los Angeles, SWPPP requirements are enforced through the City's Building and Safety Department plan review and approval process. During the review process, development project plans are reviewed for compliance with the stormwater requirements. Plans and specifications are reviewed to ensure that the appropriate BMPs are incorporated to address stormwater pollution prevention goals.

Cobey-Alquist Flood Plain Management Act

CWC Sections 8400 et seq. documents the state's intent to support local governments in their use of land use regulations to accomplish floodplain management and to provide assistance and guidance, as appropriate.

REGIONAL

Water Replenishment District of Southern California

The City of Los Angeles is included within the Water Replenishment District of Southern California (WRD). The WRD service area is categorized as a High Priority basin and pursuant to the SGMA must either: (a) form a groundwater sustainability agency (GSA) to prepare and submit a groundwater sustainability plan; or directly submit an Alternative Analysis in lieu of forming a GSA. The WRD, in conjunction with key stakeholders including the LADWP, has prepared and submitted an Alternative Analysis that satisfies the requirements of the SGMA. The Alternative Analysis demonstrates compliance with applicable portions of the CWC and provides adequate information to show that the applicable, underlying Central Subbasin has operated within its sustainable yield over a period of at least 10 years; and that the Alternative Analysis satisfies SGMA's objectives by promoting sustainable management of the groundwater in the Central Subbasin.

Los Angeles County Standard Urban Stormwater Mitigation Plan (SUSMP)

On March 8, 2000, Los Angeles County Standard Urban Stormwater Mitigation Plan (SUSMP) requirements were approved by the LARWQCB as part of the MS4 permit to address stormwater pollution from new construction and redevelopment projects. SUSMP is a comprehensive stormwater quality program to manage urban stormwater and minimize pollution of the environment. The purpose of the SUSMP is to reduce the discharge of pollutants in stormwater by outlining BMPs that must be incorporated into the design plans of new development and redevelopment. The SUSMP requirements contain a list of minimum BMPs that must be employed to infiltrate or treat stormwater runoff, control peak flow discharge, and reduce the post-project discharge of pollutants from stormwater conveyance systems. The SUSMP

requirements define, based upon land use type, the types of practices that must be included and issues that must be addressed as appropriate to the development type and size. The SUSMP requirements apply to all development and redevelopment projects that fall into one of the following categories:

- Single-family hillside residences
- One acre or more of impervious surface area for industrial/commercial developments
- Automotive service facilities
- Retail gasoline outlets
- Restaurants
- Ten or more residential units (BMP)
- Parking lots of 5,000 square feet or greater or with 25 or more spaces
- Projects located in or directly discharging to an Ecologically Sensitive Area

The SUSMP requirements are enforced through the City's Building and Safety Department plan review and approval process. During the review process, individual development project plans are reviewed for compliance with stormwater requirements.

Water Quality Control Plan for the Los Angeles Region (Basin Plan)

All of Los Angeles is within the jurisdiction of the LARWQCB, which is one of the nine regional WQCBs in California. The LARWQCB provides permits for projects that may affect surface waters and groundwater locally and is responsible for preparing the Basin Plan, which is updated as necessary every three years. The Basin Plan establishes narrative and numerical water quality objectives for surface waters and groundwater within the Los Angeles region and designates the beneficial uses of inland surface waters, including the Hollywood Reservoir and Los Angeles River. Water quality objectives, as defined by the CWA Section 13050(h), are the "limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses or the prevention of nuisance within a specific area." The State has developed TMDLs, which are a calculation of the maximum amount of a pollutant that a water body can have and still meet water quality objectives established in the Basin Plan.

Enhanced Watershed Management Plans (EWMPs)

On July 23, 2021, RWQCB adopted the current municipal stormwater permit (NPDES Permit No. CAS004004, Order No. R4-2021-0105), which contains the most extensive provisions to date with 32 incorporated TMDLs, of which 22 affect the City, expanded programs for Minimum Control Measures, development and implementation of watershed management plans, and expanded monitoring provisions. The NPDES permit provides for the development of EWMPs by the MS4 permittees to implement the requirements of the permit on a watershed scale through customized strategies, control measures, and BMPs. EWMPs also address compliance requirements of the 22 TMDLs that currently are effective, as well as other elements of the City's Stormwater Program.

NPDES Permit Program

As indicated above, in California, the NPDES stormwater permitting program is administered by the SWRCB through its nine RWQCBs. This NPDES permit, referred to as General Permit for Stormwater Discharges from Construction Activities by the SWRCB, establishes a risk-based approach to stormwater control requirements for construction projects.

Construction: Stormwater Pollution Prevention Plan

For all construction activities disturbing one acre of land or more, California mandates the development and implementation of Stormwater Pollution Prevention Plans (SWPPP). The SWPPP documents the selection and implementation of best management practices (BMPs) to prevent discharges of water pollutants to surface or groundwater. The SWPPP also charges owners with stormwater quality management responsibilities. The developer or contractor for a construction site subject to the General Permit must prepare and implement a SWPPP that meets the requirements of the General Permit. The purpose of an SWPPP is to identify potential sources and types of pollutants associated with construction activity and list BMPs that would prohibit pollutants from being discharged from the construction site into the public stormwater system. BMPs typically address stabilization of construction areas, minimization of erosion during construction, sediment control, control of pollutants from construction materials, and post-construction stormwater management (e.g., the minimization of impervious surfaces or treatment of stormwater runoff). The SWPPP is also required to include a discussion of the proposed program to inspect and maintain all BMPs.

A site-specific SWPPP could include, but not be limited to the following BMPs:

- Erosion Control BMPs – to protect the soil surface and prevent soil particles from detaching. Selection of the appropriate erosion control BMPs would be based on minimizing areas of disturbance, stabilizing disturbed areas, and protecting slopes/channels. Such BMPs may include, but would not be limited to, use of geotextiles and mats, earth dikes, drainage swales, and slope drains.
- Sediment Control BMPs – are treatment controls that trap soil particles that have been detached by water or wind. Selection of the appropriate sediment control BMPs would be based on keeping sediments on-site and controlling the site boundaries. Such BMPs may include, but would not be limited, to use of silt fences, sediment traps, and sandbag barriers, street sweeping and vacuuming, and storm drain inlet protection.

The SWRCB adopted a General Permit for Stormwater Discharges from Construction Activities on September 2, 2009 and most recently amended the permit on July 17, 2012 (Order No. 2012-0006-DWQ, General NPDES Permit No. CAS000002). The Construction General Permit regulates construction activity, including clearing, grading, and excavation of areas one acre or more in size, and prohibits the discharge of materials other than stormwater, authorized non-stormwater discharges, and all discharges that contain a hazardous substance, unless a separate NPDES permit has been issued for those discharges.

To obtain coverage under the Construction General Permit, a developer is required to file a Notice of Intent (NOI) with the appropriate RWQCB and provide proof of the NOI prior to applying for a grading or building permit from the local jurisdiction and must prepare a State SWPPP that incorporates the minimum BMPs required under the permit as well as appropriate project-specific BMPs. The SWPPP must be completed and certified by the developer and BMPs must be implemented prior to the commencement of construction and may require modification during the course of construction as conditions warrant. When project construction is complete, the developer is required to file a Notice of Termination with the RWQCB certifying that all the conditions of the Construction General permit, including conditions necessary for termination, have been met.

NPDES Permit for Discharges of Groundwater from Construction and Project Dewatering

Dewatering operations are practices that discharge non-stormwater, such as ground water, which must be removed from a work location to proceed with construction into the drainage system. Discharges from dewatering operations can contain high levels of fine sediments, which if not properly treated, could lead to exceedance of the NPDES requirements. A NPDES Permit for dewatering discharges was adopted by

the LARWQCB on September 13, 2018 (Order No. R4-2018-0125, General NPDES Permit No. CAG994004.) Similar to the Construction General Permit, to be authorized to discharge under this Permit; the developer must submit a NOI to discharge groundwater generated from dewatering operations during construction in accordance with the requirements of this Permit and shall continue in full force until it expires November 13, 2023. In accordance with the NOI, among other requirements and actions, the discharger must demonstrate that the discharges shall not cause or contribute to a violation of any applicable water quality objective/criteria for the receiving waters, perform reasonable potential analysis using a representative sample of groundwater or wastewater to be discharged. The discharger must obtain and analyze (using appropriate methods) a representative sample of the groundwater to be treated and discharged under the Order. The analytical method used shall be capable of achieving a detection limit at or below the minimum level. The discharger must also provide a feasibility study on conservation, reuse, and/or alternative disposal methods of the wastewater and provide a flow diagram of the influent to the discharge point.

Operation: Los Angeles County Municipal Stormwater NPDES Program

The County of Los Angeles and the City are two of the Co-Permittees under the Los Angeles County MS4 Permit (NPDES Permit No. CAS004004, Order No. R4-2021-0105). The Los Angeles County MS4 Permit has been determined by the State Water Resources Control Board to be consistent with the requirements of the Clean Water Act and the Porter-Cologne Act for discharges through the public storm drains in Los Angeles County to statutorily-defined waters of the United States (33 United States Code [USC] §1342(p); 33 CFR Part 328.11). On September 8, 2016, the LARWQCB amended the Los Angeles County MS4 Permit to incorporate modifications consistent with the revised Ballona Creek Watershed Trash Total Maximum Daily Load (TMDL) and the revised Los Angeles River Watershed Trash TMDL, among other TMDLs incorporated into the Los Angeles County MS4 Permit and the Basin Plan for the Coastal Waters of Los Angeles and Ventura Counties.

Under the amended Los Angeles County MS4 Permit, the County and City are both required to implement development planning guidance and control measures that control and mitigate stormwater quality and runoff volume impacts to receiving waters as a result of new development and redevelopment. The County and the City also are required to implement other municipal source detection and elimination programs, as well as maintenance measures.

Under the Los Angeles County MS4 Permit, permittees are required to implement a development planning program to address stormwater pollution. This program requires project applicants for certain types of projects to implement a Low Impact Development (LID) Plan, except where the SUSMP is proven applicable. The purpose of the LID Plan is to reduce the discharge of pollutants in stormwater by outlining BMPs, which must be incorporated into the design of new development and redevelopment. These treatment control BMPs must be sufficiently designed and constructed to treat or retain the greater of an 85th percentile rain event or first 0.75 inch of stormwater runoff from a storm event.

The Los Angeles County MS4 Permit (Part VI.D.7.c, New Development/Redevelopment Project Performance Criteria) includes design requirements for new development and substantial redevelopment. These requirements apply to all projects that create or replace more than 5,000 square feet of impervious cover. Where redevelopment results in an alteration to more than 50 percent of impervious surfaces of a previously existing development and the existing development was not subject to post-construction stormwater quality control requirements, the entire project would be subject to post-construction stormwater quality control measures.

This Enhanced Watershed Management Program for the Upper Los Angeles River (ULAR EWMP) describes a customized compliance pathway that participating agencies will follow to address the pollutant reduction requirements of the Los Angeles County MS4 Permit. By electing the optional compliance

pathway in the MS4 Permit, the Upper Los Angeles River Watershed Management Group (EWMP Group) has leveraged this EWMP to facilitate a robust, comprehensive approach to stormwater planning for the Upper Los Angeles River watershed. The objective of the EWMP Plan is to determine the network of control measures (BMPs) that will achieve required pollutant reductions while also providing multiple benefits to the community and leveraging sustainable green infrastructure practices. The Permit requires the identification of Watershed Control Measures, which are strategies and BMPs that will be implemented through the EWMP, individually or collectively, at watershed-scale to address the Water Quality Priorities. The EWMP Implementation Strategy is used as a recipe for compliance for each jurisdiction to address Water Quality Priorities and comply with the provisions of the MS4 Permit. The EWMP Implementation Strategy includes individual recipes for each of the 18 jurisdictions and each watershed/assessment area – Los Angeles River above Sepulveda Basin, Los Angeles River below Sepulveda Basin, Compton Creek, Rio Hondo, Verdugo Wash, Arroyo Seco, Burbank Western Channel, Tujunga Wash, Bull Creek, Aliso Wash, Bell Creek, McCoy-Dry Canyon, and Browns Canyon Wash. Implementation of the EWMP Implementation Strategy will provide a BMP-based compliance pathway for each jurisdiction under the MS4 Permit. The Permit specifies that an adaptive management process will be revisited every two years to evaluate the EWMP and update the program. The EWMP strategy will evolve based on monitoring results by identifying updates to the EWMP Implementation Plan to increase its effectiveness.

The Los Angeles County MS4 Permit contains provisions for implementation and enforcement of the Stormwater Quality Management Program. The objective of the Stormwater Quality Management Program is to reduce pollutants in urban stormwater discharges to the “maximum extent practicable,” to attain water quality objectives and protect the beneficial uses of receiving waters in Los Angeles County. Special provisions are provided in the Los Angeles County MS4 Permit to facilitate implementation of the Stormwater Quality Management Program. In addition, the Los Angeles County MS4 Permit requires that permittees implement a LID Plan, as discussed above, that designates BMPs that must be used in specified categories of development projects to infiltrate water, filter, or treat stormwater runoff; control peak flow discharge; and reduce the post-project discharge of pollutants into stormwater conveyance systems. In response to the Los Angeles County MS4 Permit requirements, the City adopted Ordinance No. 173,494 (LID Ordinance), as authorized by Los Angeles Municipal Code (LAMC) Section 64.72.

The City supports the requirements of the Los Angeles County MS4 Permit through the City of Los Angeles’ *Development Best Management Practices Handbook, Low Impact Development Manual, Part B: Planning Activities* (5th edition, May 2016) (LID Handbook), which provides guidance to developers to ensure the post-construction operation of newly developed and redeveloped facilities comply with the Developing Planning Program regulations of the City’s Stormwater Program. The LID Handbook assists developers with the selection, design, and incorporation of stormwater source control and treatment control BMPs into project design plans and provides an overview of the City’s plan review and permitting process.

The City implements the requirement to incorporate stormwater BMPs, including LID BMPs, through the City’s plan review and approval process. During the review process, project plans are reviewed for compliance with the City’s General Plan, zoning ordinances, and other applicable local ordinances and codes, including stormwater requirements. Plans and specifications are reviewed to ensure that the appropriate BMPs are incorporated to address stormwater pollution prevention goals.

Stormwater Program – Los Angeles County MS4 Permit Citywide Implementation

The Watershed Protection Division of the Department of Public Works, Bureau of Sanitation is responsible for stormwater pollution control throughout the City in compliance with the Los Angeles County MS4 Permit. The Watershed Protection Division administers the City’s Stormwater Program, which has two major components: Pollution Abatement and Flood Control. The Watershed Protection Division publishes the two-part Development Best Management Practices Handbook that provides guidance to developers for compliance with the Los Angeles County MS4 permit through the incorporation of water quality

management into development planning. The Development Best Management Practices Handbook, Part A: Construction Activities, provides specific minimum BMPs for all construction activities. The Development Best Management Practices Handbook, LID Manual, Part B: Planning Activities (5th edition, May 2016) (LID Handbook) provides guidance to developers to ensure the post-construction operation of newly developed and redeveloped facilities comply with the Developing Planning Program regulations of the City's Stormwater Program. The LID Handbook assists developers with the selection, design, and incorporation of stormwater source control and treatment control BMPs into project design plans, and provides an overview of the City's plan review and permitting process. The LID Handbook addresses the need for frequent and/or regular inspections of infiltration facilities in order to ensure on-site compliance of BMP standards, soil quality, site vegetations, and permeable surfaces. These inspections are required to guarantee that facilities follow all proprietary operation and maintenance requirements.

During the development review process, project plans are reviewed for compliance with the City's General Plan, zoning ordinances, and other applicable local ordinances and codes, including stormwater requirements. Plans and specifications are reviewed to ensure that the appropriate BMPs are incorporated to address stormwater pollution prevention goals.

County of Los Angeles Hydrology Manual

Drainage and flood control in the City are subject to review and approval by the Department of Public Works, Bureau of Engineering (Bureau of Engineering). Storm drains within the City are constructed by both the City and the County Flood Control. The County Flood Control constructs and has jurisdiction over regional facilities such as major storm drains and open flood control channels, while the City constructs and is responsible for local interconnecting tributary drains. Per the City's Special Order No. 007-1299, December 3, 1999, the City has adopted the Los Angeles County Department of Public Works' Hydrology Manual as its basis of design for storm drainage facilities. The Department of Public Works' Hydrology Manual requires that a storm drain conveyance system be designed for a 25-year storm event and that the combined capacity of a storm drain and street flow system accommodate flow from a 50-year storm event. Areas with sump conditions are required to have a storm drain conveyance system capable of conveying flow from a 50-year storm event. The County also limits the allowable discharge into existing storm drain (MS4) facilities based on the County's MS4 Permit, which is enforced on all new developments that discharge directly into the County's MS4 system.

Drainage and flood control structures and improvements within the City are subject to review and approval by the City's Department of Public Works and Department of Building and Safety. As required by the Department of Public Works, all public storm facilities must be designed in conformity with the standards set forth by Los Angeles County. The Department of Public Works reviews and approves MS4 plans prior to construction. Any proposed increases in discharge directly into County facilities, or proposed improvements of County-owned MS4 facilities, such as catch basins and drainage lines, require approval from County Flood Control to ensure compliance with the County's Municipal NPDES Permit requirements.

LOCAL

Los Angeles Municipal Code (LAMC)

The City of Los Angeles relies on Municipal Code Chapter VI, *Public Works and Property* to require permits and oversee the implementation of any land use or development involving grading activities, or the construction of new structures or paving. Article 4 *Sewers, Water Courses and Drains* and Article 4.4 *Stormwater and Urban Runoff Pollution Control* of the Municipal Code establishes minimum standards, guidelines, and/or criteria for specific discharges, connections, and/or BMPs. Additional measures are required by the City, when applicable, to prevent or reduce the discharge of pollutants to achieve water

quality standards and receiving water limitations. Article 4.4 includes prohibitions for illicit discharges to enter the MS4 and requires implementation of BMPs and LID practices per LAMC 64.70 (City of Los Angeles 2017). In addition, the City requires all construction activities and facility operations to be consistent with the landscape ordinance (Ordinance No. 170,978) as well as other related requirements, outlined in Chapter XII, *The Water Conservation Plan of the City of Los Angeles*, and the *Planning and Land Development Handbook for LID*. The *Handbook* is a tool for developers to comply with the requirements of the City's SUSMP. The handbook summarizes the City's project review and permitting process, identifies stormwater mitigation measures, and references source and treatment control BMP information. The latest edition was adopted on May 9, 2016.

Proposition O

Proposition O, a \$500 million bond, authorized the City to fund projects that protect public health, capture stormwater for reuse and meet the federal CWA through removal and prevention of pollutants entering regional waterways. Proposition O projects include but are not limited to the Temescal Canyon Park Stormwater BMP, Los Angeles Zoo Parking Lot, the Westchester Stormwater BMP, Echo Park Lake Rehabilitation Project, and the Hansen Dam Recreational Area Parking Lot and Wetlands Restoration. In addition, Proposition O funds were utilized for the Catch Basin Screen Cover and Insert Project, which provided for the installation of catch basin inserts and screen covers throughout the City beginning in 2005 with completion on September 30, 2007 (Phase I and Phase II). Phase III began in the spring of 2008 and will retrofit approximately 34,000 remaining catch basins with opening screen covers.

Flood Control Authority in the City of Los Angeles

In general, flood control authority can be summarized as follows: (1) the U.S. Army Corps of Engineers (USACE) oversees construction of projects associated with navigable bodies of water, including the Los Angeles River-related flood control systems and ocean harbors; (2) LACDPW oversees construction of ancillary Los Angeles County Flood Control District (LACFCD) facilities and designs and/or maintains the flood control drainage facilities, including the Los Angeles River system (under the guidance of USACE) to mitigate 100- and 500-year storms; and (3) LADPW BOE oversees construction and maintenance of the City's storm drainage system which is designed to mitigate 50-year magnitude storms. Various City agencies implement development permit, slope stability, and watershed protection regulations.

Los Angeles River Revitalization Master Plan (LARRMP)

Adopted in April 2007, the LARRMP contains goals in the creation of parks, paths, and open spaces along the Los Angeles River. The LARRMP includes recommendations for physical improvements along the Los Angeles River corridor; policies for managing public access and management structure; and short- and long-term priority projects and potential funding strategies.

River Improvement Overlay (RIO) District

Following the adoption of the LARRMP, the RIO District (Ordinance Nos. 18314 and 183145), effective August 2014 and revised in January 2015, was established to help implement the vision and goals of the LARRMP by focusing on sustainable environments in the surrounding neighborhoods, including guidelines for both private property and public rights-of-way. The RIO provides guidelines for new "complete" streets and includes mobility strategies to meet the needs of pedestrians, bicyclists, transit riders, and vehicle drivers. The RIO District includes all of the neighborhoods within the City of Los Angeles that are adjacent to the Los Angeles River, and generally extends 0.5-mile on either side of the River, creating an area that is potentially 32 miles long and one mile wide. As described in *Chapter 3, Project Description*, applicable development regulations and measures to protect sensitive biological resources in the existing RIO will be incorporated into Frontage Districts and development standard rules of the New Zoning Code.

City of Los Angeles General Plan Safety, Conservation, and Framework Elements

The intent of the Conservation Element is the conservation and preservation of natural resources. Policies of the Conservation Element address the effect of erosion on such natural resources as beaches, watersheds, and watercourses. The General Plan Framework Element is a more general, long-term, programmatic element. The policies in the Framework Element address infrastructure and public service systems, many of which are interrelated, and all of which support the City's population and economy. Objectives and policies related to hydrology and water quality contained in these elements are listed in **Table 4.9-1**, below.

TABLE 4.9-1 RELEVANT GENERAL PLAN HYDROLOGY & WATER QUALITY OBJECTIVES AND POLICIES	
Objective/Policy	Objective/Policy Description
Safety Element – Hazard Mitigation	
Policy 1.1.6	State and Federal Regulations. Assure compliance with applicable state and federal planning and development regulations. Regularly adopt new provisions of the California Building Standards Code, Title 24, and California Fire Code into the LAMC to ensure that new development meets or exceeds State and National standards. Facilitate existing non-conforming structures and evacuation routes coming into compliance with new standards.
Safety Element – Emergency Response (Multi-Hazard)	
Policy 2.1.2	Health and Environmental Protection. Develop and implement procedures to protect the environment, sensitive species and public from potential health and safety hazards associated with disaster events, hazard mitigation and disaster recovery efforts.
Conservation Element – Erosion	
Policy 2	Continue to prevent or reduce erosion that will damage the watershed or beaches or will result in harmful sedimentation that might damage beaches or natural areas.
Conservation Element – Ocean	
Policy 1	Continue to reduce pollutant discharge into the bays from both natural and human sources.
Framework Element – Chapter 9 Infrastructure and Public Services	
Policy 9.3.2	Consider the use of treated wastewater for irrigation, groundwater recharge, and other beneficial purposes.
Objective 9.5	Ensure that all properties are protected from flood hazards in accordance with applicable standards and that existing drainage systems are adequately maintained.
Policy 9.5.1	Develop a stormwater management system that has adequate capacity to protect its citizens and property from flooding which results from a 10-year storm (or a 50-year storm in sump areas, a pit or hollow in which liquid collects).
Policy 9.5.2	Assign the cost of stormwater system improvements proportionately to reflect the level of runoff generated and benefits.
Policy 9.5.3	Implement programs to correct any existing deficiencies in the stormwater collection system.
Policy 9.5.4	Ensure that the City's drainage system is adequately maintained.
Objective 9.6	Pursue effective and efficient approaches to reducing stormwater runoff and protecting water quality.
Policy 9.6.1	Pursue funding strategies which link the sources of revenues for stormwater system improvement to relevant factors including sources of runoff and project beneficiaries.
Policy 9.6.2	Establish standards and/or incentives for the use of structural and non-structural techniques which mitigate flood-hazards and manage stormwater pollution.
Policy 9.6.3	The City's watershed-based approach to stormwater management will consider a range of strategies designed to reduce flood hazards and manage stormwater pollution. The strategies considered will include, but not necessarily be limited to: <ul style="list-style-type: none"> a. Support regional and City programs which intercept runoff for beneficial uses including groundwater recharge; b. Protect and enhance the environmental quality of natural drainage features;

TABLE 4.9-1 RELEVANT GENERAL PLAN HYDROLOGY & WATER QUALITY OBJECTIVES AND POLICIES	
Objective/Policy	Objective/Policy Description
	<ul style="list-style-type: none"> c. Create stormwater detention and/or retention facilities which incorporate multiple-uses such as recreation and/or habitat; d. On-site detention/retention and reuse of runoff; e. Mitigate existing flood hazards through structural modifications (flood proofing) or property by-out; f. Incorporate site design features which enhance the quality of off-site runoff; and g. Use land use authority and redevelopment to free floodways and sumps of inappropriate structures which are threatened by flooding and establish appropriate land uses which benefit or experience minimal damages from flooding.
Policy 9.6.4	Proactively participate in inter-agency efforts to manage regional water resources, such as the Santa Monica Bay Restoration Project, the Los Angeles River Master Plan, the Los Angeles River Parkway Project and the Los Angeles County Drainage Area Water Conservation and Supply Feasibility Study.
Objective 9.7	Continue to develop and implement management practices based stormwater program which maintains and improves water quality.
Policy 9.7.1	Continue the City's active involvement in the regional NPDES municipal stormwater permit.
Policy 9.7.2	Continue to aggressively develop and implement educational outreach programs designed to foster an environmentally-aware citizenry.
Policy 9.7.3	Investigate management practices which reduce stormwater pollution to identify technically feasible and cost effective-approaches, through: <ul style="list-style-type: none"> a. Investigation of sources of pollution using monitoring, modeling and special studies; b. Prioritization of pollutants and sources; c. Conducting research and pilot projects to study specific management practices for the development of standards; and d. Developing requirements which establish implementation standards for effective management practices.
Objective 9.9	Manage and expand the City's water resources, storage facilities, and water lines to accommodate projected population increases and new or expanded industries and businesses.
Policy 9.9.3	Protect existing water supplies from contamination and clean up groundwater supplies so those resources can be more fully utilized.
Policy 9.9.4	Work to improve water quality and reliability of supply from the State Water Project and other sources.
Policy 9.9.5	Maintain existing rights to groundwater and ensure continued groundwater pumping availability.
Objective 9.11	Ensure, to the maximum extent possible, the continued provision of water capacity, quality and delivery after an earthquake or other emergency.
Policy 9.11.1	Provide for the prompt resumption of water service with adequate quantity and quality of water after an emergency.
SOURCE: Los Angeles 2001, 2021 (Safety Element).	

Low Impact Development Ordinance

In 2011, the City adopted a Citywide LID Ordinance (LID Ordinance) that amended the City's existing Stormwater Ordinance (LAMC Section Nos. 64.70 and 64.72, discussed above). The LID Ordinance, effective May 12, 2012, and updated in September 2015 (Ordinance No. 183,833), enforces the requirements of the Los Angeles County MS4 Permit. LID is a stormwater management strategy with goals to mitigate the impacts of increased runoff and stormwater pollution as close to their source as possible; and that promotes the use of natural infiltration systems, evapotranspiration, and the reuse of stormwater.

The goal of LID practices is to remove nutrients, bacteria, and metals from stormwater while also reducing the quantity and intensity of stormwater flows. Through the use of various infiltration strategies, LID is aimed at minimizing impervious surface area. Where infiltration is not feasible, the use of bioretention, rain gardens, green roofs, and rain barrels that will store, evaporate, detain, and/or treat runoff can be used.

The intent of LID standards is to:

- Require the use of LID practices in future developments and redevelopments to encourage the beneficial use of rainwater and urban runoff.
- Reduce stormwater/urban runoff while improving water quality.
- Promote rainwater harvesting.
- Reduce off-site runoff and provide increased groundwater recharge.
- Reduce erosion and hydrologic impacts downstream; and
- Enhance the recreational and aesthetic values in our communities.

The Citywide LID strategy addresses land development planning as well as storm drain infrastructure. Toward this end, LID is implemented through BMPs that fall into four categories: site planning BMPs, landscape BMPs, building BMPs, and street and alley BMPs. While the LID Ordinance and the BMPs contained therein comply with Los Angeles County MS4 Permit requirements for stormwater management, the MS4 requirements apply only to proposed new development and redevelopment of a certain size, primarily address stormwater pollution prevention as opposed to groundwater recharge and vary over time as the permit is reissued every five years. The LID Ordinance provides a consistent set of BMPs that are intended to be inclusive of, and potentially exceed, SUSMP standards, apply to existing as well as new development, and emphasize natural drainage features and groundwater recharge in addition to pollution prevention in receiving waters. The LID Ordinance requires the capture and management of the greater of an 85th percentile rain event or the first 0.75-inch of runoff flow during storm events defined in the City's LID BMPs, through one or more of the City's preferred LID improvements in priority order: on-site infiltration, capture and reuse, or biofiltration/biotreatment BMPs, to the maximum extent feasible.

Per the City's 2016 LID Manual's Figure 3.3 and Section 4.1, the City's preferred LID improvement is on-site infiltration of stormwater, site since it allows for groundwater recharge and reduces the volume of stormwater entering municipal drains. If Project Site conditions are not suitable for infiltration, the City requires on-site retention via stormwater capture and reuse. Should capture and reuse be deemed technically infeasible, high efficiency bio-filtration/ bioretention systems should be utilized. Lastly, under the LID Ordinance (LAMC Section 64.72 (C) 6), as interpreted in the LID Manual, if no single approach listed in the LID Manual is feasible, then a combination of approaches may be used.

The LID Ordinance applies first to a project in lieu of SUSMP. If a large project cannot meet the requirements of the LID Ordinance, then SUSMP applies instead.

Los Angeles Floodplain Hazard Management Specific Plan Ordinance (No. 172,081)

On April 14, 2021, the City adopted an update to the Los Angeles Floodplain Hazard Management Specific Plan Ordinance (No. 172,081). This amendment ensured that the Specific Plan Ordinance conforms to federal regulations and maps relating to the NFIP. Conformance to the requirements of the NFIP is necessary in order to participate in the program. Requirements of the ordinance include new construction and substantial improvements in flood-prone areas including service facilities to be designed to prevent water entry or accumulation, new or replacement water supply and sanitary sewer systems to minimize or eliminate infiltration and to require on-site waste disposal systems be located to avoid impairment or

contamination, notification of neighboring communities of watercourse alterations or relocations, among other requirements.

2020 Floodplain Management Plan

The 2020 Floodplain Management Plan (FMP) identifies 78 flood hazard mitigation actions to mitigate impacts of flood hazards in the Los Angeles area. These include coordinating local floodplain management activities with federal, state and regional programs, educating residents on the flooding hazard, loss reduction measures, and the natural and beneficial functions of floodplains, and fulfilling planning requirements for obtaining state or federal assistance.

Local Hazard Mitigation Plan

The Local Hazard Mitigation Plan (LHMP) is a regulatory document that includes long-term and short-term policies, programs, projects, and other activities to alleviate the death, injury, and property damage that can result from a disaster. The LHMP complies with federal and state hazard mitigation planning requirements to establish eligibility for funding under FEMA grant programs.

Los Angeles Municipal Code Section 62.105, Construction “Class B” Permit

Proposed drainage improvements within the street rights-of-way or any other property owned by, to be owned by, or under the control of the City, require the approval of a B-permit (LAMC Section 62.105). Under the B-permit process, storm drain installation plans are subject to review and approval by the Bureau of Engineering. Additionally, connections to the MS4 system from a property line to a catch basin or a storm drain pipe require a storm drain permit from the Bureau of Engineering.

Los Angeles Municipal Code Sections 12.40 through 12.43, Landscape Ordinance

In 1996, Ordinance No. 170,978 amended LAMC Sections 12.40 through 12.43 to establish consistent landscape requirements for new projects within the City. LAMC Section 12.40 contains general requirements, including a point system for specific project features and techniques in order to determine compliance with the Ordinance, and defines exemptions from the Ordinance. LAMC Section 12.41 sets minimum standards for water delivery systems (irrigation) to landscapes. LAMC Section 12.43 defines the practices addressed by the Ordinance, of which two are applicable to stormwater management. The Heat and Glare Reduction practice states among its purposes the design of vehicular use areas that reduce stormwater runoff and increase groundwater recharge. The Soil and Watershed Conservation practice is intended to encourage the restoration of native areas that are unavoidably disturbed by development; to conserve soil and accumulated organic litter and reduce erosion by utilization of a variety of methods; and to increase the “residence time of precipitation” (i.e., the time between the original evaporation and the returning of water masses to the land surface as precipitation) within a given watershed. Implementation guidelines developed for the Ordinance provide specific features and techniques for incorporation into projects, and include water management guidelines addressing runoff, infiltration, and groundwater recharge. This Ordinance is incorporated into the LID Ordinance discussed below.

Los Angeles Municipal Code Section 64.70, Stormwater and Urban Runoff Pollution Control Ordinance

LAMC Section 64.70, the Stormwater and Urban Runoff Pollution Control Ordinance, was added by Ordinance No. 172,176 in 1998 and prohibits the discharge of unauthorized pollutants in the City. The Watershed Protection Program (Stormwater Program) for the City is managed by the Bureau of Sanitation along with all City Flood Protection and Pollution Abatement (Water Quality) Programs, including but not limited to, regulatory compliance, implementation, operations, reporting and funding. Section 64.70 sets

forth uniform requirements and prohibitions for discharges and places of discharge into the storm drain system and receiving waters necessary to adequately enforce and administer all federal and state laws, legal standards, orders and/or special orders that provide for the protection, enhancement and restoration of water quality. Through a program employing watershed-based approaches, the regulation implements the following objectives:

1. To comply with all Federal and State laws, lawful standards and orders applicable to stormwater and urban runoff pollution control.
2. To prohibit any discharge which may interfere with the operation of, or cause any damage to the storm drain system, or impair the beneficial use of the receiving waters.
3. To prohibit illicit discharges to the storm-drain system.
4. To reduce stormwater runoff pollution.
5. To reduce non-stormwater discharge to the storm-drain system to the maximum extent practicable; and
6. To develop and implement effective educational outreach programs designed to educate the public on issues of stormwater and urban runoff pollution.

The Ordinance applies to all dischargers and places of discharge that discharge stormwater or non-stormwater into any storm drain system or receiving waters. While non-stormwater discharge is generally prohibited under the County's Municipal NPDES Permit, adoption of the Ordinance allows enforcement by the Department of Public Works as well as the levy of fines for violations. General Discharge Prohibitions require that no person shall discharge, cause, permit, or contribute to the discharge any hazardous materials and substances (liquids, solids, or gases) into to the storm drain system or receiving waters that constitute a threat and/or impediment to life and the storm drain system, singly or by interaction with other materials. A specific list of prohibited substances can be found under LAMC Section 64.70.

Under LAMC Section 64.70.02.D, Requirement to Prevent, Control, and Reduce Stormwater Pollutants, any owner of a facility engaged in activities or operations as listed in the Critical Sources Categories, Section III of the Board's Rules and Regulations shall be required to implement BMPs as promulgated in the Rules and Regulations. The owner/developer of a property under construction shall be required to implement the stormwater pollution control requirements for construction activities as depicted in the project plans approved by the Department of Building and Safety. In the event a specified BMP proves to be ineffective or infeasible, the additional and/or alternative, site-specific BMPs or conditions deemed appropriate to achieve the objectives of this Ordinance as defined in Subsection B of LAMC Section 64.70.

Los Angeles Municipal Code Section 64.72, Stormwater Pollution Control Measures for Development Planning and Construction Activities

LAMC Section 64.72, Stormwater Pollution Control Measures for Development Planning and Construction Activities, was added by Ordinance 173,494 (LID Ordinance) in 2000 and sets forth requirements for construction activities and facility operations of development and redevelopment projects to comply with the requirements of the NPDES permit SUSMP requirements. The provisions of this section contain requirements for construction activities and facility operations of development and redevelopment projects to comply with the Land Development requirements of the Los Angeles County MS4 permit through integrating LID practices and standards for stormwater pollution mitigation, and maximize open, green and pervious space on all developments and redevelopments consistent with the City's Landscape Ordinance and other related requirements in the Development Best Management Practices Handbook. The LID Ordinance applies first to a project in lieu of SUSMP. If a large project cannot meet the requirements of the LID Ordinance, then SUSMP measures are applied.

Water Quality Compliance Master Plan for Urban Runoff

The Water Quality Compliance Master Plan for Urban Runoff (Water Quality Compliance Master Plan) was developed by the Department of Public Works, Bureau of Sanitation, Watershed Protection Division, and was adopted in April 2009.

The Water Quality Compliance Master Plan addresses planning, budgeting, and funding for achieving clean stormwater and urban runoff for the next 20 years and presents an overview of the status of urban runoff management within the City. The Water Quality Compliance Master Plan identifies the City's four watersheds; summarizes water quality conditions in the City's receiving waters as well as known sources of pollutants; summarizes regulatory requirements for water quality; describes BMPs required by the City for stormwater quality management; and discusses related plans for water quality that are implemented within the Los Angeles region, particularly TMDL Implementation Plans and Watershed Management Plans in Los Angeles.

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the *CEQA Guidelines*, the Proposed Project would have a significant impact to hydrology and water quality if it would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality (Threshold 4.9-1)
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin (Threshold 4.9-2)
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
 - Result in substantial erosion or siltation on- or off-site.
 - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.
 - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
 - Impede or redirect flood flows (Threshold 4.9-3)
- Be in flood hazard, tsunami, or seiche zones, thus risking release of pollutants due to project inundation (Threshold 4.9-4)
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan (Threshold 4.9-5)

METHODOLOGY

Baseline information for the analysis was compiled from a review of data and reports published by State or other agencies as well as information compiled and evaluated by the City in conjunction with its stormwater management and hazard mitigation programs. The result of the effort is a general and qualitative analysis

of the types of hydrologic and water quality changes that could be expected relative to the implementation of the Proposed Project.

The analysis of water quality impacts identifies the types of pollutants potentially associated with future development as a result of implementation of the Proposed Project and considers their effects on water quality. Consideration is given to relevant regulations and requirements that would serve to minimize pollutants in stormwater runoff and restrict discharges into surface water. There is a comprehensive regulatory framework implemented at the State, regional, and City level to reduce the impacts of effects related to storm drainage, urban pollutants, and flood hazards. Regulatory requirements such as the creation of a qualified SWPPP or incorporation of post-construction LID features would be approved or incorporated in the project design prior to project approvals or obtaining coverage under key permits. Based upon the comprehensiveness of the regulations, an assumption regarding compliance with all applicable laws, regulations, and standards is reasonable. Therefore, the analysis presented herein assumes compliance with all applicable laws, regulations, and standards.

The impact analysis is based on several factors, including the policies and land uses of the Proposed Project, the degree to which existing land uses and pervious surfaces in the Proposed Project would change, and the thresholds of significance for hydrology and water quality.

The analysis of inundation by seiche, tsunami, and dam failure is based on the proximity of the potential development locations to sizeable bodies of water, dams, and other large water structures.

In 2015, the California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District (CBIA v. BAAQMD)*, held that CEQA generally does not require a lead agency to consider the impacts of the existing environment on the future residents or users of a project. However, if a project exacerbates a condition in the existing environment, the lead agency is required to analyze the impact of that exacerbated condition on the environment, which may include future residents and users within the Project Area. The decision from *CBIA v. BAAQMD* will inform the analysis of Appendix G thresholds provided above.

PROJECT IMPACTS

Threshold 4.9-1	Would implementation of the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?
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Impact 4.9-1 **Proposed Project:** The Proposed Project would be subject to Federal, State, and local requirements for protecting water quality. Construction activities and operational effects associated with the Proposed Project would potentially involve runoff, discharge, or de-watering. However, all such discharges would be required to comply with permit requirements, SWPPP BMPs, and similar regulations. Compliance with applicable regulations and policies would prevent violation of water quality standards or waste discharge requirements and substantial degradation of surface or ground water quality. This impact would be *less than significant*.

Project Impacts

Future development under the Proposed Project would be subject to Federal, State, and local standards and regulations protecting water quality and hydrological resources. The Proposed Project does not contain any changes that would violate any water quality standards or waste discharge requirements. In addition, the Proposed Project includes a number of policies to support stormwater management and improve water quality. Individual development projects would be required to comply with applicable regulations,

standards, and policies, which would prevent violations of water quality standards and waste discharge requirements. Regulations and policies that would apply to project construction and operational activities are discussed below.

Due to the existing urbanized nature of the Project Area, there would not be a substantial increase in stormwater flows to the City's system that discharges into the Los Angeles River and connected urban watersheds from the stormwater runoff that may indirectly result from the Proposed Project.

Construction

Grading, excavation, and other construction activities associated with the Project could impact water quality due to erosion resulting from exposed soils and the generation of water pollutants, including trash, construction materials, and equipment fluids. Section D of LAMC Article 4.4, *Stormwater and Urban Runoff Pollution Control*, requires owners or developers to implement stormwater pollution control requirements for construction activities depicted in the project plans, which are subject to approval by the Department of Building and Safety; the Director of the Department may require additional and/or alternative site-specific BMPs or conditions, if needed. In addition, construction activities on a site of more than one acre, or on a site which is part of a larger development plan that would total more than one acre, would be subject to the CGP. Operators of a construction site would be responsible for preparing and implementing SWPPPs that outline project-specific BMPs to control erosion, sediment release, and otherwise reduce the potential for discharge of pollutants in stormwater.

Required elements of the SUSMP include provisions for:

- Peak stormwater runoff discharge rates
- Conservation of natural areas
- Minimization of stormwater pollutants of concern
- Protection of slopes and channels
- Storm drain system stenciling and signage
- Properly designed outdoor material storage areas
- Properly designed trash storage areas
- Proof of ongoing BMP maintenance
- Provisions of individual property project categories
- Limitations on use of infiltration BMPs

BMP requirements are enforced through the City's plan approval and permitting process and plans for all new development projects are subject to City inspection. Compliance with the LAMC would ensure that future development projects occurring under the Proposed Project do not violate any water quality standards or discharge requirements or otherwise substantially degrade water quality.

Construction activities, such as excavation for subterranean parking structures and foundation-laying for high-rises, may extend down into the water table. The LACDPW provides historical and current groundwater depth measurements throughout Los Angeles County (LA County DPW 2017). There are several wells within or near the Project Area; groundwater depth measured in these wells ranges from 40 to 50 feet below ground surface (bgs).

Construction activities overlying areas with shallower groundwater depth could expose groundwater resources in the Project Area to contamination or could necessitate de-watering of the soils to lower the water table. Depending on the method used for de-watering, displaced groundwater may need to be captured

and discharged elsewhere, possibly into surface waters, such as the Los Angeles River. The Regional Dewatering Permit establishes requirements for discharges of groundwater from construction dewatering to surface waters in coastal watersheds of Los Angeles and Ventura County. The permit sets criteria for the quality of discharges and an acceptable water pH and temperature range, and criteria for the quality of the receiving water after it has received the discharge. The permit also requires that the discharger store potential pollutants in areas where they would not contribute to runoff and to contain, remove, and clean any spills of such materials immediately.

The risk of groundwater contamination during construction is minimal and would most likely occur due to spills or leaks from equipment or materials used in construction, which would be required to be analyzed in the SWPPP and have appropriate BMPs in place but could also occur from operational discharges related to subterranean areas existing below the water table. The use of such areas is unlikely for all but the tallest buildings and would be required to provide hydrogeological and engineering studies demonstrating the measures taken to reinforce the subterranean areas against interaction with the local groundwater.

Operation

All developments in the Project Area are required to comply with the post-construction LID requirements of the CGP, LID Ordinance, Stormwater and Urban Runoff Pollution Control Ordinance, and NPDES permit requirements, which prohibit discharge of pollutants into the storm drain system or receiving waters and require the inclusion of features in a project's design to prevent, control and reduce stormwater pollutants. Typical BMPs include source prevention and treatment control, such as catch basin filters and infiltration/detention basins, as well as minimizing impervious paving. The City's Stormwater and Urban Runoff Pollution Control Ordinance requires future development to comply with the SUSMP requirements, integrate LID practices and standards for stormwater pollution mitigation, and maximize open, green, and pervious space on all development consistent with the City's landscape ordinance and other related requirements.

Required elements of the SUSMP include provisions for:

- Peak stormwater runoff discharge rates
- Conservation of natural areas
- Minimization of stormwater pollutants of concern
- Protection of slopes and channels
- Storm drain system stenciling and signage
- Properly designed outdoor material storage areas
- Properly designed trash storage areas
- Proof of ongoing BMP maintenance
- Provisions of individual property project categories
- Limitations on use of infiltration BMPs

BMP requirements are enforced through the City's plan approval and permitting process and plans for all new development projects are subject to City inspection. Compliance with the LAMC would ensure that future development projects occurring under the Proposed Project do not violate any water quality standards or discharge requirements or otherwise substantially degrade water quality.

All Project-related activities would also be subject to Sections A and B of the LAMC Article 4.4, which generally prohibits discharge of specific materials into the storm drain system or receiving waters, such as

the L.A. River located along the eastern boundary of the Project Area, and specifically prohibits the discharge of certain materials associated with industrial or commercial activities.

As detailed in the *Setting* above, the Los Angeles River and tributaries in the project area are listed as 303(d) impaired for a variety of pollutants that would be expected to be produced by development facilitated by the Proposed Project, such as urban trash and potentially nutrient pollution from landscaping fertilizer. Measures to reduce discharges of these pollutants are incorporated into the general WDRs of the Regional Permit and the regional and local water quality control plans (including the Basin Plan) and would be a part of the overall regulatory requirements of the Proposed Project.

Conclusion

Compliance with Federal, State, and local regulations would ensure impacts resulting from future development in the Project Area due to implementation of the Proposed Project. Furthermore, the Proposed Project does not introduce any features that would preclude implementation of or alter these policies and procedures in any way. Therefore, implementation of the Proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Therefore, impacts would be *less than significant*.

Mitigation Measures

None required.

Threshold 4.9-2	Would the Proposed Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?
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Impact 4.9-2 **Proposed Project:** Reasonably anticipated development from the Proposed Project would not interfere with groundwater recharge because the Project Area is already mostly paved and/or developed and future development would be subject to policies and regulations that support the preservation and expansion of pervious surfaces. In addition, court adjudicated rules placing limits on groundwater withdrawal would further prevent the depletion of groundwater supplies. Therefore, impacts to groundwater supply and recharge in the Project Area from Project implementation would be *less than significant*.

Project Impacts

Construction Impacts

While construction activities may use water (typically provided by LADWP) for varying purposes, the duration of such activities and the amount of water used is generally limited and would not have the potential to deplete groundwater supplies as construction activities are short-term and generally use less water than the future site use. Section 4.17, *Utilities and Service Systems*, of this EIR addresses sources of LADWP water as well as temporary increases in water use associated with construction activities and indicates that such uses would not be substantial in relation to groundwater supplies. Use of groundwater for construction would not reduce the yields of groundwater wells or well fields.

Future development would be subject to the stormwater quality BMPs. Implementation of BMPs would ensure that surface water quality is effectively maintained so that stormwater infiltration, if any, would not represent a substantial risk to groundwater quantity or quality. In addition, compliance with the City's Stormwater and Urban Runoff Pollution Control Ordinance and NPDES GCASP permit requirements is mandatory. These regulations would ensure construction activities associated with future development

would not substantially deplete groundwater supplies or interfere with groundwater recharge. Thus, implementation of the Proposed Project would not have a significant impact on groundwater level in a way that would change potable water levels sufficiently. Thus, impacts related to groundwater supplies during construction would be less than significant.

Operational Impacts

The Project Area lies above the Central Basin of the Los Angeles Coastal Plain Groundwater Basin, which has provided as much as 11 percent of the City's local groundwater supply between 2010 and 2015 (LADWP 2021). However, Central Basin groundwater is not used by LADWP directly and in general is not utilized within the Project Area (Central Basin Watermaster 2013). Groundwater from the Los Angeles Coastal Groundwater Basin is not a substantial source of water for the region. Water supply for residential and commercial uses in the Project Area is provided by LADWP. While LADWP obtains some of its water from groundwater sources within the City of Los Angeles, the majority of water is provided by the Los Angeles Aqueduct and Metropolitan Water District (MWD). Due to issues with groundwater overdraft beginning over 50 years ago, withdrawals from much of the Central Basin is controlled by court adjudications (LADWP 2015). LADWP currently has the right to withdraw 17,236 acre-feet per year (AFY) from the Central Basin. This prevents depletion of groundwater supplies from the Central Basin and limits the amount of groundwater resources that could be used to serve the Project Area development. While future Project Area development would increase demand for LADWP water by increasing the intensity of use and residential density, this demand would be met in a number of ways other than increasing groundwater withdrawal, such as increasing the amount of water purchased from the Metropolitan Water District, implementing water conservation measures, increasing use of recycled water, and/or implementing groundwater recharge projects. See Section 4.17, *Utilities and Service Systems*, of this EIR, for a discussion of the adequacy of LADWP water supplies for meeting future demand, including that associated with future development in the Project Area.

The Proposed Project would not substantially increase the amount of impervious surface in the Project Area because the Project Area is already urbanized and largely covered with impervious surfaces; therefore, the Proposed Project would not interfere substantially with groundwater recharge. Implementation of the Proposed Project may provide some benefits to groundwater recharge by replacing older development with new development subject to open space, landscaping, and stormwater BMP requirements that would increase pervious surfaces associated with development. In addition, as discussed in Section 4.14, *Recreation*, of this EIR, the Proposed Project includes a number of policies to support the construction of new parks and green spaces that would also increase the amount of pervious surface and facilitate groundwater recharge. Operational impacts related to groundwater supplies would be *less than significant*. Compliance with numerous regulatory requirements related to groundwater recharge would ensure that implementation of the Proposed Project would not substantially deplete groundwater supplies or substantially interfere with groundwater recharge. Additionally, the court imposed groundwater withdrawal limits further protects against groundwater depletion. Impacts would be *less than significant*.

Mitigation Measures

None required.

Threshold 4.9-3	<p>Would the Proposed Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river through the addition of impervious surfaces, in a manner which would:</p> <ul style="list-style-type: none"> (i) Result in substantial erosion or siltation on- or off-site. (ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site (iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) Impede or redirect flood flows?
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Impact 4.9-3 **Proposed Project:** The Proposed Project would accommodate redevelopment of infill sites in an already urbanized area and, therefore, would not substantially alter Project Area drainage patterns. In addition, Proposed Project development in the Project Area would be required to incorporate features to manage stormwater and reduce runoff, comply with flood control design standards, and adhere to post-construction hydromodification requirements. Impacts would be *less than significant*.

Project Impacts

Construction Impacts

Although Project implementation would increase the intensity of uses and residential density in the Project Area, it is not expected to result in substantial additional sources of polluted runoff. The Project Area is urbanized and almost entirely paved and developed, with the exception of parks and other green spaces. The Proposed Project primarily expand capacity for residential, commercial, retail, and light industrial uses. Reasonably anticipated development will preserve the existing open spaces, including public parks and riverfront areas adjacent to industrial land uses, while redeveloping existing development. Construction activities could result in small, localized changes in surface drainage patterns that could increase erosion potential when soils are exposed during construction. Future development would be subject to the City's building codes, which establish design standards that deal with flood prevention and control. The City's zoning codes that establish zoning designs allow for floodplains and flood control facilities and the City's LID Ordinance, which requires all development or redevelopment that is 500 square feet or more in size to capture and manage 100 percent of the first three-quarter-inch of stormwater on-site by implementing best management practices for on-site infiltration, capture and use, and biofiltration/bio-treatment to the maximum extent feasible. Through the building permit application review and approval process, the City would be able to monitor and ensure the availability of sufficient drainage capacity. Compliance with the City's ordinances and regulations, as well as compliance with NPDES permit requirements, would ensure that future development during the lifetime of the Proposed Project would not cause a substantial increase in the peak flow rates or volumes of stormwater runoff that would cause on-site or off-site flooding. Therefore, impacts related to surface runoff that would result in flooding are less than significant.

All earthwork and grading activities would require grading permits from the Department of Building and Safety that include requirements and standards designed to limit potential erosion and siltation. Additionally, earthwork and grading activities would be required to comply with applicable provisions of LAMC Chapter IX, Division 70, which addresses grading, excavations, and fills. This section of the LAMC also requires the preparation of a site-specific geotechnical report to evaluate soils issues for new development. Applicants of development projects will be required to comply with the recommendations contained within the geotechnical report. Additionally, all applicable development must comply with

LAMC Chapter VI, Article 4.4, Section 664.72, which governs pollutant control requirements and construction activity. Compliance with these precautions within the LAMC would reduce erosion and siltation potential within the Project Area.

As discussed in Section 4.9.2 *Environmental Setting*, of this EIR, the FEMA FIRMs identify a 100-year flood zone and floodway that is limited to the Los Angeles River channel, which runs down the center of the Project Area.. The Proposed Project's implementation would not place structures or alter drainage patterns in the 100-year flood hazard area that would impede or redirect flood flows. Any new development or re-development projects would be required to incorporate design BMPs to capture and treat runoff, in accordance with regulations deriving from the NPDES permit and local regulations (i.e., SUSMP, SWPPP, LID Ordinance, LID Handbook), which would ensure that future development would not result in changes to surface drainage patterns that could cause substantial increased erosion or siltation. The NPDES permit sets erosion control standards and requires implementation of nonpoint source control of surface drainage through the application of a number of BMPs to decrease the effects of erosion and sedimentation associated with grading. These BMPs are meant to reduce the amount of constituents, including eroded sediment, that enter streams and other water bodies. Similarly, post-construction hydromodification requirements must comply with the CGP and local municipal regulations in addition to NPDES permit requirements. These requirements would ensure runoff from individual projects would not exceed the local stormwater system capacity nor result in flooding on or offsite. NPDES Permit requirements would ensure that future developments within the Project Area would not result in changes to surface drainage patterns that could cause increased erosion or siltation. Construction impacts related to drainage patterns would be less than significant.

Operational Impacts

Stormwater runoff is influenced by rainfall intensity, ground surface permeability, watershed size and shape, and physical barriers. The introduction of impermeable surfaces greatly reduces natural infiltration, allowing for a greater volume of runoff. In addition, paved surfaces and drainage conduits can accelerate the velocity of runoff, concentrating peak flows in downstream areas faster than under natural conditions. Significant increases to runoff and peak flow can overwhelm drainage systems and alter flood elevations in downstream locations.

Future development under the Proposed Project would occur primarily as infill on previously developed or, to a lesser extent, vacant sites. Any new development within the Project Area, regardless of building densities and lot coverage, would not result in a substantial increase in non-permeable surfaces such that surface drainage patterns would be altered. Further, new development has the potential to increase the permeable surface as new projects will be required to provide a certain amount of outdoor amenity space designed with a minimum amount of permeable surface. Thus, operational impacts related to drainage patterns would be less than significant.

Because implementation of the Proposed Project would not significantly alter the existing drainage pattern and development would be required to comply with all applicable hydromodification and flood control requirements, reasonably anticipated development in the Project Area would not generate a substantial increase in runoff that would exceed the capacity of existing storm drains. Impacts related to drainage and runoff would be *less than significant*.

Mitigation Measures

None required.

Threshold 4.9-4	Would the Proposed Project be in flood hazard, tsunami, or seiche zones, thus risking release of pollutants due to project inundation?
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Impact 4.9-4 **Proposed Project:** The Project Area is located within a flood hazard area but would not site new major sources of pollutants in these areas. Impacts would be *less than significant*.

Project Impacts

As discussed above, the Project Area is located within the 100-year floodplain of the Los Angeles River and in the inundation area of a local reservoir, the Elysian Reservoir.

The type of reasonably anticipated development from the Proposed Project is typical of urban environments. Under the Proposed Project, the open space areas within the Project Area would be preserved and no development would occur within the potential inundation areas associated with the Los Angeles River. While the Proposed Project would increase overall development capacity in the Project Area, it would not cause or accelerate the potential for flooding, including from sudden release of water from the Hollywood Reservoir or the Mulholland Dam. In fact, the redevelopment of Project Area properties with new development that meets current standards related to detention/retention of site runoff would be expected to incrementally reduce overall flood hazards.

The Elysian Reservoir is a 55-million-gallon reservoir that has traditionally supplied water to people in Downtown Los Angeles and surrounding communities. In 2008, the reservoir was drained due to water quality issues. In 2012, the LADWP voted to cover up the reservoir's water with a giant rubber cap to meet federal water quality guidelines. The reservoir functions as auxiliary water storage, rather than as flood control. It is also located in a natural canyon and surrounded by parkland and, if flooded, would drain along an undeveloped path into the Los Angeles River, located 0.2 mile to the southeast. The downstream hazard from failure of the reservoir is rated 'High' by the DWR Division of Dam Safety (DWR 2022), however the reservoir is not considered at risk of failure by DWR. In addition, no component of the Proposed Project would increase the potential for flooding from the reservoir.

The Proposed Project includes an element of light industrial development. Such components may require the siting of new storage of industrial pollutants within the Project Area. However, no such pollutant storage would be sited within the designated flood hazard zone as no development is situated within the 100-year floodplain under the Proposed Project. Therefore, the Proposed Project would not create new sources of pollutants within a flood hazard area, thereby risking release of pollutants from inundation, and impacts would be *less than significant*.

The Project Area is located approximately 12 miles from the coastline and is not at risk of inundation from a tsunami (Los Angeles County Enterprise Geographic Information Systems 2017). Seiches, which are standing waves in an enclosed or partially enclosed body of water, can quickly alter the height of the water body and typically have localized impacts limited to the water body and waterfront areas. The water body nearest to the Project Area is the Elysian Reservoir, mentioned above. However, there is no existing or planned development adjacent to the reservoir. Because the Project Area would not be exposed to inundation by seiche or tsunami, impacts would be *less than significant*.

Mitigation Measures

None required.

Threshold 4.9-5	Would the Proposed Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?
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Impact 4.9-5 **Proposed Project:** The Proposed Project would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan because future development would be required to comply with applicable regulations and plans. Impacts would be *less than significant*.

Project Impacts

Future Project Area development would be subject to federal, state, and local standards and regulations protecting water quality and hydrological resources. In addition, the Proposed Project would require compliance with a number of federal, state, and local policies to support stormwater management and improve water quality. Individual development projects under the Proposed Project would be required to comply with applicable regulations, standards, and policies, which would prevent violations of water quality standards and the waste discharge requirements that are set in order to maintain compliance with the goals of the Basin Plan. As a result, impacts related to obstruction of a water quality control plan would be *less than significant*.

Mitigation Measures

None required for the Proposed Project.

CUMULATIVE IMPACTS

The geographic area to analyze cumulatively considerable recreation impacts includes the entire City of Los Angeles and greater surrounding area including all areas which are hydrologically connected, including the Upper and Lower Los Angeles River watersheds and the Central, Sylmar, and San Fernando Basins. Much of the surface water throughout this area is highly channeled, lined, and controlled, and the groundwater resources are all adjudicated and carefully distributed. As the Proposed Project would not alter any of the hydrological or hydrogeological connections or systems within the greater area or throughout the larger watersheds, the cumulative scope can appropriately be narrowed to focus on the City of Los Angeles itself and the underlying groundwater basins.

Water Quality Standards/Water Quality Degradation

Construction and operation of new developments Citywide would potentially increase pollutants in surface waters. However, Section D of LAMC Article 4.4, *Stormwater and Urban Runoff Pollution Control*, requires owners or developers to implement stormwater pollution control requirements for construction activities and construction activities on a site of more than one acre would be subject to the NPDES Statewide General Construction Activity Stormwater Permit. In addition, all future developments would be required to comply with the LID Ordinance and Stormwater and Urban Runoff Pollution Control Ordinance, which require the inclusion of BMPs in a project's design to prevent, control and reduce stormwater pollutants. Continued enforcement of these requirements would reduce cumulative impacts to a *less than significant* level.

As discussed under Impact 4.9-1, Project Area development would be subject to the above requirements, which would reduce impacts related to the Proposed Project to a less than significant level. Based on this information, the Proposed Project would not result in cumulatively considerable contributions to water quality degradation. Cumulative impacts would be *less than significant* related to water quality standards.

Groundwater

Reasonably anticipated development in the Project Area and the City would be subject to the City's stormwater quality BMPs, Stormwater and Urban Runoff Pollution Control Ordinance, and NPDES GCASP permit requirements. These regulations would ensure construction activities associated with future development would not substantially deplete groundwater supplies or interfere with groundwater recharge. Additionally, as discussed above, groundwater withdrawals throughout the greater Los Angeles area are controlled by court imposed withdrawal limits that prevent depletion of groundwater supplies. Future development in the Project Area and the City would be subject to several regulations and requirements that ensure construction activities associated with future development would not substantially interfere with groundwater recharge. Much of the Project Area and surrounding region is already covered with impermeable surfaces and fully developed, which would not result in demonstrable or sustained reduction of groundwater recharge capacity, such that there would be lowering of the local groundwater table level. Groundwater recharge conditions throughout this area are already poor, and the multiple planning and water departments have been implementing increasingly strict regulations regarding loss of recharge area for decades. As discussed under Impact 4.9-2, reasonably anticipated development in the Project Area would not interfere substantially with groundwater recharge and may provide some benefits to groundwater recharge by replacing older development with new development subject to open space, landscaping, and stormwater BMP requirements that would increase pervious surfaces associated with development. Additionally, although existing conditions related to groundwater recharge are poor, the Proposed Project's incremental contribution groundwater recharge interference would not be cumulatively considerable. Therefore, cumulative impacts related to the Project would be *less than significant*.

Drainage/Runoff

Growth throughout Los Angeles would generally increase the intensity of uses and residential density Citywide, which would generally increase impervious surface area and surface runoff. However, new development would be subject to current regulations derived from the Permit obtained from the LARWQCB (i.e., SUSMP, LID Ordinance, LID Handbook), which features numerous hydromodification requirements to restrict runoff rates and control erosion, siltation, and modification of flood flows. Compliance with these requirements would minimize impacts to regional surface hydrology and, in instances involving redevelopment of developed sites, peak runoff levels may actually decline. Thus, the cumulative impacts to drainage and runoff related to the Proposed Project would be *less than significant*. The Proposed Project would primarily expand capacity for residential, commercial, retail, and light industrial uses. Reasonably anticipated development in the Project Area would generally involve redevelopment of already developed sites so would not substantially increase impervious surface area or runoff. New development would also be subject to the regulations cited above regarding alteration of stormwater runoff rates or otherwise adversely affecting hydrological conditions. Based on this information, the Proposed Project incremental contribution to increases in drainage and surface runoff would not be cumulatively considerable and cumulative impacts would be *less than significant*.

Flood Hazards

As discussed under Impact 4.9-3, 100-year flood zones are located throughout the City. New development in these areas would be subject to local flood control requirements, which require that the design of developments avoid 100-year flood hazards and does not substantially increase flood risk on other properties. New sources of pollutants are strictly regulated, including regarding their siting with regards to potential flood hazards. The Proposed Project would not site new sources of stored hazardous pollutants within a 100-year flood hazard area even if the light industrial categories of development did feature such uses. Based on this information, the Proposed Project's incremental contribution to inundation would not be cumulatively considerable. Continued implementation of these requirements would reduce the risk of cumulative flood impacts from release of pollutants due to inundation throughout the analysis area to a *less than significant* level.

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4.10 LAND USE AND PLANNING

This section addresses impacts related to the City’s land uses and planning efforts from implementation of the updated Cornfield Arroyo Seco Plan (CASP) (or “Proposed Project” or “Project”) in the existing CASP area of Los Angeles (or “Project Area”). Topics include the potential to physically divide an established community, inconsistencies with applicable land use plans and policies, and inconsistencies with adopted habitat conservation plans. Key sources used to gather information on the City’s zoning and land use policies included the City’s Zone Information Map Access System (ZIMAS, <http://zimas.lacity.org/>; Los Angeles Department of City Planning [LADCP] 2017a), the City’s General Plan (https://planning.lacity.org/GP_elements.html; LADCP various dates), and the Southern California Association of Governments (SCAG’s) 2020-2045 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS).

ENVIRONMENTAL SETTING

EXISTING CONDITIONS

The Project Area is located entirely within the incorporated City of Los Angeles just northeast of downtown Los Angeles, within City Council District 1. The Project Area comprises portions of the Central City North, Northeast Los Angeles, and Silver Lake-Echo Park-Elysian Valley Community Plan Areas and includes two opportunity areas identified in the Los Angeles River Revitalization Master Plan: the Cornfield and Arroyo Seco. The Project Area is approximately 600 acres (0.93 square miles) and is predominantly developed, with transportation infrastructure being a central feature of the Project Area. Interstate 5 (I-5) and State Route-110 (SR-110) bisect the northern portion of the Project Area. Entrances and exits to and from SR-110 are located on the northern perimeter of the Project Area. Entrances and exits to I-5 are located at North Broadway/Pasadena Avenue and at Avenue 26 across from Lacy Street. Other major arterials located in the Project Area include Figueroa Street in the northern portion of the Project Area, San Fernando Road in the central portion of the Project Area, and Spring Street, Broadway Avenue, and Main Street in the southern portion of the Project Area. The Los Angeles County Metropolitan Authority (LA Metro) L Line (Gold) cuts across the northern portion of the Project Area and provides frequent access to downtown Los Angeles, northeastern sections of Los Angeles, and the cities of South Pasadena and Pasadena.

The Project Area comprises approximately 1,600 assessor parcels in an area northeast of downtown just east of Chinatown and comprising portions of Lincoln Heights. The existing built environment within the Project Area varies as a result of different phases of development that have occurred throughout the Project Area over time. The Project Area can generally be split into four sections including a northern section, western section, central section, and eastern section. Information on historical resources in the Project Area can be referenced in Section 4.4, *Cultural Resources*. These surrounding land uses are discussed in detail below:

- **Northern Section**

The section north of the Arroyo Seco comprises mainly of the properties facing Figueroa Street and Avenue 26, which are largely commercial in character. Properties along Figueroa Street have seen extensive redevelopment and remodeling over the last half of the 20th century, leading to a mix of older one-story commercial buildings, a neighborhood movie theater (eventually converted to a store), gas stations, and a Google-style diner. The former Los Angeles Railway Huron Substation

is located in this section, as is the former Lawry's California Center (now the Los Angeles River Center and Gardens).

- **Western Section**

The section west of the Los Angeles River is characterized by blocks of industrial buildings constructed throughout the 20th century. The section along Spring Street historically surrounded the Southern Pacific River Station, which is now Los Angeles State Historic Park. In 2005, the Los Angeles State Historic Park was the site of an art project by Lauren Bon called "Not a Cornfield," which is where the Project Area gets part of its name. One of the more notable industrial buildings in the section is the Raphael Junction Block/NY Suspenders Factory, a flatiron-shaped building adjacent to the Los Angeles State Historic Park. The western section also includes Los Angeles Department of Water and Power (LADWP) generating and maintenance facilities and William Mead Homes Public Housing. A rare extant section of the Zanja Madre, the main irrigation ditch that fed the early Pueblo de Los Angeles, is located just north of the Los Angeles State Historic Park along the Metro L Line (Gold) alignment.

- **Central Section**

The section between the Los Angeles River and I-5, south of Arroyo Seco is mixed in character, containing residential, commercial, and industrial uses, often adjacent to each other. Approximately five blocks on the south side of Broadway Avenue contain a concentration of late 19th and early 20th century residences, as well as the Albion Elementary School. Albion Cottages and Milagro Market are located in this small residential area. Broadway Avenue and Pasadena Avenue act as commercial corridors through the area. Industrial properties are interspersed throughout the section, but the north half of the section is particularly industrial in character.

- **Eastern Section**

Located east of I-5 and south of Arroyo Seco, this section is largely industrial, with the exception of a few older homes left over from the original residential tract that existed before industry expanded into it. The Lincoln/Cypress L Line (Gold) stop is located in this section, which spurred multi-family housing development in the mid-2000s. Lacy Street is defined by a mix of historic and new buildings, including the old Columbia Mills (now Lacy Street Studios), Lacy Street Neighborhood Park, the North Central Animal Care Center, and former offices of the Cannon Electric Development Company. Other industries in the area were historically involved in metal work, from the manufacturing of brass to general fabrication of metal objects and building materials.

Current General Plan Land Use Designations and Zoning

Adopted in 1996, the City's General Plan Framework Element is a strategy for long-term growth and development, setting a citywide context for the update of the 35 Community Plans and other citywide general plan elements. While the General Plan Framework Element incorporates a diagram that depicts the generalized distribution of centers, districts, and mixed-use boulevards throughout the City, the specific General Plan Land Use Designations are established and applied by the community plans.

The existing General Plan designations for the Project Area are established in the Central City North, Northeast Los Angeles, and Silver Lake-Echo Park-Elysian Valley Community Plans.

General Plan Land Use Designations

The following section summarizes the General Plan Framework Element designations throughout the City, categorized by broader land use categories of residential, commercial, industrial, open space, and public facilities land uses.

Residential

Residential General Plan land use designations in the City consist of low-density and multi-family residential. Low-density residential ranges from one to nine dwelling units per acre (du/ac) using the categories Minimum, Very Low, Very Low I, Very Low II, and Low. Multi-family residential ranges from Low Medium I (10-17 du/ac), Low Medium II (18-29 du/ac), Medium (30-55 du/ac), High Medium (56-109 du/ac), and High (110-218 du/ac), although some community plans encourage greater densities. In addition, residential uses are permitted within Commercial General Plan land use designations.

Commercial

Commercial General Plan land use designations in the City consist of Regional, Community, Neighborhood, Highway Oriented, Limited, and General Commercial. Regional Commercial areas allow for the highest development potential and widest variety of uses, including corporate and professional offices, retail commercial, offices, and personal services, eating and drinking establishments, entertainment, major cultural facilities, commercial overnight accommodations, and mixed-use structures that integrate housing with commercial uses. Community, Neighborhood, Highway-Oriented, and General Commercial designations may restrict various uses and development potential is typically lower than the Regional designation. Limited Commercial is the most restrictive designation. All commercial areas allow multi-family residential development.

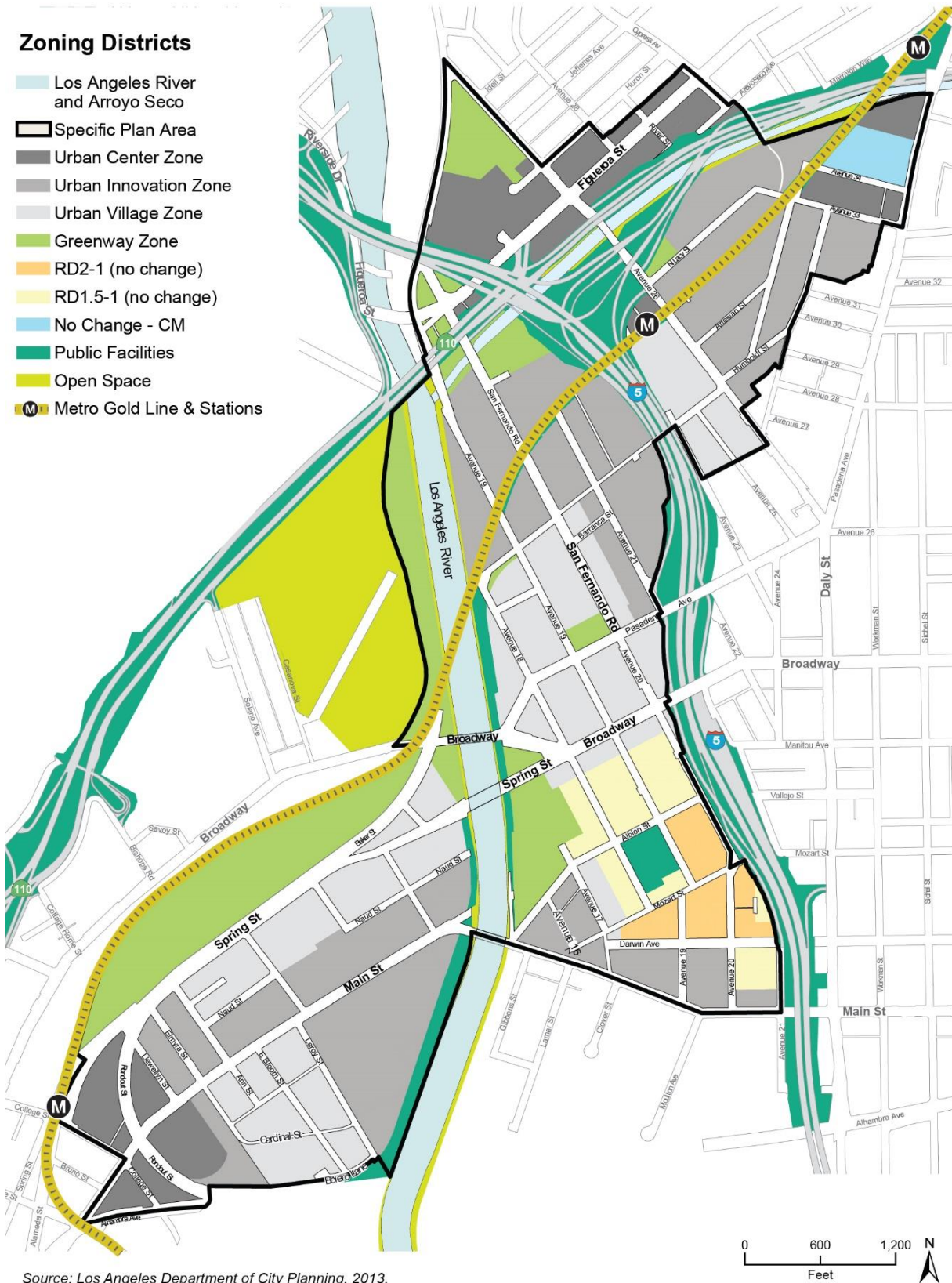
Industrial

Industrial General Plan land use designations in the City consist of Commercial Manufacturing, Hybrid, Limited, Light, and Heavy Industrial. Hybrid industrial areas allow for a mix of residential and clean, light industrial uses. Limited and Light Industrial designations are more restrictive to allow for greater compatibility with residential uses. Heavy industrial areas allow the widest range of industrial, machinery, and manufacturing uses, and do not permit any by-right residential uses.

Open Space

Open space land use designations in the City include park and recreation facilities (bicycle trails, equestrian trails, walking trails, park land/lawn areas, child care facilities, and athletic fields), natural resource preserves (forest land, waterways, watersheds, agricultural lands, areas containing mineral deposits), ecological preserves and habitat protection sites, closed sanitary landfills sites, public water supply reservoir (uncovered), and water conservation areas such as percolation basins and floodplain areas.

Figure 4.10-1 CASP Zoning Districts as Approved in 2013



Existing Project Area Affordable Housing Incentives

Conventional zoning typically divides cities into zones that rigidly separate residential, commercial, industrial, and institutional uses into discrete areas, and thereby further promote sprawl and dependence upon automobile travel to reach destinations. The Project Area incorporates the use of zoning districts based on development intensity and use mix instead of segregated land use zones; this reflects the functions of and interrelationships between each part of the Project Area. Specifically, and as shown above in Figure 4.10-1, the Specific Plan as adopted in 2013 has four zones that are unique to the Specific Plan: the Urban Innovation zone (144 acres), Urban Village zone (90 acres), and Urban Center zone (40 acres), which all correspond with the Hybrid Industrial land use designation, and the Greenway zone (74 acres), which corresponds with the Open Space designation. Other zones in the Project Area include the OS zone (34 acres), RD1.5 and RD2 zones (29 acres), PF zone (57 acres), and CM zone (5 acres).

The existing Project Area also has an incentive-based zoning system that grants developers additional floor area rights in exchange for reserving a portion of units for low-income households. The system seeks to capture the land value increases that result from rezoning and public investment to create public benefits such as affordable housing.

Presently, project applicants may obtain additional floor area rights by complying with the Affordable Housing Bonus Option, Strategy A or B, and/or the Community Benefit Bonus Options, as set forth below:

Affordable Housing Bonus Option - Strategy A

If an applicant agrees to set aside a portion of the residential units in a project for affordable housing, then the project shall be granted a Floor Area Bonus.

Affordable Housing Bonus Option - Strategy B

If an applicant agrees to set aside a portion of the residential units in a project for affordable housing, then for each square foot of affordable housing constructed, the applicant shall be granted the right to construct additional floor area above the Base FAR for the project, as set forth in the Bonus Square Footage Table in the existing Proposed Project. One additional square foot shall be added to the bonus numbers set forth below for square footage that is used to construct affordable units containing three or more bedrooms.

Community Benefit Bonus Options

Project applicants may obtain additional Floor Area Rights by providing the following Community Benefits:

- **Open Space:** A project applicant may add 3 square feet of floor area for each square foot of publicly accessible open space provided.
- **Community Facility:** A project applicant may add 6 square feet of floor area for each square foot of area provided for a Community Facility.
- **Passageway:** A project applicant may add 3 square feet of floor area for each square foot of a public passageway that extends from an adjacent street to another public right-of-way

Additionally, the existing Specific Plan sets forth a Transfer of FAR (TFAR) Program available to non-residential projects to transfer unused floor area from a Donor site to a Receiver site, up to the allowable Maximum FAR limit on a site.

REGULATORY FRAMEWORK

Federal, State, and Local land use and planning laws, Regulations, and adopted plans applicable to the Proposed Project are summarized below.

FEDERAL

There are no federal land use regulations applicable to the Proposed Project.

STATE

California Government Code Section 65302 (General Plan)

California law requires that every city and county prepare and adopt a long-range comprehensive General Plan to guide future development and to identify the community's environmental, social, and economic goals. As stated in Section 65302 of the California Government Code, "The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principle, standard, and plan proposals." While a general plan will contain the community vision for future growth, California law also requires each plan to address the mandated elements listed in Section 65302. The mandatory elements for all jurisdictions are land use, circulation, housing, conservation, open space, noise, safety, and environmental justice.

State Density Bonus Law (Government Code Section 65915)

The State Density Bonus law (signed into law in 1979) requires jurisdictions to provide applicants with a density bonus and incentives or concessions for the production of housing development in which affordable housing is also provided. Eligible projects include housing developments with 10 percent housing for lower income households, 5 percent of the housing for very low-income households, senior citizen housing, and 10 percent of the total dwelling units provided as affordable housing in condominium projects. The City has implemented the State Density Bonus Law in various municipal code sections of the LAMC.

On September 27, 2014, Governor Brown signed AB 2222, which amended sections of the State Density Bonus Law (Government Code Section 65915). AB 2222 requires that density bonus projects resulting in a loss of existing affordable and otherwise locally regulated (i.e., rent-stabilized) housing units replace those units one-for-one. It also extends the affordability period from 30 to 55 years and expands the use of equity sharing in for-sale units. Several other clarifications of the existing law are also included, but they were not judged to represent a change to current City policy.

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The State Density Bonus law (signed into law in 1979) requires jurisdictions to provide applicants with a density bonus and incentives or concessions for the production of housing development in which affordable housing is also provided. Eligible projects include housing developments with 10 percent or more housing for lower income households, 5 percent or more of the housing for very low income households, senior citizen housing, and 10 percent of the total dwelling units provided as affordable housing in condominium projects. The City has implemented the State Density Bonus Law in various municipal code sections of the LAMC.

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those units one-for-one. It also extends the affordability period from 30 to 55 years and expands the use of equity sharing in for-sale units. Several other clarifications of the existing law are also included, but they were not judged to represent a change to current City policy.

Sustainable Communities and Climate Protection Act of 2008 (Senate Bill 375 (SB 375))

The Sustainable Communities and Climate Protection Act of 2008 (Sustainable Communities Act, SB 375, Chapter 728, Statutes of 2008) supports the state's climate action goals to reduce greenhouse gas (GHG) emissions through coordinated transportation and land use planning with the goal of creating more sustainable communities. Under the Sustainable Communities Act, the California Air Resources Board (CARB) sets regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established these targets for 2020 and 2035 for each region covered by one of the State's metropolitan planning organizations (MPO). ARB periodically reviews and updates the targets.

SB 375 requires MPOs to prepare a "sustainable communities strategy" (SCS) in conjunction with their Regional Transportation Plan (RTP). The City of Los Angeles is a member of the Southern California Association of Governments (SCAG) MPO, which adopted the 2016-2040 RTP/SCS in 2016. The document provides integrated land use and transportation strategies and policies intended to reduce the region's GHG emissions from passenger vehicle use to meet the GHG reduction targets set by CARB. The RTP/SCS guides the transportation policies and investments for the region. CARB must review the adopted SCS to confirm and accept SCAG's determination that the SCS, if implemented, would meet the regional GHG targets. Proposed Project consistency with the 2016-2040 RTP/SCS is analyzed under Impact 4.10 - 2.

Complete Streets Act (AB 1358)

Assembly Bill 1358, the Complete Streets Act (Government Code Sections 65040.2 and 65302), was signed into law by former Governor Arnold Schwarzenegger in September 2008. As of January 1, 2011, the law requires cities and counties, when updating the part of a local general plan that addresses roadways and traffic flows, to ensure that those plans account for the needs of all roadway users. Specifically, the legislation requires cities and counties to ensure that local roads and streets adequately accommodate the needs of bicyclists, pedestrians and transit riders, as well as motorists. At the same time, the California Department of Transportation (Caltrans) unveiled a revised version of Deputy Directive 64, an internal policy document that now explicitly embraces Complete Streets as the policy covering all phases of state highway projects, from planning to construction to maintenance and repair.

REGIONAL

2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

On September 3, 2020, the Southern California Association of Governments (SCAG) Regional Council adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), also known as Connect SoCal. The 2020-2045 RTP/SCS presents a long-term transportation vision through the year 2045 for the six-county region of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. The 2020-2045 RTP/SCS contains baseline socioeconomic projections that are used as the basis for SCAG's transportation planning, and the provision of services by other regional agencies. SCAG's overarching strategy for achieving its goals is integrating land use and transportation. SCAG policies are directed towards the development of regional land use patterns that contribute to reductions in vehicle miles and improvements to the transportation system. Rooted in past RTP/SCS plans, Connect SoCal's "Core Vision" centers on maintaining and better managing the region's transportation network, expanding mobility choices by co-locating housing, jobs, and transit, and increasing investment in transit and complete streets. The plans "Key Connections" augment the "Core Vision" to address challenges

related to the intensification of core planning strategies and increasingly aggressive greenhouse gas reduction goals, and include but are not limited to, Housing Supportive Infrastructure, Go Zones, and Shared Mobility. Connect SoCal intends to create benefits for the SCAG region by achieving regional goals for sustainability, transportation equity, improved public health and safety, and enhancement of the regions' overall quality of life. These benefits include but are not limited to a five percent reduction in VMT per capita and vehicle hours traveled by nine percent, increase in work-related transit trips by two percent, create more than 264,500 new jobs, reduce greenfield development by 29 percent, and, building off of the 2016-2040 RTP/SCS, increase the share of new regional household growth occurring in High Quality Transit Areas (HQTAs) by six percent and the share of new job growth in HQTAs by 15 percent.

Regional Housing Needs Assessment (RHNA)

The RHNA is a key tool used by SCAG and its member governments to plan for growth. The 6th cycle Final RHNA Allocation Plan was adopted by the SCAG Regional Council on March 4, 2021 and quantifies the need for housing within each jurisdiction between 2021 and 2029. Communities then plan and determine how they will address this need through the process of completing the housing elements of their general plans. The RHNA allows communities to anticipate growth, so that they can grow in ways that enhance quality of life, improve access to jobs, transportation and housing, and not adversely impact the environment. The RHNA is produced periodically by SCAG, as mandated by State law, to coincide with the region's schedule for preparing housing elements.

The existing need assessment is based on data from the most recent U.S. Census to measure ways in which the housing market is not meeting the needs of current residents. These variables include the number of low-income households paying more than 30 percent of their income for housing, as well as severe overcrowding. The future need for housing is determined primarily using the forecasted growth in households in a community, historical growth patterns, job creation, household formation rates, and other factors. The need for new dwelling units is then adjusted to account for an ideal level of vacancy needed to promote housing choice, maintain price competition, and encourage acceptable levels of housing upkeep and repair. The RHNA also accounts for units expected to be lost due to demolition, natural disaster, or conversion to non-housing uses. The sum of these factors – household growth, vacancy need, and replacement need – form the “construction need” assigned to each community. In addition, the RHNA considers how each jurisdiction might grow in ways that will decrease the concentration of low-income households in certain communities. The need for new housing is distributed among different income groups so that each community moves closer to the regional average income distribution.

LOCAL

City of Los Angeles General Plan

California law requires that cities prepare and adopt a comprehensive, integrated, long-term General Plan to direct future growth and development. The General Plan is the fundamental policy document of a city. It defines how a city's physical and economic resources are to be managed and utilized over time. Decisions by a city with regard to the use of its land, design and character of buildings and open spaces, conservation of existing and provision of new housing, provision of supporting infrastructure and public and human services, and protection of residents from natural and man-caused hazards are guided by and must be consistent with the General Plan. State law requires general plans to contain seven elements: land use, circulation, housing, conservation, open space, noise, and safety. Cities can also adopt additional General Plan elements. The Land Use Element of the City of Los Angeles General Plan is composed of 35 community plans, which are the official guides to the future development of the City. The 35 Community Plans guide the location and intensity of private and public uses of land; direct the arrangement of land uses, streets, and services; and encourage the economic, social, and physical health, safety, welfare, and convenience of people who live and work in the community. In addition to incremental updates to the City's

Land Use Element through the Community Plan update program, the City of Los Angeles launched a program to update the City's General Plan in 2018. This effort will result in a new 20-year citywide plan for the sustainable development of the City.

The City's elements, other than land use, include:

- Framework Element
- Air Quality Element
- Conservation Element
- Housing Element
- Noise Element
- Open Space Element
- Service Systems Element/Public Recreation Plan
- Safety Element
- Mobility Element (Mobility Plan 2035)
- Plan for a Healthy Los Angeles

Some of the key elements are discussed below.

Framework Element

The City of Los Angeles General Plan Framework Element (General Plan Framework) establishes the conceptual basis for the City's General Plan. The General Plan Framework sets forth a Citywide comprehensive long-range growth strategy and establishes Citywide policies regarding land use, housing, urban form, neighborhood design, open space and conservation, economic development, transportation, infrastructure, and public services. The General Plan Framework provides guidelines for future updates of the City's community plans and does not supersede the more detailed community and specific plans.

Land Use Chapter

The General Plan Framework Land Use Chapter designates Districts (i.e., Neighborhood Districts, Community Centers, Regional Centers, Downtown Center, and Mixed-Use Boulevards) that include standards and policies that shape the scale and intensity of proposed uses with the purpose of supporting the vitality of the City's residential neighborhoods and commercial districts. The establishment of the designated arrangement of land uses and development densities addresses an array of environmental issues, including, but not limited to: reductions in VMT, reductions in noise impacts, improved efficiency in the use of energy, improved efficiency and thus greater service levels within the infrastructure systems, availability of open space, compatibility of land uses, support for alternative modes of transportation, and provision of an attractive pedestrian environment.

Housing Chapter

The overarching goal of the General Plan Framework Housing Chapter is to define the distribution of housing opportunities by type and cost for all residents of the City. The General Plan Framework Housing Chapter recognizes that the distribution of housing in proximity to transit can reduce vehicle trips and provide residents with the opportunity to walk between their home, job, and/or neighborhood services. The Housing Chapter provides the following policies to achieve this goal through a number of measures:

- Concentrating opportunities for new development in the City's Neighborhood Districts and in Community Centers, Regional Centers, and the Downtown Center, as well as along primary transit corridors/boulevards.
- Providing development opportunities along boulevards located near existing or planned major transit facilities and areas characterized by low-intensity or marginally viable commercial uses with structures that integrate commercial, housing, and/or public service uses; and
- Focusing mixed uses around urban transit stations, while protecting and preserving surrounding low-density neighborhoods from the encroachment of incompatible land uses.

Urban Form and Neighborhood Design Chapter

The General Plan Framework Urban Form and Neighborhood Design Chapter establishes the goal of creating a city that is attractive to future investment and a city of interconnected, diverse neighborhoods that builds on the strength of those neighborhoods and functions at both the neighborhood and Citywide scales. The purpose of the Urban Form and Neighborhood Design Chapter is two-fold: first, to support the population distribution principles of the General Plan Framework through proper massing and design of buildings and second, to enhance the physical character of neighborhoods and communities within the City. The General Plan Framework does not directly address the design of individual neighborhoods or communities but embodies general neighborhood design and implementation programs that guide local planning efforts and lay a foundation for community plan updates. The Urban Form and Neighborhood Design Chapter encourages growth in areas that have a sufficient base of both commercial and residential development to support transit service. The existing and planned transit system provides the opportunity to concentrate development and conserve the existing character of stable neighborhoods.

Open Space and Conservation Chapter

The General Plan Framework Open Space and Conservation Chapter provides guidance for overall City provision of open space and sets forth policies for the protection of the City's natural environment resources. The Open Space and Conservation Chapter's objectives are oriented around the conservation of natural resources, provision of outdoor recreational opportunities, minimization of public risks from environmental hazards, and use of open space to enhance community and neighborhood character. Economic, social, and ecological imperative require the City to take full advantage of all existing open space elements. The ecological dimension is based on the improvement of water quality and supply, the reduction of flood hazards, improved air quality, and the provision of ecological corridors for birds and wildlife.

Economic Development Chapter

The General Plan Framework Economic Development Chapter includes goals, policies and objectives that address the appropriate land use locations for development. The chapter also establishes mutual development objectives for land use and economic development. This Chapter set forth policies for the development of an infrastructure investment strategy to support population and employment growth areas. The Chapter also includes goals, objectives, and policies focused on preserving commercial uses within walking distance to residential areas and promoting opportunities in areas where growth can be accommodated without encroaching on residential neighborhoods. It also focuses on establishing a balance of land uses that provide for commercial and industrial development which meet the needs of local residents, sustaining economic growth, and assuring maximum feasible environmental quality.

Transportation Chapter

The General Plan Framework Transportation Chapter includes proposals for major improvements to enhance the movement of goods and to provide greater access to major intermodal facilities. While the focus of the Transportation Chapter is on guidance for transportation investments, the Transportation Chapter also includes goals, policies and objectives that overlap with policies included in other Framework chapters of the General Plan Framework regarding land use patterns and the relationship of the pedestrian system to arrangement of land uses. The Transportation Chapter of the General Plan Framework is implemented through the General Plan's Mobility Plan 2035, which is a comprehensive update of the General Plan Transportation Element.

Infrastructure and Public Services Chapter

The General Plan Framework Infrastructure and Public Services Chapter addresses infrastructure and public service systems, including wastewater, stormwater, water supply, solid waste, police, fire, libraries, parks, power, schools, telecommunications, street lighting, and urban forests. For each of the public services and infrastructure systems, basic policies call for monitoring service demands and forecasting the future need for improvements, maintaining an adequate system/service to support the needs of population and employment growth, and implementing techniques that reduce demands on utility infrastructure or services. Generally, these techniques encompass a variety of conservation programs (e.g., reduced use of natural resources, increased site permeability, watershed management, and others). Strategic public investment is advocated in the Infrastructure and Public Services Chapter as a method to stimulate economic development as well as maintain environmental quality. Attention is also placed on the establishment of procedures for the maintenance and/or restoration of service after emergencies, including earthquakes.

Mobility Plan 2035

The Mobility Plan 2035, adopted on January 20, 2016, and readopted September 7, 2016, is a comprehensive update of the General Plan Transportation Element. The Mobility Plan 2035 provides the policy foundation for achieving a transportation system that balances the needs of all road users, incorporates "complete streets" principles and lays the policy foundation for how future generations of Angelenos interact with their streets, in compliance with the Complete Streets Act (Assembly Bill [AB] 1358).

The purpose of the Mobility Plan 2035 is to present a guide to the future development of a Citywide transportation system for the efficient movement of people and goods. While the Mobility Plan 2035 focuses on the City's transportation network, it complements other components of the General Plan that pertain to the arrangement of land uses to reduce VMT and policies to support the provision and use of alternative transportation modalities. The Mobility Plan 2035 includes the following five main goals that define the City's high-level mobility priorities:

- Safety First;
- World Class Infrastructure;
- Access for All Angelenos;
- Collaboration, Communication, and Informed Choices; and
- Clean Environments and Healthy Communities.

Housing Element

The Housing Element of the General Plan is prepared pursuant to state law and provides planning guidance in meeting housing needs identified in the SCAG Regional Housing Needs Assessment (RHNA). The

Housing Element identifies the City's housing conditions and needs, establishes the goals, objectives, and policies that are the foundation of the City's housing and growth strategy, and provides the array of programs the City intends to implement to create and preserve sustainable, mixed-income neighborhoods across the City. The goals of the 2021-2029 Housing Element are as follows:

- A City where housing production results in an ample supply of housing to create more equitable and affordable options that meet existing and projected needs.
- A City that preserves and enhances the quality of housing and provides greater housing stability for households of all income levels.
- A City in which housing creates healthy, livable, sustainable, and resilient communities that improve the lives of all Angelenos.
- A City that fosters racially and socially inclusive neighborhoods and corrects the harms of historic racial, ethnic, and social discrimination of the past and present.
- A City that is committed to preventing and ending homelessness.

Conservation Element

The City of Los Angeles General Plan includes a Conservation Element, which addresses the preservation, conservation, protection, and enhancement of the City's natural resources. Section 5 of the Conservation Element recognizes the City's responsibility for identifying and protecting its cultural and historical heritage. The Conservation Element establishes an objective to protect important cultural and historical sites and resources for historical, cultural, research, and community educational purposes and a corresponding policy to continue protecting historic and cultural sites and/or resources potentially affected by proposed land development, demolition, or property modification activities. The Conservation Element refers to the Open Space Element for a discussion of open space aspects of the City, including park sites.

Los Angeles Municipal Code (LAMC)

Development in the City is also governed by the City of Los Angeles Zoning Code (Chapter 1 of the LAMC), which regulates development through zoning designations and development standards. The Comprehensive Zoning Plan of the City of Los Angeles (Zoning Ordinance) set forth in LAMC Section 12.00 et seq. includes development standards for zoning districts in the City. LAMC Section 13.00 et seq. includes development standards for various supplemental use districts in the City that apply to specific parcels. The LAMC is currently undergoing a comprehensive update to all Zoning Code sections as part of the re:code LA effort (which became the "New Zoning Code"). The New Zoning Code, which started in 2013 and continues through 2023, will update the Zoning Code to make the Code more streamlined, visual, and easy to use. The existing Zoning Code will continue to be located in Chapter 1 of the LAMC, while the New Zoning Code will be located in Chapter 1A of the LAMC.

River Improvement Overlay (RIO)

Effectuated by Ordinance No. 183,145 in August 2014, the River Improvement Overlay (RIO) District enables the City of Los Angeles to better coordinate land use development along the 32-mile corridor of the Los Angeles River that flows within the City's boundaries. The RIO District is a proposed special use district that requires new development projects to follow and implement applicable development regulations and design guidelines. The purposes of the RIO District are to support the goals of the Los Angeles River Revitalization Master Plan (LARRMP); contribute to the environmental and ecological health of the City's watersheds; provide native habitat and support local species; establish a positive interface between the Los Angeles River and adjacent properties; promote pedestrian, bicycle and other multi-modal connections between the River and surrounding neighborhoods; provide an aesthetically

pleasing environment; provide safe, convenient access to and along the River; promote River identity; and support the City's stormwater ordinances and programs.

Redevelopment Plan(s)

Redevelopment Plans outline a community vision and revitalization opportunities within specific neighborhoods across the City. Each Redevelopment Project Area has a unique set of land use restrictions designed specifically to enhance the quality of life for the community. There is no adopted or active redevelopment project area within the CASP boundaries.

Plan for a Healthy LA

The Plan for a Healthy Los Angeles, the Health, Wellness and Equity Element of the City's General Plan, provides high-level policy vision, along with measurable objectives and implementation programs to elevate health as a priority for the City's future growth and development and complies with the requirements for the City to have an environmental justice element consistent with Senate Bill 1000. The Plan for a Healthy Los Angeles was originally adopted in 2015, and targeted amendments to the Plan were adopted by the City Council on November 24, 2021. Through a new focus on public health from the perspective of the built environment and City services, the City seeks to achieve better health and social equity through its programs, policies, plans, budgeting, and community engagement. The Plan acknowledges the relationship between public health and issues such as transportation, housing, environmental justice, and open space, among others. The Plan includes the following goals:

- Los Angeles, A Leader in Health and Equity.
- A City Built for Health.
- Bountiful Parks and Open Spaces.
- Food that Nourishes the Body, Soul, and Environment.
- An Environment Where Life Thrives.
- Lifelong Opportunities for Learning and Prosperity; and
- Safe and Just Neighborhoods.

Included in this General Plan Element are policies pertaining to the arrangement of land uses within the City and building design procedures. As such, these policies address characteristics of the physical environment that contribute to public health.

Los Angeles River Revitalization Master Plan (LARRMP)

Adopted in April 2007, the LARRMP contains goals in the creation of parks, paths, and open spaces along the Los Angeles River. The LARRMP includes recommendations for physical improvements along the Los Angeles River corridor; policies for managing public access and management structure; and short- and long-term priority projects and potential funding strategies.

Citywide Design Guidelines

The Citywide Design Guidelines serve to implement the General Plan Framework Element's urban design principles and are intended to be used by City of Los Angeles Department of City Planning staff, developers, architects, engineers, and community members in evaluating project applications, along with relevant policies from the Framework Element and Community Plans. By offering more direction for proceeding with the design of a project, the Citywide Design Guidelines illustrate options, solutions, and

techniques to achieve the goal of excellence in new design. The Citywide Design Guidelines, which were initially adopted by the City Planning Commission in July 2013 and updated in October 2019, are intended as performance goals and not zoning regulations or development standards and, therefore, do not supersede regulations in the LAMC. The guidelines “carry out the common design objectives that maintain neighborhood form and character while promoting quality design and creative infill development solutions” and are organized in relation to Pedestrian-First Design, 360 Degree Design, and Climate-Adapted Design. The Citywide Design Guidelines incorporate the goals of the previous Walkability Checklist and interact with other guidelines such as those found in Community Design Overlays.

Industrial Land Use Policy Project

In January 2008, the Department of City Planning (DCP) and the Community Redevelopment Agency of Los Angeles (CRA/LA) presented the findings of the Industrial Land Use Policy (ILUP) Project to the City Planning Commission. The ILUP Project was a two-year study that gathered and analyzed information regarding the viability of the City’s industrial districts, particularly those areas experiencing pressure to be converted to residential uses. The result of the two-year effort underscored the appropriateness of the current policy adopted by the City Council and Mayor and contained in the General Plan Framework and elsewhere in adopted documents and made no change to any policy. The ILUP Project does not establish new land use plans or policies and was never formally presented to the City Council for consideration or adoption. Since the ILUP was never formally adopted by the City Council, the City considers zone changes and General Amendments from industrial designations on a case-by-case basis, as it has historically done.

Freeway Adjacent Advisory Notice for Sensitive Users (ZI No. 2427)

Zoning Information File 2427 (ZI No. 2427) provides design and siting guidelines for discretionary residential projects and sensitive uses (i.e., schools, day care centers, and senior care centers) located within 1,000 feet of a freeway. ZI No. 2427 requires all projects seeking discretionary approval for which findings must be made regarding conformance to the General Plan to adhere to the Citywide Design Guidelines, including those that address freeway proximity.

Affordable Housing Linkage Fee Ordinance

On December 13, 2017, Mayor Eric Garcetti passed the Affordable Housing Linkage Fee Ordinance. The ordinance requires developers to pay a fee for new development projects in order to mitigate the need for affordable housing associated with the new project. The ordinance exempts new development projects with at least 40 percent moderate-income dwelling units, 20 percent low-income households, 11 percent very low, or 8 percent extremely low-income dwelling units, public institution projects, hospitals, grocery stores, and other categories of development.

Residential Hotel Unit Conversion and Demolition Ordinance

The Residential Hotel Unit Conversion and Demolition Ordinance (RHO) prohibits conversion or demolition of dwelling units in a residential hotel without approval from the Los Angeles Housing Department (LAHD). The ordinance adds Article 7.1 to Chapter IV of the LAMC and amends Sections 91.106.4.1, 151.06, and 151.09. The ordinance seeks to preserve dwelling units provided by residential hotels, which often serve as affordable housing for the very low income, elderly, and disabled.

Rent Stabilization Ordinance

LAMC Chapter XV encodes the City’s Rent Stabilization Ordinance (RSO). Generally, the Rent Stabilization Ordinance (RSO) applies to rental properties that were built on or before October 1, 1978, as well as replacement units. The RSO applies to most dwelling units with the exception of single-family

homes that solely occupy a parcel and caps annual rent increases for continuing tenants based on the Consumer Price Index averaged for a 12-month period.

Transit Oriented Communities Affordable Housing Incentive Program

The Transit Oriented Communities Affordable Housing Incentive Program (TOC Program) was developed pursuant to Section 6 of Measure JJJ, which was passed by City voters in 2016 (LADCP 2018a). The program provides incentives for developers to build properties that include affordable units within a one-half mile radius of a major transit stop. TOC Program Guidelines were released by the City Planning department on September 22, 2017 and last revised on February 26, 2018.

Development projects can qualify for incentives under one of four tiers (Tier 1 through 4). Each tier has different eligibility requirements related to the type of transit options located in proximity to the property and the composition of affordable units offered. The higher the tier number, the more transit options and affordable housing units a development needs to qualify. All TOC-eligible developments receive baseline incentives, which include an increase in the number of allowable dwelling units, an increase in the allowable floor-area ratio (FAR), and reduced parking requirements. Developments with a higher tier number are also eligible for additional incentives with higher tiers being permitted a greater number of additional incentives.

Value Capture Ordinance

On December 13, 2017, the City Council approved the Value Capture Ordinance (City of Los Angeles 2017). The ordinance requires residential and mixed-use development projects seeking a development density or FAR higher than permitted, through entitlements not subject to Measure JJJ such as Conditional Use Permits (CUPs) to provide a certain percent of restricted affordable dwelling units. The ordinance also provides an additional density bonus for projects that provide restricted affordable units beyond the minimum percentage required.

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the *CEQA Guidelines*, a project would have a significant impact related to land use and planning if it would:

- Physically divide an established community (Threshold 4.10-1)
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? (Threshold 4.10-2)

METHODOLOGY

A community can be physically divided by the construction of a new road, freeway, or railway that effectively isolates a portion of the community from the remainder of the community, or when major land use and zoning changes results in radically different land use patterns that can physically divide a neighborhood by creating a new street pattern that impedes access from one area to another. Therefore, the potential of the proposed to physically divide an established community (Threshold 4.10-1) is evaluated by determining whether implementation of the Proposed Project would result in the construction of major new roads, freeways, railways, or other barriers through an existing neighborhood.

The discussion of a significant impact with regard to conflicts with any applicable land use plan, policy, or regulation serves two purposes: identifying significant impacts related to land use and compliance with CEQA Guidelines Section 15125(d), which requires that an EIR include a discussion of any inconsistencies with applicable plans. A conflict between a project and an applicable plan is not necessarily a significant environmental impact under CEQA unless the inconsistency would result in an adverse physical change to the environment (per CEQA Guidelines Section 15382). An excerpt from the legal practice guide CEB, Practice under the California Environmental Quality Act, Section 12.34 illustrates this point:

...if a project affects a river corridor, one standard for determining whether the impact is *significant* might be whether the project violates plan policies protecting the corridor; the environmental *impact*, however, is the physical impact on the corridor.

Under State Planning and Zoning law (Government Code Section 65000, et seq.) strict conformity with all aspects of a plan is not required. Generally, plans reflect a range of competing interests and agencies are given great deference to determine consistency with their own plans. A proposed project should be considered consistent with a general plan or elements of a general plan if it furthers one or more policies and does not obstruct other policies (Governor's Office of Planning and Research 2017). Generally, given that land use plans reflect a range of competing interests, a project should be compatible with a plan's overall goals and objectives, but need not be in perfect conformity with every plan policy.

The Project would comprise a portion of the Land Use Element for the City of Los Angeles and would need to be consistent with other elements in the General Plan. Los Angeles is a member of SCAG and looks to policies established for the region in the 2020-2045 RTP/SCS, which centers on co-locating housing, jobs, and transit, along with other strategies, to improve sustainability, transportation equity, public health and safety, and overall quality of life. Therefore, the potential of the Proposed Project to conflict with an applicable land use plan, policy, or regulation (Threshold 4.10-2) is evaluated by comparing the Proposed Project to applicable policies and objectives contained in the City's General Plan and the 2020-2045 RTP/SCS. For purposes of identifying significant impacts related to conflict with any applicable land use plan, policy, or regulation, they can be either direct or indirect. Direct impacts interfere with land use plans, including habitat or wildlife conservation plans that result in significant environmental effects. Land use compatibility is typically addressed based on direct physical environmental impacts – primarily noise and air quality but also aesthetics, traffic, hazards, water quality and other physical environmental issues, i.e., where one use generates physical impacts that could significantly adversely affect another use. These issues are generally addressed through existing regulations and policies and are comprehensively addressed in each environmental issue area in this document and summarized as applicable and appropriate in the discussion of Impact 4.10-2, below. As related to impact analysis, this section focuses on direct land use impacts. Indirect impacts are secondary effects resulting from land use policy implementation and are generally addressed in other topical sections of this Draft EIR. For example, air impacts resulting from increased car trips as a result of reasonably anticipated development under the Proposed Project would be discussed in the air impact section of this Draft EIR; public service impacts resulting from increased demand from increased development under the Proposed Project is discussed in public services section of this EIR.

DESCRIPTION OF PROJECT FOR PURPOSES OF LAND USE IMPACT ANALYSIS

The Proposed Project is intended to guide development through the year 2040. The Project creates new employment and housing opportunities throughout this specific area north of downtown, and particularly in areas near transit, consistent with the Citywide comprehensive growth strategy identified in the City's Framework and Housing Elements. The Proposed Project would guide the physical development in this particular area of the City in a sustainable manner while protecting existing neighborhoods, open space areas, and public facilities parcels. The Project components are described in more detail below and can also be found in Chapter 3.0, Project Description.

The Proposed Project would amend the text, map, and tables of the CASP (or “Specific Plan”), including new land use and zoning regulations, incentives, and boundaries, for the purpose of encouraging affordable and mixed-income housing production. The Proposed Project would strengthen the existing CASP’s affordable housing requirements, including the recalibration of the CASP’s existing incentive zoning system; establish a new Community Benefits Program that incentivizes new publicly-accessible open space and community facilities; include provisions that facilitate the production of new 100% affordable housing and permanent supportive housing projects on public land; increase the zoning capacity for housing in targeted areas; and adopt a modernized zoning system based on the City’s new modular Zoning Code.

The Proposed Project will include the adoption of necessary revisions and any other amendments necessary to implement this update, including amendments to General Plan elements (such as the Framework Element), Community Plans, and other ordinances to implement those updates.

The Proposed Project may also include additional amendments to the LAMC (Chapter 1 and Chapter 1A) to better comport the regulations of the CASP to the structure and provisions of Chapter 1A. This may include moving Specific Plan provisions to Chapter 1A to become part of the base zoning of the respective Community Plan, and potentially removing the Specific Plan designation, for simplicity and ease of implementation. Such amendments would not substantively change the effect of the regulations.

The Proposed Project is comprised of several components including:

- **Updated Zoning.** The Proposed Project would accommodate additional housing in the Project Area by expanding the residential emphasis Urban Village zoning designation to select parcels within the Project Area. Each of the Proposed Project’s unique zones would be updated to permit a broader range of uses, such as 100 percent affordable housing and permanent supportive housing. A new Public Use (P2) zone would be utilized to more precisely regulate the types of uses allowed on publicly-owned land and to support the provision of community benefits.
- **Updated Affordable Housing Requirements.** The Proposed Project’s existing zoning incentives would be restructured and recalibrated to deliver more affordable housing, while being simpler to understand and implement. The revised zoning incentives include a new Community Benefits Program that incentivizes new publicly-accessible open space and community facilities.
- **Updated Plan Boundaries.** New updated boundaries would exclude parcels that currently do not have CASP zoning (e.g., RD zones) to clarify the non-applicability of the Specific Plan on those parcels. The boundaries would also be modified to exclude the Greenway (Open Space) parcels adjacent to Elysian Park, which are the only parcels in the Project Area located within the Silver Lake-Echo Park-Elysian Valley Community Project Area.
- **Updated Development Standards.** The existing building form, urban design, open space, parking, conservation, performance, sign, and streets standards of the Project Area would be updated to improve clarity and reduce redundancy.
- **Updated Administration Chapter.** The administration chapter of the Proposed Project would receive technical updates to improve ease of implementation, consistency, and clarity.
- **Updated Mitigation Monitoring Program.**

The changes to the proposed zoning and land uses in the Project Area are summarized below in **Table 4.10-1**.

TABLE 4.10-1 EXISTING AND PROPOSED ZONING				
Zone	No Project		Proposed Project	
	Area (Acres)	Percentage	Area (Acres)	Percentage
Urban Village	90	19%	132	28%
Urban Innovation	144	30%	65	14%
Urban Center	40	8%	30	6%
Greenway	74	15%	0	0%
RD1.5/RD2	29	6%	29	6%
CM	5	1%	5	1%
Open Space (OS)	35	7%	103	22%
PF	57	12%	0	0%
FWY	0	0%	40	8%
Public Use (P2)	0	0%	70	15%
C2	8	2%	8	2%
	483*	100%	483*	100%

* Total area shown excludes the area within public rights-of-way. Total acreage is rounded up.

PROPOSED ZONING CHANGES

Expansion of the Urban Village Zone

As described in Section 2.4.4, the existing Specific Plan has four zones that are unique to the Project Area: Urban Innovation (mixed-use industrial), Urban Village (mixed-use residential), Urban Center (mixed-use commercial), and Greenway (open space). The Urban Village zone, which is the only zone that allows for predominantly residential development, comprises approximately 19 percent of land area (90 acres) among parcels within the Project Area.

One of the key objectives of the Proposed Project is to increase the production of affordable and mixed-income housing within the Project Area. The Proposed Project would increase the amount of land that is zoned Urban Village to 28 percent of land area (132 acres) among parcels within the Project Area, which is a 46 percent increase from the existing Specific Plan Urban Village land use. This increase in Urban Village zoned land would expand where housing could be built in the Project Area and support an increase to its housing stock, while still retaining a substantial amount of land for the Specific Plan's other policy objectives, such as the preservation of open space and land for job-producing uses.

The Urban Village zone would be expanded in two subareas of the Project Area: 1) the area west of the Los Angeles River, generally between Main Street and Naud Street, and 2) the area generally bounded by the Los Angeles River to the west, the Arroyo Seco and State Route 110 to the north, and Interstate 5 to the east.

New Public Use District (P2)

The Proposed Project would utilize a new Public Use District (P2) to more clearly demarcate land that is publicly-owned, support the joint public and private development of community-serving uses, and allow by-right 100% affordable housing projects. Currently, 34 percent of land area (165 acres) within the Project Area is owned by a government agency, with approximately half of that land (77 acres) having an Urban Innovation, Urban Village, or Urban Center zoning designation that does not reflect the public ownership of those parcels.

The new Public Use District would allow government buildings, structures, offices, and service facilities. Other uses may be permitted based on the most permissive zoning of adjoining properties; however, such uses must be a joint public and private development approved in accordance with the discretionary processes and procedures set forth in the updated Specific Plan. In contrast to the Urban Innovation, Urban Village, or Urban Center zones, solely private developments would not be permitted within the Public Use zone.

The new Public Use District would be applied to approximately 70 acres of publicly-owned parcels within the Project Area. Not all publicly-owned properties would receive the Public Use zoning designation. For example, freeways would retain the existing Public Facilities (PF) zone, while parks will receive the Open Space zone (OS). Publicly-owned properties that are currently zoned Urban Village would retain their existing zoning.

In sum, the new Public Use zone would allow for a broader range of uses to occur on certain publicly-owned parcels, depending on the zoning of adjoining properties, but such development may require a discretionary review process and would be limited to joint public and private development. Solely public development such as government buildings, structures, offices, and service facilities would be allowed ministerially.

Updated Use Table for Proposed Project Zones

The Proposed Project would replace the existing *Use Classification Table* and *Use Limits Table* (see **Table 2-5** and **Table 2-6** of the existing CASP), which is proprietary to the Specific Plan, with an updated use table substantially based on that of the City's proposed New Zoning Code. The updated list of uses and definitions would be aligned with the proposed *Use Article* of the New Zoning Code to enhance consistency between the documents and improve ease of implementation.

While the format of the use table would change, the general uses allowed for each of the existing Specific Plan zones would largely be unchanged. The Urban Innovation, Urban Village, and Urban Center Use Districts will continue to remain mixed-use industrial, residential, and commercial zones, respectively. However, the Proposed Project would incorporate a few changes to the use limits to further support the production of affordable and mixed-income housing.

For example, the existing Urban Village zone's limitation of multi-family residential uses to 90 percent of a development project's total floor area would be lifted, allowing for purely residential buildings in the Urban Village Use District, instead of mandating a mix of uses within the same building. The additional flexibility afforded by this change increases the feasibility of residential development, especially affordable and mixed-income housing projects.

The existing Urban Innovation and Urban Center zones also prescribe a mix of uses, limiting multi-family residential uses to no more than 15 percent of a development project's total floor area. The Proposed Project would continue to prioritize job-producing uses over residential development in these zones. However, rather than a cap on the percentage of residential uses allowed, the Proposed Project would establish a minimum Floor Area Ratio (FAR) of industrial, commercial, or other job-producing uses within a development project in the Urban Innovation and Urban Center zones. This approach is consistent with the standards of the proposed New Zoning Code and would result in less ambiguity and greater ease of implementation compared to the existing proprietary system.

The Proposed Project would exempt 100 percent restricted affordable housing and permanent supportive housing projects from the minimum job-producing FAR requirements of the Urban Innovation and Urban Center zones. This change would substantially increase the area where affordable and permanent supportive

housing could be built in the Project Area compared to the existing Specific Plan by allowing those uses in all three of the Project’s “Urban” Use Districts: Urban Innovation, Urban Village, and Urban Center.

Updated Affordable Housing Incentives

As described in Section 2.4.5, *Existing Affordable Housing Incentives*, the existing CASP has an incentive-based zoning system that grants developers additional floor area rights, in exchange for reserving a portion of units for low-income households. The system seeks to capture the land value increases that result from rezoning and public investment to create public benefits such as affordable housing.

The Proposed Project would update and recalibrate these incentives to deliver more affordable units, while being simpler to understand and implement. The current incentive system would be replaced with a new graduated base and bonus system (Community Benefits Program), similar to that found in the proposed New Zoning Code for the Downtown Plan, intended to establish a clearer set of objective standards for projects that wish to build beyond their base zoning. The proposed Community Benefits Program is separate from and may be supplemented by other affordable housing requirements or fees, such as the Affordable Housing Linkage Fee (AHLF).

The main incentive used to garner public benefits under the Proposed Project is through floor area rights (depicted as FAR). As noted in Chapter 2 of the updated CASP, Form Districts would outline Base and Bonus FAR for each parcel. The Base FAR is available by-right. The Bonus FAR is available for projects that participate in the Community Benefits Program.

PROJECT IMPACTS

Threshold 4.10-1	Physically divide an established community
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Impact 4.10-1 **Proposed Project:** The Proposed Project does not include any features that would physically divide an established community. Therefore, *no impact* would occur.

Project Impact

Overall, the Project Area is an established urbanized area within the City, having a mix of commercial, residential, light industrial, and institutional uses at varying densities and intensities. The revisions proposed under the Proposed Project would include amendments to strengthen the existing CASP’s affordable housing requirements, including the recalibration of the CASP’s existing incentive zoning system; establish a new Community Benefits Program that incentivizes new publicly-accessible open space and community facilities; include provisions that facilitate the production of new 100% affordable housing and permanent supportive housing projects on public land; increase the zoning capacity for housing in targeted areas; and adopt a modernized zoning system based on the City’s New Zoning Code. Further details of the proposed land use and zoning strategies are described under “Proposed Zoning Changes” above and in Chapter 3.0 *Project Description* of this Draft EIR.

The land use and zoning changes proposed are intended to help support the development of affordable, mixed-income, and permanent supportive housing in the Project Area. The Project does not introduce new land uses to the area that would include barriers that would divide existing neighborhoods. Rather, the Project would encourage land uses that complement and bridge existing neighborhoods to new neighborhoods, thus, maintaining and improving community cohesiveness. For example, the Housing Authority of the City of Los Angeles (HACLA) William Mead Homes property is currently an Urban Village zoned site surrounded by predominantly light industrial uses and Urban Innovation zoned land. The Project would revise the zoning of the general area immediately surrounding William Mead Homes to Urban Village, in order to create linkages between the William Mead Homes site and public open spaces

such as the Los Angeles State Historic Park. Rather than fundamentally altering land use patterns in the Project Area, the Proposed Project would incrementally allow for increased housing capacity in targeted areas, while requiring and incentivizing more affordable housing than under the current Specific Plan.

The Proposed Project does not propose major transportation infrastructure that would physically divide the Project Area and generally maintains and supports current land use development patterns, such as the continued transition of the Project Area to a more mixed-use environment, which began with the current Specific Plan. Proposed land uses would not involve physical barriers that would divide the community. Therefore, the Proposed Project would have *no impact* related to the division of an established community.

Mitigation Measures

Significant impacts related to the division of an established community have not been identified; therefore, mitigation is not required.

Threshold 4.10-2	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?
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Impact 4.10-2 **Proposed Project:** The Proposed Project would generally be consistent with the applicable land use policies, goals, strategies, and/or objectives, including those contained in the City of Los Angeles General Plan and SCAG’s 2020-2045 RTP/SCS. Impacts related to the Proposed Project would be *less than significant*.

Project Impact

In addition to analyzing the threshold questions above, which is intended to focus on whether environmental impacts will result from the Proposed Project conflicting with applicable plans, policies or regulations, the following evaluation is also intended to satisfy the requirements of Guidelines Section 15125(d) to identify any inconsistencies between the Proposed Project and the applicable general, specific or regional plans. Pursuant to State Planning Law, the policies and programs included in the Proposed Project would need to be consistent with policies and programs included in other elements of the General Plan. **Table 4.10-2** provides a consistency analysis of the Proposed Project with applicable objectives and policies¹ contained in the General Plan that were adopted for the purpose of minimizing any environmental effect.

As demonstrated in **Table 4.10-2**, the Proposed Project would generally be consistent with policies contained in the City’s General Plan. As identified in **Table 4.10-2** for Framework Element Policy, 3.14; Central City North Community Plan Objectives 3.1 and 3.2; and Northeast Los Angeles Community Plan Objective 3.3, the Proposed Project may be in partial conflict with policies related to protection of industrial land. However, those policies were not adopted for the purpose of avoiding or mitigating an environmental effect, but instead for protecting jobs, which is a social economic impact. The Proposed Project would not make any existing industrial uses illegal. It is speculative the change in allowed uses would displace existing businesses or new uses that would have come to the Project Area but now seek to move elsewhere. First, there is limited demand for new heavy industrial uses in this area of the City and in particular, north of Downtown Los Angeles. Light industrial uses would continue to be allowed within the Project Area. Furthermore, there are many areas in the Southern California region that can accommodate industrial uses, in and outside the City, such as the San Gabriel Valley and the Harbor Gateway Corridor. Displacement of uses can potentially result in impacts to air, greenhouse gas emissions, or transportation if employee or work trips are longer or if it results in new construction and the new construction has impacts. But it is not possible to make assumptions where such uses would go and whether they would result in longer trips. A

¹ The analysis of the objectives listed in Table 4.10-2 includes analysis of the policies associated with those objectives.

business moving to San Gabriel Valley may shorten trips for employees who live in the San Gabriel Valley and commute to the Project Area. In such a case, the impact would be beneficial. Without knowing a particular project, it would not be possible to determine whether such a displacement would result in adverse impacts. Additionally, growth under the Proposed Project is expected to generate air pollutant emissions exceeding SCAQMD significance thresholds, as discussed in Section 4.2, *Air Quality*; however, the Proposed Project would facilitate infill, transit-oriented and mixed-use development. As such, the Proposed Project is designed to reduce vehicle trips to, from, and within the Project Area, which would have a beneficial effect on air quality. Therefore, the Proposed Project would be consistent overall with applicable policies and objectives contained in the City’s General Plan.

TABLE 4.10-2 CONSISTENCY ANALYSIS WITH THE CITY OF LOS ANGELES GENERAL PLAN	
Objective	Project Consistency
Framework Element (1995, 1996, 2001)	
Chapter 3. Land Use	
<p>3.7 Provide for the stability and enhancement of multi-family residential neighborhoods and allow for growth in areas where there is sufficient public infrastructure and services and the residents' quality of life can be maintained or improved.</p>	<p>Consistent Existing multi-family residential development in the Project Area is located predominantly on Urban Village zoned properties, such as the William Mead Homes and the area adjacent to the Lincoln/Cypress Metro L Line (Gold) station. The Proposed Project would retain these Urban Village zoned areas to support the stability of these multi-family residential neighborhoods, while also expanding the Urban Village zoning designation to select properties, thereby increasing the zoning capacity for new multi-family residential development, with a particular emphasis on affordable, mixed-income, and permanent supportive housing. As discussed in Section 4.17, <i>Utilities and Service Systems</i>, and Section 4.13, <i>Public Services</i>, the Project Area would be served by sufficient public infrastructure and services to ensure that residents' quality of life can be maintained or improved.</p>
<p>3.8 Reinforce existing and establish new neighborhood districts which accommodate a broad range of uses that serve the needs of adjacent residents, promote neighborhood activity, are compatible with adjacent neighborhoods, and are developed as desirable places to work and visit.</p>	<p>Consistent The Project Area is characterized by a significant mix of uses that will be reinforced by the Proposed Project's updated zoning designations, which support residential, industrial, commercial, institutional, and open space uses. These designations allow for the development of multi-unit residential uses, with incentives and/or requirements for affordable housing, and community-serving uses, in proximity to neighborhood amenities.</p>
<p>3.14 Provide land and supporting services for the retention of existing and attraction of new industries.</p>	<p>Partially Consistent and Partially Inconsistent Land for industrial uses would be retained under the Urban Innovation and Urban Center Use Districts of the Proposed Project, while allowing new residential uses in the Urban Village Use District, which would be expanded in targeted areas. While the expansion of the Urban Village Use District could result in a reduction in the amount of available land for new industries, the updated zoning designations still accommodate new and existing light industrial and commercial spaces. Also, the Proposed Project sets forth minimum employment-related floor area for properties located in the Urban Innovation use district to support the retention of existing and attraction of new industries.</p>

TABLE 4.10-2 CONSISTENCY ANALYSIS WITH THE CITY OF LOS ANGELES GENERAL PLAN	
Objective	Project Consistency
<p>3.15 Focus mixed commercial/residential uses, neighborhood-oriented retail, employment opportunities, and civic and quasi-public uses around urban transit stations, while protecting and preserving surrounding low-density neighborhoods from the encroachment of incompatible land uses.</p>	<p>Consistent The Project Area is well served by public transit including local and rapid bus lines, and the Metro L (Gold) Line station, with three stations within or proximate to the Project Area. Also, see responses to Policy 3.7 and 4.2.</p>
<p>3.16 Accommodate land uses, locate and design buildings, and implement streetscape amenities that enhance pedestrian activity.</p>	<p>Consistent The Proposed Project’s form district and frontage regulations would require development projects contribute to inviting streetscapes and pedestrian activity with requirements relating to building setbacks, ground floor transparency, and entrance spacing requirements.</p>
<p>3.18 Provide for the stability and enhancement of multi-family residential, mixed-use, and/or commercial areas of the City and direct growth to areas where sufficient public infrastructure and services exist.</p>	<p>Consistent See responses to Policies 3.7 and 3.8.</p>
Chapter 4. Housing	
<p>4.1 Plan the capacity for and develop incentives to encourage production of an adequate supply of housing units of various types within each City subregion to meet the projected housing needs by income level of the future population to the year 2010.</p>	<p>Consistent The Proposed Project would allow for the development of additional housing in the Project Area. The Proposed Project also includes a Community Benefits Program, which offers development incentives for residential buildings in exchange for providing affordable housing. As discussed in Section 4.12, <i>Population and Housing</i>, Proposed Project development would meet and exceed projected housing needs of the future population.</p>
<p>4.2 Encourage the location of new multi-family housing development to occur in proximity to transit stations, along some transit corridors, and within some high activity areas with adequate transitions and buffers between higher-density developments and surrounding lower-density residential neighborhoods.</p>	<p>Consistent The Project Area is well-served by existing transit and many of the residential developments permitted would occur in areas proximate to transit corridors and along major arterials. The Proposed Project supports new moderate density residential development, with Form District buffers for those developments that are adjacent to lower-density residential neighborhoods.</p>
<p>4.3 Conserve scale and character of residential neighborhoods.</p>	<p>Consistent The Proposed Project does not include any changes to the lower-density RD-zoned residential neighborhoods within the Project Area and would thus conserve the existing scale and character of these residential neighborhoods.</p>
<p>4.4 Reduce regulatory and procedural barriers to increase housing production and capacity in appropriate locations.</p>	<p>Consistent The Proposed Project would adopt a modernized zoning system based on the City’s New Zoning Code to reduce regulatory and procedural barriers, which will ultimately help to support the production of new affordable, mixed-income, and permanent supportive housing within the Project Area. Existing proprietary regulations that are redundant or overly complex will be simplified and made consistent with Citywide processes and standards.</p>

TABLE 4.10-2 CONSISTENCY ANALYSIS WITH THE CITY OF LOS ANGELES GENERAL PLAN	
Objective	Project Consistency
Chapter 5. Urban Form and Neighborhood Design	
5.2 Encourage future development in centers and in nodes along corridors that are served by transit and are already functioning as centers for the surrounding neighborhoods, the community or the region.	Consistent The Proposed Project would expand the predominantly residential Urban Village Use District in select areas proximate to transit, including Metro L (Gold) Line stations. Furthermore, the highest levels of permitted development intensity, with respect to Floor Area Ratio, are centered around the most transit served areas within the Project Area.
5.5 Enhance the liveability of all neighborhoods by upgrading the quality of development and improving the quality of the public realm.	Consistent The Proposed Project includes updated form, frontage, use, and development standards that improve the quality of the public realm and urban design within the Project Area, with a particular focus on scale, walkability, landscaping, and publicly-accessible spaces.
5.6 Conserve and reinforce the community character of neighborhoods and commercial districts not designated as growth areas.	Consistent The Proposed Project does not include any changes to the existing lower-density RD-zoned residential neighborhoods within the Project Area and would thus conserve the existing scale and character of these residential neighborhoods.
5.8 Reinforce or encourage the establishment of a strong pedestrian orientation in designated neighborhood districts, community centers, and pedestrian-oriented subareas within regional centers, so that these districts and centers can serve as a focus of activity for the surrounding community and a focus for investment in the community.	Consistent As discussed above, the proposed zoning tools would govern the building forms and features of future development and would be utilized to establish strong pedestrian orientation throughout the Project Area.
Chapter 6. Resource Conservation and Development	
6.1 Protect the City's natural settings from the encroachment of urban development, allowing for the development, use, management, and maintenance of each component of the City's natural resources to contribute to the sustainability of the region.	Consistent The Project Area is entirely urbanized and encompasses a major metropolitan area. The Proposed Project would allow for greater growth and development in an urban environment, thus avoiding impacts to the City's remaining natural settings. In addition, the Proposed Project's land use regulations would support the revitalization of the Los Angeles River as envisioned in the Los Angeles River Revitalization Master Plan (LARRMP). The LARRMP proposes to enhance and create riparian habitat along the sides of the Los Angeles River, which could occur in the Project Area. A long-term goal of the LARRMP is to restore the ecological and hydrological functioning of the River, through the creation of a riparian habitat corridor within the channel, and through the removal of concrete walls where feasible.
6.2 Maximize the use of the City's existing open space network and recreation facilities by enhancing those facilities and providing connections, particularly from targeted growth areas, to the existing regional and community open space system.	Consistent The Proposed Project retains the Open Space use designations of the existing CASP to support the expansion of parks, enhance existing parks, and improve the safety of open spaces within the Project Area, which would encourage greater use of the open space network. In addition, the Project Area includes major transit hubs that provide access to major community and regional open spaces, such as the Los Angeles State Historic Park.

TABLE 4.10-2 CONSISTENCY ANALYSIS WITH THE CITY OF LOS ANGELES GENERAL PLAN	
Objective	Project Consistency
Chapter 9. Infrastructure and Public Services	
9.6 Pursue effective and efficient approaches to reducing stormwater runoff and protecting water quality.	Consistent Proposed Project standards, in combination with federal, state, and local requirements pertaining to stormwater runoff control, would reduce stormwater runoff and protect water quality. See Section 4.9, <i>Hydrology and Water Quality</i> , for a more detailed discussion.
9.7 Continue to develop and implement a management practices based stormwater program which maintains and improves water quality.	Consistent Proposed Project development would be required to comply with National Pollutant Discharge Elimination System (NPDES) permit requirements, the City's stormwater requirements, and the City's 2020 Urban Water Management Plan (UWMP). See Section 4.9, <i>Hydrology and Water Quality</i> , for a more detailed discussion.
9.9 Manage and expand the City's water resources, storage facilities, and water lines to accommodate projected population increases and new or expanded industries and businesses.	Consistent See Section 4.9, <i>Hydrology and Water Quality</i> , Threshold 4.9-2, for a discussion of groundwater use as it relates to the Proposed Project and Section 4.17, <i>Utilities and Service Systems</i> , for a discussion of water availability and Proposed Project use. As discussed in these sections, LADWP plans to expand the City's water resources and will be able to meet future demand generated by development levels proposed by the Proposed Project.
9.10 Ensure that water supply, storage, and delivery systems are adequate to support planned development.	Consistent See the response to Policy 9.9.
9.40 Ensure efficient and effective energy management in providing appropriate levels of lighting for private outdoor lighting for private streets, parking areas, pedestrian areas, security lighting, and other forms of outdoor lighting and minimize or eliminate the adverse impact of lighting due to light pollution, light trespass, and glare.	Consistent Future development would be required to comply with energy efficiency lighting and light pollution reduction requirements included in the 2016 California Building Code, including the CALGreen Code, and the Los Angeles Building Code and Los Angeles Green Building Code (LAMC Chapter IX); the Los Angeles Building Code and Green Building Code largely incorporate and amend the 2013 California Building Code and CALGreen Code, respectively. For example, Subsection 99.05.106.8 of the Los Angeles Green Building Code sets restrictions on residential outdoor lighting, and Section 99.04.211.4 requires residences to be constructed with solar-ready features as specified in the California Energy Code. Lighting requirements and potential light pollution and glare impacts would be less than significant, as discussed in Section 4.1, <i>Aesthetics</i> .
Plan for a Healthy Los Angeles: Health and Wellness Element (2015)	
1.5 Plan for Health Improve Angelenos' health and well-being by incorporating a health perspective into land use, design, policy, and zoning decisions through existing tools, practices, and programs.	Consistent Future development would be required to comply with use adjacency buffers regulated by zoning under the Development Standard Set. These buffers are required when industrial or heavy commercial Use Districts are adjacent to Use Districts allowing for residential uses.
2.2 Healthy Building Design and Construction Promote a healthy built environment by encouraging the design and rehabilitation of buildings and sites for healthy living and working conditions, including promoting enhanced pedestrian-oriented circulation,	Consistent The Proposed Project includes standards to support the development of a pedestrian-oriented environment, including form, frontage, landscaping, and development standards. In addition, the Proposed Project would encourage redevelopment of sites with older structures that may contain hazardous building materials, such as asbestos, lead, and other contaminants. As discussed in Section

TABLE 4.10-2 CONSISTENCY ANALYSIS WITH THE CITY OF LOS ANGELES GENERAL PLAN	
Objective	Project Consistency
lighting, attractive and open stairs, healthy building materials and universal accessibility using existing tools, practices, and programs.	4.8, <i>Hazards & Hazardous Materials</i> , demolition of existing structures would be required to comply with federal, State and local regulations that would prevent hazardous levels of exposure during demolition. New construction would not have the same levels of hazardous materials, and as subject to existing hazard mitigation requirements, redevelopment would also contribute to a healthier built environment.
3.2 Expand Parks Improve Angelenos’ mental and physical health by striving to equitably increase their access to parks, increasing both their number and type throughout the city; prioritize implementation in the most park-poor areas of the city.	Consistent Developers of residential development projects in the Project Area would be required to pay park impact fees, Quimby in-lieu fees, or dedicate land for parks, which would support the provision of new park facilities inside and outside the Project Area. This would incentivize the creation of new open space areas and community amenities. Additionally, the Proposed Project retains the Open Space use designations of the existing CASP to support the retention and expansion of public parks and open spaces.
4.1 Land for urban agriculture and healthy food Encourage and preserve land for urban agriculture in the City to ensure a long-term supply of locally produced healthy food, promote resiliency, green spaces, and healthy food access; increase the number of urban agriculture sites including but not limited to: community gardens, parkway gardens, urban farms and rooftop gardens in low-income and undeserved areas.	Consistent The Proposed Project includes use districts that allow for urban agriculture and local food production within the Project Area.
5.1 Air pollution and respiratory health Reduce air pollution from stationary and mobile sources; protect human health and welfare and promote improved respiratory health.	Consistent Reasonably anticipated development under the Proposed Project would generate emissions exceeding SCAQMD significance thresholds, as discussed in Section 4.2, <i>Air Quality</i> . However, growth is consistent with the RTP/SCS. In addition, as discussed in Section 4.15, <i>Transportation and Traffic</i> , VMT per service population that accounts for both residents and employee trips for the Proposed Project would be less than or equal to the projections for the 2040 RTP/SCS, which would limit vehicular emissions and associated regional air quality impacts and contribute toward attainment of state and federal air quality standards. In addition, stationary and mobile sources in the Project Area would be subject to local, state, and national regulations to reduce air pollutant emissions, including California’s clean car standards (i.e., Pavley regulations), ARB diesel engine requirements, and SCAQMD rules and regulations. Finally, the Proposed Project supports reduced air pollution from mobile sources and improved respiratory health by supporting development of public transit, the development of residences and employment centers near transit, expanding and improving the safety of active transport infrastructure, and improving pedestrian and bike access to buildings.

TABLE 4.10-2 CONSISTENCY ANALYSIS WITH THE CITY OF LOS ANGELES GENERAL PLAN	
Objective	Project Consistency
<p>5.2 People Reduce negative health impacts for people who live and work in close proximity to industrial uses and freeways through health promoting land uses and design solutions.</p>	<p>Consistent Land uses supported by the Proposed Project include light industrial uses, such as research and development, clean technology, and light manufacturing, and limits heavy industrial uses typically associated with high levels of negative health impacts. In addition, the Proposed Project does not allow heavy industrial uses where residential uses are permitted. This would reduce exposure of residents and workers not employed by industry to potential health impacts from industrial activities.</p>
<p>5.7 Land use planning for public health and GHG emission reduction Promote land use policies that reduce per capita greenhouse gas emissions, result in improved air quality and decreased air pollution, especially for children, seniors, and others susceptible to respiratory diseases.</p>	<p>Consistent See response to Policy 5.1.</p>
Air Quality Element (1992)	
<p>1.1 Reduce air pollutants consistent with the Regional Air Quality Management Plan (AQMP), increase traffic mobility, and sustain economic growth citywide.</p>	<p>Consistent As discussed in Section 4.2, <i>Air Quality</i>, Proposed Project development would generate emissions exceeding SCAQMD significance thresholds. However, growth under the Proposed Project would be consistent with SCAG forecasts upon which the AQMP is based. In addition, the Project Area includes a wide range of transportation options and consequently, as discussed in Section 4.15, <i>Transportation and Traffic</i>, vehicle miles traveled (VMT) per service population in the Project Area are forecast to remain well below city and regional averages.</p>
<p>2.1 Reduce work trips as a step towards attaining trip reduction objectives necessary to achieve regional air quality goals</p>	<p>Consistent The Proposed Project would reduce work trips by promoting development near major transit hubs, promoting development of residences near employment, improving and expanding pedestrian, bicycle, and transit facilities, and supporting complete communities with a mix of residences and community-serving uses. Therefore, the Proposed Project would generally promote land use and development patterns that reduce vehicle trips and would maximize and improve the link between land use and multi-modal transportation to encourage the use of a range of transit modes. In addition, as discussed in Section 4.15, <i>Transportation and Traffic</i>, service population VMT that also accounts for employment-related VMT for the Proposed Project would be less than or equal to the projections for the 2040 RTP/SCS.</p>
<p>2.2 Increase vehicle occupancy for non-work trips by creating disincentives for single passenger vehicles and incentives for high occupancy vehicles</p>	<p>Consistent The Proposed Project promotes higher vehicle occupancy. As discussed in Section 4.15, <i>Transportation and Traffic</i>, the Proposed Project would also enhance access to transit, through applying new land use and zoning regulations to encourage mixing and implementing transportation improvements within the framework established in MP 2035.</p>

TABLE 4.10-2 CONSISTENCY ANALYSIS WITH THE CITY OF LOS ANGELES GENERAL PLAN	
Objective	Project Consistency
3.1 Increase the portion of work trips made by transit to levels that are consistent with the goals of the AQMP and Congestion Management Plan (CMP).	Consistent See the response to Policy 2.1.
3.2 Reduce vehicular traffic during peak periods.	Consistent See the response to Policy 2.1.
4.2 Reduce vehicle trips and vehicle miles traveled associated with land use patterns.	Consistent See the response to Policy 2.1.
4.3 Ensure that land use plans separate major sources of air pollution from sensitive receptors, such as schools, hospitals and parks.	Consistent Reasonably anticipated development from the Proposed Project would primarily be residential, commercial, and light industrial development that would not be a major source of air pollution. The Proposed Project does not propose zoning that would permit development of heavy industrial uses in the Project Area.
Conservation Element (2001)	
Archaeological and paleontological Protect the city's archaeological and paleontological resources for historical, cultural, research and/or educational purposes.	Consistent As discussed in Section 4.4, <i>Cultural Resources</i> , with mitigation, Proposed Project development would not result in significant impacts to archaeological and paleontological resources.
Cultural and historical Protect important cultural and historical sites and resources for historical, cultural, research, and community educational purposes.	Consistent Future development under the Proposed Project could potentially result in modifications to or loss of historic resources due to their ubiquity in the Project Area, as discussed in Section 4.4, <i>Cultural Resources</i> , under Impact 4.4-1. However, the Proposed Project includes various policies to protect the area's important cultural and historical sites, as discussed in the response to Framework Element Policy 3.17.
Land form and scenic vistas Protect and reinforce natural and scenic vistas as irreplaceable resources and for the aesthetic enjoyment of present and future generations.	Consistent As discussed in Section 4.1, <i>Aesthetics</i> , Impact 4.1-1, the Project Area is already urbanized and lacks major identified scenic resources. Impacts to land forms and scenic vistas from Proposed Project development would be less than significant.
Housing Element (2013)	
2.2 Promote sustainable neighborhoods that have mixed-income housing, jobs, amenities, services and transit.	Consistent See the responses to Framework Element Policies 3.8, 4.2, and 5.2.
2.3 Promote sustainable buildings, which minimize adverse effects on the environment and minimize the use of non-renewable resources.	Consistent Proposed Project development would be required to comply with the Los Angeles Green Building Code, which largely incorporates and amends the 2013 CALGreen Code, and also 2016 CALGreen Code requirements, which include standards to enhance energy efficiency and resource conservation.

TABLE 4.10-2 CONSISTENCY ANALYSIS WITH THE CITY OF LOS ANGELES GENERAL PLAN	
Objective	Project Consistency
<p>2.4 Promote livable neighborhoods with a mix of housing types, quality design and a scale and character that respects unique residential neighborhoods in the City.</p>	<p>Consistent See the responses to Framework Element Policies 3.8, 4.2, and 5.2, and the discussion under Impact 4.10-1.</p>
Noise Element (1999)	
<p>3 Reduce or eliminate noise impacts associated with proposed development of land and changes in land use.</p>	<p>Consistent Future development in the Project Area would be required to reduce noise impacts in accordance with the City’s Noise Ordinance and incorporate mitigation provided in Section 4.11, <i>Noise</i>, as applicable.</p>
Open Space Element (1973)	
<p>The provision of malls, plazas, green areas, etc., in structures or building complexes and the preservation and provision of parks shall be encouraged.</p>	<p>Consistent See the response to Health and Wellness Element Policy 3.2 regarding the provision of parks.</p>
Service Systems Element/ Public Recreation Plan	
<p>Recreational facilities and services should be provided for all segments of the population on the basis of present and future projected needs, the local recreational standards, and the City’s ability to finance.</p>	<p>Consistent See the response to Health and Wellness Element Policy 3.2.</p>
Mobility Element – Mobility Plan 2035 (2016)	
Chapter 3: Access for All Angelenos	
<p>3.1 Access for All Recognize all modes of travel, including pedestrian, bicycle, transit, and vehicular modes - including goods movement - as integral components of the City’s transportation system.</p>	<p>Consistent The Proposed Project would support transit-oriented development by allowing greater development intensities proximate to transit stations, such as the Metro L (Gold) Line stations within the Project Area. Additionally, the Proposed Project includes standards that support all modes of travel, with a particular emphasis on pedestrian and bicycle usage.</p>
<p>3.3 Land Use Access and Mix Promote equitable land use decisions that result in fewer vehicle trips by providing greater proximity and access to jobs, destinations, and other neighborhood services.</p>	<p>Consistent The Proposed Project designations support mixed uses throughout almost the entirety of the Project Area providing greater proximity and access to jobs, destinations, and neighborhood services. As discussed in Section 4.15, <i>Transportation and Traffic</i>, VMT per service population in the Project Area are forecast to remain below City and regional averages.</p>
<p>3.5 Multi-Modal Features Support “first-mile, last-mile solutions” such as multi-modal transportation services, organizations, and activities in the areas around transit stations and major bus stops (transit stops) to maximize multi-modal connectivity and access for transit riders</p>	<p>Consistent The Proposed Project supports first-mile, last mile solutions through its updated zoning designations, which promote mixed-use development near transit areas, as well as standards supporting active transport and transit.</p>

TABLE 4.10-2 CONSISTENCY ANALYSIS WITH THE CITY OF LOS ANGELES GENERAL PLAN	
Objective	Project Consistency
Chapter 5: Clean Environments & Healthy Communities	
5.1 Sustainable Transportation Encourage the development of a sustainable transportation system that promotes environmental and public health.	Consistent The Proposed Project supports development of active and alternative modes of transport. See the response to Policy 3.1.
5.2 Vehicle Miles Traveled (VMT) Support ways to reduce vehicle miles traveled (VMT) per capita.	Consistent The Project Area includes a variety of transportation options and reasonably anticipated development from the Proposed Project would include a mix of uses that supports the use of alternative transportation modes, such as transit, walking, and bicycling. As discussed in Section 4.15, <i>Transportation and Traffic</i> , vehicle miles traveled (VMT) per service population in the Project Area are forecast to remain well below city and regional averages.
Central City North Community Plan (2000)	
Chapter 3: Land Use Plan Policies and Programs	
1.1 To provide for the preservation of existing housing and for the development of new housing to meet the diverse economic and physical needs of the existing residents and projected population of the Central City North Plan area to the year 2010.	Consistent The Proposed Project identifies additional areas where new housing could be located within the Project Area in order to accommodate projected growth in Citywide population through the year 2040. Additionally, the Proposed Project sets forth an incentive zoning program that supports more affordable housing and permanent supportive housing in order to meet the diverse economic and physical needs of residents.
1.2 To locate new housing in a manner which reduces vehicular trips and makes it accessible to services and facilities.	Consistent The Proposed Project designations support mixed uses throughout almost the entirety of the Project Area providing greater proximity and access to jobs, destinations, and neighborhood services, reducing vehicular trips. As discussed in Section 4.15, <i>Transportation and Traffic</i> , VMT per service population in the Project Area are forecast to remain below City and regional averages.
1.3 To preserve and enhance the varied and distinct residential character and integrity of existing residential neighborhoods.	Consistent The Proposed Project retains the existing zoning for the RD-zoned properties of the Project Area and does not propose changes that would allow for new mixed-use development in those areas, serving to preserve the residential character and integrity of those residential neighborhoods. These RD-zoned areas are mainly east of the Los Angeles River, and south of North Broadway.
1.4 To promote and insure the provision of adequate housing for all persons regardless of income, age, or ethnic background.	Consistent As noted, the Proposed Project identifies additional areas where new housing could be located within the Project Area in order to accommodate projected growth in Citywide population through the year 2040. Additionally, the Proposed Project sets forth an incentive zoning program that supports more affordable housing and permanent supportive housing for all persons regardless of income, age, or ethnic background. The Proposed Project includes an incentive that encourages the provision of two or more-bedroom units within a development to support housing for various family sizes.

TABLE 4.10-2 CONSISTENCY ANALYSIS WITH THE CITY OF LOS ANGELES GENERAL PLAN	
Objective	Project Consistency
<p>2.1 To conserve and strengthen viable commercial development in the community and to provide additional opportunities for new commercial development and services.</p>	<p>Consistent The Proposed Project's mixed-use zoning designations, including Urban Village, Urban Center, and Urban Innovation, support a range of uses, including commercial uses, to provide opportunities for new commercial development and services.</p>
<p>2.2 To attract uses which strengthen the economic base and expand market opportunities for existing and new businesses.</p>	<p>Consistent See response to Objective 2.1 above.</p>
<p>2.4 To enhance the appearance of commercial districts.</p>	<p>Consistent The Proposed Project sets forth Form Districts and Frontage Districts that regulate the appearance of buildings, including those located in commercial areas, to encourage walkability and environmental sustainability.</p>
<p>3.1 To provide for existing and future industrial uses which contribute job opportunities for residents and which minimize environmental and visual impacts to the community.</p>	<p>Partially Consistent and Partially Inconsistent Land for industrial uses would be retained under the Urban Innovation and Urban Center Use Districts of the Proposed Project, while allowing new residential uses in the Urban Village Use District, which would be expanded in targeted areas. While the expansion of the Urban Village Use District could result in a reduction in the amount of available land for new industries, the updated zoning designations still accommodate new and existing light industrial and commercial spaces. Also, the Proposed Project sets forth minimum employment-related floor area for properties located in the Urban Innovation use district to support the retention of existing and attraction of new industries. The Proposed Project also sets forth performance standards which minimize environmental and visual impacts to the community.</p>
<p>3.3 To retain industrial plan designations to maintain the industrial employment base for community residents and to increase it whenever possible.</p>	<p>Partially Consistent and Partially Inconsistent See response to Objective 3.1 above.</p>
<p>4.1 To conserve, maintain and better utilize existing recreation and park facilities which promote the recreational needs of the community.</p>	<p>Consistent The Proposed Project sets forth dedicated Open Space areas in the Project Area, including areas that are not yet currently developed as parks or other open space. Additionally, the Proposed Project includes an incentive system that supports the production of publicly-accessible open space and recreational areas within private development.</p>
<p>5.1 To preserve existing open space resources and where possible develop new open space.</p>	<p>Consistent See response to Objective 4.1 above.</p>

TABLE 4.10-2 CONSISTENCY ANALYSIS WITH THE CITY OF LOS ANGELES GENERAL PLAN	
Objective	Project Consistency
Northeast Los Angeles Community Plan (1999)	
Chapter 3: Land Use Policies and Programs	
1.1 To preserve and enhance existing residential neighborhoods.	Consistent The Proposed Project retains the existing zoning for the RD-zoned properties of the Project Area and does not propose changes that would allow for new mixed-use development in those areas, serving to preserve the residential character and integrity of those residential neighborhoods. These RD-zoned areas are mainly east of the Los Angeles River, and south of North Broadway.
1.2 To allocate land for new housing to accommodate a growth of population that is consistent with and promotes the health, safety, welfare, convenience, and pleasant environment of those who live and work in the community based on adequate infrastructure and government services, especially schools.	Consistent The Proposed Project identifies additional areas where new housing could be located within the Project Area in order to accommodate projected growth in Citywide population through the year 2040. Additionally, the Proposed Project sets forth an incentive zoning program that supports more affordable housing and permanent supportive housing in order to meet the diverse economic and physical needs of residents. See Chapter 4.13, <i>Public Services</i> , for discussion on the Proposed Project's impacts on infrastructure and public services, including schools.
1.3 To preserve and enhance the residential character and scale of existing single- and multi-family neighborhoods.	Consistent See response to Objective 1.1 above.
1.6 To promote and ensure the provision of fair and equal housing opportunities for all persons regardless of income and age groups or ethnic, religious, or racial background.	Consistent As noted, the Proposed Project identifies additional areas where new housing could be located within the Project Area in order to accommodate projected growth in Citywide population through the year 2040. Additionally, the Proposed Project sets forth an incentive zoning program that supports more affordable housing and permanent supportive housing for all persons regardless of income, age, or ethnic background. The Proposed Project includes an incentive that encourages the provision of two or more-bedroom units within a development to support housing for various family sizes.
2.1 To conserve and strengthen potentially viable commercial areas in order to stimulate and revitalize existing businesses and create opportunities for appropriate new commercial development.	Consistent The Proposed Project's mixed-use zoning designations, including Urban Village, Urban Center, and Urban Innovation, support a range of uses, including commercial uses, to provide opportunities for new commercial development and services.
2.2 To enhance the identity and appearance of commercial districts.	Consistent The Proposed Project sets forth Form Districts and Frontage Districts that regulate the appearance of buildings, including those located in commercial areas, to encourage walkability and environmental sustainability.
2.3 To minimize conflicts between auto-related and pedestrian-oriented activities and encourage use of public transportation in commercial areas.	Consistent The Proposed Project supports first-mile, last mile solutions through its updated zoning designations, which promote mixed-use development near transit areas, as well as standards supporting active transport and transit. Additionally, the Project includes a Streets chapter that supports investments into pedestrian

TABLE 4.10-2 CONSISTENCY ANALYSIS WITH THE CITY OF LOS ANGELES GENERAL PLAN	
Objective	Project Consistency
	infrastructure to minimize conflicts between auto-related and pedestrian-oriented activities.
3.1 To resolve conflicts between industrial uses and other adjacent uses.	Consistent Future development would be required to comply with use adjacency buffers regulated by zoning under the Development Standard Set. These buffers are required when industrial or heavy commercial Use Districts are adjacent to Use Districts allowing for residential uses.
3.2 To provide for existing and future industrial uses that contribute job opportunities for residents and minimize adverse environmental and visual impacts on the community	Consistent The Proposed Project sets forth minimum employment-related floor area for properties located in the Urban Innovation use district to support the retention of existing and attraction of new industries. The Proposed Project also sets forth performance standards which minimize environmental and visual impacts to the community. Additionally, see response to Objective 3.1 above.
3.3 To retain industrial plan designations in order to attract appropriate industrial development to maintain the industrial employment base for community residents.	Partially Consistent and Partially Inconsistent Land for industrial uses would be retained under the Urban Innovation and Urban Center Use Districts of the Proposed Project, while allowing new residential uses in the Urban Village Use District, which would be expanded in targeted areas. While the expansion of the Urban Village Use District could result in a reduction in the amount of available land for new industries, the updated zoning designations still accommodate new and existing light industrial and commercial spaces. Also, the Proposed Project sets forth minimum employment-related floor area for properties located in the Urban Innovation use district to support the retention of existing and attraction of new industries.
4.2 To preserve existing open space resources and, where possible, encourage acquisition of new open space.	Consistent The Proposed Project sets forth dedicated Open Space areas in the Project Area, including areas that are not yet currently developed as parks or other open space. Additionally, the Proposed Project includes an incentive system that supports the production of publicly-accessible open space and recreational areas within private development.
5.1 To conserve, expand, maintain, and better utilize existing recreation and park facilities to address the recreational needs of the community.	Consistent See response to Objective 4.2 above.

Los Angeles is a SCAG member and looks to SCAG’s current regional transportation and land use planning strategies and goals for Southern California, which are established in the 2020-2045 RTP/SCS, as described earlier. **Table 4.10-3** provides a consistency analysis of the Proposed Project with applicable goals contained in the 2020-2045 RTP/SCS. The Proposed Project would be consistent with applicable actions and strategies contained in SCAG’s 2020-2045 RTP/SCS.

TABLE 4.10-3 CONSISTENCY ANALYSIS WITH THE SCAG 2020-2045 RTP/SCS	
Actions/Strategies	Cornfield Arroyo Seco Specific Plan Consistency
Focus Growth Near Destinations & Mobility Options	
Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations	Consistent The Proposed Project includes several mixed-use zones, including Urban Village, Urban Center, and Urban Innovation, in proximity to transit to support multimodal access to work, educational and other destinations, resulting in reduced VMT. As discussed in Section 4.15, <i>Transportation and Traffic</i> , VMT per service population in the Proposed Project are forecast to remain below City and regional averages.
Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets Plan for growth near transit investments and support implementation of first/last mile strategies	Consistent The Proposed Project would concentrate future growth in areas well-served by transit, including bus lines and light rail. Furthermore, the Project Area is within or adjacent to a High Quality Transit Areas (HQTA). See the response to Framework Element Policy 5.2.
Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses	Consistent The Proposed Project’s mixed-use zoning designations, including Urban Village, Urban Center, and Urban Innovation, support a range of uses, including commercial uses, to provide opportunities for new commercial development and services.
Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods	Consistent The Proposed Project’s land use strategy supports infill development of underutilized land to enhance connectivity to amenities for existing neighborhoods. For example, the Proposed Project will expand the Urban Village zone to connect the existing William Mead Homes development to other existing Urban Village zoned properties and the Los Angeles State Historic Park.
Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations)	Consistent The Proposed Project would concentrate future growth in areas well-served by transit, including bus lines and light rail. Furthermore, the Project Area is within or adjacent to a High Quality Transit Areas (HQTA). See the response to Framework Element Policy 5.2.
Identify ways to “right size” parking requirements and promote alternative parking strategies (e.g. shared parking or smart parking)	Consistent The Proposed Project does not set forth minimum automobile parking requirements to reduce auto-related negative impacts to the built environment.
Promote Diverse Housing Choices	
Preserve and rehabilitate affordable housing and prevent displacement Create incentives and reduce regulatory barriers for building context-sensitive accessory dwelling units to increase housing supply	Consistent The Proposed Project sets forth an incentive zoning program that supports more affordable housing and permanent supportive housing in order to meet the diverse economic and physical needs of residents and prevent displacement.
Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of greenhouse gas emissions	Consistent The Proposed Project retains the existing ministerial administrative review process of the existing CASP for development projects that comply with the Specific Plan, including its affordability and sustainability provisions.

Conclusion

Based on the above, the Proposed Project would be consistent with applicable local and regional plans and policies. Thus, impacts related to inconsistency with land use plans and policies would be *less than significant*.

Mitigation Measures

The Proposed Project would not conflict with applicable City or SCAG policies; therefore, impacts would be *less than significant* and mitigation is not required.

CUMULATIVE IMPACTS

Cumulative impacts related to land use and planning consider Citywide development through 2045, which would add about 659,000 new residents, 293,000 new households, and 345,000 new employees (SCAG 2020-2045 RTP/SCS).

Division of an Established Community

As discussed above, the project has no impacts to the division of an established community because it includes no infrastructure or other type of physical barrier. Therefore, the project has *no cumulative impact*.

Consistency with Land Use Plans/Policies

Future projects throughout the City may conflict with policies contained in the General Plan and 2020-2045 RTP/SCS that would result in adverse physical impacts to the environment. However, as discussed under Impact 4.10-2, the Proposed Project is consistent with applicable land use policies. Based on these facts, the Proposed Project would not have impacts that are cumulatively considerable as related to consistency with plans and policies. Cumulative impacts are *less than significant*.

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4.11 NOISE

This section evaluates noise and groundborne vibration impacts resulting from the construction and operation of the Proposed Project. Noise monitoring data and calculations are included in Appendix H. Topics addressed include short-term construction and long-term operational noise and vibration.

FUNDAMENTALS OF NOISE AND VIBRATION

Noise is defined as unwanted sound that disturbs human activity. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

NOISE DEFINITIONS

This noise analysis discusses sound levels in terms of Community Noise Equivalent Level (CNEL), Day-Night Noise Level (Ldn), and Equivalent Noise Level (Leq).

Community Noise Equivalent Level (CNEL). CNEL is an average sound level during a 24-hour period. CNEL is a noise measurement scale, which accounts for noise source, distance, single event duration, single event occurrence, frequency, and time of day. Human reaction to sound between 7:00 p.m. and 10:00 p.m. is as if the sound were actually 5 dBA higher than if it occurred from 7:00 a.m. to 7:00 p.m. From 10:00 p.m. to 7:00 a.m., humans perceive sound as if it were 10 dBA higher due to the lower background level. Hence, the CNEL is obtained by adding an additional 5 dBA to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and 10 dBA to sound levels in the night from 10:00 p.m. to 7:00 a.m. Because CNEL accounts for human sensitivity to sound, the CNEL 24-hour figure is always a higher number than the actual 24-hour average.

Day-Night Noise Level (Ldn). Ldn is similar to CNEL except that a 10 dBA penalty is added from 10:00 p.m. to 7:00 a.m. There is no 5 dBA penalty that exists for the CNEL calculation.

Equivalent Noise Level (Leq). Leq is the average noise level on an energy basis for any specific time period. The Leq for one hour is the energy average noise level during the hour. The average noise level is based on the energy content (acoustic energy) of the sound. Leq can be thought of as the level of a continuous noise which has the same energy content as the fluctuating noise level. The equivalent noise level is expressed in units of dBA.

CHARACTERISTICS OF NOISE

Sound pressure level is measured on a logarithmic scale with the 0 dBA level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dBA, and a sound that is 10 dBA less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dBA greater than the ambient noise level to be judged as twice as loud. In general, a 3 dBA change in the ambient noise level is noticeable, while 1-2 dBA changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while areas

adjacent to arterial streets are typically in the 50-60+ dBA range. Normal conversational levels are usually in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise levels from different sources attenuate (or drop off) at different rates. Noise from point sources, such as individual pieces of machinery, typically attenuates at a rate of 6 dBA per doubling of distance from the noise source. Noise from linear transportation sources typically attenuates at a lower rate because such sources actually consist of a number of individual noise generators (such as automobiles or train cars). Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dBA per doubling of distance. Noise attenuation over distance applies to both ground distance and elevation. In other words, noise also attenuates as height increases, such as across a multi-story building. Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces noise levels by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA (Federal Transit Administration [FTA] 2018). The manner in which homes in California are constructed generally provides a reduction of exterior-to-interior noise levels of approximately 20 to 25 dBA with closed windows (FTA 2018). The materials of older buildings constructed before the introduction of modern insulation standards, such as some buildings in the Project Area, may have less effective exterior-to-interior noise reduction.

In areas where traffic noise is the predominant noise source, the relationship between peak hourly Leq values and associated Ldn/CNEL values depends on the distribution of traffic over the entire day. There is no precise way to convert a peak hour Leq to Ldn or CNEL. However, in urban areas near heavy traffic, the peak hour Leq is typically 2-4 dBA lower than the daily Ldn/CNEL. Because the Project Area is an urban area, the Ldn/CNEL in the area would be approximately 2-4 dBA higher than peak hour Leq in areas where traffic is the primary noise source. In more suburban areas, the peak hour Leq is typically roughly equal to the Ldn/CNEL. **Figure 4.11-1** shows typical noise levels generated by various activities.

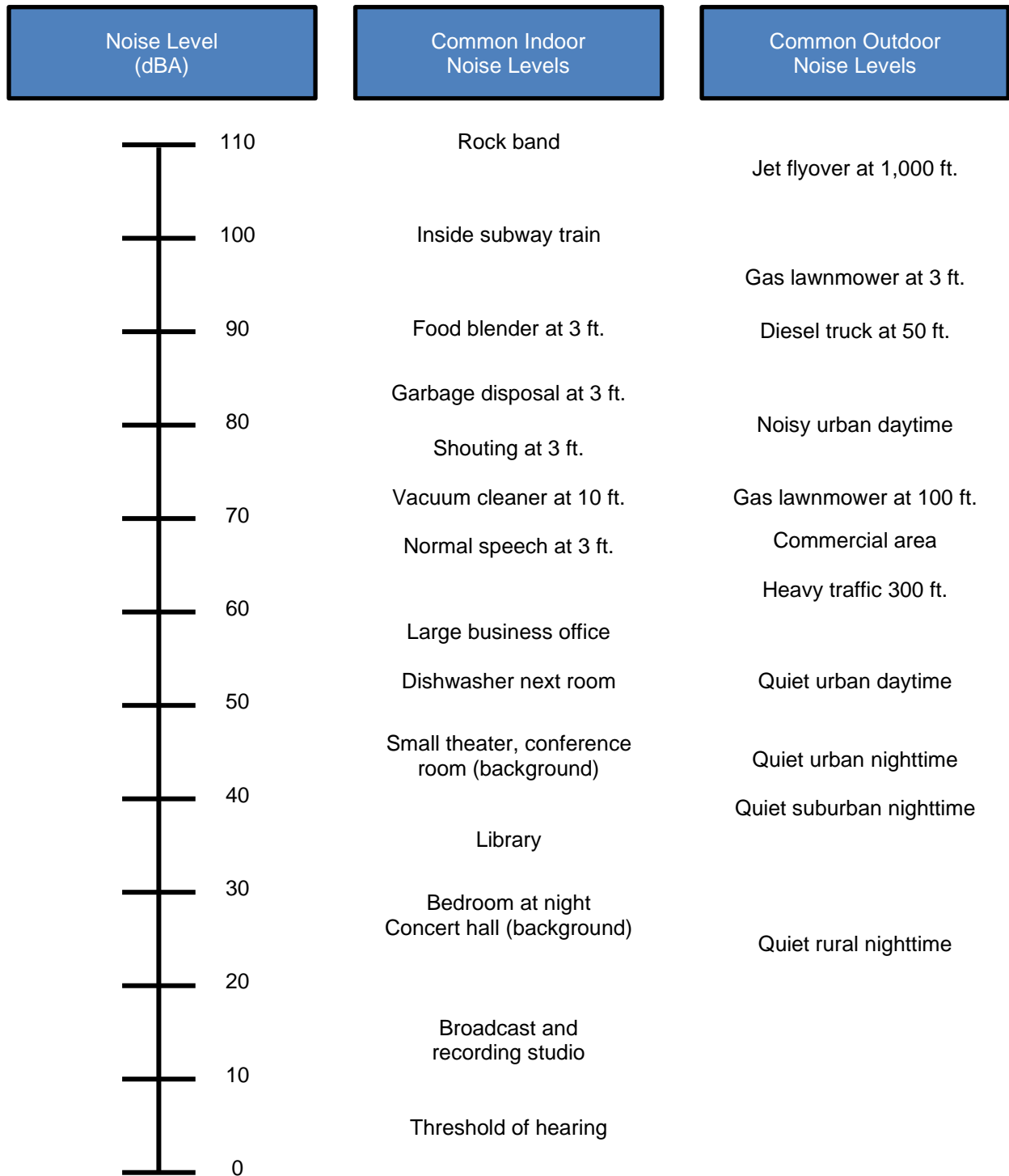
HEALTH EFFECTS OF ENVIRONMENTAL NOISE

The degree to which noise can impact the human environment ranges from levels that interfere with speech and sleep (annoyance and nuisance) to levels that cause adverse health effects (hearing loss and psychological effects). Human response to noise is subjective and can vary greatly from person to person. Factors that influence individual response include the intensity, frequency, and pattern of noise, the amount of background noise present before the intruding noise, and the nature of work or human activity that is exposed to the noise source. The World Health Organization's *Guidelines for Community Noise* details the adverse health effects of noise, including hearing impairment, speech intelligibility, sleep disturbance, physiological functions (e.g., hypertension and cardiovascular effects), mental illness, performance of cognitive tasks, social and behavioral effects (e.g., feelings of helplessness, aggressive behavior), and annoyance (Berglund et al 1999).

CHARACTERISTICS OF VIBRATION

Vibration refers to groundborne noise and perceptible motion. Vibration is a unique form of noise because its energy is carried through buildings, structures, and the ground, whereas noise is simply carried through the air. Thus, vibration is generally felt rather than heard. Some vibration effects can be caused by noise; for example, the rattling of windows from passing trucks. This phenomenon is caused by the coupling of the acoustic energy at frequencies that are close to the resonant frequency of the material being vibrated. Typically, groundborne vibration generated by manufactured activities will attenuate rapidly as distance from the source of the vibration increases. The ground motion caused by vibration is measured as particle velocity in inches per second and is referenced as vibration decibels (VdB) in the U.S.

Figure 4.11-1 Examples of Typical Noise Levels



SOURCE: California Department of Transportation 1998.

Typical human reactions to vibration are summarized in **Table 4.11-1**. The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity level, to 90 VdB, which is the general threshold where minor damage can occur in fragile buildings. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel wheeled trains, and traffic on rough roads.

TABLE 4.11-1 HUMAN RESPONSE TO DIFFERENT LEVELS OF GROUNDBORNE VIBRATION	
Vibration Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception for many people.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.
<i>Notes: VdB = decibel notation (i.e., vibration velocity amplitude)</i>	
<i>SOURCE: FTA 2018.</i>	

ENVIRONMENTAL SETTING

CITYWIDE EXISTING CONDITIONS

Noise Sources

The Project Area is affected by a variety of noise sources, including mobile and stationary sources. Mobile noise is primarily generated by automobiles, trucks, trains, and airplanes. Mobile-source noises generally affect numerous receptors along lengths of roadways, railroad tracks, or flight paths. Stationary source noise is primarily generated by industrial and commercial land uses; however, all land uses can generate some type of noise.

Chapter XI, Noise Regulation, of the Los Angeles Municipal Code (LAMC) addresses sources of noise other than construction activities. Chapter XI is intended to prohibit unnecessary, excessive, and annoying noises from all sources within the City. A noise level increase from certain regulated noise sources of 5 dBA over the existing or presumed ambient noise level at an adjacent property line is considered a violation of the Noise Regulations. The 5-dBA increase above ambient is applicable to City-regulated noise sources (e.g., mechanical equipment – LAMC Section 112.02), and it is applicable any time of the day. The LAMC states that the baseline ambient noise shall be the actual measured ambient noise level or the City's presumed ambient noise level, whichever is greater. The actual ambient noise level is the measured noise levels averaged over a period of at least 15 minutes. The LAMC indicates that in cases where the actual measured ambient conditions are not known, the City's presumed noise levels should be used, as shown in **Table 4.11-2**. However, Chapter XI will be implemented through actual ambient conditions rather than presumed levels

TABLE 4.11-2 PRESUMED EXISTING AMBIENT NOISE LEVEL			
Type	Zones	dBA	
		Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
Residential	A1, A2, RA, RE, RS, RD, RW1, RW2, R1, R2, R3, R4, and R5	50	40
Commercial	P, PB, CR, C1, C1.5, C2, C4, C5, and CM	60	55
Industrial	M1, MR1, and MR2	60	55
	M2 and M3	65	65

SOURCE: LAMC, Section 111.03.

Vibration Sources

Sources of vibration are dominated by vehicular movement. Like mobile-source noises, vibration by vehicular movement generally affects numerous receptors along lengths of roadways and depends on pavement and type and weight of the vehicle. Other sources of vibration may be generated by construction equipment (e.g., earth-moving equipment and pile driving); however, these sources are temporary and would vary on a project-by-project basis. The FTA estimates that, at 50 feet, the typical background vibration in urban areas is 52 VdB, vibration from buses and trucks is about 63 VdB, and vibration from bulldozers is about 93 VdB.

Sensitive Receptors

Noise and vibration sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Sensitive uses typically include residences, transient lodgings, schools, libraries, churches or other places of assembly, concert halls, hospitals, and long-term care facilities, playgrounds, and parks. These areas are generally described in Section 4.10, *Land Use and Planning*. Refer to Section 4.13, *Public Services*, for a discussion of schools and libraries in the City, and Section 4.14, *Recreation*, for a discussion of parks and recreational facilities in the City. Also, refer to Section 4.4, *Cultural Resources*, for a discussion of historic properties, which may be sensitive to increases in noise and vibration levels. Noise and vibration in the City is regulated by the LAMC and siting of sensitive land uses is guided by the City’s General Plan.

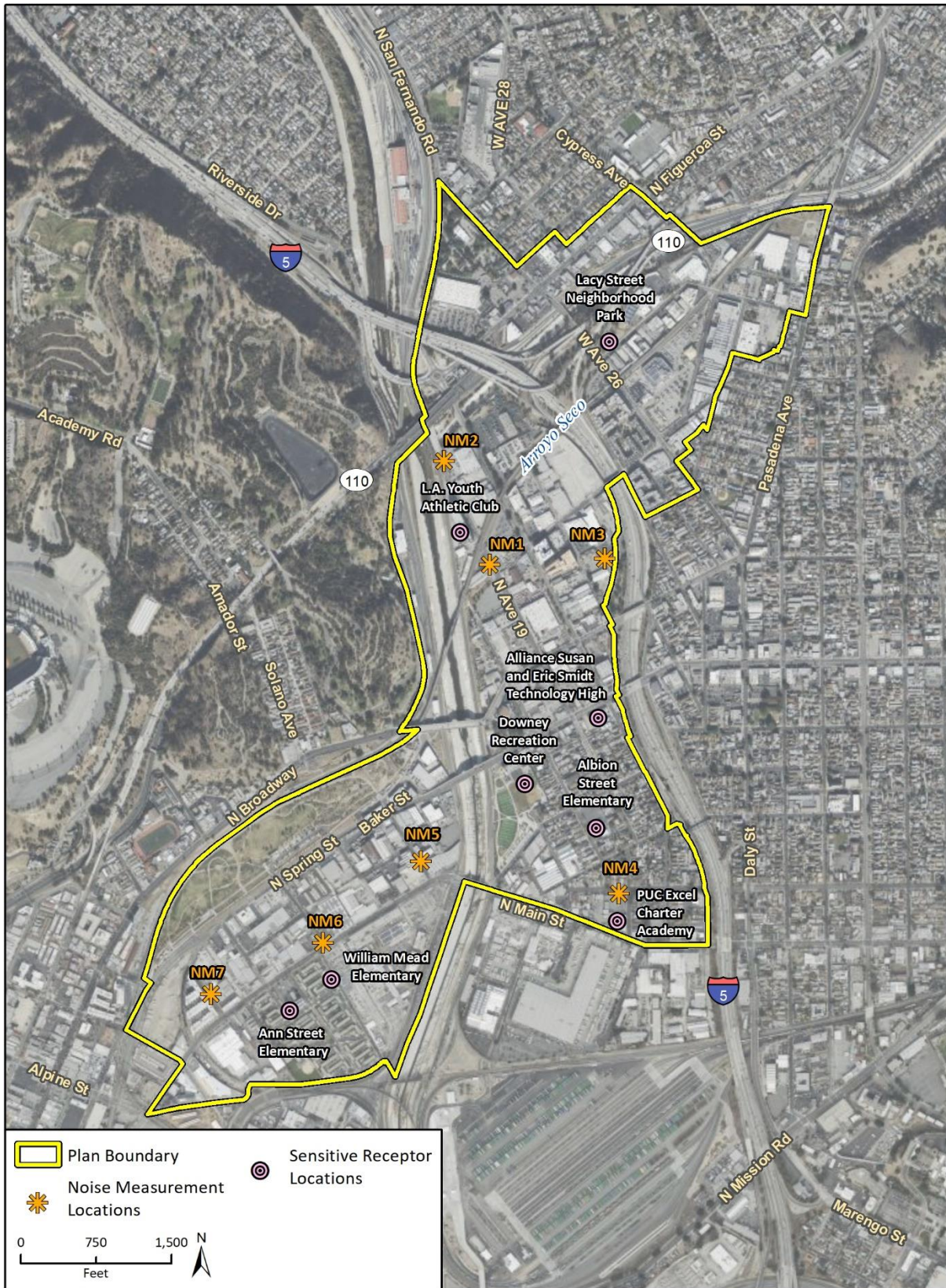
PROJECT AREA EXISTING CONDITIONS

Noise Sources

Similar to the rest of the City, the Project Area includes a variety of noise sources, including mobile and stationary sources. Sources of mobile noise include automobiles, trucks, and freight and passenger trains. Industrial and commercial activities are the primary stationary noise sources affecting the Project Area; however, all land uses can generate noise and the high levels of human activity throughout the Project Area result in relatively high ambient noise levels typical of an urban environment.

A total of 7 daytime sound measurements were taken on April 19, 2022, to characterize existing conditions in the Project Area. Sound Measurements were taken using an Extech 407780A model Type 2 integrating sound level meters calibrated before and after the measurements. Noise monitoring locations are shown in **Figure 4.11-2**.

Figure 4.11-2 Sensitive Receptor Locations with Noise Measurement Locations



Imagery provided by Microsoft Bing and its licensors © 2022.

Fig 4.11-3 Sensitive Receptor Locations with Noise Measurements

The locations were selected to represent the range of noise conditions in the Project Area. Measurements 1-3 were taken in predominantly industrial areas, measurement 4 was taken in a residential/commercial area, and measurements 5-7 were taken in commercial areas with high concentrations of residential uses. Residential uses are located intermittently throughout the Project Area. **Table 4.11-3** shows measured noise levels in the Project Area, which ranged from 59 to 69 dBA Leq. All measurements were taken at ground level along local roadways. Exterior noise levels exceeding 70 dBA are generally considered “normally unacceptable” for uses such as single and multi-family homes, schools, hospitals, hotels and playgrounds, while noise levels exceeding 75 dBA Leq are considered “normally unacceptable” for commercial and industrial uses according to policies provided in the Noise Element to the City’s General Plan (Exhibit I).

Vibration Sources

Common sources of vibration in the Project Area include heavy vehicles on rough roads and construction activities (e.g., earth-moving equipment and pile driving). In addition, commercial or industrial activities may generate vibration (e.g., businesses that recycle construction debris and use heavy equipment). Most of the industrial activities in the Project Area are limited to the entertainment and sales industry and do not involve these kinds of activities.

TABLE 4.11-3 PROJECT AREA NOISE MONITORING RESULTS			
Measurement ID No.	Noise Monitoring Location	Existing Land Use	Measured Sound Level (dBA Leq)
1	Near the Intersection of Avenue 19 and Humboldt Street	Industrial/Commercial	66.4
2	Near the Intersection of North Avenue 19 and the 110 Freeway	Industrial/Commercial	67.9
3	Parking Lot of Society of St. Vincent de Paul Los Angeles Thrift Store	Industrial/Commercial	59.8
4	Intersection of Darwin Avenue and South Avenue 19	Residential/Commercial	67.6
5	Near the Intersection of Wilhardt Street and Naud Street	Industrial/Commercial	68.7
6	Intersection of Sotello Street and North Main Street	Residential/Commercial	66.7
7	Llewellyn Street	Residential/Commercial	58.9

NOTE: Due to the nature of short-term measurements, noise levels are more variable than measurements taken over longer time periods.

Sensitive Receptors

The Project Area encompasses approximately 600 acres of land (0.94 square miles). The Project Area is predominantly developed with a mix of industrial, commercial, residential, institutional, educational, and recreational uses. Industrial development is the largest sector within the Project Area, totaling approximately 3.7 million square feet of industrial space across 153 buildings. The total residential inventory in the Project Area comprised approximately 1,814 housing units. Approximately 75 percent of the Project Area’s existing housing stock (1,343 units) is multi-family development, totaling 1.3 million square feet of area, with the remaining 471 units as single-family homes. Public facilities are currently scattered throughout the Project Area and are not particularly concentrated in particular areas. These areas are described in detail in Section 4.10, *Land Use and Planning*.

As described in Section 4.13, *Public Services*, there are six LAUSD schools and three parks and recreational facilities in the Project Area boundary. The nearest library is Lincoln Heights Library, located 0.34 miles east of the Project Area. Also, refer to Section 4.4, *Cultural Resources*, for a discussion of historic

properties, which may be sensitive to increases in noise and vibration levels. **Figure 4.11-2** shows the locations of schools and libraries in the Project Area boundary. Additionally, the Project Area includes a variety of single- and multi-family residential uses; and parks and outdoor recreational land uses such as Albion Riverside Park and Los Angeles State Historic Park.

REGULATORY FRAMEWORK

FEDERAL

Occupational Safety and Health Act of 1970

Under the Occupational Safety and Health Act of 1970 (29 U.S.C. §1919 et seq.), the Occupational Safety and Health Administration (OSHA) has adopted regulations designed to protect workers against the effects of occupational noise exposure. These regulations list permissible noise level exposure as a function of the amount of time during which the worker is exposed. The regulations further specify a hearing conservation program that involves monitoring noise to which workers are exposed, ensuring that workers are made aware of overexposure to noise, and periodically testing the workers' hearing to detect any degradation (US Dept. of Labor).

Noise Control Act of 1972

Under the authority of the Noise Control Act of 1972, the United States Environmental Protection Agency (U.S. EPA) established noise emission criteria and testing methods published in Parts 201 through 205 of Title 40 of the Code of Federal Regulations (CFR) that apply to some transportation equipment (e.g., interstate rail carriers, medium trucks, and heavy trucks) and construction equipment. In 1974, U.S. EPA issued guidance levels for the protection of public health and welfare in residential areas of an outdoor L_{dn} of 55 dBA and an indoor L_{dn} of 45 dBA. These guidance levels are not standards or regulations and were developed without consideration of technical or economic feasibility. There are no federal noise standards that directly regulate environmental noise related to the construction or operation of the Project. Moreover, the federal noise standards are not reflective of urban environments that range by land use, density, proximity to commercial or industrial centers, etc. As such, for purposes of determining acceptable sound levels to determine and evaluate intrusive noise sources and increases, this document utilizes the City of Los Angeles Noise Regulations, discussed below.

Federal Transit Administration Vibration Standards

There are no federal vibration standards or regulations adopted by any agency that are applicable to evaluating vibration impacts from land use development projects such as the proposed Project. However, the Federal Transit Administration (FTA) has adopted vibration criteria for use in evaluating vibration impacts from construction activities. The vibration damage criteria adopted by the FTA are shown in **Table 4.11-4 Construction Vibration Damage Criteria**.

Building Category	PPV (in/sec)
I. Reinforced-concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

Source: FTA, Transit Noise and Vibration Impact Assessment Manual, 2018.

The FTA has also adopted standards associated with human annoyance for determining the groundborne vibration and noise impacts from ground-borne noise on the following three off-site land-use categories: Vibration Category 1 – High Sensitivity, Vibration Category 2 – Residential, and Vibration Category 3 – Institutional (FTA). The FTA defines Category 1 as buildings where vibration would interfere with operations within the building, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes. Category 2 refers to all residential land uses and any buildings where people sleep, such as hotels and hospitals. Category 3 refers to institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment but that still potentially involve activities that could be disturbed by vibration. The vibration thresholds associated with human annoyance for these three land-use categories are shown in **Table 4.11-5 Groundborne Vibration and Groundborne Noise Impact Criteria for General Assessment**. No thresholds have been adopted or recommended for commercial or office uses.

Land Use Category	Frequent Events ^a	Occasional Events ^b	Infrequent Events ^c
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB ^d	65 VdB ^d	65 VdB ^d
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

a "Frequent Events" is defined as more than 70 vibration events of the same source per day.
b "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.
c "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day.
d This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes.
Source: FTA, Transit Noise and Vibration Impact Assessment Manual, 2018.

STATE

Office of Planning and Research Guidelines for Noise Compatible Land Use

The State of California has not adopted statewide standards for environmental noise, but the Governor's Office of Planning and Research (OPR) has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure, as presented in **Table 4.11-6**. The purpose of these guidelines is to maintain acceptable noise levels in a community setting for different land use types.

Noise levels are divided into four general categories, which vary in range according to land use type: “normally acceptable,” “conditionally acceptable,” “normally unacceptable,” and “clearly unacceptable.” The City has developed its own compatibility guidelines in the Noise Element of the General Plan based in part on OPR Guidelines. California Government Code Section 65302 requires each county and city in the State to prepare and adopt a comprehensive long-range general plan for its physical development, with Section 65302(f) requiring a noise element to be included in the general plan. The noise element must: (1) identify and appraise noise problems in the community; (2) recognize Office of Noise Control guidelines; and (3) analyze and quantify current and projected noise levels.

TABLE 4.11-6 GUIDELINES FOR NOISE COMPATIBLE LAND USE (DBA CNEL)				
Land Use	Normally Acceptable¹	Conditionally Acceptable²	Normally Unacceptable³	Clearly Unacceptable⁴
Single-Family, Duplex, Mobile Homes	50-60	55-70	70-75	Above 75
Multifamily Homes	50-65	60-70	70-75	Above 75
Schools, Libraries, Churches, Hospitals, Nursing Homes	50-70	60-70	70-80	Above 80
Transient Loading – Motels, Hotels	50-65	60-70	70-80	Above 75
Auditoriums, Concert Halls, Amphitheaters	--	50-70	--	Above 70
Sports Arenas, Outdoor Spectator Sports	--	50-75	--	Above 75
Playgrounds, Neighborhood Parks	50-70	--	70-80	Above 80
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50-75	--	70-80	Above 80
Office Buildings, Business and Professional Commercial	50-70	67-77	Above 75	--
Industrial, Manufacturing, Utilities, Agriculture	50-75	70-80	Above 75	--

¹ Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

² New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

³ New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

⁴ New construction or development should generally not be undertaken.

SOURCE: Office of Planning and Research, State of California General Plan Guidelines and California Department of Health Services, October 2003; City General Plan Noise Element, February 1999.

The State has established noise insulation standards for new multi-family residential units, hotels, and motels. These requirements are collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an interior standard of 45 dBA CNEL in any habitable room. The standards require an acoustical analysis demonstrating that dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to exterior noise levels greater than 60 dBA CNEL. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

Caltrans Vibration/Groundborne Noise Standards

The State of California has not adopted Statewide standards or regulations for evaluating vibration or groundborne noise impacts from land use development projects such as the proposed Project. Although the

State has not adopted any vibration standard, Caltrans in its *Transportation and Construction Vibration Guidance Manual* (Caltrans 2013) recommends the following vibration thresholds that are more practical than those provided by the FTA.

The state noise and vibration guidelines are to be used as guidance with respect to planning for noise, not standards and/or regulations to which the City of Los Angeles must adhere.

TABLE 4.11-7 GUIDELINE VIBRATION DAMAGE POTENTIAL THRESHOLD CRITERIA		
Structure and Condition	Maximum PPV (inch/sec)	
	Transient Sources¹	Continuous/Frequent Intermittent Sources²
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

Source: Table 19, Transportation and Construction Vibration Guidance Manual (Caltrans 2013).
¹ Transient sources create a single, isolated vibration event, such as blasting or drop balls.
² Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

REGIONAL

Los Angeles County Airport Land Use Commission Comprehensive Land Use Plan

In Los Angeles County the Regional Planning Commission has the responsibility for acting as the Airport Land Use Commission and for coordinating the airport planning of public agencies within the county. The Airport Land Use Commission coordinates planning for the areas surrounding public use airports. The Comprehensive Land Use Plan provides for the orderly expansion of Los Angeles County's public use airports and the area surrounding them. It is intended to provide for the adoption of land use measures that will minimize the public's exposure to excessive noise and safety hazards. In formulating the Comprehensive Land Use Plan, the Los Angeles County Airport Land Use Commission has established provisions for safety, noise insulation, and the regulation of building height within areas adjacent to each of the public airports in the County.

LOCAL

Los Angeles Municipal Code

The City of Los Angeles Noise Regulations are provided in Chapter XI of the Los Angeles Municipal Code (LAMC). LAMC Section 111.02 provides procedures and criteria for the measurement of the sound level of "offending" noise sources. In accordance with the LAMC, a noise source that causes a noise level increase of 5 dBA over the existing average ambient noise level as measured at an adjacent property line creates a noise violation. This standard applies to radios, television sets, air conditioning, refrigeration, heating, pumping and filtering equipment, powered equipment intended for repetitive use in residential

areas, and motor vehicles driven on-site. To account for people's increased tolerance for short-duration noise events, the Noise Regulations provide a 5 dBA allowance for a noise source that causes noise lasting more than 5 but less than 15 minutes in any one-hour period, and an additional 5 dBA allowance (for a total of 10 dBA) for a noise source that causes noise lasting 5 minutes or less in any one-hour period (LAMC).

The LAMC provides that in cases where the actual ambient conditions are not known, the City's presumed daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) minimum ambient noise levels as defined in LAMC Section 111.03 should be used. The presumed ambient noise levels for these areas where the actual ambient conditions are not known as set forth in the LAMC Sections 111.03 are provided in **Table 4.11-8, City of Los Angeles Presumed Ambient Noise Levels**. For example, for residential-zoned areas, the presumed ambient noise level is 50 dBA during the daytime and 40 dBA during the nighttime.

TABLE 4.11-8 CITY OF LOS ANGELES PRESUMED AMBIENT NOISE LEVELS		
Zone	Daytime Hours (7 A.M. to 10 P.M.) dBA (L_{eq})	Nighttime Hours (10 P.M. to 7 A.M.) dBA (L_{eq})
Residential (A1, A2, RA, RE, RS, RD, RW1, RW2, R1, R2, R3, R4, and R5)	50	40
Commercial (P, PB, CR, C1, C1.5, C2, C4, C5, and CM)	60	55
Manufacturing (M1, MR1 and MR2)	60	55
Heavy Manufacturing (M2 and M3)	65	65
<i>Source: LAMC Section 111.03.</i>		

LAMC Section 112.02 limits increases in noise levels from air conditioning, refrigeration, heating, pumping and filtering equipment. Such equipment may not be operated in such manner as to create any noise which would cause the noise level on the premises of any other occupied property, or, if a condominium, apartment house, duplex, or attached business, within any adjoining unit, to exceed the ambient noise level by more than 5 dB.

LAMC Section 112.04 prohibits the operation of any lawn mower, backpack blower, lawn edger, riding tractor, or any other machinery equipment, or other mechanical or electrical device, or any hand tool that creates a loud, raucous or impulsive sound, within any residential zone or within 500 feet of any residence between 10:00 PM and 7:00 AM. Section 113.01 prohibits rubbish and garbage collection within 200 feet of any residence between 9:00 PM and 6:00 AM.

LAMC Section 112.05 sets a maximum noise level for construction equipment of 75 dBA at a distance of 50 feet when operated within 500 feet of a residential zone. Compliance with this standard shall not apply where compliance therewith is technically infeasible. LAMC Section 41.40 prohibits construction between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, 6:00 p.m. and 8:00 a.m. on Saturday, and at any time on Sunday (i.e., construction is allowed Monday through Friday between 7:00 a.m. to 9:00 p.m.; and Saturdays and National Holidays between 8:00 a.m. to 6:00 p.m.). In general, the City's Department of Building and Safety enforces Noise Ordinance provisions relative to equipment and the Los Angeles Police Department (LAPD) enforces provisions relative to noise generated by people.

LAMC Section 41.40 prohibits construction between the hours of 9:00 PM and 7:00 AM Monday through Friday, 6:00 PM and 8:00 AM on Saturday, and at any time on Sunday (i.e., construction is allowed Monday through Friday between 7:00 AM to 9:00 PM; and Saturdays and national holidays between 8:00 AM to 6:00 PM). In general, the City's Department of Building and Safety enforces Noise Ordinance provisions

relative to equipment and the Los Angeles Police Department (LAPD) enforces provisions relative to noise generated by people.

LAMC Section 113.01 prohibits collecting or disposing of rubbish or garbage, operating any refuse disposal truck, or collecting, loading, picking up, transferring, unloading, dumping, discarding, or disposing of any rubbish or garbage, as such terms are defined in LAMC Section 66.00, within 200 feet of any residential building between the hours of 9:00 p.m. and 6:00 a.m. of the following day, unless a permit therefore has been duly obtained beforehand from the Board of Police Commissioners.

LAMC Section 114.03 prohibits the loading or unloading of any vehicle, operation of any dollies, carts, forklifts, or other wheeled equipment, which causes any impulsive sound, raucous or unnecessary noise within 200 feet of any residence between 10:00 PM and 7:00 AM.

LAMC Section 91.1206 establishes noise insulation performance standards to protect persons within new hotels, motels, dormitories, residential care facilities, apartment houses, dwellings, private schools, and places of worship from the effects of excessive noise, including but not limited to, hearing loss or impairment and interference with speech and sleep. According to Subsection 91.1206.14.1, these structures shall be designed to prevent the intrusion of exterior noise beyond prescribed levels when located in noise critical areas, such as proximity to highways, country roads, city streets, railroads, airports, and commercial or industrial areas. Proper design shall include, but shall not be limited to, orientation of the structure, setbacks, shielding, and sound insulation of the building itself. Specifically, Subsection 91.1206.14.2 limits interior noise levels attributable to exterior sources to 45 dBA L_{dn} or CNEL in any habitable room. Worst-case noise levels, either existing or future, are to be used as the basis for determining compliance with this requirement. Future noise levels are to be predicted for a period of at least ten years from the time of building permit application. Furthermore, according to Subsection 91.1206.14.3, structures identified under Subsection 91.1206.1 that are exposed to airport noise greater than 60 dBA L_{dn} or CNEL, shall require an acoustical analysis showing that the proposed design will achieve the allowable interior noise level.

Section 91.1207.14.2 prohibits interior noise levels attributable to exterior sources from exceeding 45 dBA in any habitable room. The noise metric shall be either the day-night average sound level (L_{dn}) or the CNEL, consistent with the noise element of the local general plan.

City of Los Angeles General Plan Noise Element

The Noise Element of the City's General Plan policies include the CNEL guidelines for land use compatibility as shown in **Table 4.11-9** and includes a number of goals, objectives, and policies for land use planning purposes. The overall purpose of the Noise Element is to guide policymakers in making land use determinations and in preparing noise ordinances that would limit exposure of citizens to excessive noise levels (City of LA General Plan Noise Element). The following policies and objectives from the Noise Element apply to the Proposed Plan.

- Objective 2:** **Non-Airport.** Reduce or eliminate non-airport related intrusive noise, especially relative to noise sensitive uses.
- Policy 2.2:** Enforce and/or implement applicable city, state, and federal regulations intended to mitigate proposed noise producing activities, reduce intrusive noise and alleviate noise that is deemed a public nuisance.
- Objective 3:** **Land Use Development.** Reduce or eliminate noise impact associated with proposed development of land and changes in land use.
- Policy 3.1:** Develop land use policies and programs that will reduce or eliminate potential and existing noise impacts.

The Noise Element of the City’s General Plan policies include the CNEL guidelines for land use compatibility, as shown in **Table 4.11-9**. The Noise Element also addresses noise mitigation regulations, strategies, and programs, and delineates the authority of federal, State, and City bodies in regulating automotive, rail, aircraft, and nuisance noise. The Noise Element does not include any mandatory standards for land use planning or quantitative thresholds for construction or operational groundborne vibration.

TABLE 4.11-9 GUIDELINES FOR NOISE COMPATIBLE LAND USE (CNEL)				
Land Use Category	Normally Acceptable¹	Conditionally Acceptable²	Normally Unacceptable³	Clearly Unacceptable⁴
Residential Single-Family, Duplex, Mobile Homes	50-55	55-70	70-75	Above 75
Residential Multi-Family Homes	50-60	60-70	70-75	Above 75
Transient Lodging – Motels, Hotels	50-60	60-70	70-80	Above 75
Schools, Libraries, Churches, Hospitals, Nursing Homes	50-60	60-70	70-80	Above 80
Auditoriums, Concert Halls, Amphitheaters	--	50-65	--	Above 65
Sports Arenas, Outdoor Spectator Sports	--	50-70	--	Above 70
Playgrounds, Neighborhood Parks	50-65	--	65-75	Above 75
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50-70	--	70-80	Above 80
Office Buildings, Business and Professional Commercial	50-65	65-75	Above 75	--
Agriculture, Industrial, Manufacturing, Utilities	50-70	70-75	Above 75	--

¹ Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

² New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

³ New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

⁴ New construction or development should generally not be undertaken.

Source: Los Angeles 1999

Exhibit I of the Noise Element also contains guidelines for noise compatible land uses. The following **Table 4.11-10** summarizes these guidelines, which are based on OPR guidelines from 1990.

TABLE 4.11-10 EXHIBIT I OF THE NOISE ELEMENT: GUIDELINES FOR NOISE COMPATIBLE LAND USE							
Land Use Category	Day-Night Average Exterior Sound Level (CNEL dB)						
	50	55	60	65	70	75	80
Residential Single Family, Duplex, Mobile Home	A	C	C	C	N	U	U
Residential Multi-Family	A	A	C	C	N	U	U
Transient Lodging, Motel, Hotel	A	A	C	C	N	U	U
School, Library, Church, Hospital, Nursing Home	A	A	C	C	N	N	U
Auditorium, Concert Hall, Amphitheater	C	C	C	C/N	U	U	U
Sports Arena, Outdoor Spectator Sports	C	C	C	C	C/U	U	U

TABLE 4.11-10 EXHIBIT I OF THE NOISE ELEMENT: GUIDELINES FOR NOISE COMPATIBLE LAND USE							
Playground, Neighborhood Park	A	A	A	A/N	N	N/U	U
Golf Course, Riding Stable, Water Recreation, Cemetery	A	A	A	A	N	A/N	U
Office Building, Business, Commercial, Professional	A	A	A	A/C	C	C/N	N
Agriculture, Industrial, Manufacturing, Utilities	A	A	A	A	A/C	C/N	N
A = Normally acceptable. Specified land use is satisfactory, based upon assumption buildings involved are conventional construction, without any special noise insulation.				N = Normally acceptable. New construction or development generally should be discouraged. A detailed analysis of noise reduction requirements must be made and noise insulation features included in the design of a project.			
C = Conditionally acceptable. New construction or development only after a detailed analysis of noise mitigation is made and needed noise insulation features are included in project design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, normally will suffice.				U = clearly unacceptable. New construction or development generally should not be undertaken.			
<p><i>Note: Based on the Governor's Office of Planning and Research, "General Plan Guidelines," 1990. To help guide determination of appropriate land use and mitigation measures vis-à-vis existing or anticipated ambient noise levels.</i></p> <p><i>Source: City of Los Angeles. General Plan, Noise Element adopted February 3, 1999. Page I-1. https://planning.lacity.org/odocument/b49a8631-19b2-4477-8c7f-08b48093cddd/Noise_Element.pdf.</i></p>							

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance were developed based on Appendix G of the CEQA Guidelines. Impacts would be significant if the Proposed Project would result in:

- Generation of substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (Threshold 4.11.1)
- Generation of excessive groundborne vibration or groundborne noise levels (Threshold 4.11.2)
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, exposure of people residing or working in the area to excessive noise levels (Threshold 4.11.3)

METHODOLOGY

The City relies on Appendix G of the CEQA Guidelines as the threshold of significance. Threshold one addresses consistency with standards, and noise associated with permanent traffic increases, long-term operation and construction; threshold two addresses construction vibration; and threshold three addresses noise associated with airports/airstrips. Below are the methods and criteria used by the City to analyze and answer those questions.

Construction Noise

Construction noise is assessed in context of the provisions of the LAMC discussed in the Regulatory Setting, including allowable hours of construction and maximum equipment noise levels. Development in urban infill locations is very common and usual within urban locations, such as the City and the Project Area, as are the associated short-term construction activities and noise created by those activities. Construction noise from typical projects is intermittent throughout the day during the duration of construction activity. Construction noise levels may fluctuate dependent on type of equipment being used, construction phase, or equipment location. Although some individuals may find construction noise of any kind or of any duration very disturbing, as a general matter, typical construction, including with the imposition of the regulatory measures described in the Regulatory Setting, does not result in and would not be considered a significant impact.

Projects on urban infill sites are not likely to result in substantial construction noise impacts because construction activities at these sites are inherently limited by the size of the project site. The size of urban infill project sites typically limits the use of the largest (i.e., noisiest) pieces of heavy-duty equipment. The size of a project site also typically limits the size of the development and the related duration of construction activities. Therefore, while urban infill projects that meet the following criteria could result in disturbance to residents and employees at adjacent properties, resulting noise levels are not considered to be potentially significant physical impacts to the overall environment:

- One subterranean level or less (approximately 20,000 cubic yards of material);
- Construction durations of 18 months or less (excluding interior finishing);
- Equipment rated 300 horsepower or less, typically small and medium backhoes, bulldozers, etc.; and
- No potential for impact pile driving.

Larger projects that require extended construction or heavy-duty equipment could expose sensitive uses and users in the surrounding environment to more continuous and/or louder noise impacts and result in significant short-term noise exposure. When noise-sensitive land uses (e.g., residences, schools, libraries, hospitals) are located within 500 feet of a project site, projects that meet one or more of the characteristics below are considered to have the potential to result in significant impacts.

- Two subterranean levels or more (approximately 20,000 cubic yards of material);
- Construction durations (excluding interior finishing) of 18 months or more;
- Use of large, heavy-duty equipment rated 300 horsepower or greater; or
- The potential for impact pile driving.

Operational Noise

The following thresholds take into account incremental changes in 24-hour noise levels as well as potential regular occurrences of single event, impulsive noise. As noted above, the LAMC defines impulsive sound as sound of short duration, usually less than one second, with an abrupt onset and rapid decay. Such single event noise generating activities could be of short duration but permanently reoccurring depending on the source and associated land use (e.g., movie studios). The Proposed Project would have significant impact on noise levels from operations if:

- Permanent ambient noise level measured at the property line of affected uses increases by 3 dBA CNEL to or within the “normally unacceptable” or “clearly unacceptable” categories, as shown in **Table 4.11-4**, or any 5 dBA CNEL or more increase in noise level.

The land use and noise compatibility guidelines in the Noise Element are not adopted standards relevant to determining the significance of incremental increases in permanent noise levels. Exhibit I of the Noise Element includes criteria or general guidance associated with incremental increases in noise. Exhibit I is shown in Table 4.11-4. Exhibit I was developed in 1990 to help guide determination of appropriate land use and mitigation measures related to existing or anticipated ambient noise levels. This guidance is applicable to assessing if a land use is compatible with the existing noise environment (i.e., impact of the environment on a project), but is not useful alone for assessing if a project would significantly increase existing noise levels. This is particularly true in urban environments like the Project Area, where existing noise levels often exceed the guidelines shown in Table 4.11-4. In addition, sound transmission control requirements are included in the International Building Code, which are the basis for the 2016 CBC and which in turn are incorporated into the City of Los Angeles Building Code (LAMC Section 91). The CBC provides noise insulation standards (CBC Title 24, Section 1207.4). The standards require that intrusive noise not exceed 45 dBA in any habitable room.

Construction and Operational Vibration

Consistent with FTA *Transit Noise and Vibration Impact Assessment Manual*, vibration impacts associated with human annoyance would be significant if:

- Vibration caused by new reasonably anticipated development from the Proposed Project exceeds 85 VdB, which is the vibration level that is considered to be acceptable only if there are an infrequent number of events per day; and/or
- Groundborne vibration caused by new reasonably anticipated development from the Proposed Project exceeds the FTA vibration damage threshold of approximately 98 VdB for engineering concrete and masonry building, 94 VdB for fragile buildings (i.e., non-engineered timber and masonry buildings) and approximately 90 VdB for extremely fragile historic buildings (i.e., buildings extremely susceptible to vibration damage).

Construction vibration levels are based on example equipment levels provided in FTA's *Transit Noise and Vibration Impact Assessment* guidance document.

PROJECT IMPACTS

Threshold 4.11-1	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
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Impact 4.11-1 All construction would be required to comply with the appropriate Regulatory Compliance Measures as well as LAMC Chapter 41.40, Section 112.05. Nevertheless, reasonably anticipated development from the Proposed Project would potentially result in construction with lengthy durations, substantial soil movement, use of large, heavy-duty equipment, and/or pile driving near noise-sensitive land uses that would result in significant impacts that cannot be feasibly mitigated. Therefore, the impact generated by temporary construction noise would also be *significant and unavoidable*. Future reasonably anticipated development from the Proposed Project would include mechanical equipment, loading, trash pick-up, and other noise-generating activities. However, such activities would be typical of the urban environment within the Project Area. In addition, any on-site activities would be required to comply with applicable provisions of the LAMC. Thus, permanent noise increases due to stationary operational activities would be *less than significant*. However, future reasonably anticipated development from the Proposed Project would increase vehicle trips in the Project Area that would generate mobile noise. Mobile noise would increase noise levels to be above the “normally unacceptable” category for land uses adjacent to these corridors. With this, permanent noise increases due to mobile operational activities would be *significant and unavoidable*.

This section analyzes impacts related to temporary construction noise and operational stationary and mobile noise sources.

Impact Discussion

The LAMC includes multiple standards associated with long-term and permanent noise sources. Relevant standards are discussed above within Regulatory Framework and include:

- Section 112.01 - Radios, Television Sets, and Similar Devices
- Section 112.02 - Air Conditioning, Refrigeration, Heating, Pumping, Filtering Equipment
- Section 112.04 - Powered Equipment Intended for Repetitive Use in Residential Areas and Other Machinery, Equipment, and Devices
- Section 112.06 - Places of Public Entertainment
- Section 113.01 - Rubbish and Garbage Collection and Disposal
- Section 114.03 - Vehicles – Loading and Unloading
- Section 114.04 - Audible Signaling Devices

The City actively enforces the LAMC and it is presumed that all persons would follow legal requirements set forth in the LAMC related to long-term and permanent source of noise. Therefore, related to compliance with operational noise standards in the LAMC would be *less than significant*.

Permanent Noise Impacts

Operational Stationary Noise

A substantial permanent increase in noise would occur if the ambient noise level measured at the property line of affected uses increases by 3 dBA CNEL to or within the “normally unacceptable” or “clearly unacceptable” categories, as shown above, in **Table 4.11-4**, or any 5 dBA CNEL or more increase in noise. Regarding operational noise, the Proposed Project would accommodate new residential, commercial, and light industrial development at increased intensity and density throughout the Project Area. For the residential, commercial, and light industrial land uses anticipated, typical noise sources include stationary mechanical equipment and on-site vehicle movement (e.g., parking structure activity, loading/unloading, trash pick-up). Certain commercial uses, such as bars and restaurants, may also include outdoor activities and use of amplified sound systems. However, such activities would be typical of the urban environment within the Project Area, and heavy commercial and industrial use projects would be required to comply with buffering requirements when cited adjacent to more sensitive uses. In addition, any on-site activities would be required to comply with applicable provisions of the LAMC. Thus, permanent noise increases due to stationary noise impacts would be *less than significant*.

Mechanical Equipment

For mechanical equipment, residential and most commercial uses are generally limited to HVAC and pool equipment. Industrial and manufacturing land uses can contain significant sources of stationary mechanical equipment noise. According to the Cannery Park Project Environmental Noise Assessment conducted in San Jose, noise levels from commercial rooftop HVAC systems typically range from about 60 to 70 dBA Leq at a distance of 15 feet from the source (Illingworth & Rodkin, Inc. 2015). At 50 feet, an HVAC system that generates 70 dBA Leq would be approximately 59 dBA Leq. HVAC systems are typically placed on rooftops in urban environments and not typically audible above existing traffic noise and other types of urban source noise. Thus, noise generated by HVAC equipment generally would not exceed ambient noise levels in much of the Project Area, which have been measured at 59 to 69 dBA Leq (see **Table 4.11-3**).

The design of mechanical equipment must comply with Section 112.02 of the LAMC, which prohibits noise from air conditioning, refrigeration, heating, pumping, and filtering equipment from exceeding the ambient noise level on the premises of other occupied properties by more than 5 dBA. Further, residential uses, schools and other noise sensitive uses are typically separated from noisy industrial uses. On-site equipment would be designed such that it would be shielded by sound barriers that block the line-of-sight to sensitive receptors, and appropriate noise-muffling devices would be installed in the equipment to reduce noise. In addition, nighttime noise limits would apply to any equipment required to operate between the hours of 10:00 PM and 7:00 AM (e.g., HVAC units, exhaust fans, refrigeration, heating, pumping, and filtering equipment, etc.). Further, noise increases would be incremental given the already urbanized nature of the Project Area, where ambient noise levels are in the 59 to 69 dBA Leq range (see **Table 4.11-3**). Mechanical equipment would have a *less than significant* noise impact.

Vehicle Activity (Loading/Unloading, Trash Hauling, Parking Structure Vehicles)

Future Project Area development would increase the number of delivery and trash hauling trucks traveling through the Project Area and to individual development sites. Increased delivery and trash hauling trucks along roadways could impact various sensitive receptors located intermittently throughout the Project Area. Section 23130 of the California Motor Vehicle Code establishes maximum sound levels of 86 dBA Leq at 50 feet for trucks operating at speeds less than 35 miles per hour. Noise at this level exceeds ambient noise levels throughout most of the Project Area (see **Table 4.11-3**); therefore, individual truck pass-bys and/or loading or trash pick-up operations would likely be audible at nearby properties. However, truck-related noise would be an intermittent noise source that would not increase the 24-hour CNEL by 3 dBA or more.

Moreover, California Code of Regulations Title 13 Section 2435 prohibits trucks from idling for longer than five minutes. In addition, per the LAMC, truck loading/unloading activity is prohibited between the hours of 10:00 PM and 7:00 AM when located within 200-feet of a residential land use. Because trash and delivery trucks would be required to comply with LAMC standards and would be subject to state regulations, impacts would be *less than significant*.

Parking areas/garages are the other potential source of vehicular noise. Typical noise sources associated with parking lots include tire squealing, door slamming, car alarms, horns, and engine start-ups. **Table 4.11-11** shows typical sound levels at this distance from various noise sources on parking lots.

TABLE 4.11-11 MAXIMUM NOISE LEVELS FROM PARKING LOT ACTIVITY	
Noise Source	Noise Level at 50 feet (dBA Leq)
Autos at 14 mph	50
Car Alarm Signal	69
Car Alarm Chirp	54
Car Horns	69
Door Slams or Radios	64
Talking	36
Tire Squeals	66
<i>SOURCE: Atkins 2012. Estimates are based on actual noise measurements taken at various parking lots.</i>	

Intermittent parking lot noise could range from 36 to 69 dBA Leq, which would not exceed ambient noise levels in much of the Project Area (which, as shown in **Table 4.11-3**, reach up to 69 dBA Leq). In addition, parking structures located within 200-feet of any residential use would be constructed with a solid wall abutting the residences and utilize textured surfaces on garage floors and ramps to minimize tire squeal. Further, most future parking structures would likely be subterranean, which would not generate noise at street level and would not audibly increase noise levels at adjacent sensitive land uses. As a result, these structures would have little to no effect on adjacent sensitive uses. Parking structures that are at or above grade and surface parking lot noise would be greater than subterranean parking facilities, however, they would not present an unusual noise source within an urban environment. Further, per the LAMC, these parking structures would be required to comply with parking standards such as perimeter walls and encased parking, which would reduce noise levels. Because parking lot/garage design and placement would be required to comply with LAMC and LADBS standards and requirements, impacts would be *less than significant*.

Outdoor Activity Areas

Reference noise levels for outdoor patios and roof decks are based on noise levels from a certified EIR for the Citrus Heights City Hall and Medical Office Building, which included an outdoor patio area that would have on average 25 people conversing. Noise levels associated with this comparable outdoor patio area were 50 dBA Leq at a distance of 50 feet (City of Citrus Heights 2015). To provide a conservative analysis, this analysis assumes that 50 people would be conversing in an outdoor restaurant or bar area in a development accommodated by the Proposed Project. Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dBA. Therefore, it is assumed that an outdoor bar or restaurant with an average of 50 people conversing would have an estimated noise level of 53 dBA Leq at a distance of 50 feet. Other outdoor activity areas, such as parks and outdoor school uses generally produce the same level of noise as the primary source of noise in people conversing.

Based on a noise level of 53 dBA Leq and due to the urbanized nature of the Project Area with ambient noise in the 59-69 dBA range (see **Table 4.11-3**), noise generated by outdoor bars and restaurants would

not exceed ambient noise or result in a 3 dBA increase above ambient levels. Further, amplified noise would be required to comply with Chapter 11 Section 115.02 of the LAMC, which prohibits amplified noise within 500 feet of a residential zone and restricts amplified noise to between 7:00 AM – 10:00 PM in commercial zones. Outdoor activity noise, such as noise generated by outdoor bars and restaurants, and all amplified noise would be required to comply with LAMC standards and, therefore, would have a *less than significant* impact on surrounding land uses.

Operational Mobile Noise

The transportation analysis, on which the noise analysis is based, evaluates reasonably anticipated development that is expected to occur by 2040 as a result of the Proposed Project (see Section 4.15, Transportation and Traffic). The reasonably anticipated development is based on the acreage of land designated for each type of land use, allowable densities and intensities for each land use designation, reasonably expected levels of development through the life of the Proposed Project. Actual noise levels that could result from the Proposed Project may not be as high as noise levels calculated in this analysis.

Conservatively assuming that the entire increase in noise in the future would be attributable to the Proposed Project, the ambient noise level as a result of traffic increases under the Proposed Project (Future with Project compared to Existing) would increase. As shown in **Table 4.11-12**, daily vehicle trips would increase by approximately 276 percent over existing 2021 conditions by the year 2040 under the Proposed Project. A 276 percent increase in traffic on a roadway would equate to an increase of 5.8 dBA. It is possible that noise level increases of this size could result in noise levels that are within the “normally unacceptable” category for land uses adjacent to these corridors, including residential, school, and commercial uses. Therefore, mobile noise impacts would be *potentially significant*.

TABLE 4.11-12 DAILY VEHICLE TRIP SUMMARY	
	Total Daily Vehicle Trips
Baseline Conditions (2021)	41,323
Future with Proposed Project (2040)	155,383
Change in Vehicle Trips	+114,060
Percent Change in Vehicle Trips (%)	276%
<i>Source: F&P 2022</i>	

Mitigation Measures

With regard to operational traffic noise, the noise increase in the Project Area is created by the Proposed Project increasing density in an underutilized area through infill development. The VMT per service population would decrease under the Proposed Project, indicating that VMT traveled per person will become more efficient and, thus, traffic noise generated per person would lessen. However, the substantial increase in population and related vehicle trips in the Project Area that the Proposed Project is designed to accommodate would lead to a potentially significant noise increase in traffic noise. Measures to reduce traffic noise typically occur through the implementation of large sound walls, which is not feasible in a developed area due to property logistics, access gaps that eliminate noise attenuation of the walls, and excessive costs. Therefore, no feasible mitigation measures exist to reduce noise levels to less than significant.

Significance After Mitigation

Operational Noise Impacts

As stated above, no feasible mitigation measures exist to reduce operational traffic noise level increases to less than significant. Therefore, traffic noise levels would be *significant and unavoidable*.

Temporary Noise Impacts

Future construction activity occurring in the Project Area would result in temporary increases in ambient noise levels on an intermittent basis. Noise levels would fluctuate depending on the construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers. Construction activities typically require the use of a variety of noise-generating equipment. Typical noise levels at 50-feet from various types of equipment that may be used during construction are listed in **Table 4.11-8**. The loudest noise levels are typically generated by impact equipment (e.g., pile drivers) and heavy-duty equipment (e.g., scrapers and graders). Construction noise would occur intermittently throughout construction and, in some instances, multiple pieces of equipment may operate simultaneously, generating overall noise levels that are incrementally higher than what is shown in **Table 4.11-8**.

Table 4.11-9 shows noise levels by construction phase at 50 feet. The grading/excavation and finishing phases typically generate the loudest noise levels at 89 dBA Leq without equipment mufflers, and 86 dBA Leq with equipment mufflers.

Construction activities occurring in the Project Area are subject to the Regulatory Compliance Measures (RCMs) adopted pursuant to the City's noise ordinances. These include:

- Compliance with the Noise Ordinance No. 161.574, and any subsequent ordinances, which prohibit the emission or creation of noise beyond certain levels at adjacent uses unless technically infeasible.
- Compliance with Section 41.40 of the LAMC, which restricts construction activities to the hours of 7:00 AM to 6:00 PM Monday through Friday, and 8:00 AM to 6:00 PM on Saturday and federal holidays, and prohibits activities on Sundays.
- Compliance with the City's Building Regulations Ordinance No. 178.048, which requires a construction site notice to be provided that includes the following information: job site address, permit number, name and phone number of the contractor and owner or owner's agent, hours of construction allowed by code or any discretionary approval for the site, and City's telephone numbers where violations can be reported. The notice shall be posted and maintained at the construction site prior to the start of construction and displayed in a location that is readily visible to the public and approved by the City's Department of Building and Safety.
- LAMC Chapter 41.40, Section 112.05 establishes performance standards for powered equipment or tools. The maximum allowable noise level for most construction equipment within 500 feet of any residential zone is 75 dBA measured at 50 feet from the noise source. This restriction holds unless compliance is not technically feasible even with the use of noise "mufflers, shields, sound barriers, and/or other noise reduction devices or techniques."

Sensitive receptors are located throughout the Project Area and could be exposed to noise associated with construction activities related to reasonably anticipated development from the Proposed Project. Sensitive receptors that could potentially be affected by construction noise include:

- Ann Street Elementary School, located in the southwestern section of the Project Area

- PUC Excel Charter Academy, located in the eastern section of the Project Area
- Albion Street Elementary, located in the eastern section of the Project Area
- Downey Recreation Center, located in the central section of the Project Area

TABLE 4.11-13 MAXIMUM NOISE LEVELS OF COMMON CONSTRUCTION EQUIPMENT	
Noise Source	Noise Level at 50 feet (dBA)
Air Compressor	80
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Jackhammer	88
Loader	80
Paver	85
Pile-driver (Impact)	101
Pile-driver (Sonic)	95
Pneumatic Tool	85
Pump	77
Roller	85
Saw	76
Scarifier	83
Scraper	85
Shovel	82
Truck	84
SOURCE: FTA 2018.	

TABLE 4.11-14 OUTDOOR CONSTRUCTION NOISE LEVELS		
Construction Phase	Noise Level at 50 Feet (dBA, L_{eq})	Noise Level at 50 Feet with Mufflers (dBA, L_{eq})
Ground Clearing	84	82
Grading/Excavation	89	86
Foundations	78	77
Structural	85	83
Finishing	89	86
SOURCE: USEPA, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.		

In addition, various parks and recreational uses, transient lodgings, churches or other places of assembly, concert halls, hospitals and long-term care facilities, and residential uses are located intermittently throughout the Project Area (including several mixed commercial/residential uses).

As discussed in the Methodology section, projects that could result in significant construction noise impacts include those located on relatively large sites. These projects tend to include relatively lengthy construction durations (longer than 18 months), use heavier equipment, and generally include noisier activities. Such larger projects are not considered usual and could potentially result in significant noise impacts. When noise-sensitive land uses are located within 500-feet of the project site (e.g., residences, schools, hospitals, and parks), projects that meet one of the characteristics below would have the potential to result in disturbing and disruptive impacts to ambient noise levels that would be potentially significant:

- Two subterranean levels or more (approximately 20,000 cubic yards of material or more).
- Construction durations of 18 months or more (excluding interior finishing).
- Use of large, heavy-duty equipment rated 300 horsepower or greater: and
- The potential for impact pile driving.

Specific development projects have not yet been determined at individual sites, therefore, this analysis assumes that sensitive receptors could be as close as 50-feet from where construction would take place. As shown in **Table 4.11-8**, sensitive receptors would experience maximum noise levels ranging from about 76 to 101 dBA. Construction noise levels would vary depending on the type of equipment, the duration of use, and the distance to receptors. Engine noise reduction technology, including mufflers, continues to improve, but heavy construction equipment remains noisy.

It is difficult to determine whether or not construction noise levels at various sensitive land uses would result in significant noise impacts without a detailed noise analysis. The above criteria can serve as guidelines in determining whether or not an impact is anticipated to occur based upon the type and size of project being constructed. Based on the allowed uses in the Proposed Project, it is reasonably foreseeable that there would be some construction projects that would exceed the criteria above. Although noise levels generated by construction typically do not vary greatly from project to project, the proximity of sensitive receivers and the overall duration of construction are typically key factors in determining whether construction-related noise is significant. It is reasonable to anticipate that one or two projects per year would require a level of construction duration or equipment activity that could result in significant construction noise impacts to nearby sensitive receptors.

Based on the above, construction activity associated with reasonably anticipated development under the Proposed Project could result in *potentially significant* temporary noise impacts.

Mitigation Measures

4.11-1 Project-Specific Noise Study

A Noise Study, prepared by a qualified noise expert to meet the requirements herein, shall be required for all discretionary projects in the Project Area located within 500 feet of noise-sensitive land uses and that have one or more of the following characteristics:

- Two or more subterranean levels or 20,000 cubic yards or more of excavated material;
- Construction duration (excluding architectural coatings) of 18 months or more;
- Use of large, heavy-duty equipment rated 300 horsepower or greater; or
- The potential for impact pile driving.

Noise-sensitive land uses are residences, transient lodgings, schools, libraries, churches (or other places of assembly), hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and parks. The Noise Study shall characterize sources of construction noise, quantify noise levels at noise-sensitive uses, and identify measures to reduce noise exposure. The Noise Study shall identify reasonably available noise reduction devices or techniques to reduce noise levels to acceptable levels and/or durations including through reliance on any relevant federal, state or local standards or guidelines or accepted industry practices, and in compliance with LAMC standards. Noise reduction devices or techniques shall include but not be limited to: mufflers, shields, sound barriers, and time and place restrictions on equipment and activities. Each measure in the Noise Study shall identify anticipated noise reductions at noise-sensitive land uses.

Project applicants shall be required to comply with all measures identified and recommended by the Noise Study and shall maintain proof that notice of, as well as compliance with, the identified measures have been included in contractor agreements.

Significance After Mitigation

As described above, the construction activity associated with reasonably anticipated development from the Proposed Project could result in potentially significant temporary noise impacts. Mitigation Measure 4.11-1 requires completion of a Noise Study for all discretionary projects in the Project Area located within 500 feet of a noise-sensitive land use that includes one of four characteristics associated with substantial construction activity levels. Mitigation Measure 4.11-1 requires the implementation of mufflers, shields, sound barriers and/or any other available noise reduction device or techniques. However, because the nature, size, and location of future projects is unknown and mitigation measure 4.11-1 only applies to discretionary projects, construction noise at various sensitive land uses could result in significant impacts. Therefore, the Proposed Project would result in a *significant and unavoidable* impact related to temporary and periodic noise after mitigation.

In consideration of the related health effects of reasonably anticipated development from the Proposed Project, to determine the number of incidences of exceedance of noise thresholds we can be guided by historical development. It is reasonable to anticipate that one or two projects per year would require a level of construction duration or equipment activity that could result in significant construction noise impacts to nearby sensitive receptors. As detailed under *Health Effects of Environmental Noise*, human health effects range from annoyance to hearing loss and physiological effects, but response to noise is subjective and can vary greatly from person to person. Factors that influence individual response include the intensity, frequency, and pattern of noise, the amount of background noise present before the intruding noise, and the nature of work or human activity that is exposed to the noise source. It is not feasible to determine a specific number of persons that could experience health effects from significant construction noise impacts since such effects would depend on the intensity and duration of noise, the distance between noise sources and receivers, and whether noise barriers are present between sources and receivers, but it is likely that individuals in the Project Area will experience varying levels of disturbance related to construction noise with or without implementation of the Proposed Project.

Threshold 4.11-2	Generation of excessive groundborne vibration or groundborne noise levels
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Impact 4.11-2 Reasonably anticipated development in the Project Area generally is not anticipated to involve activities that would result in substantial vibration levels (e.g., blasting operations). However, future construction activity, specifically pile driving, could potentially generate vibration exceeding the 90 VdB threshold for buildings extremely susceptible to building damage (e.g., historic structures). Although mitigation is available to reduce the potential effects of construction-related vibration, it cannot be assured that construction-related vibration would not result in building damage and reduce all significant impacts to less than significant levels. Thus, the Proposed Project would result in a *less than significant impact* for operational vibration and a *significant and unavoidable impact* related to construction vibration.

Impact Discussion

Construction Vibration

Construction activity can result in varying degrees of ground vibration depending on the equipment and methods employed. Operation of construction equipment causes vibrations that spread through the ground and diminish in strength with distance. Buildings founded on the soil in the vicinity of the construction site respond to these vibrations with varying results ranging from no perceptible effects at the lowest levels, low rumbling sounds and perceptible vibrations at moderate levels, and damage at the highest levels.

Table 4.11-15 shows construction equipment vibration levels based on various reference distances. Construction vibration is a localized event and is typically only perceptible to a receptor that is in close proximity to the vibration source. High-rise buildings and development on sites with certain geologic conditions may require pile driving. Construction equipment would typically generate vibration levels up to 87 Vdb at 25 feet, although pile driving could generate a vibration level of 112 Vdb at 25-feet. Heavy equipment could potentially operate within 25-feet of nearby buildings.

Caisson drilling, loaded trucks, jackhammers, and bulldozers would not exceed the 90 VdB threshold for extremely fragile buildings. However, the vibration levels associated with pile driving could exceed the thresholds for each of the identified sensitive building types: 98 VdB for engineering concrete and masonry buildings, 94 VdB for fragile buildings, and 90 VdB for extremely fragile buildings. The City's Office of Historic Resources has recorded Historic-Cultural Monuments (HCMs) in the Central City Community Plan Area (see Section 4.4, *Cultural Resources*, for a detailed list of HCMs) and portions of the Project Area. Therefore, impacts related to construction vibration from development associated with the Proposed Project would be *potentially significant* because it is unknown if there would be projects of the size necessary to cause a significant impact to fragile buildings.

TABLE 4.11-15 APPROXIMATE VdB GENERATED BY CONSTRUCTION EQUIPMENT				
Equipment	Approximate VdB			
	25 Feet	50 Feet	75 Feet	100 Feet
Pile Driver (Impact)	112	106	102	100
Caisson Drilling	87	81	77	75
Large Bulldozer	87	81	77	75
Loaded Trucks	86	80	76	74
Jackhammer	79	73	69	67
Small Bulldozer	58	52	48	46

SOURCE: FTA, Transit Noise and Vibration Impact Assessment September 2018.

Operational Vibration

It is not anticipated that new development within the Project Area would involve activities that would result in substantial vibration levels (e.g., blasting operations). Operational groundborne vibration in the vicinity of new development associated with the Proposed Project would be primarily generated by vehicular travel on the local roadways. According to the FTA *Transit Noise and Vibration Impact Assessment* guidance document, rubber tires and suspension systems dampen vibration levels from trucks to a level that is rarely perceptible (2006). Accounting for additional vehicle trips that would be accommodated by the Proposed Project, traffic vibration levels would be similar to existing conditions and not perceptible by sensitive receptors. Therefore, impacts related to operational vibration under the Proposed Project would be *less than significant*.

Mitigation Measures

The following mitigation measures for the Project Area addresses potentially significant impacts related to construction vibration in the vicinity of buildings extremely susceptible to building damage (e.g., historic structures).

4.11-2(a) Vibration Control Plan

For construction activity for discretionary projects involving heavy construction equipment (e.g., large bulldozer or excavator) within 25 feet of an extremely fragile building (non-engineered masonry) or historical resource (designated or in SurveyLA or other City recognized survey), the applicant shall prepare a Vibration Control Plan. The Vibration Control Plan requirement will also apply to use of pile drivers within 135 feet of an extremely fragile building or historical resource. The Vibration Control Plan shall be prepared by a qualified structural engineer and shall include methods to minimize vibration, including but not limited to:

- Use of drilled piles or the use of a sonic vibratory pile driver rather than impact pile driving
- Use of rubber-tired equipment rather than metal-tracked equipment
- Avoiding the use of vibrating equipment when allowed by best engineering practices

The Vibration Control Plan shall include a pre-construction survey letter establishing baseline conditions at potentially affected extremely fragile buildings/historical resources. The survey letter shall provide a shoring design to protect the extremely fragile building/historical resource from potential damage. At the conclusion of vibration causing activities, the qualified structural engineer shall issue a follow-up letter describing damage, if any, to impacted buildings. The letter shall include recommendations for any repair, as may be necessary, in conformance with the Secretary of the Interior Standards. Repairs shall be

undertaken and completed in conformance with all applicable codes including the California Historical Building Code (Part 8 of Title 24).

A Statement of Compliance signed by the Applicant and Owner is required to be submitted to LADBS at plan check and prior to the issuance of any permit. The Vibration Control Plan, prepared as outlined above shall be documented by a qualified structural engineer, and shall be provided to the City upon request.

4.11-2(b) Best Management Practices for Vibration

For projects that are not required to comply with mitigation measure 4.11-2(a), the City shall notify developers of the following best management practices to reduce damage to vibration-sensitive uses:

- Impact pile drivers shall be avoided to eliminate excessive vibration levels. Drilled piles or the use of a sonic vibratory pile driver are alternatives that shall be utilized where geological conditions permit their use.
- Construction activities shall involve rubber-tired equipment rather than metal-tracked equipment.
- The construction contractor shall manage construction phasing (scheduling demolition, earthmoving, and ground-impacting operations so as not to occur in the same time period), use low-impact construction technologies, and shall avoid the use of vibrating equipment when allowed by best engineering practices.

Significance After Mitigation

Construction Vibration

Development projects in the City of Los Angeles typically do not result in vibration damage even though vibration generating equipment is utilized for all urban infill construction. Although most construction activities located in the Project Area are not anticipated to have significant vibration impacts, it is possible that a small number of development projects in the Project Area could have significant vibration impacts during construction. This would most commonly occur when a development project would be located next to a historical resource constructed of fragile building materials, which is more sensitive to vibration damage, than structures that were built based on more recent building codes. Mitigation Measure 4.11-2(a) would reduce vibration impacts whenever a development project is located near a historical resource constructed of fragile materials. Although, it is difficult to quantify the vibration reduction associated with Mitigation Measure 4.11-2(a) without knowing the specifics of a development project, including the distance from the equipment to the historical resource. Implementing caisson drilling instead of impact pile driving would reduce vibration levels from 112 Vdb at 25 feet to approximately 87 Vdb at 25 feet. The unmitigated analysis also concludes that vibration levels could exceed 98 VdB significance threshold for engineered concrete and masonry buildings without plaster (e.g., typical urban development), causing building damage or substantial human annoyance. Vibration is an unavoidable byproduct of construction activity. In an urban environment, vibration from construction equipment is related to the weight and movements of equipment. In the absence of specific development projects with detailed construction requirements and known adjacent uses, there is no way to determine specific potential for impact and feasible, appropriate mitigation to control equipment weight and movements from construction activity associated with each infill project.

Requiring Mitigation Measures 4.11-2(a) and/or 4.11-2(b) for all development projects would be infeasible because the City has determined that the use of staff resources to apply these mitigation measures to all ministerial projects is not justified. It would require City staff to evaluate each and every ministerial project to determine if that project, because of its unique characteristics, should be subject to this mitigation measure. Additionally, it would require rezoning every property to get authority to review ministerial

projects. From an implementation and administrative point of view requiring these procedures or actions would be extremely difficult and require an inordinate amount of staff time and resources to capture the small number of projects that could have significant impacts.

It is anticipated that Mitigation Measure 4.11-2(a) would substantially reduce/control construction vibration for historical resources or those of fragile construction. In addition, Mitigation Measure 4.11-2(b) would limit vibration levels at uses other than historic properties. However, in the absence of construction details associated with specific projects and without knowing the proximity of construction activities to specific receptors, it is anticipated that construction vibration levels at certain particularly fragile adjacent buildings could exceed the thresholds of significance. Therefore, the Project's construction-related vibration impact would remain *significant and unavoidable*.

Operational Vibration

Impacts related to operational vibration were determined to be *less than significant without mitigation*.

Threshold 4.11-3	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels
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Impact 4.11-3 The Project Area is not located in the vicinity of a public airport or private airstrip; therefore, *no impact* related to airport or airstrip noise would result from the Project.

Impact Discussion

The Project Area is not located in the vicinity of a public airport or private airstrip. Los Angeles International Airport (LAX), Bob Hope (Burbank) Airport, Santa Monica Airport, and El Monte Airport are all about 12 miles from the Project Area and no portion of the Project Area would be exposed to noise exceeding 60 dBA CNEL from any of these airports. Therefore, *no impact* related to airport or airstrip noise would result from Plan implementation.

Mitigation Measures

No impact related to airport noise would occur under the Project. Therefore, mitigation is not required.

CUMULATIVE IMPACTS

Substantial Temporary Increase in Ambient Noise Levels

Construction noise impacts are localized to a project site and sensitive receptors within the immediate vicinity. Therefore, for sources of construction noise, the cumulative setting is development in the Project Area and areas immediately adjacent to the Project Area. Construction of future development projects in the City would produce temporary noise impacts. Cumulative development in the City is not likely to result in the exposure of on-site or off-site sensitive receptors to excessive construction noise due to the localized nature of noise impacts and the fact that all construction would not occur at the same time and at the same location. Therefore, only sensitive receptors located in close proximity to each construction site would be potentially affected by each activity.

Construction activities associated with reasonably anticipated development projects from the Proposed Project may overlap for some time with construction activities for other development projects, which are adjacent to, or within the Project Area. Typically, if a development site is 500 feet or more away from

another site then noise levels would have attenuated to a point that they would not combine to produce a cumulative noise impact. Therefore, construction noise levels would typically become cumulative if two development sites were to have construction occurring within 500 feet of each other.

Per the LAMC, construction activities would be prohibited between the hours of 9:00 PM and 7:00 AM Monday through Friday, before 8:00 AM or after 6:00 PM on Saturdays and national holidays, and on Sundays. However, as discussed above, larger or more unusual projects could result in significant short-term increases in noise levels. These projects could combine together, or combine with smaller projects, to substantially increase noise levels at specific land uses. Therefore, the significant and unavoidable construction noise impacts of the Proposed Project could add to construction noise impacts associated with cumulative development, especially on the periphery of the Project Area where receptors could be exposed to noise sources from within and outside the Project Area. The incremental effect of the Proposed Project would be cumulatively considerable and this cumulative temporary impact would be ***significant and unavoidable***.

Permanent Increase in Ambient Noise Levels

Stationary Noise

Stationary noise impacts are localized to a project site and sensitive receptors within the immediate vicinity. Therefore, for stationary noise sources, the cumulative setting is development in the Project Area and areas immediately adjacent to the Project Area. Future development in the City would include mechanical equipment, loading, trash pick-up, and other noise-generating activities. However, such activities would be typical of the urban environment within the City and any on-site activities would be required to comply with applicable provisions of the LAMC. Sources of Stationary noise are well regulated. Therefore, there would be no cumulative impact related to stationary noise sources. Therefore, the incremental effect of the Project with respect to stationary noise sources would not be cumulatively considerable and cumulative impacts would be ***less than significant***.

Mobile Noise

The cumulative setting for mobile noise impacts is the City and adjacent communities because, as detailed in Section 4.15, *Transportation and Traffic*, the Project was modeled with future forecasts from SCAG for the City of Los Angeles and adjacent communities when determining VMT. The traffic analysis presented herein considers the combined effect of Project-generated traffic, existing traffic volumes and pass-through future traffic from areas both within and outside the Project Area. Table 4.11-7 presents the cumulative increase in future mobile source noise levels. The transportation analysis approach used in this analysis applied established traffic forecasting tools that have been empirically proven and previously accepted under CEQA. However, these forecasting tools may prove to be conservative if some of the recent trends in travel persist. It is not clear what direction the trends will take at this point. VMT per capita has been generally dropping since around 2004, increased for many decades prior, and has now begun to climb again since January 2014. Trends in Los Angeles are also pulling in multiple directions. If the trends toward higher levels of walking, bicycling, and transit use exceed what is forecast in this analysis, this could result in fewer driving related impacts than the Proposed Project conservatively accounts for in this analysis.

As shown in **Table 4.11-7**, future mobile noise levels including reasonably anticipated development from the Proposed Project would increase by more than 3 dBA CNEL at all but four locations, in comparison to existing conditions. Thus, it would increase noise levels that will exceed the “normally unacceptable” category for adjacent land uses. Therefore, the incremental effect of the Project on mobile source noise levels would be cumulatively considerable and cumulative impacts would be ***significant and unavoidable***.

Vibration

Construction Vibration

Construction vibration impacts are localized to a project site and sensitive receptors within the immediate vicinity. Therefore, for sources of construction vibration, the cumulative setting is development in the Project Area and areas immediately adjacent to the Project Area. Construction of future development projects in the city would produce temporary vibration impacts. Cumulative development in the city is not likely to result in the exposure of on-site or off-site sensitive receptors to excessive ground-borne noise and vibration due to the localized nature of vibration impacts and the fact that all construction would not occur at the same time and at the same location. Therefore, only sensitive receptors located in close proximity to each construction site would be potentially affected by each individual activity.

Construction activities associated with reasonably anticipated development projects from implementation of the Project may overlap for some time with construction activities for other development projects, which are adjacent to, or within the Project Area. However, for the combined vibration impact from simultaneous construction projects to reach cumulatively significant levels, intense construction from these projects would have to occur simultaneously in close proximity to a sensitive receptor. Proposed Project construction-related vibration would not result in additive vibration in combination with cumulative development in most areas of the City. However, individual development projects near the periphery of the Project Area could potentially be constructed concurrently with other development adjacent to, but outside the Project Area, such that intense construction from two or more projects would simultaneously occur in close proximity to existing sensitive receptors. Therefore, the significant and unavoidable construction vibration impacts of the Proposed Project could add to vibration impacts associated with cumulative development on the periphery of the Project Area. Therefore, the incremental effect of the Proposed Project would be cumulatively considerable and temporary cumulative vibration impacts related to construction activity would be *significant and unavoidable*.

Operational Vibration

Operational ground-borne vibration impacts are localized to a project site and sensitive receptors within the immediate vicinity. Therefore, for sources of operational ground-borne vibration, the cumulative setting is development in the Project Area and areas immediately adjacent to the Project Area. Ground-borne vibration could conceivably be generated by the operation of future development projects within the City. It is not anticipated that new development within the Project Area would include substantial sources of operational ground-borne vibration. It is reasonable to assume that other projects outside the Project Area would have similar characteristics. Therefore, cumulative impacts related to operational ground-borne noise and vibration at any sensitive receptor would not be significant. The incremental effect of the Proposed Project would not be cumulatively considerable and cumulative impacts would be *less than significant*.

Public Airports/Private Airstrips

Aircraft-related noise impacts occur only in the vicinity of airports or airstrips. Although Citywide growth could increase the number of people who are exposed to aircraft-related noise impacts, such impacts would be localized in nature. In addition, new development would not increase aircraft-related noise impacts. Because no portion of the Project Area is not located in the vicinity of a public airport or private airstrip, the Proposed Project would have no contribution to any cumulative impact related to these hazards. For these reasons, the incremental effect of the Proposed Project related to airport and air strip noise would not be cumulatively considerable and cumulative impacts would be *less than significant*.

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4.12 POPULATION, HOUSING, AND EMPLOYMENT

This section analyzes population, housing and employment impacts associated with the Proposed Project. Topics addressed include local and regional assessments, expected population, housing, and employment growth, and the potential displacement resulting from implementation of the Proposed Project. The analysis presented in this section utilizes information from a variety of public agencies, including the City of Los Angeles Department of City Planning (DCP), the U.S. Census Bureau (U.S. Census), and the Southern California Association of Governments (SCAG).

ENVIRONMENTAL SETTING

EXISTING CONDITIONS

CEQA requires an EIR to compare existing physical conditions (baseline) to the physical conditions after implementation of a project. Neither component of the Proposed Project would result in direct impacts. However, indirect effects could result from the reasonably anticipated development that is anticipated to occur with the Proposed Project. Assessing the impacts of the Proposed Project requires determining reasonably anticipated development and identifying the current conditions. Both of these determinations rely in part on estimates of the current population, housing, and employment, and the projected growth in population, housing, and employment.

Baseline Conditions

CEQA requires an EIR to compare existing physical conditions (baseline) to the physical conditions after implementation of a project. For purposes of the Proposed Project (or CASP), which plans for growth and development, there is no expected direct effect from the Proposed Project (such as for a construction project), but there are expected indirect effects from the reasonably anticipated development that is expected to occur. To assess the impacts of the Proposed Project requires determining reasonably anticipated development and identifying the current conditions. Both determinations rely in part on estimates of the current population, housing, and employment, and the forecasted growth in population, housing, and employment.

A function of SCAG, in preparing the RTP/SCS, is to forecast or prepare population, housing and employment projections in consultation with cities in the region. These projections are derived from a combination of sources and consider factors such as birth rates; migration rates; historical trends; household size; market and economic projections; existing and planned land uses; and consistency with relevant adopted local, regional and state land use policies and growth strategies. The development of the growth forecast is driven by collaboration between SCAG and local jurisdictions. The integration of the regional and local forecasts is achieved through joint efforts and collaboration among the various contributors.

CEQA Guidelines section 15125(a) requires that an EIR include a description of the physical environmental conditions in the vicinity of a project as they exist at the time the Notice of Preparation (NOP) is published. The NOP for this EIR was published on April 8, 2021 (see **Appendix A**). Thus, the EIR uses 2021 as the baseline for existing conditions. While SCAG's 2020-2045 RTP/SCS (adopted in September 2020) is the most recently adopted RTP/SCS, this document relies on the 2016-2040 RTP/SCS as the most up to date and validated Los Angeles Transportation Demand Forecasting (TDF) model contains data and information from the 2016-2040 RTP/SCS. However, the population, housing, and employment projections of these two regional plans are consistent with each other in the Project Area. The current TDF Model, which was

developed in the last few years as part of the City’s effort to move to vehicle miles traveled (VMT) thresholds of significance, relies on the 2016-2040 RTP/SCS. This model and its outputs are used in various section of this Draft EIR and therefore, the 2016-2040 RTP/SCS is utilized as the analysis baseline throughout this document.

The latest adopted 2020-2045 RTP/SCS, using a baseline year of 2016, estimates a Project Area population of 6,202 in 2021, while the 2016-2040 RTP/SCS, using a baseline year of 2012, estimates a Project Area population of 6,027 in 2021. To address the time gap between the RTP/SCS baseline years of 2012 and 2016 and the EIR’s baseline year of 2021, the demographic data were interpolated to estimate 2021 existing conditions. Annual demographics data are not immediately available and there is usually a lag time in the data released. Therefore, the interpolated population numbers using an annual growth average rate represented the most reasonable estimate available in 2021. Between the 2016-2040 RTP/SCS and 2020-2045 RTP/SCS, the population and households estimates for the EIR baseline year (2021) differ by less than 3 percent and 4 percent, respectively. The 2016-2040 RTP/SCS estimates that baseline year employment within the Project Area is 5,411 jobs, compared to the 2020-2045 RTP/SCS’s estimate of 6,189 jobs, a difference of 14 percent. The use of the 2016-2040 RTP/SCS’s lower employment figure represents a more conservative analysis, as the EIR would be analyzing a greater employment delta over the course of the Proposed Project compared to the 2020-2045 RTP/SCS’s higher baseline year employment figure.

Population

Table 4.12-1 shows citywide and Project Area population data for 2021 (existing) and 2040 (projected). Based on projections from SCAG, the City’s population is anticipated to increase from approximately 4,047,000 residents in 2021 to 4,609,000 residents in 2040, resulting in a net population growth of approximately 562,000 residents or 14 percent. The Project Area has approximately 6,000 residents in 2021, and the Project Area population expects an increase to approximately 14,000 residents in 2040, resulting in a net population growth of approximately 8,000 residents or 133 percent, based on SCAG estimates. The Project Area population comprises approximately 0.15 of one percent of the City’s population, and recent population growth in the Project Area has greatly exceeded population growth trends citywide.

TABLE 4.12-1 EXISTING AND PROJECTED POPULATION IN LOS ANGELES AND THE PROJECT AREA							
Planning Area	Existing Baseline (2021)	No Project (2040)	Proposed Project (2040)	SCAG Projected (2040)	% of Citywide Baseline	Net Change (SCAG Projected-Baseline)	% Change (SCAG Projected-Baseline)
Citywide	4,047,000			4,609,000	100%	562,000	14%
Project Area	6,000	36,000	57,000	14,000*	0.15%	8,000	133%

Note: Numbers are rounded to the nearest thousand.
 *Number reflects population including portions of whole TAZ outside of Project Area.
SOURCES: SCAG 2016-2040 RTP/SCS.

Housing

The City of Los Angeles as a whole, and the Project Area include a mix of commercial, retail, residential development, public facility, and industrial uses and encompasses several distinct neighborhoods.

Table 4.12-2 shows Citywide and Project Area housing data estimates for 2021 and 2040 No Project, Proposed Project, and SCAG projected. Housing units can be accounted for in different ways by providers of demographic data. SCAG accounts for housing units by providing an estimate of the number of households, or occupied housing units, meaning that vacant units are excluded. Other demographic data sources, such as the 2020 Census provide households and as well as the total housing unit number, including both occupied units and vacant units. For consistency between different data sources, all housing data provided in **Table 4.12-2** show total households. As shown therein, the number of households citywide is expected to increase from approximately 1,454,000 in 2021 to 1,690,000 in 2040, resulting in a net increase of approximately 236,000 households or approximately 16 percent. In comparison, the Project Area has approximately 2,000 households in 2021, with a projected increase to approximately 5,000 in 2040. This represents a net increase of approximately 3,000 households, or 150 percent. With the Proposed Project in 2040, the Project Area expects a net increase of approximately 18,000 housing units, and 11,000 in 2040 without the Proposed Project, both of which are higher than the SCAG 5,000 estimate. This indicates that the rate of housing growth in the Project Area will be higher than the rate of citywide housing growth in the next couple decades.

TABLE 4.12-2 EXISTING AND PROJECTED HOUSING INVENTORY IN LOS ANGELES AND THE PROJECT AREA							
Planning Area	Existing Baseline (2021)	No Project (2040)	Proposed Project (2040)	SCAG Projected (2040)	% of Citywide Baseline	Net Change (SCAG Projected-Baseline)	% Change (SCAG Projected-Baseline)
Citywide	1,454,000			1,690,000	100%	236,000	16%
Project Area	2,000	13,000	20,000	5,000*	0.14%	3,000	150%
Notes: Numbers are rounded to the nearest thousand, and percentages are calculated from the rounded values.							
*For conservative purposes, this forecast assumes there are no vacant units and all forecasted units are occupied.							
SOURCES: Citywide - SCAG 2016-2040 RTP/SCS.							

The housing market can be influenced by population growth, income, housing unit cost, and housing locations. Age distribution is also a key market characteristic because housing demand can be influenced by the housing preference of certain age groups due to limited income. In many cases the majority of the young adult population (20 to 34 years old) tends to occupy apartments and smaller single-family units. The population in the 35 to 65 years old age bracket occupies a range of housing types, including larger single-family homes, condominiums, and apartments, based on income and household sizes. The population in the 65+ year old age bracket occupies the above types, as well as assisted living homes and nursing homes.

Employment

Table 4.12-3 summarizes baseline (2021), No Project (2040), Proposed Project (2040), and SCAG projected (2040) employment data for Los Angeles citywide and the Project Area. As shown therein, citywide employment is expected to increase from approximately 1,913,000 in 2021 to 2,169,000 in 2040, resulting in a net growth of approximately 256,000 jobs, or about 13 percent. In comparison, the Project Area has approximately 5,000 jobs in 2021 and is expected to increase to 9,000 jobs in 2040, which represents a net increase of approximately 4,000 jobs or 80 percent. With the Proposed Project in 2040, the Project Area expects a net increase of approximately 3,000 jobs, and a net increase of approximately 5,000

jobs in 2040 without the Proposed Project. Similar to the population and housing growth trajectories, the employment growth trajectory in the Project Area is expected to exceed citywide area growth.

TABLE 4.12-3 EXISTING AND PROJECTED EMPLOYMENT IN LOS ANGELES AND THE PROJECT AREA							
Planning Area	Existing Baseline (2021)	No Project (2040)	Proposed Project (2040)	SCAG Projected (2040)	% of Citywide Baseline	Net Change (SCAG Projected-Baseline)	% Change (SCAG Projected-Baseline)
Citywide	1,913,000			2,169,000	100%	256,000	13%
Project Area	5,000	10,000	8,000	9,000*	0.26%	4,000	80%

Notes: Numbers are rounded to the nearest thousand, and percentages are calculated from the rounded values.
 *Number reflects population including portions of whole TAZ outside of Project Area
SOURCES: Citywide and Project Area Data
 2021 Baseline - SCAG 2016-2040 RTP/SCS.

REGULATORY FRAMEWORK

FEDERAL

Comprehensive Housing Affordability Study (CHAS)

CHAS was enacted by the Cranston-Gonzalez National Affordable Housing Act of 1990 and was run by the U.S. Department of Housing and Urban Development (HUD). The primary purpose of the CHAS data is to demonstrate the number of households in need of housing assistance. This is estimated by the number of households that have certain housing problems and have income low enough to qualify for HUD’s programs (primarily 30, 50, and 80 percent of median income). CHAS also considers the prevalence of housing problems among different types of households, such as the elderly, disabled, minorities, and different household types. The CHAS data provide counts of the numbers of households that fit these HUD-specified characteristics in HUD-specified geographic areas.

In addition to estimating low-income housing needs, the CHAS data contribute to a more comprehensive market analysis by documenting issues such as lead paint risks, affordability mismatch, and the interaction of affordability with variables such as age of homes, number of bedrooms, and type of building.

Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Relocation Act)

The Uniform Relocation Act (Public Law 91-646) provides important protections and assistance for people affected by federally funded projects. This law was enacted by Congress to ensure that people whose real property is acquired, or who move as a result of projects receiving federal funds, will be treated fairly and equitably and will receive assistance in moving from the property they occupy.

STATE

California Housing Element Law

California Government Code Section 65583 and 65584(a)(1). Section 65583 of the California Government Code requires cities and counties to prepare a housing element, as one of the state-mandated elements of

the General Plan, with specific direction on its content. Pursuant to Section 65584(a)(1) the California Department of Housing and Community Development (HCD) is responsible for determining the regional housing needs assessment (segmented by income levels) for each region's planning body known as a "council of governments" (COG), the Southern California Association of Governments (SCAG) being the COG serving the Southern California area. HCD prepares an initial housing needs assessment and then coordinates with each COG in order to arrive at the final regional housing needs assessment. To date, there have been four previous housing element update "cycles." California is now in its fifth "housing-element update cycle." The SCAG Regional Housing Needs Assessment (RHNA) and the City's General Plan Housing Element are discussed further below.

Senate Bill 2

California SB 2, adopted in 2007 and effective January 2008, amended the HAA and the State Housing Element Law to require local governments to take specific zoning actions to encourage the development of emergency shelters and transitional and supportive housing. It also clarifies that under the HAA, a jurisdiction cannot deny applications for such types of housing and shelter without making specific evidence-based findings.

Senate Bill 9

On September 16, 2021 Governor Newsom signed Senate Bill (SB) 9, the California Housing Opportunity and More Efficiency (HOME) Act, which facilitates the process for building two dwelling units on a single-family residential lot or splitting a single-family residential lot into two lots (urban lot split), allowing for a total of up to four units on the two lots, by ministerial approval, if the housing development meets certain requirements. When a lot is subdivided into two, one parcel shall not be smaller than 40 percent of the lot area of the original parcel and both parcels may not be smaller than 1,200 square feet each. The owner will need to sign an affidavit stating they intend to occupy one of the units from the urban lot split as their primary residence for at least three years.

To be eligible for SB 9, the single-family lot must not be located within a historic district, included on the State Historic Resources Inventory, or designated or listed as a city or county landmark or historic property or district. Housing that is 1) subject to a recorded covenant, ordinance, or law that restricts rents to levels affordable to persons and families of moderate, low, or very low income or 2) has been occupied by a tenant in the last three years may not be demolished or altered. In addition, the parcel has to satisfy the requirements specified in subparagraphs (B) to (K), inclusive, of paragraph (6) of subdivision (a) of Section 65913.4. Paragraph (6) subparagraphs (B) to (K) of Section 65913.4 excludes development that are located on specific types of hazard or protected sites, including prime farmland or farmland of statewide importance, wetlands, within very high fire hazard severity zone, designated hazardous waste sites, and special flood hazard areas subject to 100-year floods.

Senate Bill 375 (SB 375)

The Sustainable Communities and Climate Protection Act of 2008 (Sustainable Communities Act, SB 375, Chapter 728, Statutes of 2008) focuses on aligning transportation, housing, and other land uses to achieve regional greenhouse gas (GHG) emission reduction targets established under the California Global Warming Solutions Act, also known as Assembly Bill (AB) 32. SB 375 requires Metropolitan Planning Organizations (MPO) to develop a Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan (RTP), with the purpose of identifying policies and strategies to reduce per capita passenger vehicle-generated GHG emissions. As set forth in SB 375, the SCS must: (1) identify the general location of land uses, residential densities, and building intensities within the region; (2) identify areas within the region sufficient to house all the population of the region, including all economic segments of the population, over the course of the planning period; (3) identify areas within the region sufficient to

house an eight-year projection of the regional housing need; (4) identify a transportation network to service the regional transportation needs; (5) gather and consider the best practically available scientific information regarding resource areas and farmland in the region; (6) consider the state housing goals; (7) establish the land use development pattern for the region that, when integrated with the transportation network and other transportation measures and policies, will reduce GHG emissions from automobiles and light-duty trucks to achieve GHG emission reduction targets set by the California Air Resources Board (CARB), if there is a feasible way to do so; and (8) comply with air quality requirements established under the Clean Air Act.

Existing law requires local governments to adopt a housing element as part of their general plan and update the housing element as frequently as needed and no less than every five years. Under SB 375, this time period has been lengthened to eight years and timed so that the housing element period begins no less than 18 months after adoption of the RTP, to encourage closer coordination between housing and transportation planning. SB 375 also changes the implementation schedule required in each housing element. Previous law required the housing element to contain a program that set forth a five-year schedule to implement the goals and objectives of the housing element. The new law instead requires this schedule of actions to occur during the eight-year housing element planning period and requires that each action have a timetable for implementation. SB 375 also requires that the schedules for the regional transportation plan (RTP) and RHNA processes be synchronized and requires the RHNA to allocate housing units within the region in a manner consistent with the development pattern adopted by the SCS.

As discussed further below, on September 3, 2020, SCAG adopted its Connect SoCal: The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS), which is an update to the previous 2016 RTP/SCS. Using growth forecasts and economic trends, the RTP/SCS provides a vision for transportation throughout the region for the next 25 years that achieves the statewide reduction targets; and in so doing identifies the amount and location of growth expected to occur within the region.

Housing Crisis Act of 2019 – (SB 330, Skinner)

On October 9, 2019, the Governor signed into law the Housing Crisis Act of 2019 (SB 330). SB 330 seeks to speed up housing production in the next half decade by eliminating some of the most common entitlement impediments to the creation of new housing, including delays in the local permitting process and cities enacting new requirements after an application is complete and undergoing local review—both of which can exacerbate the cost and uncertainty that sponsors of housing projects face. In addition to speeding up the timeline to obtain building permits, the bill prohibits local governments from reducing the number of homes that can be built through down-planning or down-zoning or the introduction of new discretionary design guidelines. The bill is in effect as of January 1, 2020 but is temporary in nature as the bill’s provisions expire on January 1, 2025.

Fair Employment and Housing Act (FEHA)

The FEHA of 1959 (Government Code Section 12900 *et seq.*) prohibits housing discrimination on the basis of race, color, religion, sexual orientation, marital status, national origin, ancestry, familial status, disability, or source of income.

The Unruh Civil Rights Act

The Unruh Civil Rights Act of 1959 (Civ. Code Section 51) prohibits discrimination in “all business establishments of every kind whatsoever.” The provision has been interpreted to include businesses and persons engaged in the sale or rental of housing accommodations.

California Relocation Assistance Act

Section 7261(a) of the California Government Code requires that programs or projects undertaken by a public entity shall be planned in a manner that (1) recognizes, at an early stage in the planning of the programs or projects and before the commencement of any actions which will cause displacements, the problems associated with the displacement of individuals, families, businesses, and farm operations, and (2) provides for the resolution of these problems in order to minimize adverse impacts on displaced persons and to expedite program or project advancement and completion. The head of the displacing agency shall ensure the relocation assistance advisory services are made available to all persons displaced by the public entity. If the agency determines that any person occupying property immediately adjacent to the property where the displacing activity occurs is caused substantial economic injury as a result thereof, the agency may make the advisory services available to the person.

Density Bonuses and Other Incentives (i.e., State Density Bonus Law; Government Code Section 65915)

The State Density Bonus law (signed into law in 1979) requires jurisdictions to provide applicants with a density bonus and incentives or concessions for the production of housing development in which affordable housing is also provided. Eligible projects include housing developments with (1) at least 10 percent housing for lower income households; (2) at least five percent of the housing for very low-income households; (3) a senior citizen housing development or mobile home park restricted to older persons; and (4) at least 10 percent of the total dwelling units in common interest development for moderate-income families or persons. AB 1763, effective January 1, 2020, amends the State Density Bonus Law (Section 65915) to allow for taller and denser 100 percent affordable housing developments, especially those near transit, through the creation of an enhanced affordable housing density bonus.

Assembly Bill (AB) 2222

On September 27, 2014, the governor signed AB 2222, which amended sections of the State Density Bonus Law (Government Code Section 65915). AB 2222 requires that density bonus projects resulting in a loss of existing affordable and otherwise locally-regulated (i.e., rent-stabilized) housing units replace those units one-for-one. It also extends the affordability period from 30 to 55 years and expands the use of equity sharing in for-sale units. Several other clarifications of the existing law are also included but did change current City policy.

Accessory Dwelling Unit (ADU) Laws

Accessory Dwelling Units (ADU) are a valuable form of housing and an essential component of the State's housing supply as declared by the California Legislature and are allowed in zones that allow single-family and multi-family housing, in Government Code Section 65852.150. An ADU is an accessory dwelling unit with complete independent living facilities for one or more persons and has several forms, meaning it can be detached from the primary structure, attached to the primary structure, or be converted existing space. Updated ADU laws became effective on January 1, 2021 that further reduce barriers, streamline approval processes, and accommodate the development of ADUs and junior accessory dwelling units (JADUs). A JADU is converted existing space that is contained entirely within a single-family residence. The state's ADU law is the statutory minimum requirement and local governments may go beyond the statutory minimum and adopt local ADU ordinances, but in consistency with Section 65852.150.

California Housing Accountability Act

The Housing Accountability Act (HAA; SB 167) is a California state law designed to promote infill development by speeding housing approvals. The HAA was passed in 1982 in recognition that the lack of housing, including emergency shelter, is a critical statewide problem. The HAA empowers the State of California to limit the ability of local government to restrict the development of new housing.

Homeowners and Private Property Protection Act (Proposition 99)

In 2008, California voters approved Proposition 99, the Homeowners and Private Property Protection Act, which amended the California Constitution so that local governments are prohibited from using eminent domain authority to acquire an owner-occupied residence for the purposes of conveying it to a private recipient, with limited exceptions. Proposition 99 applies only to owner-occupied residences. Cities may still use eminent domain authority to convey multi-family and non-residential property to other private parties.

REGIONAL

Southern California Association of Governments

The City of Los Angeles is located within the jurisdiction of SCAG, a Joint Powers Agency established under California Government Code Section 6502 et seq. Pursuant to federal and State law, as discussed above, SCAG serves as a Council of Governments, a Regional Transportation Planning Agency, and the (Metropolitan Planning Organization (MPO) for Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial Counties. SCAG's mandated responsibilities include developing plans and policies with respect to the region's population growth, transportation programs, air quality, housing, and economic development. Specifically, SCAG is responsible for preparing the RTP/SCS and RHNA, in coordination with other State and local agencies. These documents include population, employment, and housing projections for the region and its 15 subregions. The City of Los Angeles is located within the Los Angeles Subregion.

SCAG is tasked with providing demographic projections for use by local agencies and public service and utility agencies in determining future service demands. Projections in the SCAG RTP/SCS serve as the basis for demographic estimates in this analysis of Project consistency with growth projections. The findings regarding growth in the region are consistent with the methodologies prescribed by SCAG and reflect SCAG goals and procedures.

SCAG data is periodically updated to reflect changes in development activity and actions of local jurisdictions (e.g. zoning changes). Through these updates, public agencies have advance information regarding changes in growth that must be addressed in planning for their provision of services. Changes in the growth rates are reflected in the new projections for service and utilities planning through the long-term time horizon.

Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

Pursuant to Government Code Section 65080(b)(2)(B), SCAG must prepare a RTP/SCS which (1) identifies the general location of uses, residential densities, and building intensities within the region; (2) identify areas within the region sufficient to house all the population of the region over the course of the planning period of the regional transportation plan taking into account net migration into the region, population growth, household formation and employment growth; (3) identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region pursuant to Government Code Section 65584; (4) identify a transportation network to service the transportation needs of the region; (5)

gather and consider the best practically available scientific information regarding resource areas and farmland in the region; and (6) consider the state housing goals specified in Sections 65580 and 65581, (7) set forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the GHG emissions from automobiles and light trucks to achieve the GHG reduction targets approved by the state board, and (8) allow the RTP to comply with air quality conformity requirements under the federal Clean Air Act.

On September 3, 2020, SCAG's Regional Council adopted the Connect SoCal 2020–2045 RTP/SCS. On October 30, 2020, CARB accepted SCAG's determination that the SCS would achieve GHG emission reduction targets. The 2020-2045 RTP/SCS meets federal and state requirements and is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The RTP/SCS contains baseline socioeconomic projections that serve as the basis for SCAG's transportation planning. It includes projections of population, households, and employment forecasted for the years 2020, 2030, 2035, and 2045 at the regional, county, and local jurisdictional levels, and Traffic Analysis Zones (TAZ) that provide small area data for transportation modeling. However, TAZ-level projections are utilized by SCAG for regional modeling purposes and are not adopted as part of Connect SoCal nor included as part of the Forecasted Regional Development Pattern.

Regional Housing Needs Assessment.

SCAG prepares the RHNA mandated by State law so that local jurisdictions can use this information during their periodic update of the General Plan Housing Element. The RHNA identifies the housing needs for very low income, low income, moderate income, and above moderate-income groups, and allocates these targets among the local jurisdictions that comprise SCAG. The RHNA addresses existing unmet needs and future housing needs. The need for new housing is distributed among income groups so that each community moves closer to the regional average income distribution. The most recent RHNA allocation, the "6th Cycle RHNA Allocation Plan," was adopted by SCAG's Regional Council on March 22, 2021. The City of Los Angeles was assigned a RHNA of 456,643 units, of which 184,721 units must be affordable to lower income households (Very Low and Low levels) for the October 2021 to October 2029 planning period. Local jurisdictions are required by State law to update their General Plan Housing Elements based on the most recently adopted RHNA allocation.

Measure H

Measure H is a county sales tax measure that was passed by Los Angeles County voters in March 2017. Through ¼-cent sales tax, Measure H is expected to generate \$355 million a year for 10 years in funding dedicated to fighting homelessness. The five-year goal is to provide permanent housing for 45,000 families and individuals, while preventing homelessness for 30,000 others. In June 2017, the Board of Supervisors approved funding allocations for each of the Measure H-eligible Homeless Initiative strategies and detailed implementation plans were developed for new strategies and those that are significantly expanded and/or enhanced with Measure H funding.

LOCAL

The Housing Authority of the City of Los Angeles (HACLA) Year 2022 Agency Plan (Agency Plan)

The Agency Plan sets forth the Housing Authority's primary goals, as well as policies to support those goals. Goals include financing the redevelopment and rehabilitation of public housing assets, improve the public housing community environment through a public safety approach, and maintain comprehensive economic development and self-sufficiency opportunities for extremely-low, very-low, and low income

residents and program participants (HACLA 2022). The Plan also reports on the status of existing public housing initiatives.

City of Los Angeles General Plan

The City General Plan was prepared pursuant to State law to guide future development and to identify the community's environmental, social, and economic goals. The General Plan sets forth goals, objectives, and programs to provide a guideline for day-to-day land use policies and to meet the existing and future needs and desires of the community, while at the same time integrating a range of State-mandated elements including Transportation, Noise, Safety, Housing, Open Space/Conservation, and Environmental Justice. The General Plan also includes the General Plan Framework Element (General Plan Framework), discussed below, and the Community Plan, which guides land use at the level of the community plan area.

Framework Element

The General Plan Framework sets forth a Citywide comprehensive long-range growth strategy and defines Citywide policies regarding land use, housing, urban form, neighborhood design, open space and conservation, economic development, transportation, infrastructure, and public services. General Plan Framework land use policies are implemented at the community level through the City's Community Plans and Specific Plans. The General Plan Framework also includes population, housing, and employment projections to guide future Community Plan amendments. However, the General Plan Framework makes clear that its population forecasts are estimates for guiding amendments: "... it [Framework Element] is not dependent upon these population levels or distributions for its implementation. It does not mandate specific levels of growth for any specific area (neither minimums nor caps)."

The General Plan Framework housing chapter states that housing production has not kept pace with the demand for housing. According to the General Plan Framework, the City has insufficient vacant properties to accommodate the projected population growth and the supply of land zoned for residential development is constrained. The Housing Chapter states that new residential development will require the recycling and/or intensification of existing developed properties. The General Plan Framework states that the City must strive to meet the housing needs of the population in a manner that contributes to stable, safe, and livable neighborhoods, reduces conditions of overcrowding, and improves access to jobs and neighborhood services, particularly by encouraging future housing development near transit corridors and stations. The Housing Chapter includes goals, objectives and policies to guide future development. In particular, Policy 4.1.1 states that the City should "[p]rovide sufficient land use and density to accommodate an adequate supply of housing units by type and cost within each City subregion to meet the 20-year projections of housing needs." Objective 4.2 "[e]ncourage[s] the location of new multi-family housing development to occur in proximity to transit stations, along some transit corridors, and within some high activity areas with adequate transitions and buffers between higher-density developments and surrounding lower-density residential neighborhoods."

Housing Element

The Housing Element of the General Plan is prepared pursuant to State law and provides planning guidance in meeting the housing needs identified in SCAG's RHNA. The Housing Element identifies the City's housing conditions and needs, establishes the goals, objectives, and policies that are the foundation of the City's housing and growth strategy, and provides the array of programs the City intends to implement to create sustainable, mixed-income neighborhoods. The State requires that the Housing Element include a detailed analysis of the City's demographic, economic and housing characteristics; a comprehensive analysis of constraints to producing and preserving housing; a review of the City's progress in implementing current housing policies and programs; an identification of goals, objectives, and policies, in addition to a

full list of program that will implement the vision of the plan; and a list of sites that could accommodate new housing, demonstrating the City's ability to meet its RHNA allocation.

The 2021-2029 Housing Element, an update to the previous 2013-2021 Housing Element that is based on the updated 2021 RHNA, was adopted by the City Council on November 24, 2021. Policies include Policy 1.1.2, which states that the City should “[p]lan for appropriate land use designations and density to accommodate an ample supply of housing units by type, cost, and size within the City to meet housing needs, according to Citywide Housing Priorities and the City’s General Plan.” Also, Policy 1.1.6, states that the City should “[a]llocate citywide housing targets across Community Plan areas in a way that seeks to address patterns of racial and economic segregation, promote jobs/housing balance, provide ample housing opportunities, and affirmatively further fair housing.” The Housing Element carries forward the goals of the Framework Element Housing chapter to encourage the development of livable neighborhoods and preservation of the housing supply.

Further, Chapter 1, Housing Needs Assessment, identifies the City’s share of the housing needs established in the RHNA. In particular, Table 1.27, City of Los Angeles Regional Housing Needs Assessment Allocation, indicates that the City’s needs assessment allocation includes 456,643 housing units. Of that total number, approximately 40 percent of the units (184,732 units) must be affordable to Very Low- and Low-income households. The identified housing needs represent targets to be met and do not establish development caps. The allocation of 456,643 housing units represents one-third of the total need of 1,341,827 housing units identified for the six-county SCAG region. The percentage significantly increased from the previous housing needs cycle (5th cycle) and City proportion, which was approximately one-fifth of the regional need for the same types of units. As previously stated, there is a significant increase because the current housing needs cycle includes existing unmet housing needs in the allocation number. The City’s 2021-2029 Housing Element identified an anticipated shortfall and the need for a Rezoning Program, which “prioritizes additional housing capacity, particularly lower-income capacity, in Higher Opportunity Areas, promotes housing near transit, and protects environmentally sensitive areas.”

Land Use Element

The Land Use Element of the City’s General Plan includes 35 community plans. Community plans are intended to provide an official guide for future development and propose approximate locations and dimensions for land use. The community plans establish standards and criteria for the development of housing, commercial uses, and industrial uses, as well as circulation and service systems. The community plans implement the City’s General Plan Framework at the local level. The community plans consist of both text and an accompanying generalized land use map. The community plans’ texts express goals, objectives, policies, and programs to address growth in the community. The community plans’ maps depict the desired arrangement of land uses as well as street classifications and the locations and characteristics of public service facilities. Per State law, each community plan must be consistent with the other elements and components of the General Plan and, thus, incorporates information from these plans. The Community Plan includes residential, commercial, and industrial objectives and policies that establish a development concept for its neighborhoods and districts. The Central City North, Northeast LA and Silverlake/Echo Park/Elysian Valley Community Plans are among the 35 community plans that make up the City’s Land Use Element.. The Proposed Project would update the goals and policies of the Central City North, Northeast LA and Silverlake/Echo Park/Elysian Valley Community Plans Community Plans to reflect land use patterns, address land use issues, and carry out the community’s vision for the Project Area.

City of Los Angeles Consolidated Plan (2018-2022)

The 2018-2022 Consolidated Plan (ConPlan) is the City’s strategic plan for leveraging annual allocations of federal funds granted by HUD (e.g., Community Development Block Grant, Emergency Solutions Grant, HOME Investment Partnerships Program (HOME), and Housing Opportunities for Persons with AIDS).

The City's 2018-2022 ConPlan represents the nation's first transit-oriented ConPlan and integrates transit, community, economic, and housing development investments. The ConPlan identifies the City's fiscal and policy challenges, establishes goals, and projected five-year goal outcomes to be achieved with federal funds. The Five-Year Plan in turn informs an Annual Plan prepared by the City each year that provide action plans for implementing projects and programs funded with federal grants (Los Angeles Housing + Community Investment Department 2018).

Plan for a Healthy LA (General Plan Health, Wellness and Equity Element)

In 2015, the City adopted the Plan for a Healthy Los Angeles as an Element of the General Plan. The development of the Plan built on the Health Atlas for the City of Los Angeles (2013), which provided a data-driven methodology for identifying and addressing key health issues and community vulnerabilities in Los Angeles and helped inform the Plan's outreach efforts, policies, and goals. On November 24, 2021, the City Council approved targeted amendments to the Plan for a Healthy LA that address environmental justice (Senate Bill 1000); the Plan for a Healthy LA is the document that houses the City's environmental justice goals, policies, and implementation programs. The Plan for a Healthy LA identifies housing as a key component of building a healthier and more just city. Several of the policies in the element speak to housing, such as Policy 1.6 "Reduce the debilitating impact that poverty has on individual, familial, and community health and well-being by: promoting cross-cutting efforts and partnerships to increase access to income; safe, healthy, and stable affordable housing options; and attainable opportunities for social mobility."

Los Angeles Municipal Code (LAMC)

Zoning regulations provide for the types and densities of commercial, institutional, industrial, and residential uses permitted in each of the City's zones. Zoning in the City establishes the maximum allowable development in a zone. Zoning also includes height limitations and other development standards which together regulate setbacks, building heights, floor area ratios (FAR), open space and parking for each parcel within the City, as applicable.

The LAMC is currently undergoing a comprehensive update to all Zoning Code sections as part of the re:code LA effort. Re:code LA, which started in 2013, will update the Zoning Code to make the Code more streamlined, visual, and easy to use. The existing Zoning Code will continue to be located in Chapter 1 of the Los Angeles Municipal Code, while the New Zoning Code will be located in a new Chapter 1A of the Los Angeles Municipal Code.

Affordable Housing and Labor Standards Initiative (Proposition JJJ)

Proposition JJJ, approved on November 8, 2016, is a measure to impose affordable housing and local labor hiring requirements on new development projects, as well as set a minimum wage for hired construction workers. Key provisions of measure JJJ are as follows:

- All development projects that include 10 or more residential units and require changes to the General Plan or other zoning would be required to make a percentage of the units affordable to low-income and working residents or pay a fee to fund affordable housing and enforce laws that protect renters.
- Developers of any such residential projects would have to hire contractors who:
 - Are licensed according to City and State law.
 - Guarantee to offer at least 30 percent of work-hours to city residents, with 10 percent coming from those living within five miles of the project.
 - Pay standard wages for the area; and

- Employ members of apprenticeship training programs and workers with real-world experience.
- Amendments to community plans requires an assessment to consider whether the amendment will “reduce the capacity for creation and preservation of affordable housing and access to local jobs.”
- Developers would be required to make as much as 20 percent of the units in a project affordable for low-income and working renters. That number can be as high as 40 percent for homes that are for sale.
- Moreover, projects planned around public transit within a half mile of significant public transit stops would be encouraged through an incentive program that would apply only to projects that include affordable housing and require contractors to comply with the restrictions laid out in the second bullet above.
- No tax dollars to be used.

Transit Oriented Communities (TOC) Affordable Housing Incentive Program

Pursuant to the voter-approved Measure JJJ, LAMC Section 12.22 A.31 was added to create the Transit Oriented Communities (TOC) Affordable Housing Incentive Program (TOC Program). The program provides incentives for developers to build affordable housing located within a one-half mile radius of major transit stops; see Section 4.10, *Land Use*, for more information. All development projects that include 10 or more residential units and involve a zone change, general plan amendment, or height district change would be subject to the new requirements.

Affordable Housing Linkage Fee (AHLF) Ordinance

The City Council adopted the AHLF Ordinance on December 13, 2017 and became effective on February 17, 2018, with a phased-in fee structure. The AHLF Ordinance places a fee on certain new market-rate residential and commercial developments to generate local funding for affordable housing. The fee amount is based on the fee schedule in effect at the time the building permit for a project is issued, and the market area within which it is located. Fees will be adjusted annually for inflation beginning July 1, 2019 using the Consumer Price Index (CPIU). The market areas may be updated by City Council every five years beginning July 1, 2023.

Affordable Housing Trust Fund

The City created and administered the Affordable Housing Trust Fund (Fund), which is codified in the LAMC. The Fund establishes a special fund for the purposes of receiving and disbursing monies to address the affordable housing needs of the City. The Fund requires 25 percent of the received initial and continuing net revenue of the 2001 business tax and payroll expense tax amnesty program and the revenue program of the Revenue and Taxation Code Section 1955.1 (Assembly Bill 63) be allocated to the Fund.

Density Bonus Ordinance

The purpose of the City’s Density Bonus Ordinance, codified as LAMC Section 12.22 A.25, is to establish procedures for implementing State Density Bonus requirements, as set forth in California Government Code Sections 65915-65918, and to increase the production of affordable housing, consistent with City policies. Subject to the provisions of LAMC Section 12.22 A.25, housing development projects that include an affordable housing component or a senior citizen housing development project may be granted a density bonus, allowing for a density increase over the otherwise maximum allowable residential density under the applicable zoning ordinance and/or specific plan. The density bonus is determined based on the percentage and type of restricted affordable housing units provided and shall not exceed 35 percent. The amount of parking required for these projects may also be reduced. In addition, a housing development project that

qualifies for a density bonus may be granted incentives set forth in the ordinance that allow for modification to a City development standard or requirement.

Homelessness Reduction and Prevention, Housing, and Facilities Bond (Proposition HHH)

Proposition HHH, approved on November 8, 2016, is a \$1.2 billion general obligation bond to finance the construction of supportive and affordable housing for homeless people in the City. The purpose of the bond is to provide safe, clean affordable housing for the homeless and for those in danger of becoming homeless, such as battered women and their children, veterans, seniors, foster youth, and the disabled; and provide facilities to increase access to mental health care, drug and alcohol treatment, and other services.

Residential Hotel Unit Conversion and Demolition Ordinance

The Residential Hotel Unit Conversion and Demolition Ordinance (RHO) prohibits conversion or demolition of dwelling units in a residential hotel without approval from the Housing + Community Investment Department (HCIDLA). The ordinance adds Article 7.1 to Chapter IV of the LAMC and amends Sections 91.106.4.1, 151.06, and 151.09 (City of Los Angeles 2008). The ordinance seeks to preserve dwelling units provided by residential hotels, which often serve as affordable housing for the very low income, elderly, and disabled (HCIDLA 2018).

Rent Stabilization Ordinance (RSO)

The City's RSO was established in response to the shortage of affordable housing in Los Angeles and went into effect May 1, 1979. The RSO's purpose is to regulate rents so as to safeguard tenants from excessive rent increases, while at the same time providing landlords with just and reasonable returns from their rental units. The RSO addresses allowable rent increases, the registration of rental units, legal reasons for eviction, and the causes for eviction requiring relocation assistance payment to the tenant. Properties subject to the RSO are those that are within the City limits, contain two or more units, and have a Certificate of Occupancy prior to October 1, 1978, as well as replacement units under LAMC Section 151.28. A complaint can be filed by any tenant who believes that an owner, manager, or agent has committed a violation of the RSO. The Housing and Community Investment Department oversees and enforces the RSO. The RSO comprises Chapter XV of the LAMC.

In 2017, two ordinances amending the RSO went into effect. The "Ellis Amendments" (Ordinance No. 184873) amended the RSO requirements for demolition or permanent withdrawal of RSO units. The amendments provide clarification on the applicability of RSO to both vacant and occupied units, the unit withdrawal process, and relocation service requirements. In addition, the amendments require that property owners file annual status reports on withdrawn properties and allow landlords to qualify for an exemption on newly constructed units where RSO units are demolished by providing a certain amount of affordable housing. The second amendment (Ordinance No. 184822) addresses relocation assistance for unpermitted rental units and requires that eviction notices must list one of the permitted RSO eviction reasons (Los Angeles Housing + Community Investment Department 2017).

City of Los Angeles Accessory Dwelling Units (Ordinance No. 186481)

The City Council adopted Ordinance No. 186481 on December 19, 2019 (CF 16-1468), which provides for the creation of Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) consistent with California Code Sections 65852.2 and 65852.22. "The ADU Ordinance incorporates state ADU provisions and further regulates the size and form of ADUs in relation to the main home, requires additional standards for construction of new ADUs in certain hillside neighborhoods, and allows for Movable Tiny Houses to be used as ADUs." The ordinance specifies the development standards and requirements for the different types of ADUs and JADUs permitted in the City. ADUs are generally not permitted on lots that

are designated as both a Very High Fire Hazard Severity Zone and a Hillside Area, unless specific development standards are met. The ordinance also has parking standards of generally one parking space per ADU, although there are exemptions available under certain conditions, such as if the ADU is within one-half mile walking distance of public transit. The Department of City Planning issued a memo on February 27, 2020 regarding the implementation of the City's ADU Ordinance and the State ADU law, summarizing key provisions applicable to detached ADUs and Movable Tiny Houses and key provisions applicable to attached ADUs and JADUs.

Green New Deal

In April 2019, Mayor Eric Garcetti released the Green New Deal (Sustainable City pLAn 2019), a program of actions designed to create sustainability-based performance targets through 2050 in order to advance economic, environmental, and equity objectives. L.A.'s Green New Deal is a mayoral initiative rather than an adopted plan and is the first four-year update to the City's first Sustainable City pLAn that was released in 2015. It augments, expands, and elaborates in even more detail L.A.'s vision for a sustainable future and it tackles the climate emergency with accelerated targets and new aggressive goals. The Housing & Development Chapter of the Green New Deal includes the following targets for the number of new housing units to be provided within the City:

- Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035.
- Increase cumulative new housing unit construction to 150,000 by 2025; and 275,000 units by 2035.
- Create or preserve 50,000 income-restricted affordable housing units by 2035 and increase stability for renters.

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance were developed in accordance with CEQA Guidelines, specifically, Appendix G. The Proposed Project would have a significant impact with respect to population and housing if it would:

- Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure) (Threshold 4.12.1)
- Displace substantial amounts of existing people or housing, necessitating the construction of replacement housing elsewhere (Threshold 4.12.2)

METHODOLOGY

Growth Inducement

This analysis considers reasonably anticipated population, housing unit, and employment growth that would occur with implementation of the Proposed Project, and whether this growth within local or regional forecasts, whether it can be considered substantial with respect to growth projections Citywide, and whether it would result in the displacement of housing or people which could then result in the need for replacement housing.

For Threshold 4.12.1, the following criteria related to growth inducement are considered relevant to the Proposed Project:

- The degree to which the project would cause growth (i.e., new housing or employment generators) or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of project occupancy/build out, and that would result in an adverse physical change in the environment;
- Whether the project would introduce unplanned infrastructure that was not previously evaluated in the adopted Community Plan or General Plan;
- The extent to which growth would occur without implementation of the project.

The State of California requires regions and cities to plan for changes in population, housing, and employment. If regional growth is projected, each city must accommodate a share of anticipated growth. SCAG is responsible for producing socio-economic estimates and projections at multiple geographic levels. The socio-economic estimates and projections are used for state mandated long-range planning efforts, such as the RTP/SCS. Every four years, SCAG prepares socioeconomic projections that are used by various City departments and agencies for their long-range planning efforts. These projections are derived from a combination of sources and consider factors such as birth rates, migration rates, historical trends, household size, market and economic projections, existing and planned land uses, and consistency with relevant adopted local, regional and state land use policies and growth strategies.

The citywide population is anticipated to increase by 13 percent from the 2021 estimate to approximately 4.6 million persons by the year 2040, according to the SCAG 2016-2040 RTP/SCS. The growth projections for the City of Los Angeles are based on several factors, including historical development trends, land values, as well as smart growth strategies to direct development to areas in proximity to rail and major bus stations, community centers, regional centers, and Downtown Los Angeles.

The Los Angeles Department of City Planning (LADCP) allocates the City's projected population and employment to the City's 35 community plans consistent with the City's General Plan Framework Element and other City policies, which call for directing growth to regional, commercial and transit centers. The City then accommodates the projected levels of population, housing, and employment through its Community Plan updates. With implementation of the Cornfield Arroyo Seco Plan Update, the zoning designations, intensities, and densities of the Project Area would be updated to accommodate population growth, housing, and employment demand projected by SCAG through the year 2040, as well as to meet the other project objectives, including locating growth in transit centers and along transit corridors. The development growth assumptions for the Proposed Project are based on the acreage of land designated for each type of land use; allowable densities and intensities in each designation; anticipated levels of development in the life of the Proposed Project; and development constraints, such as topography, land values, and historic preservation regulations (as described in Methodology, Appendix B)

As discussed in Appendix B, the reasonably anticipated development and associated growth in population, housing and employment anticipated to occur with the Proposed Project is based on assumptions about the level of development that can be reasonably expected to occur during the life of the Proposed Project (through the horizon year 2040), given the Proposed Project's land use designations, zoning/height districts, and policies and using best practices and knowledge. Past building data demonstrates that not all sites will be built to the maximum densities permitted by the Project for a variety of reasons including economic conditions, market trends, financial lending practices, construction and land acquisition costs, physical site constraints, and other General Plan policies or regulations. For this reason, 100 percent development to maximum allowable densities and intensities is a theoretical scenario that is not analyzed, but rather a more realistic reasonably anticipated development is used to guide and analyze the potential environmental impacts of those changes.

For all impact areas, the analysis in this section considers reasonably expected population, housing, and employment growth that would occur with implementation of the Proposed Project.

Displacement

For Threshold 4.12.2, the determination of significance related to population and housing displacement takes into consideration the following factors that are considered relevant to the Proposed Project:

- The total number of residential units to be demolished, converted to market rate, or removed through other means as a result of the Proposed Project, in terms of net loss of market-rate and affordable units;
- The current and anticipated housing demand and supply of market rate and affordable housing units in the area;
- The land use and demographic characteristics of the area and the appropriateness of housing in the area; and
- Whether the Proposed Project is consistent with adopted City and regional housing policies such as the Framework and Housing Elements, HUD Consolidated Plan and CHAS policies, and the adopted Redevelopment Plans, Rent Stabilization Ordinance, and the RTP/SCS.

Loss of affordable housing and displacement of low-income renters is a social and economic impact, which is not a CEQA impact unless it results in an indirect physical impact (Porterville Citizens v City of Porterville). Based on this, an impact from loss of affordable housing and displacement in this EIR will be an impact if it results in a physical impact to the environment, such as from construction of new housing elsewhere. It may also be from transportation or other impacts related to people driving a farther distance. The CEQA Guidelines require a lead agency to consider the reasonably foreseeable indirect environmental consequences of a project’s economic or social impacts. To require an analysis of the indirect physical impacts, the social and economic impacts must be supported by substantial evidence. An EIR would be required to analyze reasonably foreseeable, not speculative impacts, resulting from social and economic impacts (CEB Friends of Davis v City of Davis).

SCAG RTP/SCS data on population, housing, and employment projections are used as a benchmark or a reference point to guide the local planning process. The analysis below compares reasonably expected population, housing, and employment to the 2021 baseline and SCAG’s 2040 projections. If there is potential for a net decrease in residential units or net loss of market-rate or affordable units as a result of the Proposed Project, necessitating the construction of replacement housing elsewhere, then, their impact related to displacement would be considered significant.

PROJECT IMPACTS

Threshold 4.12-1	Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)
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Impact 4.12-1 **Proposed Project:** The Proposed Project would increase the development capacity of the Project Area in a manner consistent with regional growth projections and the City’s vision. Therefore, it would not induce substantial population growth, either directly or indirectly. This impact would be *less than significant*.

Project Impact

A significant impact for purposes of this threshold is if the Proposed Project induces unplanned growth into an area. The underlying purpose of the Proposed Project is to accommodate forecasted Citywide growth. Growth in the Project Area is not a significant impact if it can be accommodated by existing or planned development, would not require unplanned development the construction of which would result in significant physical impacts, and is consistent with the City's Framework Element, as well as State and Regional policies and regulations.

The Proposed Project would increase the residential development capacity of the Project Area by updating the zoning designations to allow for an increase in the residential intensity of development relative to existing conditions. **Table 4.12-4** summarizes population, housing, and jobs estimates for the Project Area under existing (2021) and 2040 conditions with and without the Proposed Project. The Project 2040 estimates are based on the reasonably anticipated development for the area, rather than the maximum allowable build-out, which would not be realistic and is not supported by past building trends. The Proposed Project's zoning and land use designations establish the basis for where, how, and what type of development can occur in the Project Area through 2040.

Based on the increased development capacity of the Proposed Project, the Project Area would accommodate approximately an additional 51,000 persons (an increase of 850 percent relative to baseline conditions), from 6,000 to 57,000 persons; 18,000 housing units (an increase of approximately 900 percent), from 2,000 to 20,000 units; and approximately an additional 3,000 jobs (an increase of 60 percent), from 5,000 to 8,000 jobs. The Project Area would experience substantial growth in population and housing for the Project and No Project scenarios in 2040. The number of jobs would be slightly lower with the Project 2040 compared to No Project 2040, which is reasonably anticipated with the increase in land with a residential emphasis zoning designation.

TABLE 4.12-4 EXISTING (2021) AND 2040 DEVELOPMENT PROJECTIONS			
	Population	Housing	Jobs
Existing Project Area (2021) /a/	6,000	2,000	5,000
2040 with Project /b/	57,000	20,000	8,000
Change	51,000	18,000	3,000
Percent Change	850%	900%	60%
2040 without Project /b/	36,000	13,000	10,000
Change	30,000	11,000	5,000
Percent Change	500%	550%	100%
Notes: Numbers are rounded to the nearest thousand and percentages are calculated from the rounded values.			
SOURCE: /a/ SCAG Projections - SCAG 2016-2040 RTP/SCS			
/b/ 2040 with and without Project Projections - LADCP 2021a			

The updates to the existing Project Area are intended to provide for a development capacity consistent with long-range SCAG growth projections. The Project Area's 2040 development capacity needs to be sufficient to meet projected population, housing, and employment for the area. Although potential impacts of the Proposed Project are analyzed based on the Project's 2040 reasonably anticipated development against SCAG's 2040 citywide projections, a comparison of population, housing and employment capacity with and without the 2040 Project is presented in **Table 4.12-5** for informational purposes only.

TABLE 4.12-5 COMPARISON OF SCAG AND LADCP PROJECT AREA DEVELOPMENT PROJECTIONS			
	Population	Housing	Jobs
SCAG 2040 Project Area projections	14,000	5,000	9,000
2040 with Project	57,000	20,000	8,000
Would the SCAG 2040 Project Area projections accommodate projected growth with the Project?	Yes	Yes	No
2040 without Project	36,000	13,000	10,000
Would the SCAG 2040 Project Area projections accommodate projected growth without the Project?	Yes	Yes	Yes
Notes: Numbers are rounded to the nearest thousand, and percentages are calculated from the rounded values. SOURCES: SCAG Projections - SCAG 2016-2040 RTP/SCS; 2040 with and without Project Projections - LADCP 2021			

While the Proposed Project is expected to result in population and housing exceeding SCAG forecasts for the Project Area, it would not result in growth exceeding SCAG citywide projections for 2040. **Table 4.12-6** compares the projected Project development capacity to Citywide SCAG projections and evaluates the area’s contribution to citywide growth. As demonstrated in the table, implementation of the Proposed Project would not result in an increase in population, housing, and jobs exceeding projected increases for the City.

As indicated in **Table 4.12-6**, the Project Area would accommodate a proportion of the City’s growth with implementation of the Proposed Project, comprising nine percent of population growth, eight percent of housing growth, and one percent of employment growth. The Project Area’s substantial growth is consistent with historical trends shown in **Tables 4.12-1, -2, and -3**, which indicate that the Proposed Project’s population and housing growth have exceeded Citywide trends in the past decade. The City has discretion in how it allocates growth across the City to meet other objectives and has historically allocated more growth to the Project Area than SCAG, consistent with the City’s General Plan Framework. This allocation is also consistent with SCAG’s 2016-2040 RTP/SCS and 2020-2045 RTP/SCS goal of reducing Vehicle Miles Travelled (VMT) by accommodating a majority of new housing and jobs in areas within half a mile of major transit stops or high-quality transit corridors, as well as SCAG’s objective of generally directing future growth to High Quality Transit Areas (HQTAs).

TABLE 4.12-6 PROJECT CONTRIBUTION TO PROJECTED CITYWIDE GROWTH AND DEVELOPMENT			
	Population	Housing	Jobs
2021 Citywide Baseline	4,047,000	1,454,000	1,913,000
2040 Citywide SCAG Projections	4,609,000	1,690,000	2,169,000
Change	562,000	236,000	256,000
Citywide Percent Change	14%	16%	13%
Existing Project Area (2021)	6,000	2,000	5,000
2040 with Project	57,000	20,000	8,000
Project Change	51,000	18,000	3,000
Percent of Projected Citywide Growth Resulting from Project	9%	8%	1%
Notes: Numbers are rounded to the nearest thousand and percentages are calculated from the rounded values. SOURCES: Citywide baseline and 2040 Citywide SCAG Projections– SCAG 2016 -2040 RTP/SCS; Existing CASP – SCAG 2016-2040 RTP/SCS; Project data - LADCP 2021			

The Proposed Project does not directly entail construction of individual development or infrastructure projects. Instead, it includes policies and policy changes to guide their development. Although an EIR must analyze reasonably foreseeable indirect physical impacts for a project, it is not required to analyze speculative development. There is no major infrastructure projects related to the Proposed Project currently anticipated. Furthermore, impacts to population due to major infrastructure projects will be evaluated by the projects' lead agencies and mitigated, as feasible, through the environmental review process for the individual projects.

The City accommodates for projected levels of population, housing, and employment growth through its Community and Specific Plan updates. Through implementation of the Proposed Project, the land use designations, intensities, and densities of the CASP would be revised to accommodate the SCAG's projected population growth, housing, and employment demand. The Proposed Project would expand the development capacity of the Project Area in a manner consistent with SCAG projections. Therefore, the Proposed Project would not induce substantial unplanned population growth, either directly or indirectly, and impacts would be *less than significant*.

Mitigation Measures

Impacts related to population, housing and employment growth as a result of the Proposed Project are less than significant; therefore, mitigation is not required.

Threshold 4.12-2	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.
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Impact 4.12-2 **Proposed Project:** The Proposed Project would accommodate new development and redevelopment projects in the Project Area that could potentially result in some displacement of existing housing units and residents. However, the Proposed Project would establish zoning regulations that are expected to substantially increase the capacity for housing stock in the Project Area and support the provision of affordable housing. In addition, local policies and regulations would require and/or incentivize many future development projects in the Project Area to provide market rate and affordable units. This impact would be *less than significant*.

Project Impact

The Proposed Project would allow for new development and redevelopment projects in the Project Area. However, no property owners would be required to redevelop their property. The Proposed Project does not require any existing housing to be demolished or reduced in order to be consistent with the Project's land use designations and zoning. In effect, existing development on the ground could be maintained and established uses could continue to operate. Future development would be subject to the Proposed Project once effective. With that said, reasonably anticipated development from the Proposed Project is anticipated to result in redevelopment that has the potential to result in the displacement of some existing housing units and residents, including homeless residents, during construction. However, the number of displaced units and residents and locations of any replacement housing, if needed, would be speculative.

The Project Area has approximately 2,000 dwelling units in 2021. Twenty-two percent of the CASP's existing housing stock (471 units) is comprised of single-family homes (including attached and detached homes), while the remainder (1,596 units) is comprised of multi-family residential developments. The number of existing multi-family residential units within the Project Area is summarized in **Table 4.12-7**.

TABLE 4.12-7 MULTI-FAMILY HOUSING STOCK IN THE PROJECT AREA (2021)			
Name	Year Built	Number of Units	Percentage
Puerta Del Sol	2006	165	
Alta Lofts	2010	102	
Subtotal – For Sale (Market Rate)		267	17%
Properties with Less Than 50 Units	--	172	
Lacy Studio Lofts	2008	58	
Llewellyn Apartments	2021	318	
Subtotal – For Rent (Market Rate)		548	34%
William Mead Homes	1942	412	
Camino al Oro	2005	102	
Flores del Valle	2006	146	
Tesoro Del Valle	2006	121	
Subtotal – For Rent (100% Affordable)		781	49%
TOTAL Multi-Family Housing Stock		1,596	100%
SOURCE: LADCP 2021			

With respect to single-family homes in the CASP, the Proposed Project would not change the zoning of such properties in the Project Area, which are predominantly zoned RD1.5 or RD2. In fact, the Proposed Project would amend the CASP map boundaries to exclude from the Specific Plan any properties that have RD1.5 or RD2 zoning. As a result, it is unlikely that redevelopment on those sites, and physical impacts related to displacement and the need to construct replacement housing outside of the Project Area, would occur as a result of the Proposed Project's updated zoning designations. With respect to the existing multi-family buildings in the Project Area, approximately 74 percent of units were constructed within the past 20 years and are likely to have considerable remaining service life, and nearly half of all multi-family units in the Project Area are subject to affordable housing covenants, lowering the likelihood that existing multi-family residential properties in the Project Area would be redeveloped with new structures as a result of the Proposed Project's revised zoning designations. Nonetheless, displacement of some residences is a reasonably foreseeable result of development or redevelopment that could occur under the Proposed Project, should a property owner decide to utilize the full development potential of their site. There may be a lag time between displacement and the development of replacement housing in some instances. However, it would be speculative to attempt to identify how many units and people might be displaced, and what the lag time, if any, might be. In addition, as discussed under Impact 4.12-1 and further below, implementation of the Proposed Project is projected to substantially increase the overall housing stock in the Project Area. Finally, the City has adopted a number of policies, standards, and incentives, including those in the Proposed Project, that are specifically aimed at providing affordable housing in association with new housing development and reducing homelessness. As such, the Proposed Project would not necessitate the construction of replacement housing elsewhere. As identified in Section 4.10, *Land Use and Planning*, of this EIR, the Proposed Project would strengthen the existing CASP's affordable housing requirements, including the recalibration of the CASP's existing incentive zoning system; establish a new Community Benefits Program that incentivizes new publicly-accessible open space and community facilities; include provisions that facilitate the production of new 100% affordable housing and permanent supportive housing projects on public land; increase the zoning capacity for housing in targeted areas; and adopt a modernized zoning system based on the City's new modular Zoning Code. The Proposed Project is projected to

accommodate a substantial net increase in the number of available housing units, especially affordable, mixed-income, and permanent supportive housing units, in the Project Area.

As shown in **Table 4.12-4**, above, the Proposed Project is expected to accommodate an increase in the number of available housing units in the Project Area from approximately 2,000 units to 20,000 units by 2040, an increase of 18,000 units. Based on the Project's potential to increase housing units in the Project Area by approximately 900 percent, it is anticipated that any replacement housing need created by displacement of existing housing would be more than offset through implementation of the Project. Furthermore, the Proposed Project includes specific programs to incentivize the production of affordable housing. The Proposed Project introduces new opportunities for affordable housing in all areas of the CASP that allow residential uses, as well as on publicly-owned land.

Concerns about indirect displacement of people, including those with lower incomes, have been raised in the Project Area, other Plan Areas, and citywide. The rising cost of housing is currently a concern throughout the City, reflective of the shortage of housing in the City and the region as a whole. As population growth continues to outpace the production of housing units, the existing supply of housing is in higher demand which leads to higher rents/prices. Many renters are experiencing financial strain as average rents rise, and would-be homeowners watch as neighborhoods where home prices may have once been within their reach grow prohibitively expensive. While the majority of multi-family rental units in the Project Area is covenanted affordable, this occurrence may result in displacement of renters and may result in the need for people that live in the Project Area to move outside the Project Area or potentially outside of the City. But there is no substantial evidence that there is a reasonable method to predict how many people may potentially be displaced in the Project Area over the Project horizon, including from new investment through redevelopment allowed by the Proposed Project. Additionally, there is no industry standard methodology available to forecast transportation, air, noise, or other impacts associated with people who have moved out of the Project Area. The City has adopted several citywide responses to help relieve pressures on the housing supply (e.g., Affordable Housing Linkage Fee, Accessory Dwelling Units Ordinance, Unapproved Dwelling Unit Ordinance, TOC, etc.) and the State of California has recently passed several state laws to address the housing crisis. Recent state laws such as AB 1482, also set forth requirements for landlords to have a "just cause" in order to terminate a tenancy and limits to annual rent increases

As discussed in the Existing Setting, the City has adopted regulations and policies that require or incentivize the provision of affordable housing in new development projects that apply Citywide. As discussed in Section 4.12.3, *Regulatory Framework*, these policies include the Density Bonus Ordinance (LAMC Section 12.22 A.25) and affordable housing mandates included in Proposition JJJ. The Density Bonus Ordinance would incentivize the provision of affordable and/or senior housing units in new development projects by offering projects that provide these units additional floor area ratios. Proposition JJJ includes a measure requiring new development projects requesting a zone change or general plan amendment in the City to designate a certain percentage of condos and apartments in new residential buildings for low-income tenants. Per the AHLF Ordinance, certain new market-rate residential and commercial developments are required to pay a fee that goes towards funding affordable housing.

Recent state laws such as SB330 also require a right of first refusal for existing lower income tenants, when units are demolished for construction of a new housing project. SB 330 requires 1:1 unit replacement of any units demolished, including the replacement of protected units with the same level of affordability, as well as relocation assistance and no net loss in zoning capacity for housing. The City's Rent Stabilization Ordinance (RSO) would cap increases in rental rates for the dwelling units built on or before October 1, 1978 as well as replacement units under LAMC Section 151.28, so that residents of these units in the Project Area would not likely be indirectly displaced if increased development and improvements to the Project Area raise property values. Furthermore, under the New Zoning Code, proposed development projects

subject to the CASP's Community Benefits Program would be required to replace any lost units with replacement units at an affordable rent.

The Proposed Project is specifically aimed at encouraging affordable, mixed-income, and permanent supportive housing production. Although the number of existing units that might be displaced, if any, by future development cannot be predicted with any degree of certainty, the Proposed Project would substantially increase the overall availability of housing in the Project Area and includes zoning standards, incentives, and/or requirements to support the provision of housing to meet a range of economic and social needs. To that end, it would implement relevant City and regional housing policies as well as those of the RTP/SCS. Future development projects in the Project Area would also be incentivized or required to provide affordable units. Moreover, displacement of housing units likely to occur due to the time lag between demolished units and construction of new units would be temporary and would be offset by the overall net increase in housing under the Proposed Project. Therefore, the Proposed Project is not anticipated to result in the net loss or displacement of housing, necessitating the construction of replacement housing elsewhere. The impact would be *less than significant*.

Mitigation Measures

Impacts related to the displacement of housing or persons as a result of the Proposed Project are less than significant; therefore, mitigation is not required.

CUMULATIVE IMPACTS

Cumulative population and housing impacts consider Citywide growth and development. As indicated in **Table 4.12-6**, Los Angeles is expected to grow substantially in population, housing, and employment through 2040. The City's population is expected to grow from 4,047,000 to 4,609,000 (562,000 residents or 14 percent), the number of households is expected to increase from 1,454,000 to 1,690,000 (236,000 households or 16 percent), and the number of jobs is expected to grow from 1,913,000 to 2,169,000 (256,000 jobs or 13 percent). Citywide growth and development, including in the Project Area, is substantially built-out and most future development in the City is anticipated to occur as infill on vacant or underutilized parcels.

Inducement of Substantial Population Growth

State laws require local governments to regularly assess and plan for future growth. For example, SCAG is required to update its RTP/SCS and accompanying growth projections every four years and the City is required to update its Housing Element, and correspondingly conduct a RHNA, every other RTP/SCS cycle, or every eight years. As discussed under Impact 4.12-1, the Project specifically is intended to accommodate a high proportion of Citywide population, housing, and employment growth projected by SCAG through 2040 in the Project Area because of its proximity to existing and future transit opportunities. Accommodating a high portion of the City's growth in the Project Area would meet both City and SCAG planning objectives related to increasing transit use, reducing regional vehicle miles traveled, and creating more livable communities, but would not cause any exceedance of the overall Citywide growth projection for Los Angeles. Nevertheless, as with the Proposed Project, it is expected that with the City's overall intent is to accommodate sufficient housing to meet SCAG projections, even if some community or specific plan areas accommodate more housing than anticipated by SCAG and others accommodate less. Based on these facts, the Proposed Project would not contribute to cumulatively considerable impacts related to population growth. Cumulative impacts would be *less than significant*.

Displacement of People and Housing

As noted above, the City's intent is to accommodate forecasted housing demand. Through 2040, the City anticipates adding 236,000 housing units. This 16 percent increase as compared to the current citywide housing stock would exceed the 14 percent Citywide population growth over the same time period. As such, although some individual housing units may be displaced as redevelopment of properties occurs throughout the City, the overall effect of implementation of the Project would be to increase the City's housing stock. Thus, although temporary displacement of some individuals could occur, such displacement would not necessitate the construction of new housing beyond what is already planned for and forecast to occur.

As discussed under Impact 4.12-2, implementation of the Proposed Project would accommodate the construction of additional housing, including affordable housing, in an urban center where impacts to many environmental resources can be minimized and would help to offset displacement impacts arising from cumulative development. The Proposed Project is expected to result in a net increase of housing over existing conditions and would allow a variety of new housing types. As noted above, the Proposed Project could result in some temporary displacement of housing units and people due to the time lag between removal and replacement of housing, but this displacement would be offset by the anticipated increases in housing. Therefore, such temporary impacts would not add to other impacts resulting from redevelopment of sites outside the Project Area and permanent displacement of housing and people is not anticipated. Reasonably anticipated development under the Proposed Project has the potential to temporarily displace some people and housing, but the overall effect of the Proposed Project would be a substantial increase in the Project Area housing stock. Overall, the Proposed Project would have a beneficial contribution to any cumulative impacts related to displacement.

Based on the information above, the incremental contribution of the Proposed Project to displacement of people and housing would not be cumulatively considerable. Cumulative impacts would be *less than significant*.

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4.13 PUBLIC SERVICES

This section provides an overview of existing public services and evaluates potential environmental impacts resulting from the provision of public service facilities to accommodate development in the Cornfield Arroyo Seco Specific Plan area (or “Project Area”). Public services addressed include fire and emergency services, police protection services, public schools, and libraries; parks are addressed in Section 4.14, *Recreation*.

Fire Protection and Emergency Services

ENVIRONMENTAL SETTING

The Los Angeles Fire Department (LAFD) provides fire prevention, protection, and emergency medical services throughout Los Angeles. LAFD is a full-spectrum life safety agency that provides essential emergency and non-emergency services throughout the 472-square mile jurisdiction within the City. LAFD consists of 3,435 uniformed fire personnel that provide fire prevention, firefighting, emergency medical care, technical rescue, hazardous materials mitigation, disaster response, public education, and community service. LAFD also consists of 381 professional support staff that provides technical and administrative support to the LAFD. A total of 1,018 uniformed firefighters, in addition to 270 firefighter/paramedics are on active duty citywide serving at 106 neighborhood fire stations (LAFD 2018). In January 2015, the LAFD service areas were re-structured into four geographic bureaus that align with the Los Angeles Police Department (LAPD) geographic boundaries: Central, Valley, West, and South Bureaus. With this updated approach, the LAFD, LAPD, and the City’s Emergency Management Department have developed a more unified effort to respond to emergencies. Each designated Bureau Commander is responsible for all LAFD activities in the respective bureaus. In addition, the LAFD has implemented a new emergency medical dispatch card system, known as the Tiered Dispatch System, to reduce call-processing times; and the LAFD Automatic Vehicle Location System, to ensure the nearest emergency resource is dispatched during calls (LAFD 2015a).

The LAFD provides fire prevention, protection, and emergency medical services throughout Los Angeles. The LAFD is organized into groups of fire stations clustered into battalions within larger geographic groups known as bureaus (LAFD 2022a). Each bureau is commanded by a Deputy Chief who oversees and coordinates daily field operations within each bureau’s respective service area.

PROJECT AREA SETTING

The Project Area is in the service area of the Central Bureau but does not contain any fire stations. LAFD Fire Station 1 is located approximately 700 feet east of the Project Area and is a part of LAFD Battalion 2. LAFD Battalion 2 services Northeast Los Angeles and contains eight fire stations. Its service area is comprised of the residential and light industrial areas situated in the hills east of the Los Angeles River and north of the 10 Freeway. Over 760,000 people live in Battalion 2, 1/5th of population in 1/14th of the geographic areas of the City of Los Angeles (LAFD 2022b). LAFD Fire Stations 3, 4, and 2 are located within a mile of the Project Area and LAFD Fire Station 9 is located within 2 miles of the Project Area, all of which are within Battalion 2 boundaries. These stations along with other neighboring fire stations would be able to assist in responding to fire and medical emergencies in the Project Area.

Service Performance Measures

Table 4.13-1 summarizes the performance statistics for stations that serve the Project Area. The fire stations near the Project Area have an average turn-out time standard for fire incidents and EMS incidents, (which begins at dispatch notification and includes turn-out and travel times) of less than eight minutes.

TABLE 4.13-1 LAFD FIRE STATIONS - CENTRAL BUREAU				
Stations in the Project Area				
Fire Station¹	Address	Overall Operational Response Time (min : sec)¹		
		Non-EMS	EMS	Structural Fire
1	2230 Pasadena Ave Los Angeles, CA 90031 (0.5 mi away)	7:48	7:36	5:20
2	1962 East Cesar Chavez Avenue (0.9 mi away)	6:47	7:01	4:46
3	108 North Fremont Avenue	6:10	7:10	4:49
4	450 East Temple Street	6:55	7:16	5:09
9	430 East 7th Street	6:21	6:48	5:18

¹Average overall response time for January –July 2022.
NOTE: Non-EMS = fire and other services; EMS = Emergency Medical Services; task force = fire truck and two engines
SOURCE: 1. LAFD 2022b 2. LAFD 2022c

LAFD's services continue to be based on the community's needs, as determined by on-going evaluations that consider the number of calls and other factors. These evaluations are used to determine the need for reallocation of existing equipment or personnel and/or the acquisition of new equipment, personnel, or new stations. As development occurs, the LAFD reviews EIRs and subdivisions applications for needed facilities. Where appropriate, construction of new facilities is required as a condition of development for individual projects (Los Angeles 2001).

Fire Flow and Response Distance

The adequacy of fire protection for a given area is based on required fire flow, response distance from existing fire stations, and the LAFD's judgment of needs in the area. Personnel and equipment needs for individual fire stations are determined based on the LAFD's annual review of the number of incidents within a station's service area. As the number of incidents increases, the LAFD assigns new staff and equipment as necessary to maintain acceptable service ratios and response times (Los Angeles 2018). The Fire Code specifies required fire flow (measured in gallons per minute from the local water system) and response distance for fire protection services, as discussed in the Regulatory Framework.

The fire flow necessary to contain a fire depends on the existing land use or combination of land uses and the density of the area being served. Consequently, the amount of water necessary for fire protection depends on various factors, including the type of development, occupancy, and the level or intensity of a fire hazard. Maximum response distances also vary with land use and density of development. Response distance relates directly to the linear travel distance (i.e., miles between a station and a site) and the LAFD's ability to successfully navigate through an area's circulation system. The Fire Code specifies maximum response distances allowed between specific locations and engine/truck companies based upon land use and fire flow requirements.

When response distances exceed these requirements, plans for new commercial and residential structures must be reviewed and various fire suppression equipment (e.g., automatic fire sprinkler systems, fire

signaling systems, fire extinguishers, smoke removal systems, and any other fire protection devices) as deemed necessary by the Fire Chief are required to be incorporated in the plans prior to the approval of an occupancy permit. In addition to fire flow requirements, the LAFD requires different types of fire hydrants within a specified distance to deliver the required fire flow, as discussed in the Regulatory Framework.

REGULATORY FRAMEWORK

Federal, state and local laws, regulations, plans, and guidelines that are potentially applicable to the Proposed Project are summarized below.

FEDERAL

Federal Emergency Management Act (FEMA)

FEMA was established in 1979 via executive order and is an independent agency of the federal government. In March 2003, FEMA became part of the U.S. Department of Homeland Security with the mission to lead the effort in preparing the nation for all hazards and effectively manage federal response and recovery efforts following any national incident. FEMA also initiates proactive mitigation activities, trains first responders, and manages the National Flood Insurance Program and the U.S. Fire Administration.

Disaster Mitigation Act of 2000

Disaster Mitigation Act (42 United States Code [U.S.C.] Section 5121) provides the legal basis for FEMA mitigation planning requirements for state, local, and Indian Tribal governments as a condition of mitigation grant assistance. It amends the Robert T. Stafford Disaster Relief Act of 1988 (42 U.S.C. Section 5121-5207) by repealing the previous mitigation planning provisions and replacing them with a new set of requirements that emphasize the need and creates incentives for state, tribal, and local agencies to closely coordinate mitigation planning and implementation efforts. This Act reinforces the importance of pre-disaster infrastructure mitigation planning to reduce disaster losses nationwide and the streamlining of the administration of federal disaster relief and programs to promote mitigation activities. Some of the major provisions of this Act include:

- Funding pre-disaster mitigation activities
- Developing experimental multi-hazard maps to better understand risk
- Establishing state and local government infrastructure mitigation planning requirements
- Defining how states can assume more responsibility in managing the Hazard Mitigation Grant Program (HMGP)
- Adjusting ways in which management costs for projects are funded

The mitigation planning provisions outlined in Section 322 of this Act establish performance-based standards for mitigation plans and require states to have a public assistance program (Advance Infrastructure Mitigation [AIM]) to develop county government plans. The consequence for counties that fail to develop an infrastructure mitigation plan is the chance of a reduced federal share of damage assistance from 75 percent to 25 percent if the damaged facility has been damaged on more than one occasion in the preceding 10-year period by the same type of event.

Federal Fire Safety Act (FFSA)

The FFSA of 1992 is different from other laws affecting fire safety as the law applies to federal operations, and there is no requirement for local action unless a private building owner leases space to the federal government. The FFSA requires federal agencies to provide sprinkler protection in any building, whether owned or leased by the federal government that houses at least 25 federal employees during their employment.

STATE

California Constitution Article XIII Section 35

Section 35 of Article III of the California Constitution at subdivision (a)(2) provides: “The protection of the public safety is the first responsibility of local government and local officials have an obligation to give priority to the provision of adequate public safety services.” Section 35 of Article XIII of the California Constitution was adopted by the voters in 1993 under Proposition 172. Proposition 172 directed the proceeds of a 0.50 percent sales tax to be used exclusively for local public safety services. California Government Code Sections 30051-30056 provide rules to implement Proposition 172. Public safety services include fire protection. Section 30056 provides that cities are not allowed to spend less of their own financial resources on their combined public safety services in any given year compared to the 1992-93 fiscal year. Therefore, an agency is required to use Proposition 172 to supplement its local funds used on fire protection, as well as other public safety services. In *City of Hayward v. Trustee of California State University* (2015) 242 Cal. App. 4th 833, the court found that, Section 35 of Article XIII of the California Constitution requires local agencies to provide fire services and that it is reasonable to conclude that a lead agency will comply with that provision and ensure that public services are provided. (See *City of Hayward v. Trustee of California State University* (2015) 242 Cal. App. 4th 833, 847, stating “the city has a constitutional obligation to provide adequate fire protection services”.)

California Fire Code

Title 24, Part 9 of the California Code of Regulations (CCR), also referred to as the California Fire Code, is part of the California Building Code and establishes standards regarding fire protection and notification systems for residential and commercial buildings. It includes fire safety requirements and regulations, including implementation of fire protection devices, such as fire extinguishers and smoke alarms, installation of sprinklers in all high-rise buildings, establishment of fire resistance standards for fire doors, buildings materials, and types of construction, clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazards areas, and fire suppression training. The California Fire Code is applicable to all occupancies in California but can be superseded by local regulations if they are more stringent. Regulations in the California Fire Code are incorporated by reference with amendments in the Los Angeles Building Code, Fire Safety Regulations.

California Governor’s Office of Emergency Services (Cal OES)

In 1970 the State of California passed legislation creating the Cal OES and in 1993, authorized it to prepare a Standard Emergency Management System (SEMS) program (Gov. Code Section 8607; Title 19 CCR Section 2401 et seq.), which sets forth measures by which a jurisdiction should handle emergency disasters. In California, SEMS provides the mechanism by which local government requests assistance. Non-compliance with SEMS could result in the state withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster. Cal OES coordinates the state’s preparation for, prevention of, and response to major disasters, such as fires, floods, earthquakes and terrorist attacks. During an emergency, Cal OES serves as the lead state agency for emergency management in the state. It also serves as the lead agency for mobilizing the state’s resources and obtaining federal resources. Cal OES

coordinates the state response to major emergencies in support of local government. The primary responsibility for emergency management resides with local government. Local jurisdictions first use their own resources and, as they are exhausted, obtain more from neighboring cities and special districts, the county in which they are located, and other counties throughout the state through the statewide mutual aid system (see discussion of Mutual Aid Agreements, below). California Emergency Management Agency (Cal-EMA) maintains oversight of the state's mutual aid system.

California Fire Service and Rescue Emergency Aid System

The LAFD participates in the California Fire Service and Rescue Emergency Mutual Aid System through which the California Governor's Office of Emergency Service (OES), Fire and Rescue Division is responsible for the development, implementation and coordination of the California Fire Service and Rescue Emergency Mutual Aid Plan (Mutual Aid Plan). The Mutual Aid Plan outlines procedures for establishing mutual aid agreements at the local, operational, regional, and State levels, and divides the State into six mutual aid regions to facilitate the coordination of mutual aid. The LAFD is located in Region I. Through the Mutual Aid Plan, the OES is informed of conditions in each geographic and organizational area of the state, and the occurrence or imminent threat of disaster. All OES Mutual Aid Plan participants monitor a dedicated radio frequency for fire events that are beyond the capabilities of the responding fire department and provide aid in accordance with the management direction of the OES (LAFD 2014).

California Vehicle Code

Section 21806 of the California Vehicle Code (CVC) pertains to emergency vehicles responding to Code 3 incidents/calls. This section of the (CVC) states the following:

Upon the immediate approach of an authorized emergency vehicle which is sounding a siren and which has at least one lighted lamp exhibiting red light that is visible, under normal atmospheric conditions, from a distance of 1,000 feet to the front of the vehicle, the surrounding traffic shall, except as otherwise directed by a traffic officer, do the following: (a) (1) Except as required under paragraph (2), the driver of every other vehicle shall yield the right-of-way and shall immediately drive to the right-hand edge or curb of the highway, clear of any intersection, and thereupon shall stop and remain stopped until the authorized emergency vehicle has passed. (2) A person driving a vehicle in an exclusive or preferential use lane shall exit that lane immediately upon determining that the exit can be accomplished with reasonable safety. (b) The operator of every street car shall immediately stop the street car, clear of any intersection, and remain stopped until the authorized emergency vehicle has passed. (c) All pedestrians upon the highway shall proceed to the nearest curb or place of safety and remain there until the authorized emergency vehicle has passed.

Title 8 California Code of Regulations (CCR) Sections 1270 and 6773

In accordance with CCR, Title 8 Section 1270, "Fire Prevention," and Section 6773, "Fire Protection and Fire Equipment," the California Occupational Safety and Health Administration (Cal-OSHA) establishes minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

California Health and Safety Code Section 13100-13135

California Health Safety Code Section 13100-13135 codifies regulations known as the "Regulations of the State Fire Marshal" and constitutes the Basic Building Design and Construction Standards of the State Fire Marshall. The regulations establish minimum standards for the preservation and protection of life and

property against fire, explosion, and panic through requirements for fire protection and notification systems, fire protection devices, and fire suppression training.

Mutual Aid Agreements

Cal OES developed the Emergency Managed Mutual Aid (EMMA) System in response to the 1994 Northridge Earthquake. The EMMA System coordinates emergency response and recovery efforts along the coastal, inland, and southern regions of California. The purpose of EMMA is to provide emergency management personnel and technical specialist to afflicted jurisdictions in support of disaster operations during emergency events. Objectives of the EMMA Plan is to provide a system to coordinate and mobilize assigned personnel, formal requests, assignment, training and demobilization of assigned personnel; establish structure to maintain the EMMA Plan and its procedures; provide the coordination of training for EMMA resources, including SEMS training, coursework, exercises, and disaster response procedures; and to promote professionalism in emergency management and response. The EMMA Plan was updated in November 2012 and supersedes the 1997 EMMA Plan and November 2001 EMMA Guidance.

LOCAL

City of Los Angeles Charter

Section 520 of the Los Angeles City Charter states that the LAFD's duty is to control and extinguish injurious or dangerous fires and to remove that which is liable to cause those fires. It also requires the LAFD to enforce all ordinances and laws relating to the prevention or spread of fires, fire control, and fire hazards within the City, as well as to conduct fire investigations and protect lives and property in case of disaster or public calamity.

Los Angeles City General Plan

The City's General Plan contains two elements with policies pertaining to fire protection and emergency response. Chapter 9 (Infrastructure and Public Services) of the Framework Element contains general objectives and specific policies to ensure provision of fire protection and emergency response services into the future through adequate planning, funding, data collection, creation of standards, and cooperation with other agencies. The Safety Element of the General Plan identifies existing police, fire, and emergency services and the service needs of the City of Los Angeles in the event of a natural disaster and provides broad goals, objectives, and policies related to the City's response to hazards and natural disasters. The Emergency Operations Organization (EOO) is responsible for implementing the Safety Element. Goals and policies applicable to fire protection and emergency services are summarized in **Table 4.13-2**.

TABLE 4.13-2 RELEVANT GENERAL PLAN FIRE PROTECTION GOALS, OBJECTIVES, AND POLICIES

Framework Element – Infrastructure and Public Services	
Goal 9J	Every neighborhood has the necessary level of fire protection service, emergency medical service (EMS) and infrastructure.
Objective 9.16	Monitor and forecast demand for existing and projected fire facilities and service.
Policy 9.16.1	Collect appropriate fire and population development statistics for the purpose of evaluating fire service needs based on existing and future conditions.
Objective 9.17	Assure that all areas of the City have the highest level of fire protection and EMS, at the lowest possible cost, to meet existing and future demand.
Policy 9.17.2	Identify areas of the City with deficient fire facilities and/or service and prioritize the order in which these areas should be upgraded based on established fire protection standards.

TABLE 4.13-2 RELEVANT GENERAL PLAN FIRE PROTECTION GOALS, OBJECTIVES, AND POLICIES	
Policy 9.17.4	Consider the Fire Department's concerns and, where feasible adhere to them, regarding the quality of the area's fire protection and emergency medical services when developing General Plan amendments and zone changes or considering discretionary land use permits.
Objective 9.19	Maintain the Los Angeles Fire Department's ability to assure public safety in emergency situations.
Policy 9.19.1	Maintain mutual aid or mutual assistance agreements with local fire departments to ensure an adequate response in the event of a major earthquake, wildfire, urban fire, fire in areas with substandard fire protection, or other fire emergencies.
Policy 9.19.3	Maintain the continued involvement of the Fire Department in the preparation of contingency plans for emergencies and disasters.
Safety Element	
Goal 2	A city that responds with the maximum feasible speed and efficiency to disaster events so as to minimize injury, loss of life, property damage and disruption of the social and economic life of the City and its immediate environs.
Objective 2.1	Develop and implement comprehensive emergency response plans and programs that are integrated with each other and with the City's comprehensive hazard mitigation and recovery plans and programs.
Policy 2.1.5	Response: Develop, implement, and continue to improve the City's ability to respond to emergency events. Participate in regularly scheduled disaster exercises to better prepare Police, Fire, Public Works, and other City employees with disaster responsibilities. [All EOO emergency response programs and all hazard mitigation and disaster recovery programs related to protecting and reestablishing communications and other infrastructure, service and governmental operations systems implement this policy.]
Policy 2.1.6	Standards/Fire. Continue to maintain, enforce and upgrade requirements, procedures and standards to facilitate more effective fire suppression and safety. <ul style="list-style-type: none"> A. Enforce peak water supply requirements. B. Enforce minimum roadway widths and clearances for evacuation and fire suppression. C. Maintain special fire-fighting units at the Port of Los Angeles, Los Angeles International Airport, and Van Nuys Municipal Airport capable of responding to special emergencies unique to the operations of those facilities. D. Coordinate with CALFIRE, local fire agencies, fire safety council, private landowners, and other responsible agencies to identify the best method(s) of fuel modifications to reduce the severity of future wildfires, including: Prescribed fire; Forest thinning; Grazing; Mechanical clearing; Hand clearing (piling, burning/chipping); Education; and Defensible space. E. Maintain mutual aid or mutual assistance agreements with local fire departments to ensure an adequate response in the event of a major earthquake, wildfire, urban fire, fire in areas with substandard fire protection, or other fire emergencies.
Goal 3	A city where private and public systems, services, activities, physical condition and environment are reestablished as quickly as feasible to a level equal to or better than that which existed prior to the disaster.
Objective 3.1	Develop and implement comprehensive disaster recovery plans which are integrated with each other and with the City's comprehensive hazard mitigation and emergency response plans and programs.
Policy 3.1.1	Coordination: Coordinate between City departments, County and State agencies, local jurisdictions and with appropriate private and public entities prior to a disaster to plan and establish disaster recovery programs and procedures which will enable cooperative ventures, reduce potential conflicts, minimize duplication and maximize the available funds and resources to the greatest mutual benefit following a disaster. [All EOO recovery programs involving cooperative efforts between entities implement this policy.]
SOURCE: City of Los Angeles 2001	

Los Angeles Fire Department (LAFD) Strategic Plan 2018-2020

The LAFD Strategic Plan 2018-2020 focuses on goals and strategic actions to guide the LAFD in the following areas: improving service delivery, implementing advanced technologies, employing sound budgeting practices and enhancing leadership. The plan also addresses the development of an even more professional workforce, promoting a positive work environment, and working to strengthen community relationships to improve preparedness and enhance resiliency during emergency events.

Los Angeles Municipal Code

The Los Angeles Fire Code (LAMC Chapter V, Article 7) incorporates by reference portions of the California Fire Code and the International Fire Code. The City's Fire Code sets forth regulatory requirements pertaining to the prevention of fires; the investigation of fires and life safety hazards; the elimination of fire and life safety hazards in any building or structure (including buildings under construction); the maintenance of fire protection equipment and systems; and the storage, use, and handling of hazardous materials. Specific regulations regarding fire prevention and protection are discussed below.

Section 57.106.5.2 provides that the Fire Chief shall have the authority to require drawings, plans, or sketches as may be necessary to identify: (1) occupancy access points; (2) devices and systems; (3) utility controls; (4) stairwells; and (5) hazardous materials/waste.

Section 57.107.6 requires that the installation, alteration, and major repair of the following be performed pursuant to a permit issued by the Department of Building and Safety: Fire Department communication systems, building communication systems, automatic elevators, heliports, emergency power systems, fire escapes, private fire hydrants, fire assemblies, fire protective signaling systems, pilot lights and warning lights for heat-producing equipment, refrigerant discharge systems, smoke detectors, emergency smoke control systems, automatic sprinkler systems, standpipe systems, and gas detection systems.

Section 57.118 establishes LAFD's fire/life safety plan review and LAFD's fire/life safety inspection for new construction projects.

Section 57.118.1.1 requires that all new high-rise buildings greater than 75 feet in height (measured from the lowest point with fire access) must include fire/life safety reviews by the Department of Building and Safety and LAFD.

Section 57.408 requires the preparation of an Emergency Plan that establishes dedicated personnel and emergency procedures to assist the LAFD during an emergency incident and establishes a drill procedure to prepare for emergency incidents. The Emergency Plan would also establish an on-site emergency assistance center and establish procedures to be followed during an emergency incident. The Emergency Plan must be submitted to the LAFD for approval prior to implementation and must be submitted annually (and revised if required by the LAFD).

Section 57.4704.4.3.1 of the LAMC requires that the Smoke detectors required by Chapter 9 of the LAMC (Building Code) be maintained in dependable operating condition and tested every six months or as required by the Fire Chief. An accurate record of such tests must be kept by the owner, manager, or person in charge of the property, and such records must be open to examination by the Fire Chief.

Section 57.4705.1.6 requires there must be at least one elevator which shall be available for fire EMS and shall have its controls designed so that key switches located in the building control station/fire command center will recall said elevator or elevators to the designated main floors.

Section 57.4705.4 requires each building to have a rooftop emergency helicopter landing facility in a location approved by the Chief.

Section 57.4705.1.6 requires at least one elevator in each bank of elevators to be available for fire emergency service and to have its controls designed so that key switches located in the building control station/fire command center will recall said elevator or elevators to the designated main floor. The elevator or elevators must be interconnected with the standby power.

Section 57.503.1.4 requires an approved, posted fire lane whenever any portion of an exterior wall is more than 150 feet from the edge of a roadway.

Section 57.507.3.1 establishes fire water flow standards, which vary from 2,000 gallons per minute (gpm) in low-density residential areas to 12,000 gpm in high-density commercial or industrial areas, with a minimum residual water pressure of 20 pounds per square inch (psi) remaining in the water system. Site-specific fire flow requirements are determined by the LAFD based on land use, life hazard, occupancy, and fire hazard level.

Section 57.507.3.2 addresses land use-based requirements for fire hydrant spacing and type. Regardless of land use, every first story of a residential, commercial, or industrial building must be within 300 feet of an approved hydrant. The site-specific number and location of hydrants would be determined as part of LAFD's fire/life safety plan review for each development.

Section 57.507.3.3 limits the maximum response distances to an LAFD station based on the type of land use. Applicable distances are based on LAFD's comment letter for each individual project.

LAMC Chapter V, Article 7, Section 57.512.1 provides that response distances, which are based on land use and fire flow requirements and range from 0.75 mile for an engine company to 2 miles for a truck company, shall comply with Section 57.507.3.3. Where a site's response distance is greater than permitted, all structures must have automatic fire sprinkler systems.

City of Los Angeles Proposition F, Q, and J – Facilities Bond

Proposition F, also known as the Fire Facilities Bond, was approved in November 2000 and authorized the issuance of \$532.6 million to finance the construction and rehabilitation of fire stations and animal shelters in the City of Los Angeles. Under Proposition F, new regional fire stations providing training and other facilities at or near standard fire stations must be designed and built on a single site of at least 2 acres. This is to ensure that firefighters in training remain in the service and are available to respond to emergency calls. \$378.6 million was allocated for the construction of 18 new or replacement neighborhood fire/paramedic stations, one regional fire station and training facility, and an emergency air operations/helicopter maintenance facility, for a total of 20 Proposition F projects. Through Proposition F, regional Fire Station 82 (5769 Hollywood Boulevard) was reconstructed and opened in 2012.

Proposition Q, known as the Citywide Public Safety Bond Measure, was approved in March 2002 and allocated \$600 million to renovate, improve, expand, and construct police, fire, 911, and paramedic facilities. Proposition Q also includes renovations to existing LAFD facilities, totaling 80 LAFD facility renovation projects.

In 2006, Measure J amended Proposition F, providing flexibility in the design of new facilities and setting standards for such facilities. Specifically, Measure J allows the following: the development of new regional fire/paramedic stations to be designed and built on one or more properties that are less than two acres; standard fire/paramedic stations to be designed and built on one acre; components to be built on two or more sites within proximity; or facilities to be designed to fit on a single site of less than two acres (Los Angeles 2017).

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the *CEQA Guidelines*, the Proposed Project would have a potentially significant impact if it would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection.

Consistent with *City of Hayward v. Trustees of California State University* (2015; 242 Cal.App.4th 833), significant impacts under CEQA consist of adverse changes to physical conditions resulting from a project. Potential impacts on public safety services are not an environmental impact that CEQA requires a project applicant to mitigate:

“[T]he obligation to provide adequate fire and emergency medical services is the responsibility of the city.” (Cal. Const., art. XIII, § 35, subd. (a)(2) [“The protection of the public safety is the first responsibility of local government, and local officials have an obligation to give priority to the provision of adequate public safety services.”].) Therefore, while response times and standards for services are discussed herein, they are provided for informational purposes only and to provide an indication of the potential need for new facilities, rather than as thresholds for significance.

The determination of significance shall be made considering whether a project would require the addition of a new fire station or the expansion, consolidation or relocation of an existing facility to maintain service, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection.

METHODOLOGY

The following analysis focuses on determining whether the Proposed Project would result in adverse physical impacts to the environment due to the expansion of existing fire protection facilities or construction of new facilities. Whether additional facilities would be required is determined primarily by considering the adequacy of existing fire protection services, impacts of the Proposed Project on demand for fire protection service, and input from the LAFD. Whether provision of new or expanded facilities would result in substantial adverse environmental effects is evaluated by considering the physical context in which facilities would be built, constraints on the size and number of new and/or expanded facilities, and an analysis of potential environmental impacts that would result from their construction.

As discussed under “Thresholds of Significance,” an impact related to public services would occur if the Proposed Project promotes growth patterns resulting in the need for and/or the provision of new or physically altered fire or emergency response facilities, the construction of which would cause significant environmental impacts in order to maintain service ratios, response times, or other performance objectives. The need for or deficiency in adequate fire and emergency response services in and of itself is not a CEQA impact, but a social or economic impact. (*City of Hayward v. B’d of Trustees* (2015) 242 Cal.App. 4th 833, 843.) To the extent that the Proposed Project causes the need for additional fire and emergency response services that result in the construction of new facilities or additions to existing facilities and the impact from that construction results in a potential impact to the environment, that is a CEQA impact that needs to be assessed in this EIR. Any discussion in this EIR of social or economic impacts that relates solely to the level of fire and life safety services provided to the community, including any existing or future needs and deficiencies, is not determinant on its own of CEQA impacts, absent those social or economic impacts resulting in physical impacts. The ultimate determination of whether there is a significant impact related to

fire and emergency response services is based on whether a significant physical impact would result from the construction of new or expanded fire and emergency response facilities.

PROJECT IMPACTS

Threshold 4.13-1	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection?
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Impact 4.13-1 **Proposed Project:** The Project would allow for increased development potential that could increase demand for fire protection service in the Project Area. This may result in the need for new or expanded fire protection facilities. The size and location of new facilities is not known at this time but based on the urbanized character of the Project Area, it is anticipated that new or expanded facilities could be built without creating significant environmental impacts; therefore, impacts would be *less than significant*.

Project Impacts

The Proposed Project is an update of the existing CASP, which includes new land use and zoning regulations, incentives, and boundaries, for the purpose of encouraging affordable and mixed-income housing production. Based on the increased development capacity of the Proposed Project, the Project Area would accommodate approximately an additional 50,000 persons (an increase of 837 percent relative to baseline conditions), from 6,000 to 57,000 persons; 18,000 housing units (an increase of approximately 896 percent), from 2,000 to 20,000 units; and approximately an additional 3,000 jobs (an increase of 53 percent), from 5,000 to 8,000 jobs, by the year 2040. The Proposed Project would also update the building form, urban design, open space, parking, conservation, performance, and sign standards of the existing Project Area as necessary to support housing production and amend the existing CASP text with technical revisions that ensure consistency, clarity, and ease of implementation and reflect current and future demographic, regulatory, environmental, and economic conditions. Impacts to fire protection services resulting from construction and operation of new development are discussed below.

Construction

While the Proposed Project would allow for increased residential, commercial, and light industrial development, it would not constitute a commitment to any specific construction. Nevertheless, construction activities associated with reasonably anticipated development of the Project Area would potentially temporarily increase existing demand on fire protection and EMS. Construction activities could potentially expose combustible materials (e.g., wood, plastics, sawdust, coverings, and coatings) to fire risks from machinery and equipment sparks, exposed electrical lines, and chemical reactions in combustible materials and coatings. However, in compliance with Occupational Safety and Health Administration (OSHA) requirements, construction managers and personnel would be trained in emergency response and fire safety operations. In addition, fire suppression equipment (e.g., fire extinguishers) would be maintained on each specific construction site during construction.

Road and lane closures due to construction activities related to individual development projects could temporarily affect travel times of fire and emergency services vehicles. Traffic delays caused by potential closures could impede the ability of emergency vehicles to efficiently move along roadways to their destination. In addition, road closures may result in detours that adversely affect response times. However, individual developers are required to implement construction staging and traffic management plans

consistent with LAFD requirements, if warranted, to ensure emergency access is maintained. Moreover, construction activities facilitated by the Proposed Project would not foreseeably result in the need for expansion of existing fire stations or construction of new fire stations due to their temporary nature. Therefore, construction activity would have a *less than significant* environmental impacts related to fire protection.

Operation

Based on information provided in LAFD's Strategic Plan 2018-2020, the ability to provide adequate fire protection services is dependent on numerous factors including staffing levels, mutual aid agreements, deployment strategies, and technological advances in equipment. LAFD's primary determinant for assessing future service needs is based on their cumulative review and analysis of past incidents. Options available to LAFD include expanding fire prevention services, increasing staffing levels, and adding new fire stations(s) to underserved areas. The projected number of residents, employees and overall anticipated development levels is routinely reviewed by LAFD to assist in determining the future need for emergency services. LAFD determines the need for new fire stations based on the needs assessment that takes into account the complex set of factors discussed above, as well as geographic distribution of physical structures; access to trucks, ambulances, and other equipment; the location of new structures and anticipated response times (LAFD 2018).

Meeting service standards could also be affected by the impact of increased land use intensity and residential density in the Project Area on roadway congestion in and around the Project Area used by fire protection vehicles to access emergency sites. However, there is not a direct relationship between predicted travel delay and emergency response times because California State law requires that drivers yield the right-of-way to emergency vehicles and remain stopped until the emergency vehicles have passed. Generally, multi-lane arterial roadways allow emergency vehicles to travel at higher speeds and permit other traffic to maneuver out of the path of the emergency vehicle. The LAFD, in collaboration with Los Angeles Department of Transportation (LADOT), has also developed a Fire Preemption System (FPS) that automatically turns traffic lights to green for emergency vehicles traveling on designated streets in the City.

Existing regulations and policies would partially offset future increases in demand for fire protection service. For example, Project Area developers would be required to comply with current fire code standards, which require new construction to incorporate more dynamic and advanced fire and life safety technologies and fire prevention measures than was previously required. In addition, policy measures in the Proposed Project would encourage use of public transit and alternative modes of transportation, which would generally reduce traffic congestion in the Project Area. Furthermore, LAFD has a constitutional mandate to protect public safety and must respond to changing circumstances and, therefore, would act to maintain response times. As development occurs over the life time of the Proposed Project, it is expected that fire protection service levels will be evaluated and maintained by LAFD. In conformance with California Constitution Article XIII, Section 35, (a)(2), existing policies, procedures and practices related to fire protection and emergency services, LAFD would maintain acceptable emergency response times through the provision of additional personnel and equipment as needed, as well as potentially constructing new or expanding existing fire and emergency response facilities.

The ability of EMS and fire protection services to respond to calls in a timely manner depends primarily on the distance of the station to the incident and the speed at which the emergency vehicles are able to navigate intervening roadways. While growth reasonably anticipated under the Proposed Project would result in higher overall traffic volumes in the Project Area, this would not impede emergency response, since California State law requires that drivers yield the right-of-way to emergency vehicles and remain stopped until the emergency vehicles have passed. Therefore, EMS and fire protection services response times generally would not change substantially as the population of the Project Area increases.

As discussed in Section 4.12, *Population, Housing, and Employment*, implementation of the Proposed Project would result in an increase in overall housing, population, and employment in the Project Area. An increase in population would foreseeably increase demand for fire or emergency protection facilities. Based on this rising demand and existing facilities that are already over capacity, it is assumed that several facilities would require expansion and at least one new station would need to be built in or near the Project Area to maintain timely response. LAFD is considering the expansion of Fire Station No. 9, located at 430 7th Street, within two miles of the Project Area, Fire Station No. 9 would be demolished and reconstructed as a larger facility. This expansion of this facility would accommodate existing staff and existing resources (Perez 2019). The existing station has not been identified as a historical resource and the site of this facility is surrounded by parking areas and commercial/industrial uses that would not be unusually sensitive to construction or operational noise, lighting, or other impacts associated with facility expansion.

Construction of new fire stations and expansion of existing fire stations to serve the Project Area would occur in an urban center and would be limited in number (possibly one or two new facilities) and size. New facilities would also be required to comply with applicable federal, State, and local regulations and policies discussed in this EIR, such as NPDES permit requirements, the City's Tree Ordinance and Noise Ordinance, and the California Building Code, including CALGreen requirements.

Potential environmental impacts of construction and operation of any new facility, as an allowed land use, have been evaluated throughout this EIR. Construction and operational impacts to air, noise, traffic, as well as other impacts of new developments are discussed throughout this EIR, and they would not be any different for a fire/paramedic station/facility. It is not foreseeable that impacts from the construction of any new stations in the Project Area would have greater or different impacts than those identified in this EIR for construction or operations. Similar to other types of development, the construction of new or expanded fire protection facilities could contribute to the significant historic resource and construction noise impacts identified in sections 4.4, *Cultural Resources*, and 4.11, *Noise*, of this EIR. According to the Los Angeles Bureau of Engineering (BOE), there are four basic configurations for fire stations but the typical standard fire/paramedic station would consist of a 15,250-square foot building on a parcel that is approximately one acre. Although the Fire Department is preparing a Standards of Cover that could result in recommendations for new fire station typologies, including those better suited to dense urban infill. Based on the urban location and the relatively small size of typical facilities, the construction of a new fire facility or expansion of an existing facility would likely qualify for an infill exemption or result in less-than-significant impacts with standard regulatory compliance measures and project specific design features or project specific mitigation measures identified through a project EIR or mitigated negative declaration. It is noted, that the EIR for Van Nuys Station No. 39, certified in 2017, found no unavoidable significant impacts for the construction of a new fire station. To the extent that any significant impacts could result from the unique characteristics of a specific site, those impacts would be speculative at this time. Furthermore, the construction of a new fire facility or expansion of an existing facility would require a project-specific environmental analysis under CEQA to address any site-specific environmental concerns. Therefore, impacts related to fire protection and emergency services would be *less than significant*.

Mitigation Measures

No significant impacts related to fire protection facilities have been identified; therefore, mitigation is not required.

CUMULATIVE IMPACTS

The geographic area to analyze cumulatively considerable impacts to fire protection services includes the entire City of Los Angeles as well as areas at the City's periphery that could potentially be affected by construction of a new facility at or near the City's corporate boundary. Citywide development through 2040 would add an estimated 293,000 new households, 659,000 new residents, and 345,000 new employees (SCAG 2016).

Cumulative development throughout Los Angeles would increase overall demand for fire protection service and may create the need for more fire fighters and potentially new facilities. However, no new facilities are planned at this time, city-wide (LAFD 2018). Impacts associated with the addition of multiple fire protection facilities throughout the City are speculative since the size, location, and nature of needed new facilities is not known at this time. Nevertheless, the impacts of new facilities would be localized in nature and the addition of multiple new facilities in specific locations may have localized impacts but would not result in significant additive or cumulative impacts (i.e., the addition of multiple fire protection facilities in various parts of the City would not result in additive effects at any given location).

Past development has occurred in accordance with the growth allowed under the City of Los Angeles General Plan, and all development in the City is required to maintain consistency with City of Los Angeles fire protection regulations. Future development in the Project Area, as well as future development occurring within the entire LAFD service area, would be required to comply with all applicable LAFD fire code requirements associated with adequate fire access, fire flows, and number of hydrants as a condition of project approval. Additionally, any development project that would be located at distances that exceed response distance requirements would be required to undergo plan review by the Fire Chief, who would determine the fire suppression measures that the development project would be required to implement. New development would be required to provide upgrades to the water distribution systems serving the LAFD service area in accordance with LAFD and/or Los Angeles Department of Water and Power (LADWP) requirements. As with the code requirements for fire access, fire flows, number of hydrants, and fire suppression measures, these upgrades would be addressed for new development in conjunction with individual project approvals. These requirements would reduce the demand for additional fire services. However, to the extent new or expanded fire and emergency response facilities would be needed, the construction and operation of those facilities would be similar to those addressed in the impact section above and would not be expected to result in new or substantially different impacts from those impacts discussed in Section 4.2 Air Quality, Section 11 Noise, or Section 15 Transportation of this EIR. Without information as to design, location of new or expanded LAFD facilities and their proximity to sensitive receptors, such impacts would be speculative at this time. Similarly, the construction and operation of new fire protection facilities in the Project Area may have localized impacts, but individual facilities would not contribute to any additive cumulative or regional impacts. Therefore, the Proposed Project's incremental contribution related to fire service would not be cumulatively considerable and cumulative impacts would be *less than significant*.

Police Protection

ENVIRONMENTAL SETTING

CITYWIDE SETTING

The Los Angeles Police Department (LAPD) provides police protection services to the entire City of Los Angeles. Similar to the LAFD, the LAPD is comprised of four geographic bureaus (Valley, West, Central, and South) with 21 subdivisions. The LAPD currently employs 10,354 sworn police officers and 3,640 civilian personnel (LAPD 2022a).

The LAPD handles an estimated 2,981,238 telephone calls for service per year and approximately 1,270,278 are non-emergency related. According to the COMPSTAT Citywide Profile, there were 20,096 violent crimes, 62,786 property crimes, and 39,750 arrests in the period from January 1, 2022 to August 20, 2022 (LAPD 2022b).

PROJECT AREA SETTING

The Project Area lies within the operational boundaries of the Los Angeles Police Department (LAPD) Central Bureau. The Central Bureau encompasses a 65-square mile service area with a population of approximately 900,000 residents. The Central Bureau service boundaries include the Los Angeles City limits on the north and east Florence Avenue to the south, and Griffith Park Boundary/Western Avenue to the west. The Central Bureau oversees operations for the following area Divisions (also called Community Police Stations): Central, Hollenbeck, Newton, Northeast, and Rampart, as well as the Central Traffic Division and Central Bureau Homicide Division. The Project Area is primarily covered by the Hollenbeck and Central Divisions while the section north of the Pasadena Freeway / State Route 110 (SR 110) is located within the boundaries of the Northeast Station. The Central, Hollenbeck, and Northeast Divisions each include substations (or "drop-in" centers). These locations were established to better serve the community by providing ease of access to police services in local neighborhoods. The Hollenbeck Division, located east of downtown Los Angeles, provides for a population of roughly 200,000 people and is 15.2 square miles in size. It encompasses the communities of El Sereno, Lincoln Heights, and Boyle Heights. The Central Station is staffed by approximately 400 sworn and civilian members of the LAPD and is responsible for all police operations in downtown Los Angeles. The Central Division has a population of 40,000 people and covers approximately 4.5 square miles including the communities of Chinatown, Little Tokyo, South Park, Central City East, Historic Core, Financial District, Artists' Lofts, Olvera Street, Jewelry District, the Convention Center, the Fashion District, Toy District, and Old Bank District (LAPD 2022c). The Northeast Division is roughly 29 square miles, has a station population of about 250,000 people, and serves the communities of Atwater, Cypress Park, Eagle Rock, East Hollywood, Echo Park, Elysian Park, Elysian Valley, Glassell Park, Griffith Park, Highland Park, Los Feliz, Mt. Washington, and Silverlake. The nearest LAPD substation for the Project Area is the Chinatown Substation at 823 North Hill Street to the south of the Project Area. The Highland Park Police Station at 6045 York Boulevard is to the northeast of the Project Area and the Northeast Station at 3352 North San Fernando Road is north and west of the Project Area are the next closest. The LAPD Robbery-Homicide Division, at 150 North Los Angeles Street, is to the south and west of the Project Area.

Table 4.13-3 summarizes the stations serving the Project Area and includes the current service population and service area for each division. **Table 4.13-4** summarizes current crime statistics for Divisions 1, 11, and 13. Typical crimes include homicide, rape, robbery, aggravated assault, burglary, larceny, motor vehicle theft, and arson.

TABLE 4.13-3 LAPD STATIONS SERVING THE PROJECT AREA

Division/Station	Address	Service Population	Service Area (sq. mi.)
Central Station	251 E. 6 th Street	40,000	4.5
Hollenbeck Station	2111 E. 1st Street	200,000	15.2
Northeast Station	3353 San Fernando Road	250,000	29.0

SOURCE: LAPD 2022c, LAPD 2022d, LAPD 2023d

TABLE 4.13-4 2022 YTD CRIME STATISTICS

Division/Station	Violent Crimes ¹	Property Crimes ²
Central Area	750	2,269
Hollenbeck Area	376	923
Northeast Area	283	1,440

1. Violent crimes include homicide, rape, robbery, and aggravated assault.
2. Property crimes include burglary, motor vehicle theft, burglary/theft from motor vehicle, personal/other theft
SOURCE: LAPD 2023a, LAPD 2023b, LAPD 2023c

Response time represents the period of time elapsed from the initiation of an assistance call to the appearance of a police unit at the scene. The LAPD has a response time goal of seven minutes (Ogaz 2017). Currently, the average citywide response time is 6.1 minutes (SoCal Patch 2017). Unlike fire protection services, police units are most often in a mobile state; therefore, the distance between a police station and a project site is of little relevance. Instead, the number of deployed police officers and their proximity to crimes is more directly related to the response time.

The Central Division, which serves part of the Project Area, is staffed by approximately 400 sworn officers and currently serves a population of approximately 40,000 (LAPD 2022d); thus, there are about 10 police officers per 1,000 persons. This is above the 2015 national average number of officers per 10,000 persons (16.6) for jurisdictions with a population of over 500,000 and higher, and higher than the citywide 2015 average of 24.9 officers per 10,000 people (Governing 2015). The LAPD also uses technology to enhance strategic deployment of field officers in their service area (LAPD 2016), which can help lower average response time. PredPol software predicts the times and places where crimes are most likely to occur based on historic data on the time, location, and type of crimes committed.

REGULATORY FRAMEWORK

STATE

California Penal Code

All law enforcement agencies in California are organized and operated in accordance with the applicable provisions of the California Penal Code. This code sets forth the authority, rules of conduct, and training for peace officers. Under state law, all sworn municipal and county officers are state peace officers.

California Constitution, Article XIII, Section 35

Section 35 of Article III of the California Constitution at subdivision (a)(2) provides: “The protection of the public safety is the first responsibility of local government and local officials have an obligation to give

priority to the provision of adequate public safety services.” Section 35 of Article XIII of the California Constitution was adopted by the voters in 1993 under Proposition 172. Proposition 172 directed the proceeds of a 0.50 percent sales tax to be used exclusively for local public safety services, including police. California Government Code Sections 30051-30056 provide rules to implement Proposition 172. Section 30056 provides that a city is not allowed to spend less of its own financial resources on its combined public safety services in any given year compared to its 1992-93 fiscal year. Therefore, an agency is required to use Proposition 172 to supplement its local funds used on police protection, as well as other public safety services. In *City of Hayward v. Trustee of California State University* (2015) 242 Cal. App. 4th 833, the court found that, Section 35 of Article XIII of the California Constitution requires local agencies to provide fire services and that it is reasonable to conclude that a lead agency will comply with that provision and ensure that public services are provided. (See *City of Hayward v. Trustee of California State University* (2015) 242 Cal. App. 4th 833, 847 stating “the city has a constitutional obligation to provide adequate fire protection services”.) It is reasonable to analogize that a similar analysis would apply to police services as Section 35 of Article XIII includes a responsibility for cities to give priority to public safety services, which includes police services.

California Vehicle Code, Section 21806

Section 21806 of the California Vehicle Code (CVC) pertains to emergency vehicles responding to Code 3 incident/calls.[1] This section of the CVC states the following:

Upon the immediate approach of an authorized emergency vehicle which is sounding a siren and which has at least one lighted lamp exhibiting red light that is visible, under normal atmospheric conditions, from a distance of 1,000 feet to the front of the vehicle, the surrounding traffic shall, except as otherwise directed by a traffic officer, do the following: (a)(1) Except as required under paragraph (2), the driver of every other vehicle shall yield the right-of-way and shall immediately drive to the right-hand edge or curb of the highway, clear of any intersection, and thereupon shall stop and remain stopped until the authorized emergency vehicle has passed. (2) A person driving a vehicle in an exclusive or preferential use lane shall exit that lane immediately upon determining that the exit can be accomplished with reasonable safety....(c) All pedestrians upon the highway shall proceed to the nearest curb or place of safety and remain there until the authorized emergency vehicle has passed.

Title 13 California Code Regulations (CCR) Division 2 (CHP)

Division 2 of Title 13 of the CCR governs the operations of the California Highway Patrol.

LOCAL

City of Los Angeles General Plan Framework Element

The City of Los Angeles General Plan Framework Element, originally adopted in December 1996 and re-adopted in August 2001, provides a comprehensive vision for long-term growth within the City and guides subsequent amendments of the City’s Community Plans, Specific Plans, zoning ordinances, and other local planning programs.

Chapter 9 of the Framework Element addresses Infrastructure and Public Services. Goal 9I states that every neighborhood should have the necessary police services, facilities, equipment, and manpower required to provide for the public safety of that neighborhood. Related Objectives 9.13 and 9.13.1, which implement Goal 9I, support the monitoring and reporting of police statistics and population projections for the purpose of evaluating existing and future needs. Objective 9.14 calls for adequate police services, facilities, equipment, and personnel to be available to meet existing and future needs. Policies related to Objective 9.14 generally provide guidance for public agencies. Objective 9.15 calls for LAPD services to provide

adequate public safety in emergency situations by maintaining mutual assistance relationships with local law enforcement agencies, state law enforcement agencies, and the National Guard. These goals, objectives, and policies applicable to police protection services are summarized in **Table 4.13-5**.

TABLE 4.13-5 RELEVANT GENERAL PLAN POLICE PROTECTION GOALS, OBJECTIVES, AND POLICIES	
Framework Element – Chapter 9, Infrastructure and Public Services	
Goal 9I	Every neighborhood in the City has the necessary police services, facilities, equipment, and manpower required to provide for the public safety needs of that neighborhood.
Objective 9.13	Monitor and forecast demand for existing and projected police service and facilities.
Policy 9.13.1	Monitor and report police statistics, as appropriate, and population projections for the purpose of evaluating police service based on existing and future needs.
Objective 9.14	Protect the public and provide adequate police services, facilities, equipment and personnel to meet existing and future needs.
Policy 9.14.1	Work with the Police Department to maintain standards for the appropriate number of sworn police officers to serve the needs of residents, businesses, and industries.
Policy 9.14.5	Identify neighborhoods in Los Angeles where facilities are needed to provide adequate police protection.
Policy 9.14.7	Participate fully in the planning of activities that assist in defensible space design and utilize the most current law enforcement technology affecting physical development.
Objective 9.15	Provide for adequate public safety in emergency situations.
Policy 9.15.1	Maintain mutual assistance agreements with local law enforcement agencies, State law enforcement agencies, and the National Guard to provide for public safety in the event of emergency situations.
SOURCE: City of Los Angeles 2001	

City of Los Angeles General Plan Safety Element

The Safety Element of the Los Angeles General Plan addresses natural hazard issues related to Los Angeles Police Department (LAPD) resources (e.g., traffic safety during or following a disaster) and recognizes that most jurisdictions rely on emergency personnel (police, fire, gas, and water) to respond to emergencies.

City of Los Angeles Charter

City of Los Angeles Charter. The City Charter at Section 570 gives the power and the duty to the LAPD to enforce the penal provisions of the Charter, City ordinances, and state and federal laws. The Charter also gives responsibility to the LAPD to act as peace officers and to protect lives and property in case of disaster or public calamity.

Administrative and Municipal Codes

Section 22.240 of the Administrative Code requires the LAPD to adhere to the State standards described in Section 13522 of the California Penal Code for the training of police dispatchers. LAMC Chapter 5 includes regulations, enforceable by the police, related to fire arms, illegal hazardous waste disposal, and nuisances (such as excessive noise), and providing support to the Department of Building and Safety Code Enforcement inspectors and the LAFD in the enforcement of the City's Fire, Building, and Health Codes. The LAPD is also given the power and the duty to protect residents and property, and to review and enforce specific security related mitigation measures in regard to new development.

Los Angeles Police Department (LAPD) Computer Statistics Unit (COMPSTAT) Program.

The LAPD COMPSTAT was created in 1994 and implements the General Plan Framework goal of assembling statistical population and crime data to determine necessary crime prevention actions. This system implements a multi-layer approach to police protection services through statistical and geographical information system (GIS) analysis of growing trends in crime through its specialized crime control model. COMPSTAT has effectively and significantly reduced the occurrence of crime in Los Angeles communities through accurate and timely intelligence regarding emerging crime trends or patterns.

LAPD Guidelines and Plan Review

Projects subject to City review are required to develop an Emergency Procedures Plan to address emergency concerns and practices. The plan is subject to review by LAPD. In addition, projects are encouraged to comply with the LAPD's Design Out Crime Guidelines, which incorporates techniques of Crime Prevention Through Environmental Design (CPTED) and seeks to deter crime through the design of buildings and public spaces. Specifically, projects are recommended to:

- Provide on-site security personnel whose duties shall include but not be limited to the following:
- Monitoring entrances and exits.
- Managing and monitoring fire/life/safety systems.
- Controlling and monitoring activities in parking facilities.
- Install security industry standard security lighting at recommended locations including parking structures, pathway options, and curbside queuing areas.
- Install closed-circuit television at select locations including (but not limited to) entry and exit points, loading docks, public plazas and parking areas.
- Provide adequate lighting of parking structures, elevators, and lobbies to reduce areas of concealment.
- Provide lighting of building entries, pedestrian walkways, and public open spaces to provide pedestrian orientation and to clearly identify a secure route between parking areas and points of entry into buildings.
- Design public spaces to be easily patrolled and accessed by safety personnel.
- Design entrances to, and exits from buildings, open spaces around buildings, and pedestrian walkways to be open and in view of surrounding sites; and
- Limit visually obstructed and infrequently accessed "dead zones."

LAPD Strategic Plan 2019-2021

The Los Angeles Police Department (LAPD) Strategic Plan 2019-2021, LAPD: 2020 & Beyond, is a guiding document reflective of emerging trends, complex issues, and demands of the policing environment. The plan covers the fiscal years 2019-2021 and provides goals and key activities to improve the safety and quality of life for all Angelenos. The intent of the Strategic Plan is to serve as an "organizational blueprint to maximize our workforce potential while providing the highest level of professionalism for those who visit, work, and live in the City of Los Angeles".

The Plan has six goals: (1) Protect Los Angeles; (2) Engage Los Angeles; (3) Improve Organization Accountability; (4) Modernize Technology; (5) Enrich Training; and (6) Maximize Workforce Potential. The goals are then followed by initiatives, key activities associated with each initiative and milestones.

Protecting the City of Los Angeles is the primary function of LAPD. The initiatives under this goal are reduce crime and victimization, reduce gun violence, emphasize preparedness and counter-terrorism, improve traffic safety, increase investigative effectiveness, and support coordinated City efforts to address homelessness.

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the *CEQA Guidelines*, the Proposed Project would have a potentially significant impact if it would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services.

METHODOLOGY

The following analysis focuses on determining whether the Proposed Project would result in adverse physical impacts to the environment due to the expansion of existing police facilities or construction of new facilities. Whether additional facilities would be required is determined primarily by considering the adequacy of existing police services, impacts of the Proposed Project on demand for police protection facilities, and input provided by the LAPD. The need for or deficiency in adequate police services in and of itself is not a CEQA impact, but a social or economic impact. (*City of Hayward v. B'd of Trustees* (2015) 242 Cal. App. 4th 833, 843). To the extent the Proposed Project causes a need for additional police services and that results in the construction of new facilities or additions to existing facilities, the potential impact to the environment from that construction is a CEQA impact that needs to be assessed in this EIR. Any discussion in this EIR that relates solely to the level of police protection services provided to the residents or users of the Project Area and its surrounding community, including any existing or future needs and deficiencies, is for informational purposes only. The ultimate determination of whether there is a significant impact related to police protection services is based on whether a significant impact will result from the construction of new or expanded police facilities. Whether provision of new or expanded facilities would result in substantial adverse environmental effects is evaluated by considering the physical context in which facilities would be built, constraints on the size and number of new and/or expanded facilities, and an analysis of potential environmental impacts that would result from their construction. Police protection service needs are dependent on the size of the service population and the geographic area served, the number and types of calls for service, and the characteristics of a project and its surrounding community. According to the LAPD, impacts on police protection services are considered significant if the demand for services exceeds the capacity of existing facilities, or if a station area is located outside specified distances from the project area.

To the extent that the Proposed Project results in the need for new police services that will cause the need for new or altered police facilities, the analysis below evaluates the potential need for new facilities and associated potential impacts from the construction of new police protection facilities or the expansion of existing police protection facilities if they could be required.

PROJECT IMPACTS

Threshold 4.13-2	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection?
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Impact 4.13-2 **Proposed Project:** The Proposed Project would accommodate residential, commercial, and light industrial development in the Project Area, which would increase demand for police services and officers in order to maintain acceptable response times. However, due to existing limited capacity at police stations serving the Project Area, growth under the Proposed Project is anticipated to result in the need for new or expanded police facilities. However, based on the urbanized character of the Project Area, it is anticipated that new or expanded facilities could be built without creating significant environmental impacts; therefore, impacts would be *less than significant*.

Project Impacts

Construction

Construction related to future development within the Project Area would have the potential to temporarily increase the demand on police services. Construction sites can pose a nuisance with respect to vandalism and theft. Road and lane closures due to construction activities related to individual development projects could affect response times of police vehicles. Traffic delays caused by potential closures could impede the ability of police vehicles to efficiently move along roadways to their destination. Additionally, temporary road closures may also result in detours that impact response time. Any development project that will cause temporary road closures is required to submit a plan to LADOT for approval to ensure any impacts are minimized and, if necessary, proper signage and flagmen provided to avoid impacts. Additionally, large projects are required to develop a construction staging and traffic management plan, as necessary, to ensure that emergency access is maintained and the construction sites are secure. Construction activities related to the Proposed Project's reasonably anticipated development is not expected to result in significant impacts to emergency services or response times. Therefore, construction activities for reasonably anticipated development under the Proposed Project would not result in the need for expanding existing police facilities or construction of new police facilities to maintain police service levels and objectives due to the temporary nature of construction. Operation

The Proposed Project would accommodate new residential, commercial, and light industrial development in the Project Area, resulting in an estimated 50,000 persons (an increase of 837 percent relative to baseline conditions), from 6,000 to 57,000 persons; 18,000 housing units (an increase of approximately 896 percent), from 2,000 to 20,000 units; and approximately an additional 3,000 jobs (an increase of 53 percent), from 5,000 to 8,000 jobs, by the year 2040. A larger population could increase demand for LAPD services by increasing the opportunities for crime, though an increase in development intensity and residential density would not necessarily result in a directly proportional increase in crime. An area's crime rate is influenced by many factors, such as police presence, implementation of crime prevention measures, department funding, and socioeconomic factors. To ensure that necessary police services, facilities, and equipment are provided for the public safety needs of all neighborhoods, demand for existing and projected police services and facilities is monitored and forecasted by LAPD in order to maintain standards. Accordingly, as development occurs over the lifetime of the Proposed Project, police protection service levels would continue to be evaluated and maintained by LAPD in accordance with existing policies, procedures and

practices. Individual developments in the Project Area would be required to incorporate design features to deter crime. The LAMC and Los Angeles Building Code (LABC) include recently adopted requirements regarding lighting and/ or security locks and devices for residential uses, as well as outdoor lighting requirements for a variety of uses (e.g., LABC Chapter 67, 1029, 8697) (Los Angeles Department of Building and Safety [LADBS] 2017). Additionally, LAPD would review development project applications to determine the types of design features that the development project would need to incorporate to deter crime, consistent with the techniques of CPTED.

The projected increase in population could also affect the ability to meet service standards as a result of increased roadway congestion. As discussed in Section 4.15, *Transportation and Traffic*, of this EIR, implementation of the Proposed Project would result in land use intensification and an organized and coordinated development pattern that would increase accessibility of destinations while minimizing the related growth in vehicle trips and VMT per capita. While implementation of the Proposed Project could impact segment-level LOS, there is not a direct relationship between predicted travel delay and emergency response times as California State law requires that drivers yield the right-of-way to emergency vehicles and remain stopped until the emergency vehicles have passed. Designated emergency and disaster routes within the Project Area would be maintained. Generally, multi-lane arterial roadways allow emergency vehicles to travel at higher speeds and permit other traffic to maneuver out of the path of the emergency vehicle. On congested roadways, multi-lane arterial roadways with continuous center left-turn lanes facilitate emergency access when the thru lanes experience delays. Additionally, as previously mentioned under Existing Setting, various roadways within the Project Area are equipped with FPS, a system that automatically turns traffic lights to green for emergency vehicles traveling on designated streets. Additional demand for police service would need to be accommodated, at least in part, through the hiring of new patrol officers who would require office space and patrol cars. However, due to existing over-capacity issues and the age of existing facilities, it is assumed that replacement and expansion of existing facilities, or construction of new facilities, would be required to maintain adequate police service in the Project Area through 2040. Although the exact types and locations of future new facilities are not known at this time, it is anticipated that new facilities would be community facilities similar to the Central Community Police Station located at 251 E. 6th Street and the Hollenbeck Community Police Station located at 2111 E. 1st Street. Such facilities could generally be accommodated in existing buildings or small new structures and could be developed without new significant environmental impacts beyond those described throughout this EIR. Police protection service levels would continue to be evaluated and maintained by LAPD in accordance with existing policies, procedures and practices as development occurs over the lifetime of the Proposed Project.

Construction of new or expanded police stations would occur in an urban center and would be limited in number and size. New facilities would also be required to comply with applicable federal, State, and local regulations and policies discussed in this EIR, such as NPDES permit requirements, the City's Tree Ordinance and Noise Ordinance, and the California Building Code, including CALGreen requirements.

The environmental impacts of construction and operation of any new facility, as an allowed land use, have been evaluated throughout this EIR. Potential impacts to air, noise, traffic, as well as other impacts of new developments are discussed in the impact sections of this EIR and would not be different for the construction of a LAPD station/facility. It is not foreseeable that impacts from the construction or operation of new or expanded police facilities in the Project Area would have greater or different impacts than those identified in this EIR for construction or operations. It is unlikely, but possible, that, similar to other types of development, the construction of new or expanded police protection facilities could contribute to the significant historic resource and construction noise impacts identified in sections 4.4, *Cultural Resources*, and 4.11, *Noise*, of this EIR. Should new facilities be needed, such facilities are anticipated to be infill developments surrounded by urban uses and would not require new or expanded infrastructure. Based on the urban character of the Project Area, the construction of new police facilities or expansion of an existing

facility would most likely result in a less-than-significant impact and/or possibly qualify for an infill exemption. To the extent that any significant impacts could result from the unique characteristics of a specific project site, those impacts would be speculative at this time. Furthermore, although it is anticipated that needed new community facilities could be developed without significant environmental effects beyond those identified in this EIR, the construction a new LAPD facility or expansion of an existing facility would require project-specific environmental analysis under CEQA to address any site-specific environmental concerns. Therefore, impacts related to police protection services, would be *less than significant*.

Mitigation Measures

No significant impacts related to police facilities have been identified; therefore, mitigation is not required.

CUMULATIVE IMPACTS

The Proposed Project along with cumulative development could create a significant impact on polices services and facilities if the need for additional services and facilities extends beyond existing levels of service resulting in new construction that has a significant impact on the environment. The geographic area to analyze cumulatively impacts to police protection services includes the entire City of Los Angeles as well as areas at the City's periphery that could potentially be affected by construction of a new facility or expansion of an existing facility at or near the City's corporate boundary. Citywide development through 2040 would add an estimated 659,000 new residents, 293,000 new households, and 345,000 new employees (SCAG 2016).

Future needs for police protection are reviewed regularly, including during the budgeting process. As described above, development projects within the City, including the Project Area, would be subject to review upon project submittal of the development application and may be required to provide security features, such as security cameras, private security services, and/or on-site police drop-in facilities that reduce the demand for police service. Future development would also be required to incorporate design elements relative to security, and semi-public and private spaces such as CPTED. These features may include, but not be limited to, access control to buildings, secured parking facilities, walls/fences with key systems, well-illuminated public and semi-public space designed with a minimum of dead space to eliminate areas of concealment, and location of toilet facilities or building entrances in high-foot traffic areas. Development with these design measures should reduce the potential for incidents that will result in demand for police protection services throughout the City. Nevertheless, implementation of the Proposed Project along with cumulative development throughout the City would increase overall demand for police service and may create the need for more officers and potentially new facilities. As discussed above, the provision of police services in the City is based on the community's existing and projected needs as determined by the LAPD. When an evaluation indicates that response times have increased, the acquisition of equipment, personnel, and/or new stations would be considered and procured by the LAPD. However, environmental impacts associated with the construction of new or expanded facilities would not be expected to result in significant environmental effects. As demand for LAPD services increases, LAPD will act to maintain adequate service levels. As discussed, there are no planned facilities at this time. However, in the event the Proposed Project would result in the need for new or expanded LAPD facilities, the construction and operation of new facilities would not be expected to result in new or substantially different impacts from those impacts discussed in other sections of this EIR, such as traffic, air, noise. Such facilities would likely be small neighborhood facilities that could be accommodated in existing buildings or small new structures. Construction of such development would likely not result in new significant impacts and would likely qualify for infill exemptions. Therefore, any potential impacts of new facilities would be localized in nature and the addition of new facilities in specific locations would not result in significant cumulative impacts. To the extent there are site specific conditions that would result in impacts, such impacts would

be speculative at this time. Therefore, the incremental effect of the Proposed Project related to police facilities would not be cumulatively considerable and cumulative impacts would be less than significant.

Schools

ENVIRONMENTAL SETTING

CITYWIDE SETTING

The Los Angeles Unified School District (LAUSD) serves an area totaling 710 square miles, including most of the City of Los Angeles and the entirety or portions of 26 cities and unincorporated areas of Los Angeles County (LAUSD 2022a). LAUSD enrolled 519,586 students in pre-K through 12th grade for the 2020-2021 school year, 23,094 students in other enrollment and 19,244 students in adult education courses (LAUSD 2022a). The District includes 18 primary schools, 436 elementary schools, 77 middle schools, 86 high schools, 54 option schools, 68 Magnet schools, 27 multi-level schools, 12 special education schools, 2 home/hospital schools, 255 K-12 Magnet centers (i.e., Magnet schools within regular campuses), 227 charter schools, and 164 other schools and centers.

LAUSD provides a number of programs that allow residents within LAUSD boundaries to attend schools outside of their residential community (LAUSD 2022b). Magnet schools offer a themed core-curriculum (e.g., business, communication arts, gifted/highly gifted/high ability, liberal arts, and visual and performing arts) and provide bus services for their students to promote greater ethnic and racial integration; the Capacity Adjustment Program (CAP) provides busing when a school reaches capacity and students need to be transported to another school; Permits with Transportation (PWT) provides busing for non-Anglo students to attend in a more integrated environment and vice versa; and Public School Choice/No Child Left Behind (PSC/ NCLB) offers busing for students who attend a Program Improvement School and wish to attend a non-Program Improvement School. Nevertheless, the majority of LAUSD students attend schools within their residential community. Enrollment is categorized as either “actual” or “resident” enrollment. As noted in **Table 4.13-6**, actual enrollment is the number of students actually attending the school at the start of the reported school year, including magnet students and resident enrollment is the total number of students living in the school’s attendance area and who are eligible to attend at the start of the school year, plus any on-site magnet schools.

PROJECT AREA SETTING

LAUSD currently operates 2 elementary schools in the Project Area; Anne Street Elementary located at 126 E. Bloom Street, and Albion Street Elementary located at 322 S. Avenue. In addition, the Project Area lies within a “school choice area” that include an additional 10 schools. These include two elementary schools, one middle school and 7 high schools (LAUSD 2022a). Students residing within the attendance boundaries of any of the schools included in each “zone of choice” may attend any of the schools within that zone. **Table 4.13-6** provides the names, locations and enrollment of LAUSD schools serving the Project Area.

TABLE 4.13-6 PUBLIC SCHOOLS SERVING THE PROJECT AREA - CAPACITY AND ENROLLMENT			
School Name	School Type	Location	2021-2022 Enrollment
Schools Located Within the Project Area			
Albion Street Elementary	Elementary	322 S Avenue 18, Los Angeles, Ca, 9003	152
Anne Street Elementary	Elementary	126 E Bloom St, Los Angeles, Ca, 90012	72
School Choice Schools Service the Project Area			
Contreras Learning Complex ALC	High School	322 Lucas Avenue, Los Angeles, CA 90017	493
Contreras Learning Complex Business & Trade	High School	322 Lucas Avenue, Los Angeles, CA 90017	425
Contreras Learning Complex Social Justice	High School	322 Lucas Avenue, Los Angeles, CA 90017	435
Contreras Learning Complex Global Studies	High School	322 Lucas Avenue, Los Angeles, CA 90017	331
Cortines School of Visual & Performing Arts	High School	450 N Grand Avenue, Los Angeles, CA 90012	1,159
Belmont	High School	1575 W 2nd Street, Los Angeles, CA 90026	642
Roybal Learning Complex	High School	1200 Colton Street, Los Angeles, CA 90026	979
Castelar Street Elementary DL Two-Way Im Mandarin	Elementary	840 Yale Street, Los Angeles, CA 90012	598
Castelar Street Elementary	Elementary	840 Yale Street, Los Angeles, CA 90012	598
Florence Nightingale Middle School	Middle School	3311 N Figueroa Street, Los Angeles, CA 90065	809
Notes: Data is provided for the 2021-2022 School Year.			

Enrollment and capacity data for the public schools serving the Project Area indicates that the Area's schools are already over-burdened. Currently, ten schools and four zones of choice are overcrowded (i.e., have a seating shortage or a safety margin of less than 20 seats). In total, Area schools currently have a deficit of 1,742 seats for middle school students, and a deficit of 279 seats for high school students; there are, however, 530 seats available for Elementary and Pre-K. Seating availability is calculated using residential enrollment numbers, which includes the total number of students eligible to attend a school, rather than actual enrollment numbers. Currently, all schools are able to accommodate actual enrollment.

Projected enrollment and capacity data are also provided in **Table 4.13-6** for a five-year horizon. School capacity is projected to decrease for all schools in five years. This does not indicate a reduction in available school facilities, but rather an anticipated decrease in classroom utilization due to implementation of LAUSD operational goals and availability of budgetary resources to support smaller class sizes. In addition, resident enrollment is expected to decrease based on recent enrollment trends (LAUSD 2017c). Under the future scenario, an additional two elementary schools and one zone of choice would experience overcrowding, resulting in a total of 12 schools and five zones of choice potentially facing seating shortages.

REGULATORY FRAMEWORK

STATE

California Education Code

Educational services and school facilities for the Project are subject to the rules and regulations of the California Education Code, the California Department of Education (CDE) and governance of the State Board of Education (CBE) (Gov. Code Section 33000, et seq.). The CDE is the government agency responsible for public education throughout the State. With the State Superintendent of Public Instruction, the CDE is responsible for enforcing education law and regulations and for continuing to reform and improve public elementary school, secondary school, childcare programs, adult education, and preschool programs. The CDE oversees funding and student testing and achievement levels for all state schools. A sector of the CDE, the SBE is the 11-member governing and policymaking body of the California Department of Education (CDE) that sets Kindergarten through 12th Grade (K–12) education policy in the areas of standards, instructional materials, assessment, and accountability. The State also provides funding through a combination of sales and income taxes. In addition, pursuant to Proposition 98, the State is also responsible for the allocation of educational funds that are acquired from property taxes. Further, the governing board of any school district is authorized to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district, for the purpose of funding the construction or reconstruction of school facilities.

Class Size Reduction Kindergarten-University Public Education Facilities Bond Act of 1998.

Proposition 1A, the Class Size Reduction Kindergarten-University Public Education Facilities Bond Act of 1998 (Ed. Code, Section 100400–100405) is a school construction funding measure that was approved by the voters on the November 3, 1998 ballot. This Act created the School Facility Program where eligible school districts may obtain state bond funds.

Senate Bill 50

The Leroy F. Greene School Facilities Act of 1998 (known as the Greene Act), enacted in 1998, is a program for funding school facilities largely based on matching funds. For new school construction, grants provide funding on a 50/50 State and local match basis. For school modernization, grants provide funding on a 60/40 State and local match basis. Districts that are unable to provide some, or all, of the local match requirement and are able to meet the financial hardship provisions may be eligible for additional State funding.

The Greene Act permits the local district to levy a fee, charge, dedication, or other requirement against any development project within its boundaries, for the purpose of funding the construction or reconstruction of school facilities. The Act also sets a maximum level of fees a developer may be required to pay. Pursuant to Government Code Section 65996, the payment of these fees by a developer serves to mitigate all potential impacts on school facilities that may result from implementation of a project to a less-than-significant level.

Open Enrollment Policy (Cal. Educ. Code Sections 48350, et seq.)

The open enrollment policy is a state-mandated policy that enables students located in the LAUSD to apply to any regular, grade-appropriate LAUSD school with designated “open enrollment” seats. Open enrollment seats are granted through an application process that is completed before the school year begins. Under the Open Enrollment Policy, students living in a particular school’s attendance area are not displaced by a student requesting an open enrollment transfer to that school.

REGIONAL

Los Angeles Unified School District

As indicated above, the State is primarily responsible for the funding and structure of the local school districts, and in this case, LAUSD. As LAUSD provides education to students in many cities and County areas, in addition to the City, its oversight is largely a District-level issue. Public schools operate under the policy direction of elected governing district school boards (elected from the local area) as well as by local propositions which directly impact the funding of facility construction and maintenance. Pursuant to the Greene Act, LAUSD collects developer fees for new construction within its boundaries. The LAUSD School Facilities Needs Analysis has been prepared to support the school district's levy of the fees authorized by Section 17620 of the California Education Code. Payment of these fees would be mandatory for the Project Applicant and would fully mitigate any impact upon school services generated by the Project.

LAUSD Strategic Plan 2022-2026

The LAUSD Strategic Plan 2022-2026 (Strategic Plan) represents the LAUSD's framework towards a commitment to 100 percent graduation. In following the Strategic Plan's fundamental strategy, the LAUSD will direct its efforts and resources to recruit, develop, and support principals and teachers in creating a learning environment that ensures 100 percent of students achieve and graduate. The Strategic Plan identified four main goals: (1) Postsecondary Preparedness; (2) Literacy; (3) Numeracy; (4) Social/Emotional Wellness. The five pillars of the Strategic Plan (1) Academic Excellence, (2) Joy and Wellness, (3) Engagement and Collaboration, (4) Operational Effectiveness, and (5) Investing in Staff. Furthermore, the Strategic Plan provides key initiatives to achieve these commitments from which implementation plans will be created. Plans will be structured to include specific action steps, responsibilities, and timelines. As such, the LAUSD will be able to monitor and measure progress and provide accountability during the Strategic Plan's implementation process.

LAUSD Choices Program

LAUSD provides education choices including magnet and permits with transportation (PWT) programs to students residing within the LAUSD boundaries. Students interested in enrolling in LAUSD magnet and PWT programs are required to apply through LAUSD eChoices. Magnet schools under the Choice Program include business, communication arts, center for enriched studies, gifted/highly gifted/high ability, liberal arts, magnet schools assistance program, public service, science/technology/engineering/math, and visual and performing arts.

LOCAL

Los Angeles Citywide General Plan Framework (Framework Element)

Chapter 9, Infrastructure and Public Services of the Framework Element includes goals, objectives, and policies applicable to public schools; these are summarized in **Table 4.13-7**.

TABLE 4.13-7 RELEVANT GENERAL PLAN SCHOOL GOALS, OBJECTIVES, AND POLICIES	
Framework Element – Chapter 9 Infrastructure and Public Services	
Goal 9N	Public schools that provide a quality education for all of the City's children, including those with special needs, and adequate school facilities to serve every neighborhood in the City so that students have an opportunity to attend school in their neighborhoods.
Objective 9.31	Work constructively with the Los Angeles Unified School District to monitor and forecast school service demand based upon actual and predicted growth.
Policy 9.31.1	Participate in the development of, and share demographic information about, population estimates.
Objective 9.32	Work constructively with Los Angeles Unified School District to promote the siting and construction of adequate school facilities phased with growth.
Policy 9.32.1	Work with the Los Angeles Unified School District to ensure that school facilities and programs are expanded commensurate with the City's population growth and development.
Policy 9.32.2	Explore creative alternatives for providing new school sites in the City, where appropriate.
Policy 9.32.3	Work with LAUSD to explore incentives and funding mechanisms to provide school facilities in areas where there is a deficiency in classroom seats.
Objective 9.33	Maximize the use of local schools for community use and local open space and parks for school use.
Policy 9.33.1	Encourage a program of decision-making at the local school level to provide access to school facilities by neighborhood organizations.
Policy 9.33.2	Develop a strategy to site community facilities (libraries, parks, schools, and auditoriums) together.
SOURCE: City of Los Angeles 2001	

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the *CEQA Guidelines*, the Proposed Project would have a potentially significant impact related to schools if it would result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, or need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for schools.

METHODOLOGY

The following analysis focuses on determining whether the Proposed Project would result in adverse physical impacts to the environment due to the expansion of existing school facilities or construction of new facilities. Whether additional facilities would be required is determined primarily by considering the adequacy of existing school facilities, impacts of the Proposed Project on demand for school facilities, and applicable regulations and policies that would influence future provision of school facilities and allow for mitigation of potential environmental impacts.

Based on the above, for purposes of this EIR, an impact on schools would occur if the Proposed Project promotes growth patterns resulting in the need for and/or the provision of new or physically altered public school facilities (including charter schools), the construction of which would cause significant

environmental impacts in order to maintain service, or other performance objectives. To the extent that the Proposed Project causes impacts to classroom sizes or school service impacts that results in the construction of new facilities or alterations to existing facilities, and the impact from that construction results in a potential impact to the environment, that is a CEQA impact that needs to be assessed in this EIR. Any discussion in this EIR that relates solely to the level of school services provided to the residents of the Project Area, including any existing or future needs and deficiencies, is only relevant to the extent it supports potential impacts from construction to address the deficiency.. The ultimate determination of whether there is a significant impact related to schools is based on whether a significant impact will result from the construction of new or expanded school facilities.

The discussion of impacts to public schools addresses impacts for the Project Area. Public school service needs are dependent on the size of the service population and the geographic area served. This analysis estimates the number of students that would be generated by reasonably anticipated development with the Proposed Project using LAUSD student generation rates and assesses whether existing and planned LAUSD school facilities expected to serve the Project Area would have sufficient available capacity to accommodate the students (LAUSD 2022c). If there would not be sufficient available capacity, the EIR will consider whether new school facilities will be needed, and if foreseeable, whether the construction of the school facilities will result in a significant impact.

PROJECT IMPACTS

Threshold 4.13-3	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service or other performance objectives for public schools?
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Impact 4.13-3 **Proposed Project:** The Proposed Project would allow for development that would increase the student population of the **Project Area** and may create the need for new or expanded school facilities. However, based on the urbanized character of the **Project Area**, it is anticipated that new or expanded school facilities could be built without creating significant environmental impacts.—Therefore, impacts resulting from the provision of school facilities would be *less than significant*.

Project Impacts

The Proposed Project would accommodate new residential development, resulting in approximately 18,000 new units (an increase of approximately 896 percent) and an additional 50,000 persons (an increase of 837 percent) by the year 2040. Non-residential uses, including commercial, industrial and public facility uses, would result in approximately 13,873,000 square-feet of new development. As summarized in **Table 4.13-8**, residential and non-residential development accommodated by the Proposed Project would result in approximately 7,358 new students by 2040. Of this total, an estimated 3,836 would enroll in elementary school, 1,128 would enroll in middle school, 2,127 would enroll in high school, and 267 would enroll in special day classes.

TABLE 4.13-8 ANTICIPATED STUDENT GENERATION IN THE PROJECT AREA						
	Units	Student Generation				Total Students Generated
		Elementary School (TK-6)	Middle School (7-8)	High School (9-12)	SDC	
Residential ¹	18,024 du	3,520	970	1,930	267	6,687
Non-Residential ²	13,873,000 sf	316	158	197		671
Total Students Generated by the Proposed Project		3,836	1,128	2,127	267	7,358

Note: du = dwelling units; sf = square feet; TK = Transitional Kindergarten; SDC = Specialized Day Care
Totals may not add up due to rounding.

¹ Student generation rates for residential use is based on Level 1 – Developer Fee Justification Study for Los Angeles Unified School District (LAUSD 2022c). Residential Generation Rates: Elementary: 0.1953/du, Middle School: 0.0538/du, High School: 0.1071 /du, SDC: 0.0148/du

² Student generation rates for non-residential use is based on the average of office and retail/service student generation rates for a conservative estimate, taken from the LAUSD Commercial/Industrial Development School Fee Justification Study, September 2010 (LAUSD 2010). Non-residential Generation Rates: Elementary: 0.0228/1,000 sf, Middle School: 0.0114/1,000 sf, High School: 0.0142/1,000 sf. Non-residential uses include commercial, industrial, and public facilities.

As shown in **Table 4.13-6**, above, the Project Area is currently served by a total of nine different public elementary, middle and high schools.

It is reasonably foreseeable that over the 20-year plan horizon the reasonably anticipated development from the Proposed Project would result in the need for and construction of new or expanded schools. If new or expanded schools are determined to be necessary during the life of the Proposed Project, such facilities would occur where allowed under the designated land use and/or in proximity to residential uses. The environmental impacts of the construction and operation of new facilities, as an allowed land use, have been evaluated throughout this EIR. Specifically, the EIR analyzes anticipated effects of the Proposed Project related to air quality, noise, traffic, utilities, and other environmental impact areas. It is not foreseeable that impacts from building new schools or new additions to schools in Project Area would have greater or different impacts than those identified in this EIR for construction or operations. Depending on the location of new schools, if they are determined to be needed, impacts related to particular locations could occur, however such impacts are too speculative to assess without information as to design, location and proximity to the population to be served. LAUSD's Facilities Division monitors growth and school capacity and determines future school needs. Should new facilities be needed, such facilities are anticipated to be infill developments surrounded by urban uses and would not require new or expanded infrastructure. Based on the urban location and size, the construction of new schools or expansion of an existing facility could result in less than significant impacts and or possibly qualify for an infill exemption. To the extent that any significant impacts could result from the unique characteristics of a specific project site, or specific characteristics of a given school (e.g., night lighting, performance spaces), those impacts would be speculative at this time. Furthermore, in the event that LAUSD constructs a new school or physically alter an existing facility, a project-specific environmental analysis would be required under CEQA to address site-specific environmental concerns. However, LAUSD's Program EIR for the School Update Program cites declining enrollment across LAUSD of approximately four percent by 2030 (See Program EIR page 4-3 and 4-4) and this is supported by recent LAUSD data. Additionally, the COVID-19 pandemic has accelerated the declining enrollment due to increases in remote learning. Declining enrollments are also a result of families moving to more affordable areas outside of the City and the growth of charter schools. Additionally, LAUSD has employed several measures to help relieve school capacity. LAUSD employs the LAUSD Choices Program that provides education choices including magnet and PWT programs to students residing within the LAUSD boundaries. Magnet schools under the Choice Program include business, communication arts, center for enriched studies, gifted/highly gifted/high ability, liberal arts, magnet schools assistance program, public service, science/technology/engineering/math, and visual and performing arts. LAUSD also offers the additional school option of independent Charter Schools that

operate through LAUSD. Finally, LAUSD has recently invested in expanding school capacity. LAUSD constructed 131 new school between 2010 and 2014 as part of its New School Construction Program to address overcrowded conditions. Since then, more than 170,000 new seats have been added to the district. Together, these efforts help alleviate schools that are operating at or over capacity. As a result of the declining enrollment and addition of new schools and school options, it is unlikely that LAUSD will need to expand existing schools and/or provide new facilities in order to accommodate the additional students generated by the Proposed Project.

All development in California is subject to California Government Code Section 65995, which allows LAUSD to collect impact fees from developers of new residential and commercial/industrial space. These fees are collected on residential and commercial development and may be used to pay for all of the following: land (purchased or leased) for school facilities, design of school facilities, permit and plan checking fees, construction or reconstruction of school facilities, testing and inspection of school sites and school buildings, furniture for use in new school facilities, and interim school facilities (purchased or leased) to house students generated by new development while permanent facilities are constructed. Such development would assist in funding efforts necessary to alleviate school overcrowding and would ensure that new development under the Proposed Project would bear its fair share of the cost of accommodating additional students. Based on all of the above, impacts from the Proposed Project would be *less than significant*.

Mitigation Measures

No significant impacts related to schools have been identified; therefore, mitigation is not required.

Cumulative Impacts

The geographic area to analyze cumulatively considerable impacts to schools includes the entire school district in which the Proposed Project is located, which is the LAUSD. The LAUSD includes the entire City as well as adjacent areas that are served by LAUSD that could be affected by the construction of new school facilities. Citywide growth through 2040 is projected to add an estimated 659,000 new residents, 293,000 new households, and 345,000 new employees (SCAG 2016).

Cumulative development throughout Los Angeles would increase overall demand for public schools and potentially create a need for new facilities. The impacts of individual schools would generally be localized in nature and would not contribute substantially to any cumulative districtwide impacts. The Proposed Project would contribute to increases in enrollment at LAUSD schools, but impacts related to the development of schools would be primarily restricted to the Project Area. Depending on the design and location of new schools, if they are determined to be needed, construction and operational impacts (such as traffic, noise, and lighting) could occur. However, as LAUSD recently constructed schools throughout the City and is now experiencing declining enrollment, the construction of new schools is not anticipated to be necessary. LAUSD's Facilities Division monitors growth and school capacity and determines future school needs. Appropriate school fees would bear its fair share of the cost of the cost of accommodating additional students generated by individual projects. Any school construction project that would result from cumulative growth would be subject to environmental review. . . . Furthermore, the construction and operation of new or expanded school facilities in the Project Area may have localized impacts, but individual facilities would not contribute to any additive cumulative or regional impacts. Therefore, the incremental effect of the Proposed Project with respect to school capacity or new school construction would not be cumulatively considerable and cumulative impacts would be less than significant.

Libraries

ENVIRONMENTAL SETTING

CITYWIDE SETTING

The Los Angeles Public Library (LAPL) System provides library services to the City of Los Angeles. The Central Library, which is located less than two miles from the boundary of the Project Area, serves as LAPL's headquarters. In addition, the LAPL operates 72 community branches (LAPL 2015). The LAPL collection includes more than 6.5 million items, including digital and print items that are borrowed more than 15 million times a year. The library system also offers an array of other services to the LA community, such as homework help, story-time, professional development services, lecture series, music and arts events, and a summer reading series for kids. In total, LAPL offers more than 18,000 public programs a year (LAPL 2015).

LAPL members have access to materials housed at libraries throughout the LAPL system through the library loan program and can pick up materials at whichever library is most convenient. Every branch library offers free wi-fi and use of computer workstations that provide Internet access; the ability to search the LAPL online catalog; access to subscription databases, word processing and language learning tools, and historic document and photograph collections; and access to specially designed websites for children, teens, and Spanish speakers.

PROJECT AREA SETTING

The Project Area does not contain any community branch libraries. However, the Chinatown Branch Library, located on 639 N Hill Street and the Lincoln Heights Branch Library located at 2530 Workman Street are located less than a mile from the Project Area boundary.

The Chinatown Branch Library attracts people from throughout Southern California due to its extensive collection of Chinese materials (e.g., magazines, newspapers, books, movies) and programs geared to first-generation Chinese Americans or recent immigrants, such as a bi-lingual Chinese citizenship class (Liang 2017). The library houses over 80,000 print items in a 14,500 sf building (Liang 2017).

The Lincoln Heights Branch Library is the second oldest branch library in the Los Angeles Public Library system. Located in the Lincoln Heights section of Los Angeles, California, it was built in the Classical Revival and Italian Renaissance Revival styles in 1916 with a grant from Andrew Carnegie. One of three surviving Carnegie libraries in Los Angeles, it has been designated as a Historic-Cultural Monument and listed on the National Register of Historic Places.

REGULATORY FRAMEWORK

City of Los Angeles General Plan Framework Element

The City's General Plan Framework, adopted in December 1996 and readopted in August 2001, provides general guidance regarding land use issues for the entire City and defines Citywide policies regarding land use, including infrastructure and public services. The City's objectives regarding the provision of adequate library services and facilities to meet the needs of the City's residents are set forth in Objectives 9.20 and 9.21. Objective 9.21 proposes to ensure library services for current and future residents and businesses.

Under the Framework Implementation Programs, Plans and Policies Chapter, Framework Policy 13, the Department of Libraries is charged with the responsibility of updating the Library Master Plan to provide sufficient capacity to correct existing deficiencies as well as meet the needs of future population. The implementation plans and policies set forth in the General Plan Framework were addressed through the 2007 LAPL Branch Facilities Plan (Facilities Plan) (discussed further below).

Los Angeles Public Library (LAPL) Branch Facilities Plan

In 1988, the LAPL Board of Commissioners adopted the *Branch Facilities Plan* to guide the construction, maintenance, and operation of libraries within the City. The Plan is composed of two elements: (1) the Criteria for New Libraries, and (2) the Proposed Project List. The first element sets standards for selection of future library sites and the second lists proposed projects to renovate existing libraries or construct new facilities. According to the current Plan, service criteria are based on floor area required to serve varying amounts of residential population. Current LAPL branch building size standards are presented in **Table 4.13-9**.

TABLE 4.13-9 LAPL BRANCH FACILITIES SITE SELECTION CRITERIA	
Population Served	Size of Facility (square feet)
Above 45,000	14,500
Below 45,000	12,500
Regional Branch	20,000
SOURCE: LAPL 2015	

The Branch Facilities Plan also sets the following site selection criteria:

- When a community reaches a population of 90,000, an additional branch should be considered for the area
- One-story library buildings with interior layouts must be designed to accommodate the disabled, and to have electronic technology, substantial shelving and seating capacities, and have a community meeting room
- Good visibility and street access
- Easily accessible by car, by bus and on foot
- Take into consideration the relative locations of all schools served by the branch
- Take into consideration the relative locations of all neighboring branch libraries

All of the projects identified under the Branch Facilities Plan were completed by October 2008. The Board of Library Commissioners adopted a fully revised Plan on February 8, 2007 with a new Projects List and updated standards.

Proposition 1, a \$53.4 million Branch Libraries Facilities Bond, was approved in 1989. Proposition 1 proposed obtaining new sites for building, renovating, and expanding libraries that were unable to serve the community sufficiently and/or were damaged by the Whittier earthquake. Additional funds were allocated by the Community Development Block Grant Award of federal funds from the California State Library Proposition 85, and from Friends of the Library Groups, totaling \$108 million. A total of 29 libraries were built under the 1989 Bond Program. Proposition DD, or the 1998 Library Facilities Bond, was approved in 1998 and authorized \$178.3 million in bonds for funding the construction, renovation, improvement, or expansion of 32 new branch libraries. In 2011, Measure L increased the allocation of City funds to the

library system. Measure L restored library hours of operation and services which were reduced during the recession, over a period of time without raising taxes. Measure L also funded the opening of the Central Library and eight regional branch libraries on Sundays. Based on the Facilities Plan and the construction funds obtained in the subsequent bond issues, 90% of the library infrastructure was replaced in a fifteen-year period.

The Facility Plan guides the construction of branch libraries and specifies standards for size and features of branch facilities based on population served in each community. Facility needs and population growth projections to the year 2030 are forecasted within the Strategic Plan. Los Angeles Public Library Strategic Plan 2015-2020

The Los Angeles Public Library Strategic Plan 2015–2020 (Strategic Plan) sets forth LAPL’s goals and objectives focused on providing library services within existing library facilities. The goals and objectives discussed in the Strategic Plan focus on community development and program expansion in an effort to increase the number of people who use the library services, increase the number of library card holders, and increase residents’ overall engagement with the library. Through Measure L, approved in March 2011, LAPL would also be able to expand its services, collections and technology. The LAPL Strategic Plan 2015-2020 is a five-year plan to detail expanded programs and services, referred to as Key Activities within the Plan, offered by LAPL.

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

According to CEQA Guidelines, Appendix G, the Proposed Project would have a potentially significant impact if it would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities, such as libraries.

METHODOLOGY

The following analysis focuses on determining whether the Proposed Project would result in adverse physical impacts to the environment due to the expansion or construction of new library facilities. Whether additional facilities would be required is determined primarily by considering the adequacy of existing library services, impacts of the Proposed Project on demand for library services, and input provided by LAPL staff.

The need for or deficiency in library facilities to serve the residents or users of the Project Area or the City is not in and of itself a CEQA impact, but a social or economic impact. (*City of Hayward v. B’d of Trustees* (2015) 242 Cal.App. 4th 833, 843). To the extent that the Proposed Project causes a need for the construction of new library facilities or additions to existing facilities, and the impact from that construction results in a potential impact to the environment that is a CEQA impact that needs to be assessed in this EIR. Any discussion in this EIR that relates solely to the level of library services provided to the residents or users of the Plan Area and its surrounding community, including any existing or future needs and deficiencies, is for informational purposes only. The ultimate determination of whether there is a significant impact related to library services is based on whether a significant impact will result from the construction of new or altered library facilities as a result of the implementation of the Proposed Project.

This analysis estimates the number of residents that would be generated by implementation of the Proposed Project and assesses whether existing and planned public libraries expected to serve the Project Area would have sufficient available capacity to accommodate additional users and whether new facilities would need to be constructed, the construction of which would cause significant environmental impacts.

PROJECT IMPACTS

Threshold 4.13-4	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for libraries?
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Impact 4.13-4 **Proposed Project:** The Proposed Project would increase demand for library facilities. However, the Project Area is well-served by library facilities and would not require the construction of new or expanded facilities. Impacts would be *less than significant*.

Project Impacts

Development under the Proposed Project would add an estimated 50,000 residents and 3,000 employees to the Project Area. Many of the Project Area's future residents and employees would likely use the LAPL system, potentially increasing the number of library facility users. However, 75% of L.A. residents visit the library less than once a month, and 18% have not visited a public library more than once in the last five years (LAPL 2015). Thus, an increase in residents is unlikely to result in a substantial increase in annual visits to library facilities. Demand for library facilities may also be offset over time due to increased use of digital materials available through LAPL's online catalog; circulation of e-media is expected to increase from 2,200,000 in 2014 to 3,000,000 in 2020 (LAPL 2015).

The Project Area is well-served by existing library facilities in the surrounding neighborhoods including the Chinatown branch library and the Lincoln Heights branch library, which are both less than a mile from the Project Area boundary.

The Project Area would accommodate approximately 53,000 persons (residents and employees). Based on the site selection criteria of 90,000 persons per library branch, as identified in the Branch Facilities Plan, the two existing libraries serving the Project Area would accommodate a population up to 180,000 persons. Because development is not expected to cause an exceedance of capacity at existing facilities in the Project Area and is not expected to generate a substantial demand for the unique collections and programs of the community branch libraries serving the Project Area, it is unlikely that expansion or construction of new library facilities would be required.

If new library facilities are determined to be necessary at some point in the future, such facilities would occur where allowed under the designated land use. The environmental impacts of the construction and operation of new facilities, as an allowed land use, have been evaluated throughout this EIR. It is not foreseeable that impacts from building or upgrading libraries in the Project Area would have greater or different impacts than those identified in this EIR for construction or operations. Potential impacts to air, noise, traffic, as well as other impacts of new developments are discussed in the impact sections of this EIR, and they would not be any different for a library facility. The Project Area is urbanized and new facilities would not involve expansion of the urban sphere beyond current boundaries and, thus, there would be no need for new or expanded infrastructure. Therefore, the Proposed Project would not result in adverse physical impacts associated with the provision of new or expanded library facilities. The impact would be *less than significant*.

Mitigation Measures

No significant impacts related to libraries have been identified; therefore, mitigation is not required for the Proposed Project..

CUMULATIVE IMPACTS

The geographic area to analyze cumulatively considerable impacts to libraries includes the entire City of Los Angeles as well as areas at the City's periphery that could potentially be affected by construction of a new facility at or near the City's corporate boundary. Citywide growth through 2040 is projected add an estimated 659,000 new residents, 293,000 new households, and 345,000 new employees (SCAG 2020).

Cumulative development from the Proposed Project and other cumulative projects throughout Los Angeles would increase overall demand for library facilities and potentially create a need for new facilities. Environmental impacts associated with the construction of new or expanded facilities may have significant environmental effects. Such impacts would be addressed, as necessary, as part of project-level environmental review of individual new or expanded facilities but cannot be predicted with any certainty at this time since the size and locations of new facilities are not currently known. No new library facilities are currently planned in the Project Area. The Branch Facilities Plan will continue to forecast future demand for library facilities throughout the City and strive to provide adequate facilities and related improvements to serve the existing and future population. The impacts of new facilities would be localized in nature and the addition of new facilities in specific locations would not result in significant cumulative impacts. Reasonably anticipated development growth under the Proposed Project could incrementally contribute to this overall cumulative impact by increasing demand for library facilities, but its contribution would not be cumulatively considerable since development facilitated by the Proposed Project would not require the construction of new or expanded facilities. Moreover, as previously discussed, 75 percent of the City's residents visit the library less than once a month, and 18 percent have not visited a public library more than once in the last five years. Furthermore, demand for library facilities may also be offset over time due to increased use of digital materials available through LAPL's online catalog; circulation of e-media is expected to increase from 2,200,000 in 2014 to 3,000,000 in 2020. However, in the event new facilities are determined to be necessary at some point in the future, such facilities would occur where allowed under the designated land use and would be generally consistent with other allowed development analyzed in this EIR. Therefore, the incremental contribution of the Proposed Project with respect to library facilities would not be cumulatively considerable and cumulative impacts would be *less than significant*.

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4.14 RECREATION

This section evaluates potential impacts to recreational resources from the updated Cornfield Arroyo Seco Plan (CASP) (or “Proposed Project” or “Project”) in the existing CASP area of Los Angeles (or “Project Area”). Topics addressed include the potential deterioration of existing facilities and necessity for new recreational facilities. Impacts related to recreation are evaluated based on the adequacy of existing and planned facilities and any additional demand generated by future development.

ENVIRONMENTAL SETTING

CITYWIDE EXISTING AND PLANNED PARKS

The City of Los Angeles Department of Recreation and Parks (DRP) owns and operates parks and recreational facilities throughout the City. City park and recreation facilities include over 16,000 acres of parkland with over 559 park sites, including hundreds of athletic fields, 411 playgrounds, 319 tennis courts, 123 recreation centers, over 130 outdoor fitness areas, 59 swimming pools and aquatic centers, 29 senior centers, 27 skate parks, 13 golf courses, 12 museums, 13 dog parks (DRP 2022a). The DRP also maintains 13 lakes, 92 miles of hiking trails, and operates 187 summer youth camps.

In 2012, the DRP launched the 50 Parks Initiative based on findings in the 2009 *Citywide Community Needs Assessment* indicating that park facilities are not equitably distributed across the City and that many communities do not have parks within a reasonable distance. The 50 Parks Initiative seeks to build 50 parks in densely-populated neighborhoods or communities currently lacking sufficient park space and recreational facilities (DRP 2017b).

As discussed further below under Regulatory Framework, the City of Los Angeles Public Recreation Plan states that in order to meet long-range local recreational standards, the City should maintain a minimum of two acres of neighborhood facilities and two acres of community recreational facilities for every 1,000 persons, or a combination of neighborhood and community facilities adding up to four acres. Pocket parks are another type of recreational facility not specifically addressed in the City’s Recreation Plan; however, pocket parks have been used to meet City residents’ recreational needs in urban settings where space and the ability to develop new neighborhood parks are limited.

Park Planning Efforts

2009 Citywide Community Needs Assessment

The Department of Recreation and Parks conducted the *Citywide Community Needs Assessment* as the first step in the preparation of a Citywide Recreation and Parks Master/Strategic Plan and a Five-year Capital Improvement Plan. The Needs Assessment identifies, quantifies, and preliminarily prioritizes the tremendous need for recreation and open space in the City. A high-level review was also performed of the Department’s facilities in an attempt to address the various facilities needing improvements to meet current and future needs, prevent future maintenance problems, and offer positive alternatives to an increasingly dense and urbanized population.

Los Angeles Countywide Comprehensive Parks & Recreation Needs Assessment

The Parks & Recreation Needs Assessment, adopted in May 2016, documents existing parks and recreation facilities in the cities and unincorporated communities of Los Angeles County and uses the data to determine the scope, scale, and location of park needs in Los Angeles County. The Parks & Recreation Needs Assessment also provides a framework for considering parks as key infrastructure; uses a new series of metrics to determine park needs; supports a need-based allocation of funding for parks and recreation; and emphasizes community priorities and deferred maintenance projects.

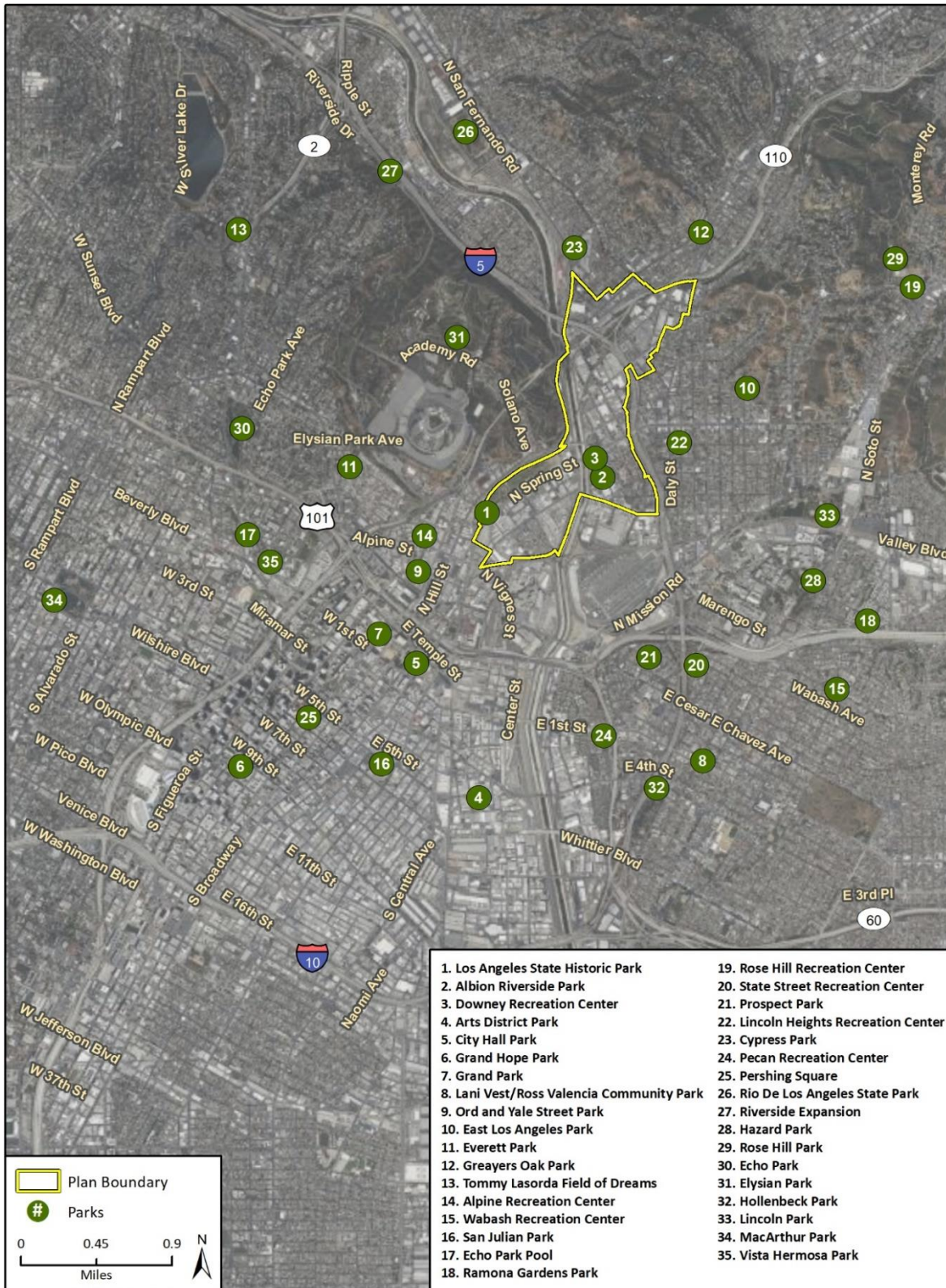
Project Area Existing and Planned Parks

Table 4.14-1 summarizes the parks that would serve the Project Area, including existing parks within and near the Project Area (DRP 2012). There are four parks in the Project Area, of which three are neighborhood parks and one is a state park. In total, parks in the Project Area provide 43.3 acres of park land. An additional eight pocket parks, 16 community parks, four neighborhood parks, one regional park and one state park are located within two miles of the Project Area boundary. These parks provide an additional 939.5 acres of recreational land. **Figure 4.14-1** maps the locations of existing parks in and near the Project Area and shows their location relative to land uses proposed in the Proposed Project. The numbers on the map correspond to the figure numbers assigned to each park in **Table 4.14-1**.

In total, existing parks in and in the vicinity of the Project Area provides 982.8 acres of recreational land. Of this total, community, and neighborhood parks (i.e., non-regional parks) account for 290.8 acres, pocket parks account for 8.1 acres, one regional park (Elysian Park) accounts for 600 acres, and two state parks account for 84 acres. Based on the existing Project Area population of 6,000, the Project Area is currently served by approximately 48.4 acres of neighborhood and community parks per 1,000. Including existing pocket parks there would be about 49.8 acres of non-regional parks per 1,000 residents (see **Table 4.14-2**). The Proposed Project currently exceeds the City's 4 acres per 1,000 residents goal for neighborhood and community facilities.

TABLE 4.14-1 PARKS AND RECREATIONAL FACILITIES WITHIN THE PROJECT AREA AND WITHIN 2 MILES OF THE PROJECT AREA			
Name	Location	Acreage	Park Type
Parks within Project Area			
Los Angeles State Historic Park*	1245 North Spring Street	32.0	State
Albion Riverside Park	1739 N. Albion St.	6.3	Neighborhood
Downey Recreation Center	1772 N. Spring Street	4.02	Neighborhood
Lacy Street Neighborhood Park	Avenue 26 and Lacy Street	1.00	Neighborhood
Total		43.3	
Parks near the Project Area			
Lani Vest-Pocket Park	East 1st Street and Chicago Street	0.088	Pocket
Ord and Yale Street Park	524 Ord St	.58	Pocket
East Los Angeles Park	3160 East Minnesota Street	0.32	Pocket
Everett Park	1010 Everett Street	0.53	Pocket
Greayer's Oak Park	3711 North Figueroa Street	0.59	Pocket
Lasorda (Tommy) Field Of Dreams	1901 Waterloo Street	1.79	Pocket
Alpine Recreation Center	817 Yale Street	1.93	Neighborhood
Wabash Recreation Center	2765 Wabash Avenue	2.06	Community
Echo Park Deep Pool	1419 Colton Street	2.07	Pocket
Ramona Gardens Park	2830 Lancaster Avenue	2.09	Pocket
Rose Hill Recreation Center	4530 Mercury Avenue	2.26	Neighborhood
State Street Recreation Center	716 North State Street	2.61	Community
Prospect Park	612 North Echandia Street	2.71	Neighborhood
Lincoln Heights Recreation Center	2303 Workman Street	2.87	Community
Cypress Recreation Center	2630 Pepper Avenue	3.48	Community
Pecan Recreation Center	127 South Pecan Street	4.28	Community
Pershing Square	525 S Olive Street	4.43	Community
Downey Park	1772 North Spring Street	4.52	Community
Ramona Gardens Recreation Center	2830 Lancaster Avenue	6.40	Community
Rio De Los Angeles State Park*	1900 San Fernando Road	52.00	State
Riverside Expansion	1800 Riverside Drive	18.33	Community
Hazard Park	2230 Norfolk Street	24.99	Community
Rose Hill Park	3606 Boundary Avenue	25.83	Community
Echo Park	751 Echo Park Boulevard	28.40	Community
Elysian Park	929 Academy Road,	600.0	Regional
Hazard Recreation Center	2230 Norfolk Street	31.57	Community
Hollenbeck Park	415 S. St. Luis Street	21.46	Community
Lincoln Park	3501 Valley Boulevard	45.75	Community
MacArthur Park	653 S Alvarado St	34.82	Community
Vista Hermosa Park	100 N. Toluca St	10.73	Neighborhood
Total		939.5	
Neighborhood and Community Parks		290.8	
Pocket Parks		8.1	
Regional Park		600.00	
State Parks		84	
Combined Total Park Land		982.8	
*Denotes State of California Parks.			
SOURCE: Los Angeles Department of Recreation and Parks			

Figure 4.14-1 Parks Serving the Project Area



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 Additional data provided by Los Angeles GeoHub, 2016.

Fig 4.14-1 Parks Serving the CASP Area

TABLE 4.14-2 EXISTING DEMAND FOR RECREATIONAL FACILITIES			
Non-Regional Park Acreage	Acres per 1,000 Persons	Goal	Meets Goal?
Neighborhood/Community Only	48.4	4 acres of Neighborhood and Community Facilities per 1,000 persons	Yes
Neighborhood, Community & Pocket	49.8		
Acres per 1,000 persons based on the total acreages from Table 4.14-1 and the current Project Area population of 6,000. The City's 4 acres per 1,000 residents goal relates to non-regional parks does not specifically include pocket parks so totals have been provided both with and without pocket parks.			

REGULATORY FRAMEWORK

STATE

Quimby Act

The California State Legislature established the Quimby Act and codified it as California Government Code Section 66477 in 1965. The Quimby Act allows the legislative body of a city or county to establish an ordinance requiring the dedication of land, payment of fees in lieu thereof, or a combination of both, for the provision of parks or recreational facilities as a condition to the approval of a tentative tract map or parcel map. LAMC establishes the Quimby in-lieu fees for subdivisions with 50 units or more and provides guidance for park land dedication in accordance with the Quimby Act. LAMC also establishes a park mitigation fee for residential projects that are not subdivision projects, which are non-Quimby impact fees.

State Public Park Preservation Act of 1971 (PRC Section 5400–5409)

This act provides for no net loss of parkland and facilities by prohibiting cities and counties from acquiring any real property that is in use as a public park for any non-park use unless compensation or land, or both, are provided to replace the parkland acquired.

LOCAL

City of Los Angeles Charter

The City Charter established the Department of Recreation and Parks (RAP) to construct, maintain, operate, and control all parks, recreational facilities, museums, observatories, municipal auditoriums, sports centers and all lands, waters, facilities or equipment set aside or dedicated for recreational purposes and public enjoyment within the City. The Board of Recreation and Parks Commissioners oversees the RAP.

With regard to control and management of recreation and park lands, Section 594(c) of the City Charter provides that all lands set apart or dedicated as a public park shall forever remain for the use of the public inviolate. However, the Board of Recreation and Parks Commissioners may authorize the use of those lands for any park purpose and for other specified purposes.

City of Los Angeles General Plan

Framework Element

The City’s General Plan Framework Element (adopted in December 1996 and readopted in August 2001) (Framework) includes park and open space policies for the provision, management, and conservation of

Los Angeles' open space resources while addressing the outdoor recreation needs of the City's residents and is intended to guide the amendment of the General Plan's Open Space and Conservation Elements.

Chapter 6 and 9 of the City's Framework Element includes objectives and policies applicable to parks, which are summarized in **Table 4.14-3**.

TABLE 4.14-3 RELEVANT GENERAL PLAN PARK GOALS, OBJECTIVES, AND POLICIES	
Framework Element – Chapter 6, Open Space and Conservation	
Policy 6.2.1	Establish, where feasible, the linear open space system represented in the Citywide Greenways Network map, to provide additional open space for active and passive recreational uses and to connect adjoining neighborhoods to one another and to regional open space resources.
Policy 6.2.2	Protect and expand equestrian resources, where feasible, and maintain safe links in major public open space areas such as Hansen Dam, Sepulveda Basin, Griffith Park, and the San Gabriel, Santa Monica, Santa Susanna Mountains and the Simi Hills.
Policy 6.4.1	Encourage and seek to provide for usable open space and recreational facilities that are distributed throughout the City.
Policy 6.4.2	Encourage increases in parks and other open space lands where deficiencies exist, such as South East and South Central Los Angeles and neighborhoods developed prior to the adoption of the State Quimby Act in 1965
Policy 6.4.3	Encourage appropriate connections between the City's neighborhoods and elements of the Citywide Greenways Network.
Policy 6.4.5	Provide public open space in a manner that is responsive to the needs and wishes of the residents of the City's neighborhoods through the involvement of local residents in the selection and design of local parks. In addition to publicly-owned and operated open space, management mechanisms may take the form of locally run private/non-profit management groups and should allow for the private acquisition of land with a commitment for maintenance and public access.
Policy 6.4.6	Explore ways to connect neighborhoods through open space linkages, including the "healing" of neighborhoods divided by freeways, through the acquisition and development of air rights over freeways (such as locations along the Hollywood Freeway between Cahuenga Pass and Downtown), which could be improved as a neighborhood recreation resource.
Policy 6.4.7	Consider as part of the City's open space inventory of pedestrian streets, community gardens, shared school playfields, and privately-owned commercial open spaces that are accessible to the public, even though such elements fall outside the conventional definitions of "open space." This will help address the open space and outdoor recreation needs of communities that are currently deficient in these resources
Policy 6.4.8	Maximize the use of existing public open space resources at the neighborhood scale and seek new opportunities for private development to enhance the open space resources of the neighborhoods.
Policy 6.4.9	Encourage the incorporation of small-scaled public open spaces within transit-oriented development, both as plazas and small parks associated with transit stations, and as areas of public access in private joint development at transit station locations.
Policy 6.4.11	Seek opportunities to site open space adjacent to existing public facilities, such as schools, and encourage the establishment of mutually beneficial development agreements that make privately-owned open space accessible to the public. For example, encourage the improvement of scattered small open spaces for public access in private projects with small branch libraries, child care centers, or decentralized schools.

TABLE 4.14-3 RELEVANT GENERAL PLAN PARK GOALS, OBJECTIVES, AND POLICIES	
Framework Element – Chapter 9, Infrastructure and Public Services	
Policy 9.23.2	Prioritize the implementation of recreation and park project in areas of the City with the greatest existing deficiencies.
Policy 9.23.5	Re-evaluate the current park standards and develop modified standards which recognize urban parks, including multi-level facilities, smaller sites, more intense use of land, public/private partnerships and so on.
Policy 9.23.7	Establish guidelines for developing non-traditional public park spaces like community gardens, farmer's markets, and public plazas.
Policy 9.24.1	Phase the development of new programs and facilities to accommodate projected growth.
SOURCE: City of Los Angeles, The Citywide General Plan Framework, An Element of the City of Los Angeles General Plan, re-adopted 2001.	

Service Systems Element - Public Recreation Plan

As a part of the General Plan’s Service Systems Element, the Public Recreation Plan (PRP) establishes policies and standards related to parks, and recreational facilities in the City. The PRP was adopted in 1980 by the Los Angeles City Council and amended by City Council resolution in March 2016. The amendments modernize the PRP’s recommendations and provide for more flexibility and equity in the distribution of funds used for the acquisition and development of recreational resources. The PRP also addresses the need for publicly accessible neighborhood, community, and regional recreational sites and facilities across the City. The PRP focuses on recreational site and facility planning in underserved neighborhoods with the fewest existing resources and the greatest number of potential users (i.e., where existing residential development generates the greatest demand), as well as areas where new subdivisions, intensification of existing residential development, or redevelopment of “blighted” residential areas creates new demand.

The amended PRP establishes general guidelines for neighborhood, community, and regional recreational sites and facilities that address general service radius and access as well as service levels relative to population within that radius. The PRP also states that the allocation of acreage for community and neighborhood parks should be based on the resident population within that general service radius. Toward this end, the amended PRP recommends the goals of 2.0 acres each of neighborhood and community recreational sites and facilities per 1,000 residents, and 6.0 acres of regional recreational sites and facilities per 1,000 residents. To determine existing service ratios, the RAP commonly uses the geographic area covered by the applicable Community Plan rather than the park service radius. The PRP does not establish requirements for individual development projects.

For a given neighborhood recreational site or facility, the amended PRP does not recommend a specific size, noting only that a school playground may partially serve this function (with up to one-half of its acreage counted toward the total acreage requirement [service level per capita]). The amended PRP does not define a specific service radius for neighborhood recreational sites and facilities, instead recommending that they should generally be within walking distance and not require users to cross a major arterial street or highway for access.

For community recreational sites and facilities, the amended PRP states that facilities may be of any size, but are generally larger than neighborhood parks, and a high school site may be counted toward half the acreage requirement/service level per capita. The amended PRP does not define a specific service radius for community recreational sites and facilities, instead recommending that they should generally be accessible within a relatively short bicycle, bus, or car trip, and easily accessible.

For regional recreational sites and facilities, the amended PRP states that facilities may be large urban recreational sites or smaller sites or facilities that draw visitors from across the City. The amended PRP does not define a specific service radius or further qualify access, stating only that the service radius should be that within a reasonable drive.

Health, Wellness, and Equity Element

The City's Plan for a Healthy Los Angeles, updated in 2021, which also serves as the City's environmental justice element, lays the foundation to create healthier and equitable communities for all Angelenos. As an Element of the General Plan, it provides high-level policy vision, along with measurable objectives and implementation programs, to elevate health as a priority for the City's future growth and development. Chapter 3 of the Plan, Bountiful Parks and Open Spaces, outlines policies and objectives to increase the availability of parks through park funding and allocation, park expansion, the Los Angeles River, park quality and recreation programs, park safety, local partnerships, water recreation, and active spaces. Specifically, the objectives include:

- Increase the number of neighborhood and community parks so that every Community Plan Area strives for 3 acres of neighborhood and community park space per 1000 residents (excluding regional parks and open spaces).
- Increase access to parks so that 75% of all residents are within a ¼ mile walk of a park or open space facility.
- Increase the number of schools (public, private, and charter) that have shared use agreements for community use outside of normal school hours by 25%.
- Increase the miles of the Los Angeles River that are revitalized for natural open space and physical activity, particularly in low-income areas.
- Increase the number of parks that feature or incorporate universally-accessible features.
- Improve the percentage of citywide population meeting physical fitness standards per week so that 50% percent of the population meets physical activity guidelines.

Los Angeles Municipal Code

In September 2016, the City adopted Ordinance No. 184,505, Parks Dedication and Fee Update Ordinance (Park Fee Ordinance). The aim of the Park Fee Ordinance is to increase the opportunities for park space creation and expand the fee program beyond those projects requiring a subdivision map to include a park linkage fee for all net new residential units. The Park Fee Ordinance amends LAMC Sections 12.21, 12.33, 17.03, 17.12 and 17.58, deletes LAMC Sections 17.07 and 19.01, and adds LAMC Section 19.17. The Park Fee Ordinance increases Quimby in-lieu fees, provides a new impact fee for non-subdivision projects, eliminates the deferral of park fees for market rate projects that include residential units, increases the fee spending radii from the site from which the fee is collected, provides for early City consultation for subdivision projects or projects with over 50 units in order to identify means to dedicate land for park space, and updates the provisions for credits against park fees. The Park Fee Ordinance went into effect on January 11, 2017.

LAMC Section 12.21 G requires that all residential developments containing six or more dwelling units on a lot provide, at a minimum, the following usable open space area per dwelling unit: 100 square feet for each unit having less than three habitable rooms, 125 square feet for each unit having three habitable rooms, and 175 square feet for each unit having more than three habitable rooms. LAMC Section 12.21 G also identifies what areas of a project would qualify as usable open space for the purposes of meeting the project's open space requirements.

As stated in LAMC Section 12.21 G, usable open space is defined as areas designated for active or passive recreation and may consist of private and common areas. Common open space areas must be readily accessible to all residents of the site and constitute at least 50 percent of the total required usable open space. Common open space areas can incorporate recreational amenities such as swimming pools, spas, picnic tables, benches, children's play areas, ball courts, barbecue areas, and sitting areas. A minimum of 25 percent of the outdoor common open space area must be planted with ground cover, shrubs, or trees. Indoor recreational amenities can account for up to 25 percent of the usable open space requirements. Private open space is defined in an area that is contiguous to and immediately accessible from an individual dwelling unit, may have a dimension no less than six feet in any direction and must contain a minimum of 50 square feet, of which no more than 50 square feet per dwelling unit can be counted towards the total required usable open space.

LAMC Section 12.33, Park Fees and Land Dedication, authorized under the Quimby Act, requires developers of most residential projects to dedicate land and/or pay in-lieu fees for parks and recreational facilities. Specific requirements are determined based on the type of project and number of units. Under LAMC Section 12.33 D, the area of land within a residential subdivision that is required to be dedicated for parks and recreational uses is determined by the formulas provide therein. Land dedication and in-lieu fee payment are subject to the restrictions set forth in Section 12.33 (i.e., land must be used for park or recreational uses and fees must be used for the acquisition or development of, and not the operation or maintenance of, park land).

LAMC Section 12.33 G, Affordable Housing Exemption, allows new residential dwelling units that are rented or sold to persons or households of very low, low, or moderate income to receive an affordable housing exemption from the park fee and land dedication requirement. An affordable housing unit shall receive an exemption from the requirement for dedication of land for park and recreational purposes and/or payment of the park fee if the affordable housing unit is affordable to a household at or below 120 percent of the area median income. In projects with a mix of market-rate and affordable units, only the affordable housing units shall receive this exemption.

LAMC Section 12.33 H, Credits, allows private recreational areas developed within a project site for use by the particular project's residents to be credited as meeting up to 35 percent of the project's calculated land dedication and/or in-lieu fee requirement. Recreational areas that qualify under this provision of LAMC Section 12.33 H include, in part, indoor recreation areas, gyms, swimming pools, and spas (when the spas are an integral part of a pool complex). Furthermore, in accordance with LAMC Section 12.33 H.2, the recreational areas proposed as part of a project must meet the following standards in order to be credited against the requirement for land dedication: (1) each facility is available for use by all of the residents of a project; and (2) the area and the facilities satisfy the park and recreation needs of a project so as to reduce that project's need for public recreation and park facilities.

LAMC Section 21.10.3, Dwelling Unit Construction Tax, establishes the payment of a dwelling unit construction tax of \$200 per new residential unit. The tax is to be paid to a "Park and Recreational Sites and Facilities Fund" for the acquisition and development of park and recreational sites and facilities. If park and recreation provisions (i.e., fees, improvements, or land dedication) have been made pursuant to LAMC Section 12.33, the fair market value of those provisions is credited against the payment of this tax.

Pursuant to LAMC Sections 17.12 and 17.58, a final subdivision map shall not be approved or recorded, unless a park fee has been paid or land within the subdivision has been dedicated to the City for park or recreational purposes. Park fee rates for residential subdivision and non-subdivision residential projects are identified in LAMC Section 19.17 and adjusted for inflation annually.

Los Angeles Department of Recreation and Parks 2009 Citywide Community Needs Assessment

In 2009, the Department of Recreation and Parks commissioned an update of the last Recreation and Parks Needs Assessment from 1999 as a preliminary step in developing a citywide park master plan and five-year capital improvement plan. The report provides an inventory of existing facilities, defines geographic areas of need and recommended facilities to serve specific populations, and identifies priorities for additional parks and recreation facilities. The report provides a more current assessment of conditions and future needs compared to the PRP, while the PRP recommends the ratios of park acreage per person used in the analysis.

Department of Recreation and Parks 50 Parks Initiative

In response to the 2009 Citywide Community Needs Assessment, the Department of Recreation and Parks developed the 50 Parks Initiative with the purpose of substantially increasing the number of parks and facilities available across the City, with a specific focus on densely populated neighborhoods and communities that lack sufficient open space and recreational services.

Park Proud LA Strategic Plan 2018-2022

The Park Proud LA Strategic Plan (Strategic Plan) is the most recent strategic plan for the Department of Recreation and Parks, effective from 2018 until 2022. The Strategic Plan highlights critical work that needs to be accomplished over the next several years to ensure that the City has an accessible, equitable, and first class park system. The Strategic Plan reflects chief priorities of the RAP, confronts new and existing challenges, and lays the framework to pursue new opportunities. Within the Strategic Plan, there are over two dozen outcomes organized under the following seven high-level priority goals:

- Provide safe and accessible parks.
- Offer affordable and equitable recreation programming.
- Create and maintain world class parks and facilities.
- Actively engage communities.
- Ensure an environmentally sustainable park system.
- Build financial strength and innovative partnerships; and
- Maintain a diverse and dynamic workforce.

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the *CEQA Guidelines*, the Proposed Project would have significant impacts related to parks and recreational facilities if it would:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated (Threshold 4.14-1)
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment (Threshold 4.14-2)

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks. (Threshold 4.14-3)

METHODOLOGY

An impact related to recreation would occur if the Proposed Project promotes growth patterns resulting in:

- The need for and/or the provision of new or physically altered park, the construction of which would cause significant environmental impacts in order to maintain service ratios, response times, or other performance objectives, or
- The increased use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

The need for, or deficiency in, park facilities to serve the residents or users of the Project Area or the City is not in and of itself a CEQA impact, but a social or economic impact (*City of Hayward v. Board of Trustees* (2015) 242 Cal.App. 4th 833, 843). To the extent that the Proposed Project causes a need for additional recreational services and facilities and that results in the construction of new facilities or additions to existing facilities and the impact from that construction results in a potential impact to the environment that is an environmental impact under CEQA that needs to be assessed in this EIR. Additionally, the deterioration of existing recreational facilities and parks caused by the Project is an environmental impact under CEQA that needs to be assessed in the EIR. Any discussion in this EIR of social or economic impacts that relates solely to the level of recreational services provided to the residents or users of the Project Area and its surrounding community, including any existing or future needs and deficiencies, is not determinant on its own of environmental impacts under CEQA, unless those social or economic impacts result in physical impacts. The ultimate determination of whether there is a significant impact related to park/recreational services is based on whether a significant physical impact to the environment would result from the construction of new or altered park/recreational facilities or where existing park and recreational facilities would be substantially physically deteriorated as a result of the implementation of the Proposed Project.

This analysis estimates the number of residents that would be generated by implementation of the Proposed Project and assesses whether existing and planned public parks would have sufficient available capacity to accommodate additional users and whether new facilities would need to be constructed, the construction of which would cause significant environmental impacts; and whether the Proposed Project would result in substantial physical deterioration of park/recreational facilities.

PROJECT IMPACTS

Threshold 4.14-1	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
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Impact 4.14-1 **Proposed Project:** Reasonably anticipated development from the Proposed Project would increase the use of existing park and recreational facilities in and adjacent to the Project Area. However existing parks and recreational facilities would have the capacity to support increased demand due to population growth. Therefore, the Proposed Project would not accelerate the deterioration of existing parks in and around the Project Area and such impacts to existing recreational facilities would be *less than significant*.

Project Impact

The zoning changes of the Proposed Project could reasonably result in the population of the Project Area increasing from approximately 6,000 to approximately 57,000 by 2040. This increase in population would foreseeably increase the use of existing parks and recreational facilities in and near the Project Area, particularly in areas that are designated for residential and mixed use development under the Proposed Project. Existing parks and recreational facilities in or near the Project Area total approximately 982.8 acres. The anticipated increase in population would bring the Project Area's park ratio to approximately 5.1 acres of neighborhood and community parkland per 1000 persons – exceeding the City's 4 acres per 1,000 residents goal for neighborhood and community facilities. Furthermore, the inclusion of state, regional and pocket parks serving the Project Area bring the park ratio to 17.2 acres of parkland per 1000 residents.

Developers of future residential projects in the Project Area would also be required to pay park mitigation fees (for non-subdivision projects) or dedicate land or pay Quimby in-lieu fees (for subdivision projects). Park fee amounts are reviewed and updated annually by the City. Payment of impact fees and the anticipated enhancement or maintenance of facilities with funds provided by these fees would help offset the deterioration of existing recreation facilities. The Proposed Project promotes the provision of publicly accessible open space by offering development incentives for projects in exchange for providing community benefits such as affordable housing, community facilities and open space.

Existing regulations governing development in the City would also provide funding for the provision of new recreational facilities and some would also support the maintenance of existing facilities. Therefore, impacts related to deterioration of existing parks in and around the Project Area would be *less than significant*

Mitigation Measures

None required.

Threshold 4.14-2	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?
Threshold 4.14-3	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks?

Impact 4.14-2, 4.14-3 **Proposed Project:** Reasonably expected development from the Proposed Project would increase demand for recreational and park facilities that serve the Project Area but would not require construction of new recreational or park facilities. Furthermore, based on the urban nature of the Project Area and the presence of constraints to the development of large park facilities, the construction and operation of new facilities would not be expected to result in significant environmental impacts. Impacts would be *less than significant*.

Project Impact

As discussed under Impact 4.14-1, future Project Area development could result in a population increase within the Project Area by an estimated 50,000 residents by 2040, thereby increasing use and demand for parks and recreational facilities. However existing parks and recreational facilities in and around the Project Area would be able to support this increased demand and would exceed the City's parkland ratio goals.

Furthermore, construction of new or expanded neighborhood or pocket park facilities to serve the Project Area would occur in an urban center. Construction of new parks would be required to comply with applicable federal, State, and local regulations and policies discussed in this EIR, such as NPDES permit requirements, the City's Tree Ordinance and Noise Ordinance, and the California Building Code, including CALGreen requirements.

The 50 Parks Initiative exemplifies the kind of park facilities the City is currently implementing and is likely to continue implementing in the dense urban areas of Los Angeles. Most of the parks are pocket parks less than an acre in size with playground structures and exercise machines. These parks typically include zero or minimal structures and green space, and, because they are intended to serve the local community and be accessible by foot and bike, do not provide parking (Ferguson et al. 2014). The construction and operation of such small-scale facilities would be expected to have minimal environmental impacts. For example, it is anticipated that these parks would be located on vacant lots lacking biological or cultural resources; generate minimal vehicle traffic to the site, which would limit air quality, greenhouse gas, noise, and transportation impacts; and be able to accommodate a limited number of people due to their small size, which would reduce park noise levels.

Potential environmental impacts of construction and operation of any new parks, as an allowed land use, have been evaluated throughout this EIR. Construction and operational impacts to air, noise, traffic, as well as other impacts of new developments are discussed throughout this EIR. It is not foreseeable that impacts from the construction of new or expanded parks in the Project Area would have greater or different impacts than those identified in this EIR for construction or operations. Similar to other types of development, the construction of new or expanded park facilities could contribute to the significant historic resource and construction noise impacts identified in sections 4.4, *Cultural Resources*, and 4.11, *Noise*, of this EIR. Based on the urban location and the limited land available, the construction of a new park facilities would likely qualify for an infill exemption or result in less-than-significant impacts with standard regulatory compliance measures and project specific design features or project specific mitigation measures identified

through a project EIR or mitigated negative declaration. To the extent that any significant impacts could result from the unique characteristics of a specific site, those impacts would be speculative at this time. Furthermore, the construction of a new park facility or expansion of an existing park facility would require a project-specific environmental analysis under CEQA to address any site-specific environmental concerns. Therefore, impacts related to fire protection and emergency services would be *less than significant*.

Mitigation Measures

None required.

CUMULATIVE IMPACTS

The geographic area to analyze cumulatively considerable recreation impacts includes the entire City of Los Angeles and surrounding areas. The *Los Angeles Countywide Comprehensive Park & Recreation Needs Assessment*, published in May 2016 by the Los Angeles County Department of Parks and Recreation (LA County DPR), evaluated recreational needs in Los Angeles County, including the City of Los Angeles (LA County DPR 2016). The report identifies many areas of the City as having a “Very High” park need (average of 0.7 acres per 1,000 residents of park land) or “High” park need (average of 1.6 acres per 1,000 residents). In 2022, DPR completed the Parks Needs Assessment Plus (PNA+) which complements and offers new information not previously included in the 2016 PNA. Specifically, PNA+ includes data about access to regional parks, open space, trails, beaches and lakes, and local parks in rural areas, as well as mapping and analyses related to population vulnerability, environmental benefits, environmental burdens, and priority areas for environmental conservation, environmental restoration, regional recreation, and rural recreation.

Substantial Deterioration of Existing Parks

Future Citywide development is expected to increase the City’s residential population from approximately 3.8 million in 2022 (DOF 2017) to more than 4.6 million persons in 2040 (SCAG 2016), an increase of about 800,000 residents. This increase would exacerbate the existing need for new or expanded recreational facilities over time. In the absence of new parks, the citywide increase in park demand would be expected to accelerate the deterioration of existing parks, which would be a potentially significant cumulative impact.

However, as discussed under Impact 4.14-1, the Proposed Project would result in a less significant impact related to the deterioration of existing parks serving the Project Area since there is adequate space to provide sufficient park acreage to meet the projected increase in demand for parks based on the City’s adopted standards. Therefore, the Proposed Project’s incremental contribution to park deterioration would not be cumulatively considerable and the cumulative impacts related to park deterioration would be *less than significant*.

Construction/Expansion of Parks

With respect to the construction of new parks, the City is currently in the process of constructing new parks and recreational facilities to serve its residents, as exemplified by the 50 Parks Initiative, and is anticipated to continue to do so in the future to meet increasing demand for parks. Expansion or construction of new pocket, neighborhood, community, and regional parks, or other recreational facilities, would have physical impacts to the environment (e.g., emissions of air pollutants, aesthetics impacts, noise impacts) that may be cumulatively significant. Any prediction of the precise impact of these parks is speculative since the size, nature, and location of any new parks are not known at this time. However, as discussed above, because the City is largely developed, the construction of new parks will likely be in the form of pocket parks and infill parks that are unlikely to result in significant impacts.

As discussed under Impacts 4.14-2 and 4.14-3, the Proposed Project would not result in a significant impact on park capacity such that new park construction is required because parks serving the Project Area have capacity to absorb the increase in population in the Project Area that the Proposed Project is anticipated to create. As a result, the Proposed Project would not involve the development of new parks with the potential to result in significant environmental effects. Because the Proposed Project will have the capacity to absorb any increased demand for parks from its implementation, the incremental contribution from the Proposed Project would not be cumulatively considerable and cumulative impacts on park capacity from the Proposed Project in addition to other projects would be *less than significant*.

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4.15 TRANSPORTATION

This chapter provides an overview of existing and potential future transportation and mobility conditions in the Cornfield Arroyo Seco Plan (CASP) Area (or “Project Area”). Topics addressed in this chapter include the environmental setting, circulation and mobility systems, regulatory framework, thresholds of significance, methodology, and mitigation measures related to transportation impacts.

ENVIRONMENTAL SETTING

EXISTING ENVIRONMENTAL SETTING

The City of Los Angeles circulation system facilitates travel by multiple modes including walking, bicycling, public transit, and motor vehicles and includes an extensive network of freeways, highways, and local streets (City of Los Angeles 2015a). These transportation networks, services, and systems are described in more detail below.

Project Area Overview

The Project Area is approximately 600 acres located entirely within Los Angeles City Council District One, and is generally bordered by Chinatown to the west, Lincoln Heights to the east, and Cypress Park to the north. The Project Area is located within the original floodplains of the Los Angeles River and Arroyo Seco water bodies which are part of the lower Los Angeles River Watershed. The Project Area is predominantly developed, with transportation infrastructure being a central feature of the Project Area. Interstate 5 (I-5) and State Route-110 (SR-110) bisect the northern portion of the Project Area. Entrances and exits to and from SR-110 are located on the northern perimeter of the Project Area. The analysis evaluates the transportation network within the boundaries of the Project Area as well as the surrounding transportation network that could be potentially impacted by the Proposed Project. For the purposes of the EIR transportation impact analysis, Existing Conditions (baseline) is defined as Year 2021, which corresponds to the date of the release of the Proposed Project’s Notice of Preparation (NOP).

The Proposed Project addresses a mostly industrial area that was zoned and built to land use patterns from the 1940s. There is great need for a transportation network that will better serve all modes of transportation, improve the efficiency of the overall system, and help to transform an under-served and neglected vehicular-oriented industrial and public facility area into a cluster of mixed-use pedestrian oriented neighborhoods.

The Project Area is served by a network of loosely gridded arterials divided by the Los Angeles River and the Golden State Freeway/Interstate Highway 5 (I-5). Rapid and local bus transit lines operate on major and minor arterials. Metro, the primary transit provider in the region, also maintains the Gold (L) Line light rail route that intersects the Project Area as it runs east-west between East Los Angeles and Azusa via Downtown. Pedestrian facilities primarily consist of sidewalks adjacent to roadways and a limited bicycle network. The transportation network in the Project Area is primarily auto- and bus transit-oriented.

Regional Access is provided by I-5, the Pasadena Freeway/State Route 110 (SR-110), and the Santa Ana Freeway (US-101). There are several key boulevards and avenues, as well as collector and local streets.

Highway and Street System

Citywide Highway and Street System

The roadway network in the City includes seven freeways that traverse the approximately 472 square miles of the City's land area and connect the City to its outer regions. They include Interstate 5, 10, 105, 110, 210, 405, and US Highway 101. The City also includes 11 state highways (SR) including SR 1, 2, 47, 60, 90, 103, 110, 118, 134, 170, and 187 (City of Los Angeles 2015a).

The City contains over 7,500 miles of public streets that accommodate motorized vehicles, including private motorized vehicles, taxis, freight vehicles, and transit vehicles. Pedestrian and bicyclist travel are also important components of the local roadway network. A majority of roadways in the City are aligned on a grid system (City of Los Angeles 2015a). Below is a brief description of the types of facilities in the City based on the City's Mobility Plan 2035 and Complete Streets Design Guide (Los Angeles 2015).

- **Boulevard I (Major Highway Class D).** Class I Boulevards are generally defined as having three to four lanes in each direction along with a median turn lane. The width of a Class I Boulevard is usually 100 feet, with a typical sidewalk width of 18 feet and a target operating speed of 35 miles per hour (mph).
- **Boulevard II (Major Highway Class II).** Class II Boulevards are generally defined as having two to three lanes in each direction along with a median turn lane. The width of a Class II Boulevard is usually 80 feet, with a typical sidewalk width of 15 feet and a target operating speed of 35 mph.
- **Avenue I (Secondary Highway).** Class I Avenues typically have one to two lanes in each direction, a roadway width of 70 feet, a sidewalk width of 15 feet and a target operating speed of 35 mph. An Avenue I typically includes streets with a high amount of retail uses and local destinations.
- **Avenue II (Secondary Highway).** Avenue II streets usually have one to two lanes in each direction, with a typical roadway width of 56 feet, a typical sidewalk width of 15 feet and a target operating speed of 30 mph. Such streets are typically located in parts of the City with dense active uses, and a lively pedestrian environment.
- **Avenue III (Secondary Highway).** Avenue III streets are defined to have one to two lanes in each direction, with a roadway width of 46 feet, a sidewalk width of 15 feet, and a target operating speed of 25 mph. This classification was developed to maintain roadway width in older, more historic parts of the City.
- **Collector Street.** Collector Streets generally have one travel lane in each direction, with a roadway width of 40 feet and a sidewalk width of 13 feet. The target operating speed for Collector Streets is 25 mph. Such streets are typically intended for vehicle trips that start or end in the immediate vicinity of the street.
- **Industrial Collector Street.** Industrial Collector Streets vary from normal collector streets in that larger curb returns are incorporated to allow for the wider turning radii of trucks.
- **Local Street Standard.** Local Street Standard roadways typically have one lane in each direction, and are designed to have a 36-foot width, 12-foot sidewalks, and a target operating speed of 20 mph. Such streets are not designed for through traffic; rather, their focus is to allow access to and from destination points. Unrestricted parking is typically available on both sides of the street.
- **Local Street Limited.** Local Street Limited roadways typically have one lane in each direction, and are designed to have a 30-foot width, 10-foot sidewalks, and a target operating speed of 15 mph.

- **Industrial Local Street.** Although similar to the normal local streets, Industrial Local Streets differ primarily in width for the purpose of providing adequate space for trucks to maneuver. The typical roadway width for an Industrial Local Street is 44 feet, with 10-foot sidewalks and a target operating speed of 20 mph.
- **Pedestrian Walkway.** Pedestrian Walkways are designed for pedestrian use but are also appropriate for slow-moving bicyclists. Pedestrian Walkways have a width of 10 to 25 feet.
- **Shared Street.** Shared Streets provide a slow-speed environment where cars, bike, pedestrians, and scooters are able to comfortably utilize the street. Shared Streets have a minimum width of 20 feet with 5-foot buffer zones and a target operating speed of 5 mph.
- **Access Roadway.** Access Roadways are designed to have a width of 20 feet and are limited to private streets only that access no more than four dwelling units and are a maximum of 300 feet in length.
- **One-Way Service Road – Adjoining Arterial Street.** One-Way Service Roads typically have a width of 12 to 18 feet with a 3-foot curb separation from arterial streets.
- **Bi-Directional Service Road – Adjoining Arterial Streets.** Bi-Directional Service Roads typically have a width of 20 to 28 feet with a 3-foot curb separation from arterial streets.
- **Hillside Collector Street.** Hillside Collector Streets vary from normal collector streets in that sidewalks have a width of 5 feet and the target operating speed is 15mph. On-street parking is provided on both sides of the street.
- **Hillside Local Street.** Hillside Local Streets vary from normal local streets in that sidewalks have a width of 4 feet and the target operating speed is 15 mph. On-street parking is provided on both sides of the street.
- **Hillside Street Standard.** Hillside Street Standard roadways typically have one lane in each direction and are designed to have a 28-foot width, 4-foot sidewalks, and a target operating speed of 10 mph. On-street parking is provided on one side of the street.
- **Hillside Street Limited.** Hillside Street Limited roadways typically have one lane in each direction and are designed to have a 20-foot width, 3-foot sidewalks, and a target operating speed of 10 mph. On-street parking is provided on one side of the street.
- **Modified Streets.** Many streets are identified under a specific roadway classification, but with a modification generally due to available width on smaller, historic streets. In these cases, typical number of lanes and traffic volumes are similar to the non-modified versions, but lane widths or available parking may be diminished.
- **Signalized Intersections and Traffic Control Devices.** The City of Los Angeles' Automated Traffic Surveillance and Control (ATSAC) system is a computer-based traffic signal control system that monitors traffic conditions and system performance to allow ATSAC operations to manage signal timing to improve traffic flow conditions. This system allows monitoring and control of the signal from a central Traffic Operations Center at City Hall. The importance of linking to the ATSAC system is the ability to coordinate the signals in relationship with other signals along a travel corridor. Signal coordination minimizes delay due to stops and enhances vehicle flow. Studies by Los Angeles Department of Transportation (LADOT) and independent third parties have shown that the ATSAC system reduces congestion and increases average travel speeds (LADOT 2016a). The Adaptive Traffic Control System (ATCS) is an enhancement to ATSAC and provides fully traffic-adaptive signal control based on real-time traffic conditions. In addition, LADOT staff can manually adjust traffic signals remotely from the department's command center to respond to collisions, weather, special events, and other emergencies. All signalized intersections in the Project Area are currently operating under the City's ATSAC system and ATCS control.

Project Area Highway and Street System

The roadway network in the Project Area ranges from major freeways, such as I-5 and SR-110, to neighborhood-serving local roadways. **Figure 4.15-1**, Existing Roadway Network, displays the roadways within the Project Area and illustrates the classification of roadway facilities. The Project Area contains the following types of facilities based on the City’s Mobility Plan 2035 and Complete Streets Design Guide as described above: Avenue I, Avenue II, Modified Avenue I, Modified Avenue II, Modified Avenue III, Collector, Modified Collector, Local Street, and Modified Local Street.

Existing Transportation Operations

This section presents existing transportation conditions by applying the newly approved method of studying vehicle miles traveled (VMT) to evaluate significant traffic impacts under CEQA. VMT is a measure of the number of miles driven within a defined area and is based on the number of vehicle trips (VT) multiplied by the average trip length in miles for various trip types. To obtain an average VMT per service population, the total VMT is divided by the total population and employees within the area of analysis. The section that follows provides a brief summary of these characteristics for the City of Los Angeles and provides a detailed summary of these characteristics for the Project Area. For more information on the use of VMT as an impact threshold, see the *Environmental Impacts* section.

Citywide Existing Transportation Operations

The City of Los Angeles’ Travel Demand Forecasting Model estimates the mode split of existing (2021) daily trips. It is estimated that nearly 80 percent of daily person trips are made by automobile, over 13 percent by walking, almost 5 percent by transit, and over 1 percent by bicycle.

Project Area Existing Transportation Operations

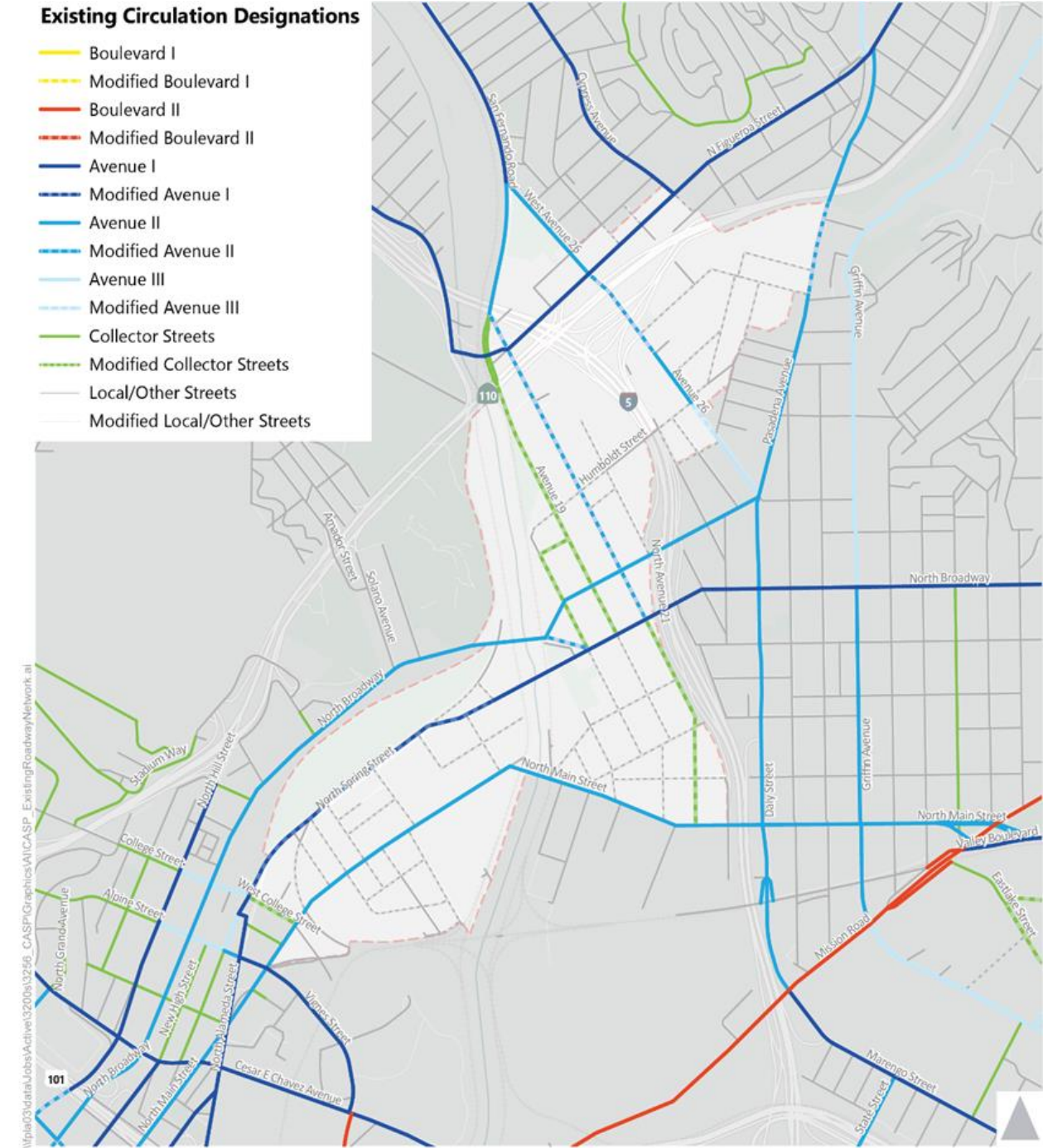
Vehicle Miles Traveled

The trip generation estimated by the Travel Demand Forecasting (TDF) model was categorized according to the origin and destination of each trip. In the following discussion regarding VMT calculation using origins and destinations, internal trips are referred to with an “I” and external trips are referred to with an “X”. Internal-to-internal (II) trips remain within the Project Area. Internal-to-external (IX) trips originate within the Project Area and terminate at an outside destination. External-to-internal (XI) trips originate outside the Project Area and terminate within it. The VMT calculation accounts for all internal (II) trips and trips that begin or end (IX or XI) within the Project Area, as these trips are generated by or are attracted to land uses within the Project Area. The travel behavior effects of land use and network changes within the Project Area can be understood by measuring the VMT of trips originating in and/or destined for the Project Area.

VMT is reported as Total Daily VMT per Service Population, which equates to all VMT for the Project Area divided by the number of people living and working within the Project Area. For more information on the use of VMT and service population, see the *Environmental Impacts* section.

An alternative method for measuring VMT is known as the “boundary method”, which accounts for all vehicle miles traveled strictly within the border of a defined area. This method would include VMT for trips passing through, but not originating in or destined for, the Project Area. Although a valid method for measuring VMT, it less effectively measures the regional travel effects of Project Area land uses, and includes travel that passes through the area, which is unrelated to the CASP’s land uses. This method was not used to calculate VMT for the purposes of this report.

Figure 4.15-1 Existing Roadway Network



The tables below summarize the travel characteristics under Existing Conditions for the Project Area. Table 4.15-1 presents the model estimates of vehicle mode split for automobiles, transit, bicycles and walk trips. According to model estimates, approximately 16 percent of all trips within the Project Area are made by transit, walking, or biking. This is 4 percentage points less than trips across the City of Los Angeles at large.

TABLE 4.15-1 2021 MODE SPLIT		
Travel Mode	Project Area Percentage (%)	Citywide Percentage (%)
Automobile	84%	80%
Non-Automobile (transit/bike/walk)	16%	20%
SOURCE: Fehr & Peers, <i>City of Los Angeles Model</i> , 2021.		

Table 4.15-2 summarizes the Daily vehicle trips (VT) and VMT within the Project Area. **Table 4.15-3** summarizes the Daily vehicle trips (VT) and VMT Citywide. **Table 4.15-4** summarizes the Daily vehicle trips (VT) and VMT Regional-wide in 2021, interpolated from the SCAG 2012 base and 2040 future TDF models.

TABLE 4.15-2 2021 CASP DAILY VEHICLE TRIPS AND VEHICLE MILES TRAVELED	
Transportation Metrics	Daily Total
Vehicle Trips (VT)	41,323
Total Vehicle Miles Traveled (VMT)	328,439
Vehicle Miles Traveled per Service Population	28.7
SOURCE: Fehr & Peers, 2021.	

TABLE 4.15-3 2021 CITYWIDE DAILY VEHICLE TRIPS AND VEHICLE MILES TRAVELED	
Transportation Metrics	Daily Total
Vehicle Trips (VT)	17,608,140
Total Vehicle Miles Traveled (VMT)	134,912,420
Vehicle Miles Traveled per Service Population	22.6
SOURCE: Fehr & Peers, 2021.	

TABLE 4.15-4 2021 SCAG REGIONWIDE DAILY VEHICLE TRIPS AND VEHICLE MILES TRAVELED	
Transportation Metrics	Daily Total
Vehicle Trips (VT)	81,981,938
Total Vehicle Miles Traveled (VMT)	919,653,837
Vehicle Miles Traveled per Service Population	33.1
SOURCE: Fehr & Peers, 2021.	

The Daily VMT generated by uses from, to, and within the Project Area is approximately 328,439 miles, which equates to 28.7 VMT per service population. Citywide, the Travel Demand Forecasting (TDF) Model estimates a total of 17,608,140 daily vehicle trips for a total of 134,912,420 daily vehicle miles traveled. This results in an average daily VMT per service population of 22.6. Regional-wide, the SCAG Model

estimates a total of 81,981,938 daily vehicle trips for a total of 919,653,837 daily vehicle miles traveled. This results in an average daily VMT per service population of 33.1.

Level of Service (LOS)

Another way to understand existing traffic conditions is to study existing traffic volumes with an analysis of the operating conditions, indicated through volume-to-capacity (V/C) ratios and Level of Service (LOS). LOS was used previously as the primary method for determining CEQA transportation-related impacts but, upon implementation of VMT thresholds, vehicle delay or traffic congestion is no longer a significant impact in itself and is now considered only as it relates to secondary impacts such as emergency access. Recent changes in State legislation and the related guidance from OPR have moved analysis to VMT in order to support Statewide Greenhouse Gas Emissions (GHG) reduction goals and encourage multi-modality in California cities. Traditional mitigation measures to address increases in vehicle delay often involved increasing capacity (i.e., the width of a roadway or intersection), which has the potential to induce more trips/VMT and does not support State goals.

As an informational metric, LOS is a measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. LOS can be determined by dividing the number of vehicles (i.e., volume (V)) by roadway capacity (C), and the resulting V/C ratio is then used to obtain the corresponding LOS. To determine the operations of the roadway network during peak commute hours, a LOS analysis was conducted for the roadways in the Project Area.

The highest peak period traffic volume during the AM peak period (6AM – 9 AM) or PM peak period (3 PM – 7PM) on roadways within the Project Area are displayed in **Figure 4.15-2** and **Figure 4.15-3**, AM Peak Period Level of Service and PM Peak Period Level of Service, respectively. It should be noted that because traffic volumes are a result of the collective travel choices of thousands of individual drivers, variation in the daily and peak period volumes on any given facility is both expected and observed. The Federal Highway Administration (FHWA) guidelines recommend that traffic models be calibrated to within 7 to 15 percent for freeway and arterial volumes to account for this regular variation. This range is based on studies that show that this range represents the average daily fluctuation in traffic for major roadways. Accordingly, the estimates of both existing and future conditions are subject to regular variation due to fluctuations in travel demand (or the travel choices of the thousands of individual drivers using the Project Area roadways).

The LOS of the study corridors was determined based on the V/C ratio using the City of Los Angeles TDF model. This ratio was calculated by comparing peak period traffic volumes to the roadway capacity for each facility. The roadway capacities reflect the operating characteristics of the study corridors, such as functional classifications, number of lanes, and travel speeds. Functional classification is a scale that determines the vehicles-per-lane-per-hour capacity; higher classifications generally have more and wider lanes and are designed to facilitate a higher volume of vehicles per hour. **Table 4.15-5** summarizes the typical travel conditions for the roadway network (using a weighted average V/C ratio) and the percentage of roadway segments operating at LOS E or F. The weighted average V/C ratio represents typical travel conditions for the roadway network in the Project Area.

TABLE 4.15-5 EXISTING 2021 ROADWAY SEGMENT LEVEL OF SERVICE (LOS)		
Transportation Metrics	Analyzed Time Period	
	AM Peak Period	PM Peak Period
Weighted Average V/C	0.68 (LOS B)	0.73 (LOS C)
Percentage (%) of Street Segments at LOS E or F	2%	5%
Weighted Average V/C by Facility Type		
Avenue	0.70 (LOS C)	0.75 (LOS C)
Boulevard	N/A	N/A
Local / Collector	0.47 (LOS A)	0.57 (LOS A)
SOURCE: City of Los Angeles TDF Model, Fehr & Peers, 2021.		

Approximately 2-5percent of the roadways operate at an LOS E or F during the AM and PM peak periods. The weighted average V/C ratio is 0.68 (LOS B) in the AM peak period and 0.73 (LOS C) in the PM peak period.

Reliability

Citywide and Project Area Reliability

The VMT results presented in this section reflect typical weekday (Tuesday through Thursday) conditions within the City of Los Angeles TDF Model and the Project Area without major incidents and under mild weather conditions. Atypical traffic conditions, such as a collision on the freeway, rainy weather or a special event, can impact travelers in a given plan area. The reliability of the roadway network can be impacted by these occurrences and is a common frustration for drivers. The bus transit system can also be affected by these events.

Emergency Access

Citywide Emergency Access

California state law requires that drivers yield the right-of-way to emergency vehicles and remain stopped until the emergency vehicles have passed. Generally, multi-lane roadways allow the emergency vehicles to travel at higher speeds and permit other traffic to maneuver out of the path of the emergency vehicle. In addition, the LAFD in collaboration with LADOT has developed a Fire Preemption System (FPS), a system that automatically turns traffic lights to green for emergency vehicles travelling on designated streets in the City (LADOT 2016a). The City has over 205 miles of routes equipped with FPS (LAFD 2008).

Within the City of Los Angeles, fire prevention and suppression and emergency medical services are provided by the Los Angeles Fire Department (LAFD). Public protection service and law enforcement are provided by LAPD. New development projects in the City may increase the demand for fire protection and emergency medical services, and the LAFD evaluates new project impacts on a project-by-project basis. Consideration is given to project size and components, required fire-flow, response time and distance for engine and truck companies, fire hydrant sizing and placement standards, access, and potential to use or store hazardous materials (Los Angeles 2006). The adequacy of emergency service may be influenced by factors such as staffing levels, emergency response times, and technology improvements, management strategies, and mutual aid agreements. Every year, LAFD assesses its resources and reallocates them based on demand and need citywide. The provision of new fire stations varies as a function of not only the geographic distribution of physical stations but also due to the availability of fire trucks, ambulances, and other equipment as well as access to reciprocal agreements with neighboring jurisdictions. The City requires that development plans be submitted to the City for review and approval to ensure that new development has adequate access, including driveway access and turning radius in compliance with existing City regulations (LAMC).

Figure 4.15-2 Existing AM Peak Period Level of Service

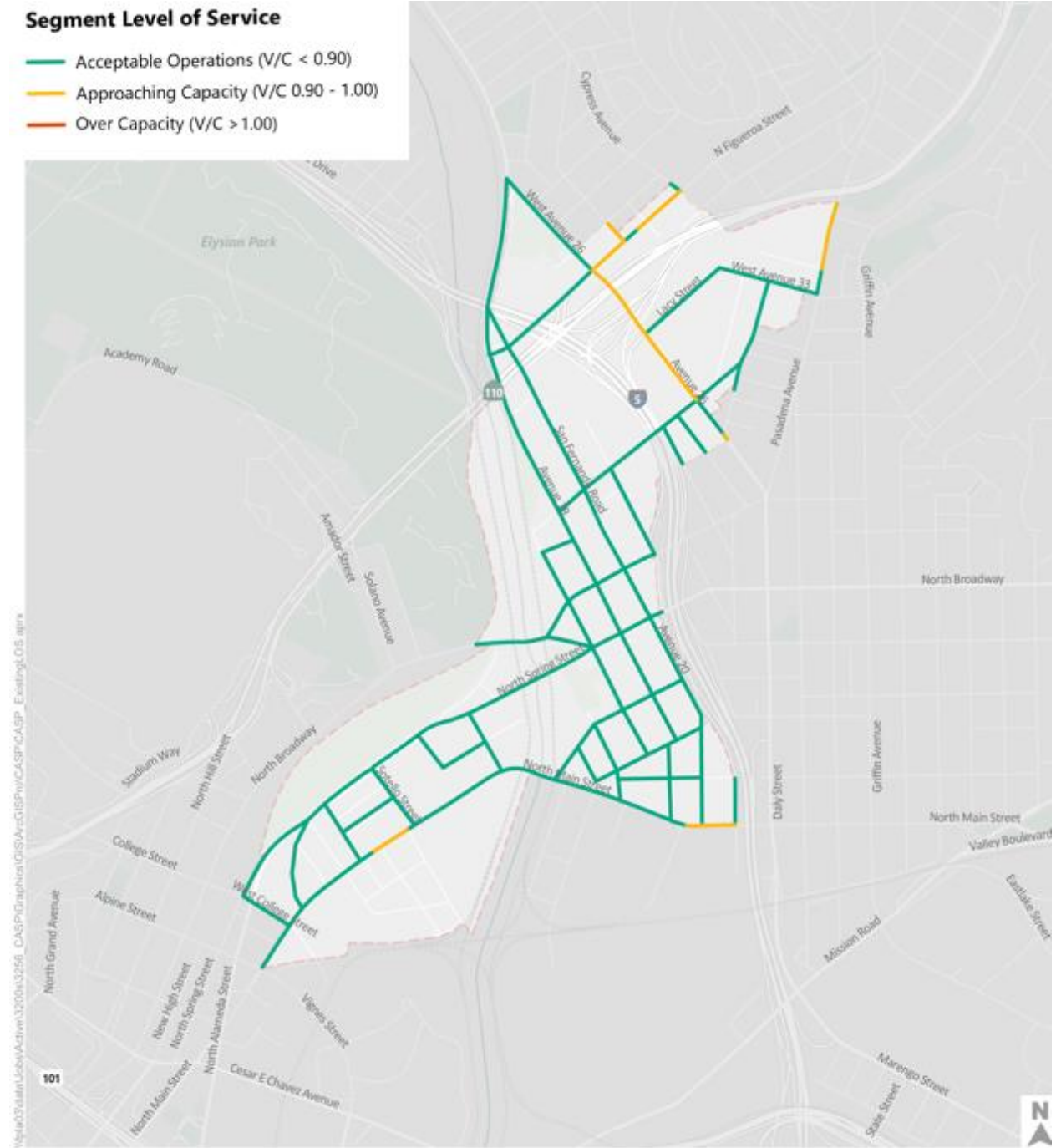
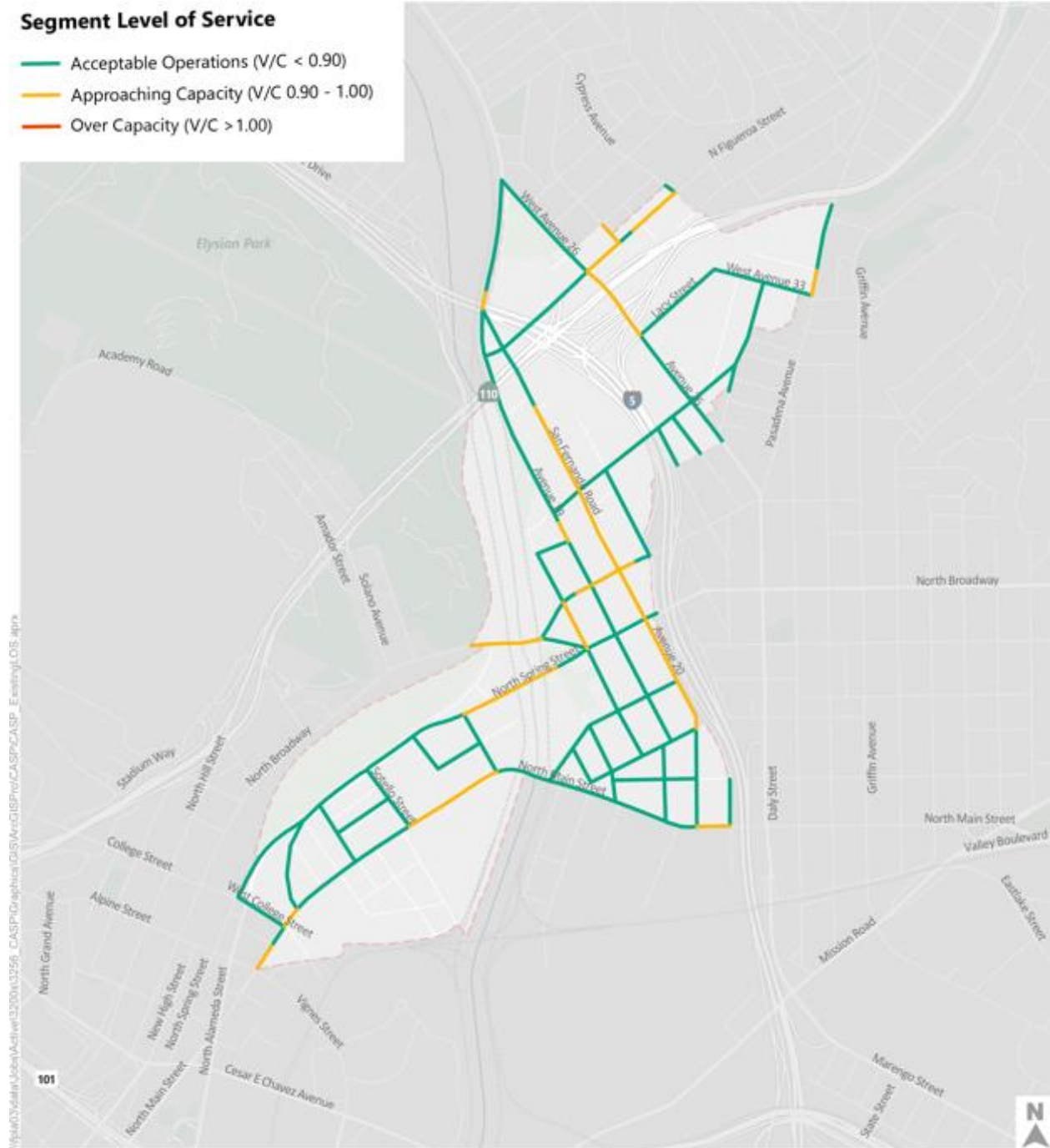


Figure 4.15-3 Existing PM Peak Period Level of Service



Project Area Emergency Access

As discussed above, multi-lane roadways allow emergency vehicles to travel at higher speeds and allow other traffic to maneuver out of the path of emergency vehicles. Within the Project Area, multi-lane roadways include:

North-South Multi-Lane Roadways

- Avenue 26
- Daly Street
- Pasadena Avenue
- San Fernando Road

East-West Multi-Lane Roadways

- Broadway
- Figueroa Street
- Main Street
- Spring Street†

†Roadways with segments that narrow or change from one-way to two-way

Additionally, the I-5, SR-110, and US-101 freeways provide primary emergency access to and from locations within the Project Area.

Table 4.15-6 identifies the existing fire stations in the Project Area and provides the 2021 average response times for Non-EMS and EMS calls.

TABLE 4.15-6 LAFD FIRE STATIONS SERVING THE PROJECT AREA				
Fire Station	Address	LAFD Community	2021 Average Response Times (mins) /a/	
			Non-EMS	EMS
1	2230 Pasadena Avenue, Los Angeles, CA 90031	Central Bureau	07:29	07:24
44	1410 Cypress Avenue, Los Angeles, CA 90065	Central Bureau	6:56	7:26

Note: Non-EMS = fire and other services; EMS = Emergency Medical Services
/a/ Average response metrics for January-December 2021.
SOURCE: LAFD, FireStatLA, www.lafd.org, Navigate LA, 2021.

Public Transit Service

Citywide Public Transit Service

The primary origin/destination for transit in the city at large is Los Angeles Union Station. Located in Downtown Los Angeles, Union Station was built in 1939 to serve as a terminal for local railroads. Today, it serves as a major transportation hub for the region, with Metro, Metrolink, and Amtrak train service, as well as bus service from multiple operators.

Services are provided by multiple transit operators, including Metro Rail, Rapid buses, Express buses, Local buses, LADOT Commuter Express buses, Downtown Area Short Hop (DASH) buses, and other local operators. Below are brief descriptions of the transit operators that provide service within the City:

Metro

Metro is the primary transit operator in Los Angeles County, providing bus, light rail, and subway services as described below.

- Rail & Bus Rapid Transit: There are two Metro heavy rail lines (B Line (Red) and D Line (Purple)), four Metro light rail lines (A Line (Blue), C Line (Green), E Line (Expo), L Line (Gold)) and two bus rapid transit (BRT) lines (G Line (Orange) and J Line (Silver)) operating in exclusive rights-of-way. Headways for Metro rail and bus rapid transit lines are typically as frequent as 15 minutes or less. Bicycles are allowed in designated areas on Metro trains at no extra charge.
- Rapid, Express & Local Bus Lines: Metro also operates approximately 115 bus routes in mixed traffic, with services varying considerably in speed, frequency and capacity. Headways for Metro Rapid buses are typically 10 minutes during peak hours, and 20 minutes during off-peak times. Metro Express buses operate during peak hours only. All buses are equipped with two bicycle racks at the front of the bus, and bicyclists may load their bicycles on the rack when there is space available at no extra charge. If the rack is full, bicyclists are asked to wait for the next bus.

LADOT

LADOT provides local Downtown Area Short Hop (DASH) buses and Commuter Express bus services in the City of Los Angeles. DASH operates 32 community circulator routes covering Downtown Los Angeles and many outlying communities within the City. DASH buses provide local access in addition to first/last-mile connections to and from Metro Rail stations. Headways for DASH buses vary between 5-20 minutes depending on the selected route. The Commuter Express operates 15 routes, making a limited number of stops and transporting passengers between Downtown Los Angeles and other major centers within the City. Most Commuter Express routes operate during the peak hours only in the peak direction. All LADOT buses are equipped with three bicycle racks at the front of the bus, and bicyclists may load their bicycles on the rack when there is space available at no extra charge. If the rack is full, bicyclists are asked to wait for the next bus.

Metrolink

Metrolink operates on seven routes across six-counties, including Los Angeles, Orange, Riverside, San Bernardino, Ventura, and a portion of northern San Diego County. Each Metrolink train accommodates three bicycles on the lower level at no extra charge. To accommodate more bicycles on select trains, “bike cars” (identified with yellow decals on the side of the train) have been added to hold up to nine bikes on the lower level. All Metrolink lines operate during the peak hours only in the peak direction. The following Metrolink services operate within and through the City:

- Antelope Valley Line
- Inland Empire – Orange County Line
- Orange County Line
- Riverside Line
- San Bernardino Line
- Ventura County Line
- 91/Perris Valley Line

Amtrak – Pacific Surfliner

Amtrak is a nationwide rail network, serving more than 500 destinations in 46 states, the District of Columbia and three Canadian provinces. The Pacific Surfliner connects San Luis Obispo and San Diego through Los Angeles and Santa Barbara. This line offers 10 daily round-trip services between San Diego and Los Angeles as of 2021, and five between Santa Barbara and San Diego. Each Amtrak train can

accommodate 6 bicycles per train and must be stored in designated racks. Passengers are recommended to make reservations for bicycle racks at no extra cost.

Los Angeles International Airport (LAX) FlyAway – Union Station

The LAX FlyAway buses offer daily, regularly scheduled round-trips between each terminal at LAX and two locations (Union Station and Van Nuys). FlyAway buses provide services every 30 minutes to an hour. Bicycle racks are not provided on these buses. In Downtown Los Angeles, Flyaway buses depart from Union Station at the Patsaouras Transit Plaza on the east side of the facility.

Other Transit Operators

There are several other transit operators with routes throughout the City: Antelope Valley Transit Authority, Foothill Transit, Gardena GTrans, Greyhound Buses, Montebello Bus Lines, Orange County Transit Authority Express, Santa Clarita Transit Commuter Express, Santa Monica Big Blue Bus, and Torrance Transit.

Project Area Public Transit Service

Transit service in the Project Area is provided by LADOT and Metro. Existing service coverage is shown in **Figure 4.15-4**, Existing Transit Service.

Metro

The following Metro lines currently provide transit service in and through the Project Area:

Metro Rail

- Gold (L) Line

Metro Local Lines

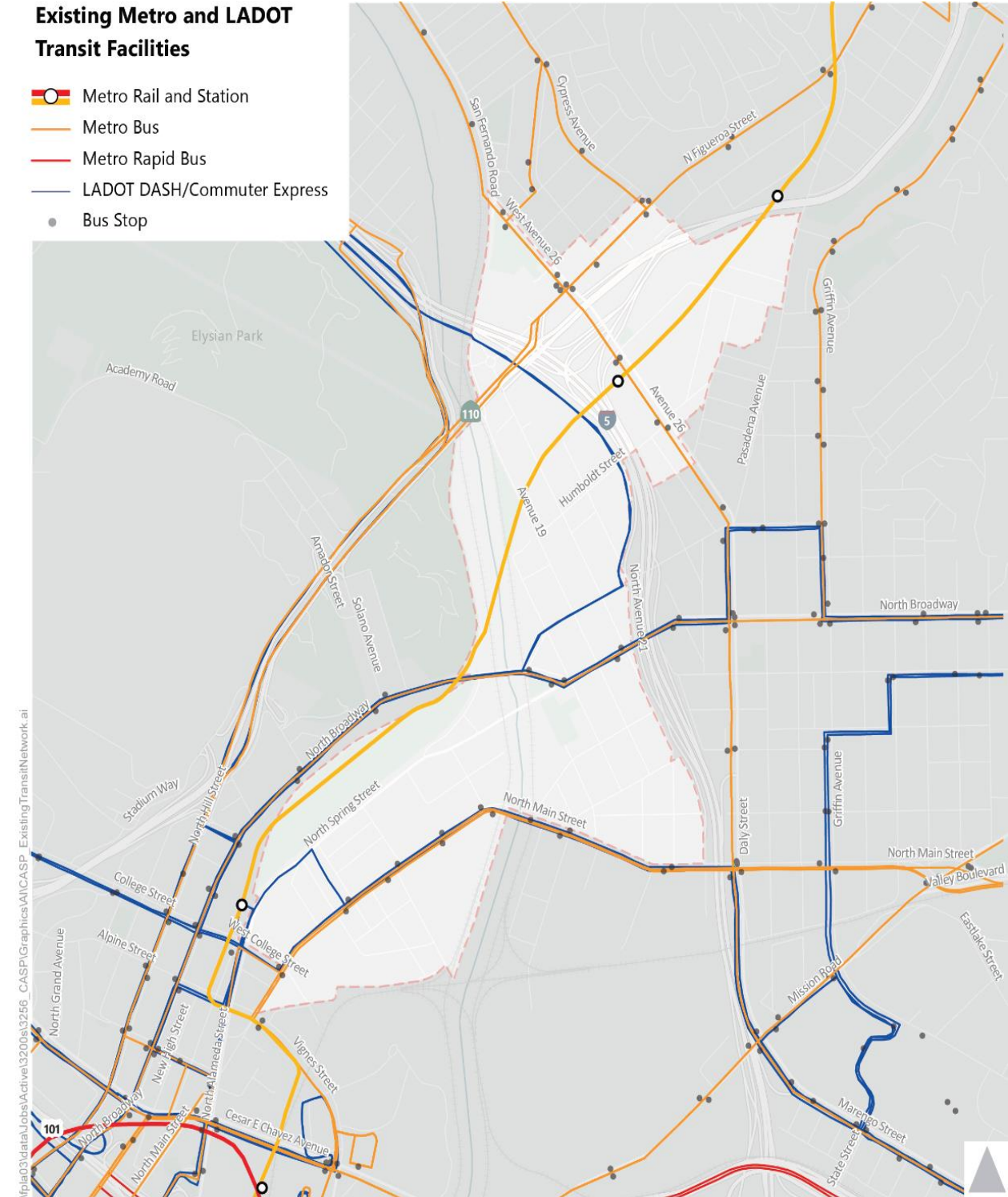
- 45
- 76
- 90
- 94
- 96
- 251

LADOT

The following LADOT services operate within and through the Project Area:

- DASH B (Chinatown, Financial District)
- DASH Commuter Express 413, 419

Figure 4.15-4 Existing Transit Service – Metro and LADOT



Note: This map represents the Existing Conditions year for the purposes of this study as 2021, consistent with the analysis for the scoping year of the project. DASH lines may have since been updated.

Bicycle and Pedestrian Facilities

Citywide Bicycle and Pedestrian Facilities

The City's existing bicycle network consists of approximately 500 miles of on- and off-street facilities including approximately 58 miles of Class I bikeways (bicycle paths), 324 miles of Class II bikeways (bicycle lanes), and 121 miles of Class III bikeways (bicycle routes and bicycle friendly streets) (City of Los Angeles 2015a). Bicycle facilities are defined as off-street bicycle paths (Class I), on-street signed and striped bicycle lanes (Class II), on-street signed bicycle routes (Class III), and protected bicycle lanes or cycle tracks (Class IV). The design features of the various types of bicycle facilities are summarized below.

- **Bicycle Path:** A paved pathway separated from motorized vehicular traffic by an open space or barrier and either within the highway rights-of-way or within an independent alignment. Bicycle paths may be used by bicyclists, skaters, wheelchairs users, joggers, and other non-motorized users. Caltrans refers to this facility as Class I Bikeway, which “provides a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flow of motorists minimized.”
- **Buffered Bike Lanes:** Buffered bicycle lanes provide on-street right-of-way in the form of a painted buffer that directs motorists to travel away from the bike lane and provides room for bicyclists to pass another bicyclist without entering the adjacent motor vehicle travel lane. A buffered bicycle lane is considered a Class II bikeway.
- **Bicycle Lane:** A striped lane for 1-way bicycle travel on a street or highway. Caltrans refers to this facility as a Class II bikeway.
- **Bicycle Route:** is a shared roadway specifically identified for use by bicyclists, providing a superior route based on traffic volumes and speeds, street width, directness, and/or cross-street priority, denoted by signs only. Caltrans refers to this facility as a Class III Bikeway.
- **Protected Bicycle Lane (Cycle Track):** A bicycle lane that provides further protection from other travel lanes with a physical roadway intervention. This is considered a Class IV Bikeway.

The City's *Mobility Plan 2035*—the policy foundation for the future of Los Angeles' streets—prioritizes bicycle travel on approximately 1,200 miles of streets and other rights-of-way by designating them on either the Bicycle Enhanced Network (BEN) or the Bicycle Lane Network (BLN). The BEN provides all bicycle paths and protected bicycle lanes expected to be completed by the year 2035. It consists of Bicycle Paths, Protected Bicycle Lanes (also known as cycletracks), and Priority Neighborhood Enhanced Network connections, while the BLN is made up of Bicycle Lanes. The BEN includes the following bicycle facility designations:

- **Tier 1 Protected Bicycle Lane:** Bicycle facilities on arterial roadways with physical separation.
- **Tier 2 Bicycle Lane:** Bicycle facilities on arterial roadways with pavement striping and signage used to allocate a portion of a roadway for exclusive bicycle travel. More likely to be built by 2035 than Tier 3.
- **Tier 3 Bicycle Lane:** Bicycle facilities on arterial roadways with pavement striping and signage used to allocate a portion of a roadway for exclusive bicycle travel.

Pursuant to the California Vehicle Code, bicycles are allowed on any street within the local street system. Pursuant to Los Angeles City Code, bicycles are also allowed on the sidewalk (LAMC 56.15). Bicyclists are able to bring their bikes on board transit in designated areas on Metro trains and on most Metro and LADOT buses on bicycle racks at the front of the bus at no extra cost (City of Los Angeles 2015a). Metrolink and Amtrak also allow bicycles on board.

There are approximately 40,000 intersections in the City, of which 4,300 are signalized and approximately 22,000 contain marked crosswalks (City of Los Angeles 2015a). Conditions vary widely in terms of sidewalk condition, pavement marking visibility, and obstructions in the sidewalk realm. An estimated 42 percent of the City's 10,750 miles of sidewalks are in disrepair (Times 2012). In April 2015, the City of Los Angeles agreed to spend \$1.3 billion over the next 30 years to fix sidewalks throughout the City and produce two reports per year to document its progress in repairing substandard sidewalks.

Pedestrian travel in the City varies based on the circulation network in any given area. Areas that have pedestrian-oriented uses fronting the sidewalk offer a pedestrian-friendly atmosphere whereas other areas characterized by long blocks fronting surface parking lots and industrial land uses offer little pedestrian amenities. In general, sidewalks range from 10 to 12 feet wide. The City of Los Angeles General Plan designates commercial and neighborhood activity centers that are characterized by ground floor retail and service uses oriented to pedestrians along the sidewalk as Pedestrian Priority Street segments. Pedestrian Priority Street segments are recommended to have wider sidewalks of 15 to 17 feet in width and other pedestrian friendly features such as curb side parking, wide crosswalks with a minimum width of 15 feet, and traffic signal modifications (City of Los Angeles 2015a).

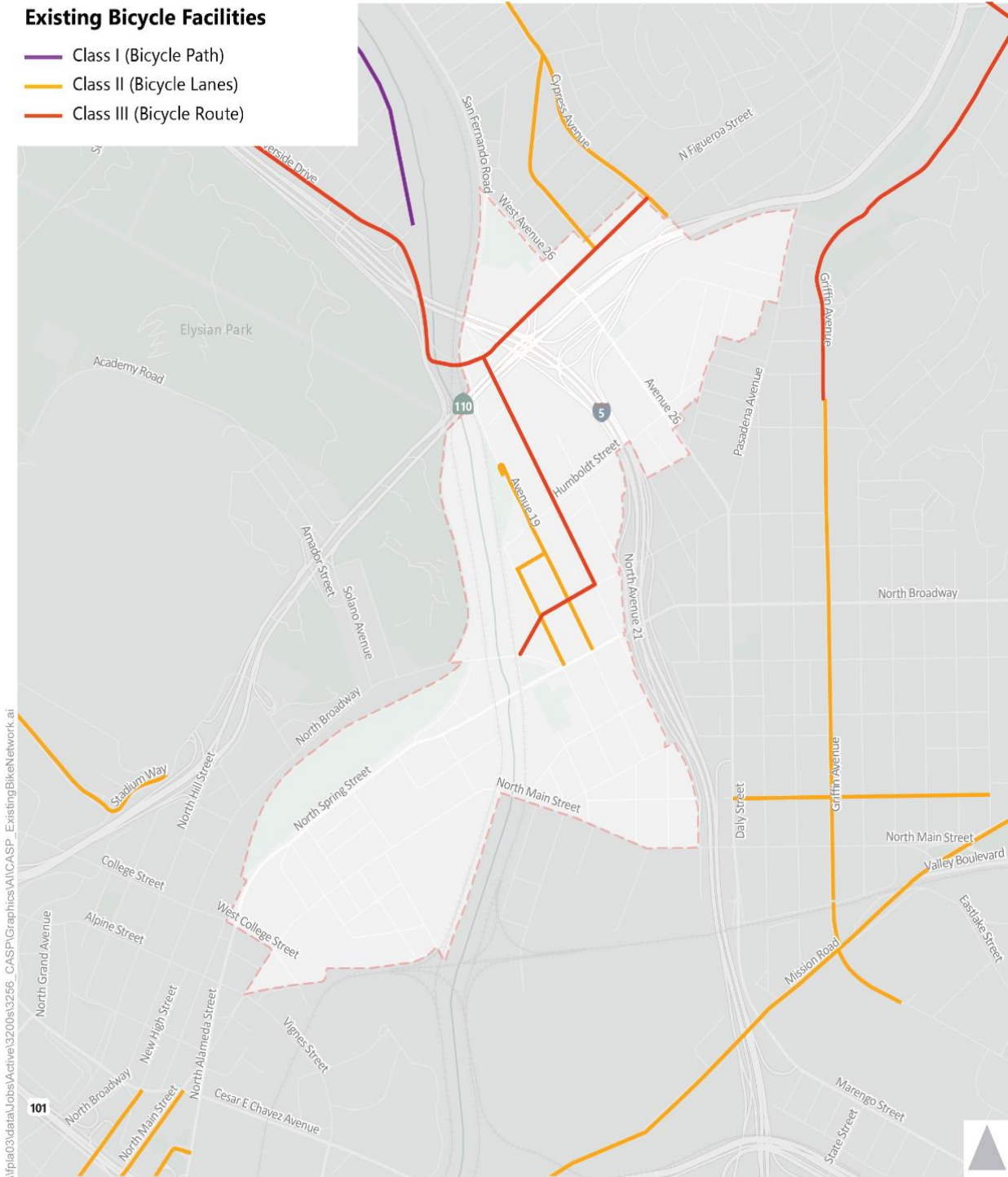
Project Area Bicycle and Pedestrian Facilities

The Project Area includes a network of pedestrian facilities. Crosswalks are generally provided at signalized intersections and sidewalks exist along the frontage of most developed properties. The Project Area is classified as "very walkable" with an average rating of 80 out of 100, as reported by WalkScore.com (WalkScore 2021). Walk Score is a company that provides walk scores, transit scores, and bike scores for neighborhoods ranging from 0-100. A walk score is created by assessing the walkability of an area dependent upon how many errands can be completed by foot. Walking routes are assessed and areas which have amenities within a five-minute walk proximity are scored the highest.

Bike scores from WalkScore.com are created by evaluating available bicycle infrastructure available in an area, frequency of hills, the number of bicycle commuters, and road connectivity. All four components are weighted equally to create a bike score. Bicycle access in the area is less robust, receiving an average score of 73 out of 100. Class II (on-street with signing and striping) bike lanes are generally not provided in the study area, so bicyclists must ride in the same traffic stream as automobiles. However, several streets in the area are identified in the *Mobility Plan 2035* Bicycle Enhanced Network, including Spring Street (Tier 2), Broadway (Tier 1), Main Street (Tier 1), San Fernando Road (Tier 2), Pasadena Avenue (Tier 1), Avenue 18 (Tier 1), Avenue 19 (Tier 2), and Avenue 26 (Tier 2). There are also several existing bicycle facilities in addition to bicycle racks provided at various public and private locations throughout the Cornfield Arroyo Seco Plan Area. **Figure 4.15-5**, Existing Bicycle Network, shows the locations of the existing bicycle facilities within the Plan Area.

The pedestrian network includes sidewalks, crosswalks, and curb ramps, as well as pedestrian amenities such as street trees and benches in some areas. Similar to many areas in the City, the Project Area has an aging network of pedestrian facilities including sidewalks of varying widths. Many areas have pedestrian-friendly features such as curb-side parking, wide crosswalks at most major intersections and traffic signal modifications to ensure longer pedestrian crossing times, where warranted.

Figure 4.15-5 Existing Bicycle Network



Special Event Transportation Operations

Citywide Special Event Transportation Operations

Special events such as the Los Angeles Marathon, Chinese New Year Festival & Parade, AIDS/Lifecycle bike ride, CicLAvia, weekly farmers' markets, organized marches, races, block parties, and similar events frequently require partial or full closure of city streets, including sidewalks and crosswalks, for periods of several hours to several days at a time.

Project Area Special Event Transportation Operations

In addition to Citywide street closures, several destinations within the Project Area host special events that attract large crowds. These venues include but are not limited to:

- **Dodger Stadium:** Located in Elysian Park just north of the Project Area, the baseball stadium is home to Major League Baseball's Los Angeles Dodgers and hosts other sporting events, concerts, and expositions throughout the year. Seat capacity is 56,000.
- **Los Angeles State Historic Park:** The park is located at 1245 North Spring Street and sits on 34 acres of open space directly adjacent to Chinatown. Reopened in April 2017, the park continues to host several outdoor concerts, weekend-long music festivals, evening movie screenings, educational events and exhibitions, craft fairs, and other special events. Additionally, visitors just wishing to enjoy the park can wander and hike its pathways, go for a bike ride, and enjoy a view of the Project Area and includes views of Downtown.

REGULATORY FRAMEWORK

FEDERAL

Americans with Disabilities (ADA) Act of 1990

Titles I, II, III, and V of the ADA have been codified in Title 42 of the United States Code, beginning at Section 12101. Title III prohibits discrimination based on disability in "places of public accommodation" (businesses and non-profit agencies that serve the public) and "commercial facilities" (other businesses). The regulation includes Appendix A through Part 36 (Standards for Accessible Design), establishing minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility. Examples of key guidelines include detectable warnings for pedestrians entering traffic where there is no curb, a clear zone of 48 inches for the pedestrian travel way, and a vibration-free zone for pedestrians.

STATE

Complete Streets Act

Assembly Bill 1358, the Complete Streets Act (Government Code Sections 65040.2 and 65302), was signed into law by Governor Arnold Schwarzenegger in September 2008. As of January 1, 2011, the law requires cities and counties, when updating the part of a local general plan that addresses roadways and traffic flows, to ensure that those plans account for the needs of all roadway users. Specifically, the legislation requires cities and counties to ensure that local roads and streets adequately accommodate the needs of bicyclists, pedestrians and transit riders, as well as motorists.

At the same time, the California Department of Transportation (Caltrans), which administers transportation programming for the State, unveiled a revised version of Deputy Directive 64 (DD-64-R1 October 2008), an internal policy document that now explicitly embraces Complete Streets as the policy covering all phases of state highway projects, from planning to construction to maintenance and repair.

Statewide Transportation Improvement Program (STIP)

Caltrans administers transportation programming for the State. Transportation programming is the public decision-making process that sets priorities and funds projects envisioned in long-range transportation plans. It commits expected revenues over a multi-year period to transportation projects. The STIP is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the State Highway Account and other funding sources.

Senate Bill (SB) 743

On September 27, 2013, Governor Jerry Brown signed Senate Bill (SB) 743, which went into effect in January 2014. SB 743 directed the Governor's Office of Planning and Research (OPR) to develop revisions to the California Environmental Quality Act (CEQA) Guidelines by July 1, 2014 to establish new criteria for determining the significance of transportation impacts and define alternative metrics for traffic LOS. This started a process that changes transportation impact analysis under CEQA. These changes include elimination of auto delay, LOS, and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts for land use projects and plans in California. Additionally, as discussed further below, as part of SB 743, parking impacts for particular types of development projects in areas well served by transit are not considered significant impacts on the environment. According to the legislative intent contained in SB 743, these changes to current practice were necessary to "more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions."

On January 20, 2016, OPR released the Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA, which was an update to Updating Transportation Impacts Analysis in the CEQA Guidelines, Preliminary Discussion Draft of Updates to the CEQA Guidelines Implementing Senate Bill 743, which had been released August 6, 2014. Of particular relevance was the updated text of the proposed new CEQA Guidelines Section 15064.3 that relates to the determination of the significance of transportation impacts, alternatives, and mitigation measures. Specifically, CEQA Guidelines Section 15064.3, which is discussed further below, establishes VMT as the most appropriate measure of transportation impacts. In November 2018, the California Natural Resources Agency finalized the updates to the CEQA Guidelines and the updated guidelines became effective on December 28, 2018.

Based on these changes, on July 30, 2019, the City of Los Angeles City Council adopted the CEQA Transportation Analysis Update, which sets forth the revised thresholds of significance for evaluating transportation impacts as well as screening and evaluation criteria for determining impacts. The CEQA Transportation Analysis Update establishes VMT as the City's formal method of evaluating a project's transportation impacts. In conjunction with this update, LADOT adopted its Transportation Assessment Guidelines (adopted in July 2019 and updated in July 2020), which defines the methodology for analyzing a project's transportation impacts in accordance with SB 743.

Parking Cash Out

Assembly Bill (AB) 2109, is a state law requiring employers of 50 or more employees who lease their parking and subsidize any part of their employee parking to offer their employees the opportunity to give

up their parking space and rideshare to work instead. In return for giving up their parking space, the employer pays the employee the cost of the parking space.

Assembly Bill 32 (AB32) and Senate Bill 375 (SB 375)

With the passage of AB 32, the Global Warming Solutions Act of 2006, the State of California committed itself to reducing statewide GHG emissions to 1990 levels by 2020. The California Air Resources Board (California ARB) is coordinating the response to comply with AB 32.

On December 11, 2008, California ARB adopted its Proposed Scoping Plan for AB 32. This scoping plan included the approval of SB 375 as the means for achieving regional transportation-related GHG targets. SB 375 provides guidance on how curbing emissions from cars and light trucks can help the state comply with AB 32.

There are five major components to SB 375. First, regional GHG emissions targets: California ARB's Regional Targets Advisory Committee guides the adoption of targets to be met by 2020 and 2035 for each Metropolitan Planning Organization (MPO) in the state. These targets, which Metropolitan Planning Organization (MPOs) may propose themselves, are updated every eight years in conjunction with the revision schedule of housing and transportation elements.

Second, MPOs are required to prepare a Sustainable Communities Strategy (SCS) that provides a plan for meeting regional targets. The SCS and the Regional Transportation Plan (RTP) must be consistent with each other, including action items and financing decisions. If the SCS does not meet the regional target, the MPO must produce an Alternative Planning Strategy that details an alternative plan to meet the target.

Third, SB 375 requires that regional housing elements and transportation plans be synchronized on 8-year schedules. In addition, Regional Housing Needs Assessment (RHNA) allocation numbers must conform to the SCS. If local jurisdictions are required to rezone land as a result of changes in the housing element, rezoning must take place within three years.

Fourth, SB 375 provides CEQA streamlining incentives for preferred development types. Certain residential or mixed-use projects qualify if they conform to the SCS. Transit-oriented developments (TODs) also qualify if they (1) are at least 50% residential, (2) meet density requirements, and (3) are within 0.5 mile of a transit stop. The degree of CEQA streamlining is based on the degree of compliance with these development preferences.

Finally, MPOs must use transportation and air emissions modeling techniques consistent with guidelines prepared by the California Transportation Commission (CTC). Regional Transportation Planning Agencies, cities, and counties are encouraged, but not required, to use travel demand models consistent with the CTC guidelines.

CEQA Guidelines Section 15064.3

Recent changes to CEQA include the adoption of Section 15064.3, *Determining the Significance of Transportation Impacts*. CEQA Guidelines Section 15064.3 establishes VMT as the most appropriate measure of transportation impacts. Generally, land use projects within 0.5 miles of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact. A lead agency has discretion to choose the most appropriate methodology to evaluate VMT, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may also use models to estimate VMT, and may revise those estimates to reflect professional judgment based on substantial evidence. As discussed further below, LADOT developed City of Los Angeles VMT

Calculator Version 1.3 (May 2020) (VMT Calculator) to estimate project-specific daily household VMT per capita and daily work VMT per employee for developments within City limits. The methodology for determining VMT based on the VMT Calculator is consistent with CEQA Guidelines Section 15064.3 and the Transportation Assessment Guidelines.

California Vehicle Code (CVC)

The CVC provides requirements for ensuring emergency vehicle access regardless of traffic conditions. Sections 21806(a)(1), 21806(a)(2), and 21806(c) define how motorists and pedestrians are required to yield the right-of-way to emergency vehicles.

REGIONAL

Southern California Association of Governments 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy

In compliance with SB 375, on September 3, 2020, the Southern California Association of Governments (SCAG) Regional Council adopted the Connect SoCal 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS), a long-range visioning plan that incorporates land use and transportation strategies to increase mobility options and achieve a more sustainable growth pattern while meeting greenhouse gas reduction targets set by the California Air Resources Board (CARB). The 2020-2045 RTP/SCS contains baseline socioeconomic projections that are used as the basis for SCAG's transportation planning, as well as the provision of services by the six-county region of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG policies are directed towards the development of regional land use patterns that contribute to reductions in vehicle miles and improvements to the transportation system.

The 2020-2045 RTP/SCS builds on the long-range vision of SCAG's prior 2016-2040 RTP/SCS to balance future mobility and housing needs with economic, environmental and public health goals. A substantial concentration and share of growth is directed to Priority Growth Areas (PGAs), which include high quality transit areas (HQTAs), Transit Priority Areas (TPAs), job centers, Neighborhood Mobility Areas (NMAs) and Livable Corridors. These areas account for four percent of SCAG's total land area but the majority of directed growth. HQTAs are corridor-focused PGAs within one half mile of an existing or planned fixed guideway transit stop or a bus transit corridor where buses pick up passengers at a frequency of every 15 minutes (or less) during peak commuting hours. TPAs are PGAs that are within a half mile of a major transit stop that is existing or planned. Job centers are defined as areas with significant higher employment density than surrounding areas which capture density peaks and locally significant job centers throughout all six counties in the region. NMAs are PGAs with robust residential to non-residential land use connections, high roadway intersection densities, and low-to-moderate traffic speeds. Livable Corridors are arterial roadways where local jurisdictions may plan for a combination of the following elements: high-quality bus frequency; higher density residential and employment at key intersections; and increased active transportation through dedicated bikeways.

The 2020-2045 RTP/SCS' "Core Vision" prioritizes the maintenance and management of the region's transportation network, expanding mobility choices by co-locating housing, jobs, and transit, and increasing investment in transit and complete streets. Strategies to achieve the "Core Vision" include but are not limited to: Smart Cities and Job Centers, Housing Supportive Infrastructure, Go Zones, and Shared Mobility. Connect SoCal intends to create benefits for the SCAG region by achieving regional goals for sustainability, transportation equity, improved public health and safety, and enhancement of the regions' overall quality of life. These benefits include but are not limited to a five percent reduction in VMT per capita, nine percent reduction in vehicle hours traveled, and a two percent increase in work-related transit trips.

Metro 2009 Long Range Transportation Plan (LRTP)

The 2009 LRTP includes funding for general categories of improvements, such as Arterial Improvements, Non-motorized Transportation, Rideshare and Other Incentive Programs, Park-and-Ride Lot Expansion, and Intelligent Transportation System (ITS) improvements for which Call for Project Applications can be submitted for projects in Los Angeles County. Metro also has a Short Range Transportation Plan to define the near-term (through year 2024) transportation priorities in Los Angeles County. In addition to the regional transportation plans, Metro has recently adopted a Complete Streets Policy and a First Last Mile Strategic Plan.

Metro Complete Streets Policy

Metro's recently adopted Complete Streets policy is reinforcing the California Complete Streets Act (AB 1358). Effective January 1, 2017, Metro is requiring that all local jurisdictions within LA County must adopt a Complete Streets Policy, an adopted city council resolution supporting Complete Streets, or an adopted general plan consistent with the California Complete Streets Act of 2008 in order to be eligible for Metro capital grant funding programs, starting with the 2017 grant cycles.

Metro Short Range Transportation Plan (SRTP)

The 2014 Metro SRTP is a 10-year action plan that guides future Metro programs and projects through 2024 and advances Metro towards the long-term goals identified in the 2009 Metro LRTP. The SRTP identifies the short-term challenges, provides an analysis of our financial resources, proposes action plans for the public transportation and highway modes, and includes other project and program initiatives. In addition, it addresses sustainability, future funding strategies, and lastly, measures the Plan's performance (Metro 2014).

LOCAL

City of Los Angeles General Plan Framework and Safety Elements

The Citywide General Plan Framework (Framework), an element of the City of Los Angeles General Plan, is a guide for Community Plans to implement growth and development policies by providing a comprehensive long-range view of the City as a whole. It provides a comprehensive strategy for accommodating long-term growth should it occur as predicted. Chapter 9 Infrastructure and Public Services of the Framework Element addresses fire prevention, fire protection and emergency medical services provided to the City.

The Safety Element of the General Plan identifies existing police, fire, and emergency services and the service needs of the City of Los Angeles in the event of a natural disaster. The Safety Element goals, objectives, policies, and programs are broadly stated to reflect the comprehensive scope of the Emergency Operations Organization (EOO), which is the program that implements the Safety Element. The Framework and Safety Elements include goals, objectives, and policies that are applicable to emergency services.

Los Angeles Municipal Code

With regard to construction traffic, Los Angeles Municipal Code (LAMC) Section 41.40 limits construction activities to the hours from 7:00 a.m. to 9:00 p.m. on weekdays and from 8:00 a.m. to 6:00 p.m. on Saturdays and national holidays. No construction is permitted on Sundays.

LAMC Section 12.37 sets forth requirements for street dedications and improvements for new development projects. Specifically, LAMC Section 12.37 states that no building or structure shall be erected or enlarged

on any property, and no building permit shall be issued therefore, on any R3 or less restrictive zone, or in any lot in the RD1.5, RD2, or R3 Zones, if the lot abuts a major or secondary highway or collector street unless one-half of the street adjacent to the subject property has been dedicated and improved to the full width to meet the standards for a highway or collector street as provided in the LAMC.

With regard to on-site bicycle parking, LAMC Section 12.21 A.16 sets forth requirements for long-term and short-term bicycle parking for residential and commercial buildings. Where there is a combination of uses on a lot, the number of bicycle parking spaces required shall be the sum of the requirements of the various uses. LAMC Section 12.21 A.16 also includes facility requirements, design standards and siting requirements for bicycle parking.

LAMC Section 12.26 J provides for Transportation Demand Management (TDM) and Trip Reduction Measures that are applicable to the construction of new non-residential gross floor area. Different TDM requirements are provided for developments in excess of 25,000 square feet of gross floor area, 50,000 square feet of gross floor area, and 100,000 square feet of gross floor area. The TDM requirements set forth therein vary depending upon the maximum non-residential gross floor area described above, and include measures such as the provision of a bulletin board, display case, or kiosk with transit information and carpool/vanpool parking spaces. City of Los Angeles Mobility Plan 2035.

In August 2015, the City Council adopted Mobility Plan 2035 (Mobility Plan), which serves as the City's General Plan circulation element. The City Council has adopted several amendments to the Mobility Plan since its initial adoption, including the most recent amendment on September 7, 2016. The Mobility Plan incorporates "complete streets" principles and lays the policy foundation for how the City's residents interact with their streets. The Mobility Plan includes five main goals that define the City's high-level mobility priorities:

- **Safety First:** focuses on topics related to crashes, speed, protection, security, safety, education, and enforcement.
 - Objective: Vision Zero: Decrease transportation related fatality rate to zero by 2035.
- **World Class Infrastructure:** focuses on topics related to the Complete Streets Network (walking, bicycling, transit, vehicles, green streets, and goods movement), Great Streets, Bridges, Street Design Manual, and demand management.
 - Objective: Provide 95% on-time arrival reliability of buses traveling on the Transit Enhanced Network by 2035. Establish an off-peak 5-minute bus frequency on 25% of the Transit Enhanced Network by 2035.
 - Objective: Increase vehicular travel time reliability on all segments of the Vehicle Enhanced Network by 2035.
 - Objective: Maintain the Automated Traffic Control Surveillance and Control System (ATSAC) Communications Network.
- **Access for all Angelenos:** focuses on topics related to affordability, least cost transportation, land use, operations, reliability, demand management, and community connections.
 - Objective: Ensure that 90% of households are within one mile of the Transit Enhanced Network by 2035.
 - Objective: Ensure that 90% of all households have access within one-half mile of high quality bicycling* facilities by 2035 (*protected bicycle lanes, paths, and neighborhood enhanced streets).

- Objective: Increase the combined mode split of persons who travel by walking, bicycling or transit to 50% by 2035.
- **Collaboration, Communication & Informed Choices:** focuses on topics related to real-time information, open-source data, transparency, monitoring, reporting, emergency response, departmental and agency cooperation and data base management.
 - Objective: Install street parking occupancy-detection capability at 50% of on-street parking locations by 2035.
 - Objective: Implement coordinated wayfinding at all major transit stations by 2035.
- **Clean Environment and Healthy Communities:** focuses on topics related to environment, health, clean air, clean fuels and fleets, and open street events.
 - Objective: Decrease vehicle miles traveled (VMT) per capita by 5% every five years, to 20% by 2035.
 - Objective: Meet a 9% per capita GHG reduction for 2020 and a 16% per capita reduction for 2035 (SCAG RTP).
 - Objective: Reduce the number of unhealthy air quality days to zero by 2025.

Street classifications are designated in the Mobility Plan, and may be amended by a Community Plan, and are intended to create a balance between traffic flow and other important street functions, including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. The Complete Streets Design Guide, which was adopted by the City Council alongside the Mobility Plan, defines the street classifications as follows:

Arterial Streets: Major streets that serve through traffic and provide access to major commercial activity centers. Arterials are divided into two categories:

- **Boulevards** represent the widest streets that typically provide regional access to major destinations and include two further categories, Boulevard I and Boulevard II.
- **Avenues** pass through both residential and commercial areas and include three further categories, Avenue I, Avenue II, and Avenue III.

Collector Streets: Generally located in residential neighborhoods and provide access to and from arterial streets for local traffic and are not intended for cut-through traffic.

Local Streets: Intended to accommodate lower volumes of vehicle traffic and provide parking on both sides of the street.

- Continuous local streets that connect to other streets at both ends, and/or
- Non-Continuous local streets that lead to a dead-end.

The Mobility Plan also identifies enhanced networks of major and neighborhood streets that facilitate multi-modal mobility within the citywide transportation system. This layered approach to complete streets selects a subset of the City's streets to prioritize travel for specific transportation modes. In all, there are four enhanced networks: the Bicycle Enhanced Network, Transit Enhanced Network, Vehicle Enhanced Network, and Neighborhood Enhanced Network. In addition to these networks, many areas that could benefit from additional pedestrian features are identified as Pedestrian Enhanced Districts.

Great Streets for Los Angeles/LADOT Strategic Plan

In September 2014, the Mayor's Office and LADOT released Great Streets for Los Angeles, LADOT's first strategic plan to turn the city's essential infrastructure -- its streets and sidewalks -- into safer, more livable 21st century public spaces that accommodate everyone who uses them. The plan builds upon Mayor Garcetti's Great Streets Initiative, which looks at Los Angeles's streets as valuable assets that can help revitalize neighborhoods across the City and make it easier for Angelenos to get around whether they walk, bike, drive, or take transit. The plan also stresses the importance of working closely with other city and regional agencies, such as the Bureau of Street Services and Metro, to improve safe, accessible transportation services and infrastructure.

The plan focuses on Mayor Garcetti's priorities of making the city safe, prosperous, and livable with a well-run government and includes the following key goals:

- **Vision Zero:** Eliminate traffic deaths by 2025 and design streets to increase the safety of pedestrians, including adding 100 new high-visibility continental crosswalks.
- **Great Streets:** Implement changes to the 15 Great Street corridors and launch programs to reduce dangerous speeding in residential neighborhoods. Increase bike infrastructure and launch a regional bikeshare program. Expand bus service and improve its quality and connectivity with surrounding neighborhoods.
- **A 21st Century DOT:** Streamline LADOT's operations to implement needed safety and mobility projects quickly and efficiently. Enhance technologies to manage traffic, meters, and parking operations.
- **World-Class Streets for a World-Class Economy:** Real-time traffic information and more efficient allocation of the street to support local foot traffic and better manage freight traffic. Build Great Streets for vibrant and prosperous neighborhood business districts.

Transit Oriented Community Guidelines

Pursuant to the voter-approved Measure JJJ, LAMC Section 12.22.A.31 was added to create the Transit Oriented Communities (TOC) Affordable Housing Incentive Program to encourage affordable housing near transit. The TOC Guidelines provide the eligibility standards, incentives, and other necessary components of the TOC Program. TOC incentive areas are tiered based on a project site's distance from transit and the type of transit.

Los Angeles Department of Transportation (LADOT) Transportation Assessment Guidelines

As discussed above, on July 30, 2019, LADOT updated its Transportation Impact Study Guidelines, travel demand model and transportation impact thresholds based on vehicle miles traveled, pursuant to State CEQA Guidelines Section 15064.3, of the 2019 CEQA Updates that implement SB 743. The City established the Transportation Assessment Guidelines (TAG) that includes both CEQA thresholds (and screening criteria) and non-CEQA thresholds (and screening criteria). LADOT most recently updated the TAG in July 2020. The CEQA thresholds provide the methodology for analyzing the Appendix G transportation thresholds, including providing the City's adopted VMT thresholds. The non-CEQA thresholds provide a method to analyze projects for purposes of entitlement review and making necessary findings to ensure the project is consistent with adopted plans and policies including Mobility Plan 2035. Specifically, the TAG is intended to effectuate a review process that advances the City's vision of developing a safe, accessible, well-maintained, and well-connected multimodal transportation network. The TAG have been developed to identify land use development and transportation projects that may impact

the transportation system; to ensure proposed land use development projects achieve site access design requirements and on-site circulation best practices; to define whether off-site improvements are needed; and to provide step-by-step guidance for assessing impacts and preparing Transportation Assessment Studies.

LADOT Manual of Policies and Procedures Section 321

LADOT Manual of Policies and Procedures (MPP) Section 321 provides the basic criteria for the review of driveway design. As discussed in MPP Section 321, the basic principle of driveway location planning is to minimize potential conflicts between users of the parking facility and users of the abutting street system, including the safety of pedestrians.

Vision Zero

The Vision Zero Los Angeles program, implemented by LADOT, represents a citywide effort to eliminate traffic deaths in the City by 2025. Vision Zero has two goals: a 20-percent reduction in traffic deaths by 2017 and zero traffic deaths by 2025. In order to achieve these goals, LADOT has identified a network of streets, called the High Injury Network, which has a higher incidence of severe and fatal collisions. The High Injury Network, which was last updated in 2018, represents 6 percent of the City's street miles but accounts for approximately two thirds (64 percent) of all fatalities and serious injury collisions involving people walking and biking.

Citywide Design Guidelines

The Citywide Design Guidelines serve to implement the Framework Element's urban design principles and are intended to be used by City of Los Angeles Department of City Planning staff, developers, architects, engineers, and community members in evaluating project applications, along with relevant policies from the Framework Element and Community Plans. The Citywide Design Guidelines were updated in October 2019 and include guidelines pertaining to pedestrian-first design which serves to reduce VMT.

Los Angeles Fire Department (LAFD) Strategic Plan 2018-2020

The LAFD Strategic Plan focuses on nine goals and corresponding strategic actions that guide the LAFD. The primary goals that apply to the Proposed Project include providing exceptional public safety and emergency service and implementing and capitalizing on advanced technologies. Some of the key priorities associated with these goals include:

- Improving response times by utilizing data and metrics to identify gaps in LAFD's response strategies and exploring response time improvements through dialogue, cognitive inquiry, innovation, and follow-up;
- Delivery of emergency medical services by expanding LAFD Emergency Medical Service (EMS) response capabilities for special events and addressing period of high vehicle traffic; and
- Implementing advanced technologies by developing performance metrics, tracking standards, data collection, analysis and reporting procedures (FireStatLA).
- The Strategic Plan also focuses on the development of an even more professional workforce and promotion of a positive work environment to address risk management issues and strengthening community relationships to improve preparedness and enhance resiliency during emergency events.

ENVIRONMENTAL IMPACTS

This section explains the metrics used to measure the impacts of the Proposed Project to VMT. The metrics used are from the proposed CEQA Guidelines from the California State Office of Planning and Research (OPR) from December 2018.

HISTORY

Senate Bill 743 directed OPR to “prepare, develop, and transmit to the Secretary of the Natural Resources Agency for certification and adoption proposed revisions to the guidelines adopted pursuant to Section 21083 establishing criteria for determining the significance of transportation impacts of projects within transit priority areas... Upon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion within a transit priority area, shall not support a finding of significance pursuant to this division...”

On January 20, 2016, OPR updated the CEQA Guidelines “Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA,” the evaluation of vehicle miles traveled (VMT) was recognized as “generally the most appropriate measure of transportation impacts.” OPR also states that lead agencies may tailor their analysis to include other measures.

On November 2017, OPR proposed a new section, 15064.3, to help determine the significance of transportation impacts. This section was updated July 2, 2018 and finalized on December 28, 2018 with criteria for analyzing transportation impacts and is seen below in the section *Thresholds of Significance*. Its purpose is to describe specific elements for considering the transportation impacts of a given project given the use of VMT as the primary measurement.

Per the guidance from OPR, “a lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide” (CNRA 2018). In order to comply with the guidelines understood to become the standard in our state, this EIR evaluates vehicle trips and VMT consistent with the intent of SB 743. This EIR also includes vehicular level of service (LOS) for its primary impacts for historical comparison and informational purposes. As discussed below, it is also considered for its secondary impacts to emergency services under Threshold 4.15-4.

PERFORMANCE METRICS

The current metrics shift the focus from LOS to VT and VMT. These are defined as follows, with methodology specifics outlined in the following *Methodology* section:

Vehicle Trips. VT are defined as the number of trips undertaken in an automobile, such as in single occupancy vehicles, private automobiles, and vehicles that contain two or more travelers, such as carpools, taxis, or ride-share vehicles. A reduction in VT over time can be used as an indicator of reduced reliance on the automobile as well as an indicator of more travel by carpools.

Vehicle Miles Traveled. VMT is a measurement of miles traveled (e.g., private automobiles, trucks and buses) by all land uses (e.g., residential, retail, office) in the Project Area. To compare scenarios, VMT per service population is used. A reduction in VMT overall and in VMT per service population can be used as an indicator of reduced reliance on vehicular travel, primarily by private automobiles.

Service Population. Service Population is the sum of population and employment. It is used in this study to represent both residents and employees. Some VMT metrics focus on VMT per capita and VMT per

employee as separate markers of these indications; however, VMT per service population showcases the effects of all vehicular movement in an area. It includes not only trips that are attracted and produced by home and work trips, but those that fit in neither category (i.e., school to grocery store) as well as truck trips. It is therefore more representative of the effect of users and trips on the roadways in the Project Area.

THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the aforementioned CEQA Guidelines, the Proposed Project would have a significant impact related to transportation if it would:

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities (Threshold 4.15-1).
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b) (Threshold 4.15-2).
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) (Threshold 4.15-3).
- Result in inadequate emergency access (Threshold 4.15-4).

Text of CEQA Guidelines Section 15064.3, Subdivision (b):

Land Use Projects. *Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.*

Transportation Projects. *Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.*

Qualitative Analysis. *If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.*

Methodology. *A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.*

The Proposed Project would have an impact related to transportation if it would result in VMT per service population that exceeded an applicable threshold of significance. OPR recommends that a per capita or per employee VMT that is fifteen percent below that of existing development regionally may be a reasonable

threshold. However, the “region” identified for the City of Los Angeles is the six-county SCAG region, which is very large and not representative of the Project Area. Holding this Project Area to that as a threshold would not accurately disclose a relevant change in VMT outputs to the Proposed Project, as it is significantly lower than the region’s VMT already. Additionally, the use of per capita and per employee is not as representative of all travel in the area as per service population. As “CEQA generally defers to lead agencies on the choice of methodology to analyze impacts” (OPR 2018), the City of Los Angeles is choosing to use the following as part of a two-pronged threshold:

- The Proposed Project would result in average total VMT per service population in the plan horizon year that exceeds 15% below the regional average total VMT per service population from the most recent regional metric available.
- The Proposed Project would result in average total VMT per service population in the plan horizon year that exceeds the average total VMT per service population for the “project area” for the baseline year.

METHODOLOGY

The transportation analysis for the Project Area has been developed through a process that includes the use of the City of Los Angeles Travel Demand Forecasting (TDF) Model, as well as the use of the SCAG TDF Model for the analysis of the 2021 conditions throughout the region. This *Methodology* section describes the procedures used to assess impacts on the transportation system. It includes an overall discussion of methodology and assumptions, followed by a discussion of how the Proposed Project is expected to perform in comparison to the thresholds described above. .

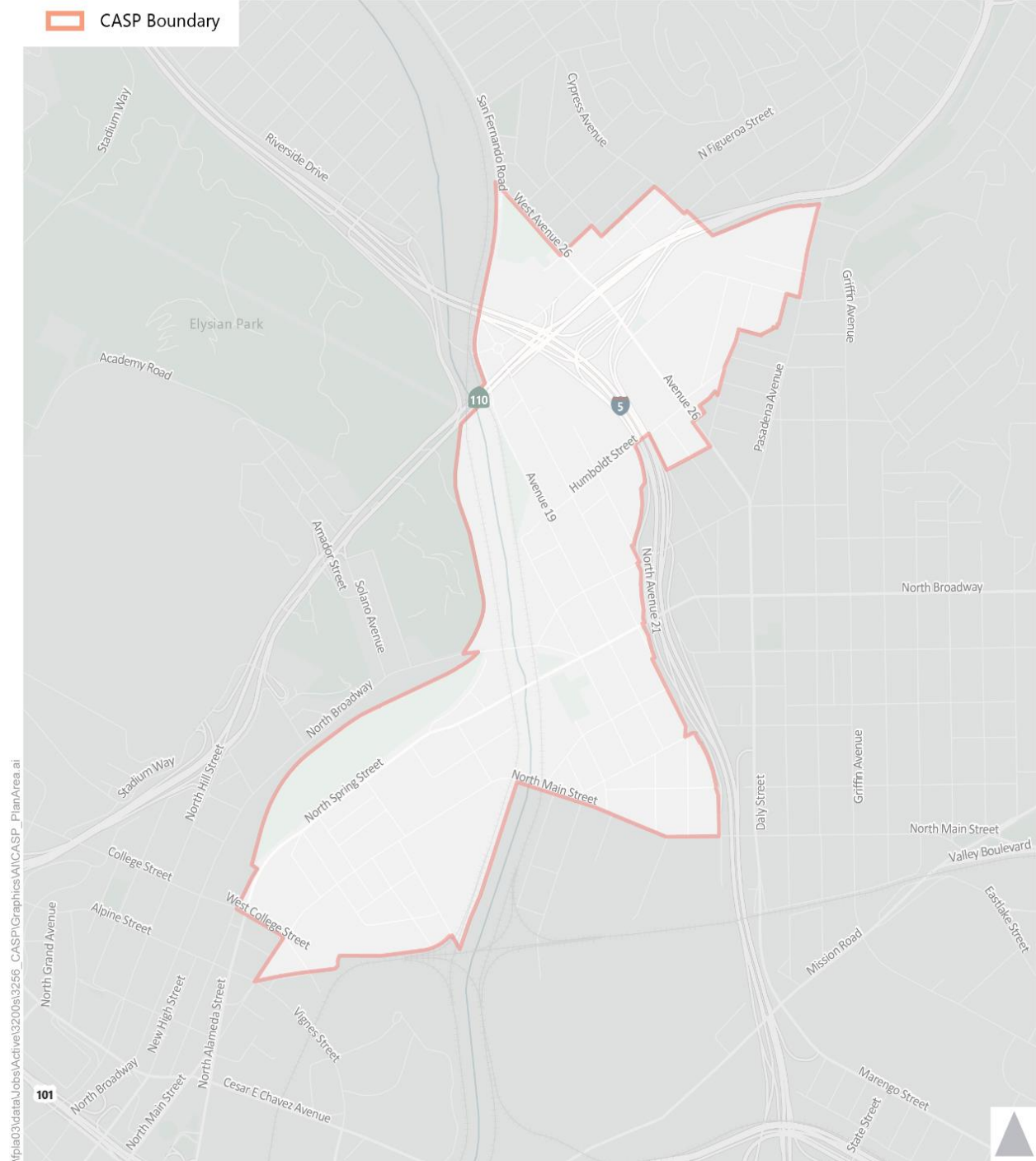
Study Area and Reporting Framework

The Project Area is defined by the boundaries as shown in **Figure 4.15-6**. This study is defined by the potential impacts of the Proposed Project to transportation and its related elements in the study area.

VMT Methodology

In order to determine whether the socio-economic and transportation network included in the Project Area would result in an impact (as outlined in the *Environmental Impacts* section previously), VMT calculated for the 2021 Baseline and the SCAG Region in 2021 is compared to the 2040 Project. This is calculated using the following outputs from the City of Los Angeles and SCAG TDF Models.

Figure 4.15-6 Project Area



Vehicle Trips

Vehicle Trips are defined as the number of trips undertaken in an automobile or a truck, such as in single-occupancy private automobiles, vehicles that contain two or more travelers, such as carpools, taxis, or ride-share vehicles, and trucks including light truck, medium truck, and heavy truck. While the total number of vehicle trips is expected to increase as growth occurs in the Project Area and in the region, a reduction in vehicle trips per service population over time can be used as an indicator of reduced reliance on the automobile as well as an indicator of more travel by walk, bike, take transit, carpools, etc. A reduction in the number of vehicle trips per service population also helps meet the State's goal of reducing GHG emissions, as mandated by AB 32 and SB 375. An increase in the number of daily vehicle trips per service population would be an undesirable outcome of the Proposed Project but would not constitute a significant impact.

Vehicle trips are calculated from outputs of the City of Los Angeles TDF model and SCAG TDF model. With estimated population relevant to each model's year and household and employment values input into each model Traffic Analysis Zone (TAZ), the models develop a vehicle trip calculation for the Project Area and SCAG Region. A Traffic Analysis Zone is a spatial unit that includes socioeconomic data such as population, households, and employees of a particular region.

Vehicle Miles Traveled

VMT is a measurement of miles traveled (e.g., private automobiles, trucks and buses) generated by all land uses (e.g., residential, retail, office). While the total VMT is expected to increase as growth occurs in the Project Area and in the region, a reduction in VMT per service population over time can be used as an indicator of reduced reliance on the automobile. Reducing VMT helps meet the State's goals of reducing GHG emissions, as mandated by AB 32 and SB 375. Any increase in the total number of VMT per service population would be an undesirable outcome of the Proposed Project and would constitute an impact. VMT was forecasted for the Plan Area using the TDF model.

For this analysis, VMT is reported as Total Daily VMT per Service Population. The Total Daily VMT per Service Population is the total VMT divided by the number of people living or working within the plan area. This VMT is generated by both residents and employees within the Project Area as well as travel between the Project Area and other areas.

The reported VMT results include both personal vehicles and truck VMT. The VMT calculation accounts for internal trip ends and trips that begin or end within the Project Area, as these trips are generated by or attracted to land uses within the Project Area. The travel behavior effects of land use changes in the Project Area can be understood by measuring the VMT of trips originating in and/or destined for the Project Area and comparing them to the 2021 Baseline and 2021 SCAG Region outputs.

VMT is calculated by multiplying the vehicle trip length by the number of trips estimated through the TDF model. VMT takes into consideration population, household, and employment values, as well as travel patterns of origins and destinations, including all of these inputs in the City of Los Angeles and SCAG TDF models, which makes them sensitive to each land use and network scenario tested.

Roadway Segment Level of Service Methodology

In addition to the VMT methodology, the Proposed Project was also analyzed using LOS changes on road segments, as described below. As discussed above, under SB 743, LOS as a metric for traffic congestion is not used to determine CEQA impacts. However, congestion may still be considered for safety, and therefore, this information is used to inform the analysis related to emergency access in Impact Threshold 4.15-4, as well as for informational and historical comparison purposes.

LOS is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. LOS definitions for street segments are summarized in **Table 4.15-7**. LOS can be determined by dividing demand V/C, and the resulting V/C ratio is then used to obtain the corresponding LOS. The capacity values for analyzed roadway segments were obtained from the City of Los Angeles TDF Model.

TABLE 4.15-7 ROADWAY SEGMENT LEVEL OF SERVICE (LOS) DEFINITIONS		
Level of Service (LOS)	Volume to Capacity Ratio (V/C)	Description
A	0.00 – 0.60	Excellent operation. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers have freedom of operation.
B	>0.60 – 0.70	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.
C	>0.70 – 0.80	Good operation. Occasionally drivers may have to wait more than 60 seconds, and back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted.
D	>0.80 – 0.90	Fair operation. Cars are sometimes required to wait more than 60 seconds during short peaks. There are no long standing traffic queues. This level is typically associated with design practice for peak periods.
E	>0.90 – 1.00	Poor operation. Some long-standing vehicular queues develop on critical approaches to intersections. Delays may be up to several minutes.
F	>1.00	Forced flow. Represents jammed conditions. Backups from locations downstream or in the cross street may restrict or prevent movement of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop and go type traffic flow.

SOURCE: Transportation Research Board, *Highway Capacity Manual, Special Report 209*, Washington, D.C., 2000.

Plans that involve large areas and are not expected to be fully implemented until 2040 or beyond are not analyzed effectively by detailed intersection V/C analyses. In addition, detailed roadway designs for improvements to individual intersections are not yet available. Consequently, roadway segment analysis is commonly used to determine the average service capacity of the roadway network. Street segment capacity impacts are generally evaluated in program-level analyses (such as community plans or long-range development projects) for which details regarding specific land use types, sizes, project access points, etc., are not known.

The resulting V/C ratio is then used to obtain the corresponding LOS. The volume-weighted V/C ratio is used in order to obtain aggregate statistics regarding the transportation conditions, allowing a comparison of different scenarios and alternatives. The weighted average V/C ratio represents typical travel conditions for the roadway network in the Project Area. The volume-weighted average V/C ratio is calculated by taking the volume of each street segment and multiplying it by its corresponding V/C ratio. This is divided by the sum of the total volumes, and essentially represents the average V/C ratio for the roadway network in the Project Area.

Travel Demand Forecasting Model

The City of Los Angeles TDF Model provides the ability to evaluate the transportation system, use performance indicators for land use and transportation alternatives, provide information on regional pass-through traffic versus locally generated trips, and graphically display these results. The model considers forecast growth in City of Los Angeles and surrounding areas, including special generators, such as airports and universities, and is sensitive to emerging land use trends through improved sensitivity to built environment variables. The model forecasts AM and PM peak period and daily vehicle and transit flows on the transportation network in the City. In essence, the travel demand model serves as a tool to implement, manage and monitor the City of Los Angeles' transportation plans, projects, and programs, providing a suitable starting point for additional refinement as part of a more local application, such as the Project Area.

The potential impacts associated with implementation of the Proposed Project are evaluated using a refined version of the City of Los Angeles' Travel Demand Model within the Project Area. The Travel Demand Forecasting Model utilizes the TransCAD Version 7.0 R4 Build 12410 modeling software (consistent with the citywide model). The Model builds on the citywide model update and refines the level of detail within the Project Area for improved sensitivity in measuring the effect of land use development and transportation network changes. The model has a future horizon year of 2040 and was designed to produce daily and AM and PM peak hour vehicle and transit flows on roadways within the Project Area based on comprehensive land use and socioeconomic data (SED) and uses a conventional 4-step process of trip generation, trip distribution, modal split and assignment. For modeling purposes, the Los Angeles model area is divided into 4,192 Transportation Analysis Zones (TAZs) and the Project Area is divided into 18 TAZs, each with corresponding SED and connections to the roadway and transit networks.

Impact Analysis

The purpose of the transportation analysis is to identify potential transportation system deficiencies resulting from vehicle trips generated by the employment and population growth anticipated under the Proposed Project, and to identify feasible mitigation measures. The Proposed Project is a long-term plan that will be implemented over many years in conjunction with already approved development projects in the study area, and regional growth and transportation projects outlined in the 2016-2040 RTP/SCS. The Proposed Project is represented by the 2040 Proposed Project scenario and is compared to 2021 Baseline and 2021 SCAG Region scenarios in order to show the potential impacts of the Proposed Project.

The Model includes the entirety of the City of Los Angeles Travel Demand Forecasting Model, which is consistent with the 2016-2040 SCAG RTP/SCS model and includes all reasonably foreseeable development and regional transportation improvements for the year 2040 in the City of Los Angeles as well as the adjacent Cities, such as West Hollywood, Burbank and Glendale. Thus, the Model includes the regional growth forecast for both inside and outside of the Project Area for the purpose of analyzing 2040 Proposed Project conditions. The Model measures the effects of land use and transportation network changes for the 2040 Proposed Project. The analysis tools used to forecast future travel patterns are long-range models of travel demand. Long-range travel demand models primarily focus on forecasting auto use, with limited sensitivity to other modes of travel such as transit, bicycling, and walking. This is consistent with the traffic forecasting methods used by most cities and is consistent with the state of the transportation and traffic engineering practice. Recently, new travel behavior trends have emerged that traditional travel demand models are not designed to accommodate. Transportation and traffic experts continue to evaluate the anticipated longevity of these trends and the impact they may have on travel behavior in the future. Factors that affect long-term trends in travel behavior include recessionary effects on employment, changes in younger generations' interest in driving and vehicle ownership, baby boomer retirement choices and their continued participation in the workforce, increasing preference across generations for urban living, fuel

prices, increased availability of on-demand delivery of goods and services, and greater travel options through autonomous vehicles and shared use mobility (e.g., Lyft, Uber, bikeshare programs).

While SCAG's 2020-2045 RTP/SCS (adopted in September 2020) is the most recently adopted RTP/SCS, this document relies on the 2016-2040 RTP/SCS as the most up to date and validated Los Angeles Transportation Demand Forecasting (TDF) model contains data and information from the 2016-2040 RTP/SCS. However, the population, housing, and employment projections of these two regional plans are consistent with each other in the Project Area. The current TDF Model, which was developed in the last few years as part of the City's effort to move to vehicle miles traveled (VMT) thresholds of significance, relies on the 2016-2040 RTP/SCS. This model and its outputs are used in various section of this Draft EIR and therefore, the 2016-2040 RTP/SCS is utilized as the analysis baseline throughout this document.

The latest adopted 2020-2045 RTP/SCS, using a baseline year of 2016, estimates a Project Area population of 6,202 in 2021, while the 2016-2040 RTP/SCS, using a baseline year of 2012, estimates a Project Area population of 6,027 in 2021. To address the time gap between the RTP/SCS baseline years of 2012 and 2016 and the EIR's baseline year of 2021, the demographic data were interpolated to estimate 2021 existing conditions. Annual demographics data are not immediately available and there is usually a lag time in the data released. Therefore, the interpolated population numbers using an annual growth average rate represented the most reasonable estimate available in 2021. Between the 2016-2040 RTP/SCS and 2020-2045 RTP/SCS, the population and households estimates for the EIR baseline year (2021) differ by less than 3 percent and 4 percent, respectively. The 2016-2040 RTP/SCS estimates that baseline year employment within the Project Area is 5,411 jobs, compared to the 2020-2045 RTP/SCS's estimate of 6,189 jobs, a difference of 14 percent. The use of the 2016-2040 RTP/SCS's lower employment figure represents a more conservative analysis, as the EIR would be analyzing a greater employment delta over the course of the Proposed Project compared to the 2020-2045 RTP/SCS's higher baseline year employment figure.

The transportation analysis approach used in this EIR applies established traffic forecasting tools that have been empirically proven and previously accepted under CEQA. However, these may prove to be conservative if some of the recent trends in travel persist. It is not clear what direction the trends will take at this point. VMT per capita has been generally dropping since around 2004 but increased for many decades prior. If the trends toward higher levels of walking, bicycling, and transit use exceed what is forecast in the EIR, this could result in fewer driving-related impacts than the Proposed Project conservatively accounts for in the EIR. It is possible, however, that innovations in autonomous and driverless vehicles, transportation network companies (e.g., Lyft and Uber), and same-day delivery will increase future VMT per capita. A variety of factors contribute to VMT, and transportation technologies along with demographic trends will influence future travel behavior. It would be speculative to make assumptions about how these new technologies and changes in transportation may affect travel behavior long-term; therefore, the methodologies and travel forecasts applied in this analysis rely on the state-of-the-practice at this time as previously accepted under CEQA.

Project Mobility Network

Mobility Plan 2035 (MP 2035) is the Mobility Element of the City of Los Angeles' General Plan. MP 2035 provides the framework for future community plan updates, which take a closer look at the transportation system in specific areas of the City and recommend more detailed implementation strategies to be realized by 2035. The MP 2035 reflects policies and programs that lay the foundation for safe, accessible, and enjoyable streets for pedestrians, bicyclists, transit users, and vehicles throughout the City of Los Angeles, including the Project Area. MP 2035 was adopted by the City in August 2015 and updated in 2016. It is compliant with the 2008 Complete Streets Act (AB 1358), which mandates that the circulation element of a City's General Plan be modified to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists,

children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan.

The transportation improvements planned for the Project Area primarily originated from the MP 2035. The enhanced network treatments envisioned through MP 2035 were reviewed and refined to complement the anticipated growth areas as well as the Proposed Project's goals and policies. The Proposed Project would enhance mobility by focusing future growth in areas well-served by transit and by establishing pedestrian-oriented development standards for new development in order to encourage transit ridership, walking, and bicycling. Mixed-use development around Metro stations and transit corridors offers residents, employees and visitors mobility choices that enable them to reduce the number and length of vehicle trips. MP 2035 anticipates that subsequent community plans and specific plans will provide updates as appropriate to that community's needs. Therefore, the Proposed Project would be consistent with the City's MP 2035 and the Complete Streets Act. However, since MP 2035 does not prescribe or mandate how the enhanced network treatments are implemented within each community plan, the refinements to the enhanced network treatments primarily consisted of developing potential implementation options within the Project Area.

The Proposed Project Transportation Improvement Project List is presented in **Table 4.15-8**. The Project List is not exhaustive but is representative of the types of improvements proposed for inclusion in the Proposed Project. In addition, the Proposed Project would not, itself, entitle or otherwise approve any transportation projects. Nevertheless, potential impacts of implementing the transportation improvements contained in the Project Lists were analyzed at a programmatic level as part of the Proposed Project. Similar to the MP 2035, the Proposed Project does not prescribe how the enhanced network treatments will be implemented within each community plan. Therefore, the enhanced network treatments in the Project Area were reviewed in relation to the roadway characteristics, such as roadway width, right-of-way, street designations and adjacent land uses. **Figure 4.15-7**, Project Area Network, shows the following enhanced network treatments for roadways in the Project Area.

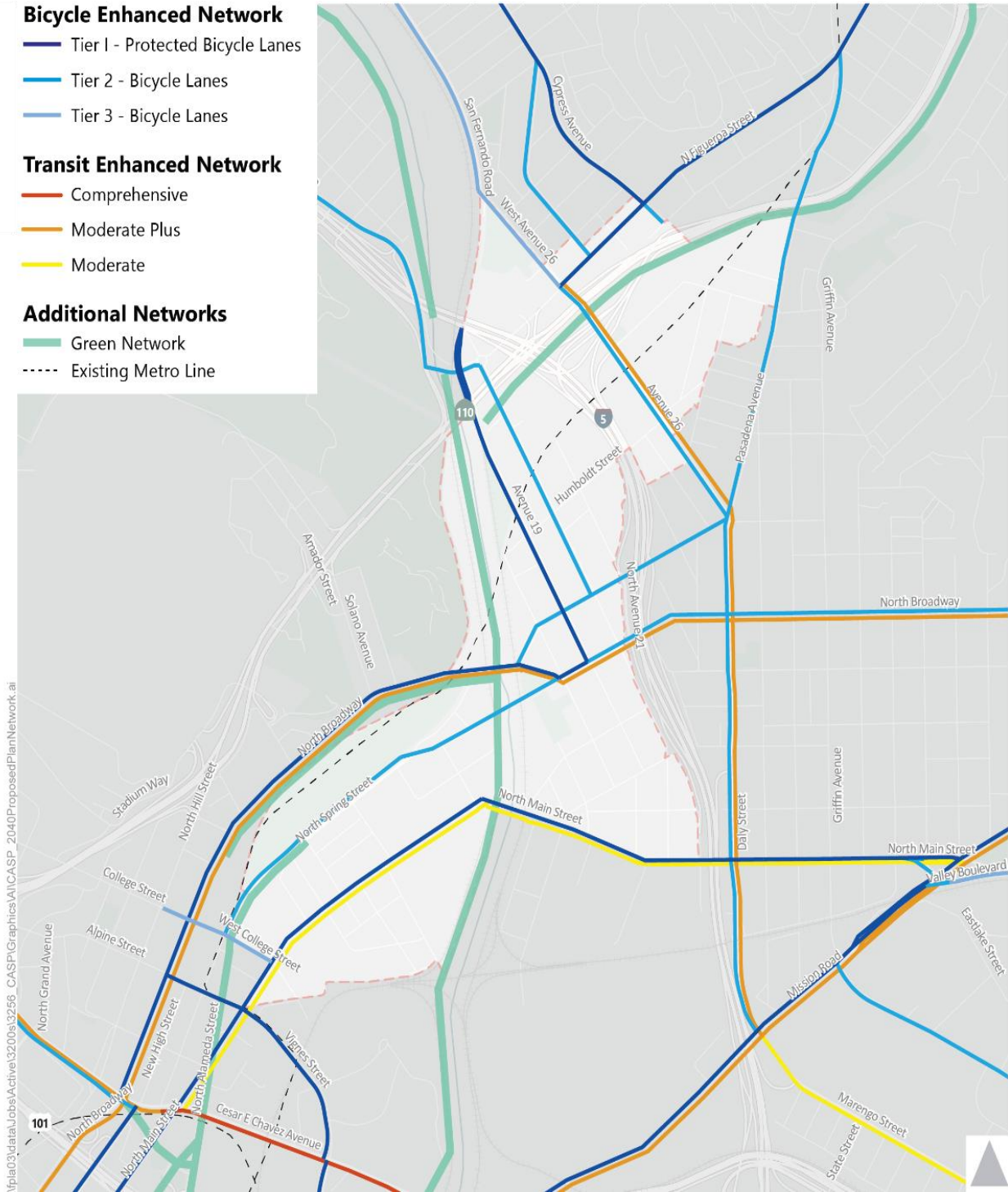
- Bicycle Enhanced Network (BEN)
 - Tier 1 Protected bike lane: bicycle facilities with a physical separation from the vehicular lanes
 - Tier 2 bike lane: bicycle lanes painted on the roadway and adjacent to vehicular lanes, anticipated to be built by 2035
 - Tier 3 bike lane: bicycle lanes painted on the roadway and adjacent to vehicular lanes, not anticipated to be built by 2035
- Transit Enhanced Network (TEN)
 - Moderate: stop enhancements and increased service; bus operates in mixed-flow with vehicles
 - Moderate Plus: moderate treatments, plus peak-period bus-only lanes
 - Comprehensive: moderate treatments, plus full-time bus-only lanes

Parking

Parking deficits are not CEQA impacts. They are considered socio-economic impacts, rather than impacts on physical environment as defined by CEQA, unless there are secondary impacts, such as safety impacts.

TABLE 4.15-8 TRANSPORTATION IMPROVEMENT PROJECT LIST		
Project Location	Endpoints	Project Description
Figueroa St	Avenue 26 to Cypress Ave	BEN: Protected bike lane
Cypress Ave	Arroyo Seco Ave to Figueroa St	BEN: Tier 2 bike lane
Cypress Ave	Huron St to Figueroa St	BEN: Protected bike lane
Avenue 28	Huron St to Figueroa St	BEN: Tier 2 bike lane
Avenue 26	San Fernando Rd to Figueroa St	BEN: Tier 3 bike lane
Avenue 26	Figueroa St to Barranca St	BEN: Tier 2 bike lane; TEN: Moderate Plus treatments
San Fernando Rd	Avenue 19 to Pasadena Ave	BEN: Tier 2 bike lane
Avenue 19	5 FWY to Broadway	BEN: Protected bike lane
Pasadena Ave	5 FWY to Broadway	BEN: Tier 2 bike lane
Broadway	College St to Avenue 19	BEN: Protected bike lane; TEN: Moderate Plus treatments
Broadway	Avenue 19 to 5 FWY	BEN: Tier 2 bike lane; TEN: Moderate Plus treatments
Spring St	College St to Broadway	BEN: Tier 2 bike lane
Main St	Alpine St to 5 FWY	BEN: Protected bike lane; TEN: Moderate treatments
College St	Spring St to Main St	BEN: Tier 3 bike lane

Figure 4.15-7 2040 Project Network



PROJECT IMPACTS

The impacts and mitigation discussion presented below reflects CEQA requirements as finalized on July 1, 2020. Delay-based metrics are included in some cases for informational purposes and are not discussed in mitigation.

Threshold 4.15-1	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities
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Impact 4.15-1 **Proposed Project:** The Proposed Project would not conflict with adopted City and state policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance of safety of such facilities. This impact would be *less than significant*.

Project Impacts

The Proposed Project seeks to enhance access to all modes in the local circulation system, improving access on transit, roadways, bicycle, and pedestrian facilities. This is accomplished through applying new land use and zoning regulations to encourage mixing and scales of use as well as site design supportive of all modes. The Proposed Project also implements MP 2035 with a refined lens on the Project Area and is consistent with the objectives of the SCAG 2020-2045 RTP/SCS.

The types of transportation improvements envisioned as part of the Proposed Project are within the framework established in MP 2035. The proposed updates to the Proposed Project are consistent with the City's municipal approach to transportation planning and apply such principles to the Proposed Project. The proposed mobility improvements would provide transportation options and accommodations for multiple modes of travel (i.e., transit, bicycle, pedestrian, and vehicle) as part of the transportation system.

In addition to MP 2035, the Proposed Project would support the City's Plan for a Healthy LA by creating more opportunities for people to live and work in areas of the City where travel by active transportation can be part of daily life. The implementation of active transportation facilities is anticipated to improve safety and is in alignment with the City's Vision Zero Action Plan. The existing light rail stations within and outside of the Project Area create opportunities for the City to further enhance first- and last-mile opportunities through the creation of mobility hubs. In addition, individual development projects will need to adhere to the requirements in LADOT's recently adopted Transportation Assessment Guidelines. The Proposed Project would not conflict with adopted City and state policies, plans or programs regarding public transit, bicycle, or pedestrian facilities. Therefore, a *less than significant impact* related to consistency with other plans with respect to this impact category may occur.

Significant impacts have not been identified; therefore, mitigation is not required for the Proposed Project.

Threshold 4.15-2	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)
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Impact 4.15-2 **Proposed Project:** The Proposed Project would not conflict with CEQA Guidelines section 15064.3, subdivision (b) related to VMT thresholds. Thus, impacts would be *less than significant*.

Project Impacts

The Proposed Project would have an impact if its VMT exceeds either of the following:

- The Proposed Project results in average VMT per service population for the 2040 Plan that exceeds 15% below the regional average total VMT per service population from the 2021 SCAG Region.
- The Proposed Project results in average total VMT per service population for the 2040 Plan that exceeds the average total VMT per service population for the Project Area from the 2021 Baseline.

Table 4.15-9 shows vehicle trips and VMT for the 2021 SCAG Region conditions and 2040 Project Area conditions, and **Table 4.15-10** shows vehicle trips and VMT for the 2021 Baseline conditions and 2040 Proposed Project conditions.

TABLE 4.15-9 FUTURE TOTAL VEHICLE MILES TRAVELED (VMT) COMPARED TO 2021 SCAG REGION			
Metric	2021 SCAG Region Conditions ^[a]	2040 Proposed Project Conditions	Percent Difference
Total Daily VT	81,981,938	155,383	N/A ^[b]
Total Daily VT per Service Population	3.0	2.4	-20%
Total Daily VMT	919,653,837	983,961	N/A ^[b]
Total Daily VMT per Service Population	33.1	15.2	-54%

SOURCE: Fehr & Peers, 2021. SCAG 2016 RTP Models, 2016.
Note:
 [a] 2021 SCAG Region results were interpolated from the SCAG 2012 base and 2040 future TDF models.
 [b] Comparison here is not applicable as the conditions represented come from different geographic areas, the SCAG region and the Project Area, respectively.

TABLE 4.15-10 FUTURE TOTAL VEHICLE MILES TRAVELED (VMT) COMPARED TO 2021 BASELINE			
Metric	2021 Project Area Baseline Conditions	2040 Project Area Conditions	Percent Difference
Total Daily VT	41,323	155,383	276%
Total Daily VT per Service Population	3.6	2.4	-34%
Total Daily VMT	328,439	983,961	200%
Total Daily VMT per Service Population	28.7	15.2	-47%

SOURCE: Fehr & Peers, 2021.

Given that service population VMT for the Project Area is more than 15% below the 2021 SCAG Region and less than the 2021 Baseline for the Project Area, the Plan would have *a less than significant impact*.

Mitigation Measures

Significant impacts have not been identified; therefore, mitigation is not required for the Proposed Project.

Threshold 4.15-3	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
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Impact 4.15-3 **Proposed Project:** The Proposed Project would not substantially increase hazards due to geometric design features (such as sharp curves or dangerous intersections) or incompatible uses. However, there could be safety impacts related to off ramp queuing as growth occurs pursuant to the Proposed Project. This impact would be *significant and unavoidable*.

Project Impacts

The Proposed Project describes the reasonably expected future development for a portion of the City and does *not* constitute a commitment to any project-specific development within the Project Area. Furthermore, none of the regulations included in the Proposed Project would promote sharp curves, dangerous intersections, or incompatible uses that could present safety hazards. Rather, numerous policies and programs emphasize transportation safety for all people using the transportation system, support implementation of transportation treatments that are designed to improve roadway safety and help implement other City initiatives (such as Vision Zero or Safe Routes to School) which aim to improve the safety of the City's transportation facilities.

None of the transportation system improvements envisioned in the Project Area would introduce new safety hazards or incompatible uses at intersections or along roadway segments, as most would be designed to improve safe circulation and access to the transit stations for all users. The multi-modal improvements envisioned in the Proposed Project are intended to help minimize conflicts between pedestrians and vehicles. Furthermore, design standards in the Proposed Project are intended to limit the number, width, and location of new driveways along major streets and in areas of high pedestrian activity, thereby improving pedestrian safety.

The implementation of bicycle and pedestrian facilities identified in the Project Area are anticipated to improve the safety of bicyclists and pedestrians. Automobile speed is a major factor in the severity of collisions with bicyclists and pedestrians, the most vulnerable roadway users. Collisions with a vehicle traveling at 20 miles per hour result in a five percent pedestrian fatality rate, and fatalities increase to 40, 80 and 100 percent when the vehicle speed increases to 30, 40 and 50 mph, respectively (USDOT 1999). Bicycle lanes, when accompanied by travel lane reductions can help reduce overall vehicle speeds (FHWA). When modified from four travel lanes to two travel lanes with a two-way left-turn lane, research along 45 corridors throughout the country has found a range of 19 to 47 percent reduction in all roadway crashes. The upgrade to fully protected bicycle lanes or cycle tracks has been shown to reduce the risk of injury by 90 percent (Teschke 2012).

The bicyclist and pedestrian improvements associated with the Proposed Project are also anticipated to increase the number and visibility of bicyclists and pedestrians on the City's transportation network. Of 68 cities across California with highest per capita pedestrian and bicycle collisions, per capita injury rates to pedestrians and bicyclists are shown to fall precipitously as the number of bicyclists increases, revealing a non-linear relationship between bicycle safety and the level of bicycling (Jacobsen 2003). This study showed as much as an eight-fold variation of collisions (expressed as a percentage of those that bike or walk to work) in comparing low and high bicycling cities. The underlying reason for this pattern is that motorists drive slower when bicyclists and pedestrians are visible either in number or frequency and drive faster when few pedestrians and bicyclists are present, resulting in higher overall travel speeds. This effect

of modified driving behavior is consistent with other research focused on 24 California cities that shows that higher bicycling rates among the population generally show a much lower risk of fatal crashes for all road users (Marshall et.al 2011). Comparing these low versus high bicycling communities, there was a ten-fold reduction in fatality rate for motorists, and eleven-fold reduction in fatality rate for pedestrians, and an almost fifty-fold reduction in fatality rate for bicyclists.

The Proposed Project is responding to changing demographics, a younger population desirous of safe and accessible active transportation options (bike, walk), a growing number of residents and employees seeking alternatives to the car, and an aging population that may need to rely more and more on transportation alternatives to the automobile. In 2030, senior citizens will make up 1/5 of Los Angeles County's population. This older population (as well as children and the disabled) will benefit from longer pedestrian crossing times, shorter street crossing distances, wider, shaded sidewalks, street benches, increased transit service and separated bicycle facilities. Ultimately, nothing in the Proposed Project is expected to significantly reduce pedestrian mobility, including but not limited to the disabled, those with strollers, and bus riders.

Freeway Analysis

As part of individual development project entitlements, the Interim Guidance for Freeway Safety Analysis released by LADOT in May 2020 requires that individual land use projects evaluate the potential for safety impacts related to freeway off ramp queuing. The specific concern relates to the possibility that the speed differential between vehicles traveling on freeway mainlines (the 5 and 110 Freeways) and vehicles queuing at freeway off-ramps may create the potential for collisions if drivers on the freeway mainline lack sufficient time to slow or stop once they are aware of a queuing situation. Generally speaking, it is anticipated that freeway mainline traffic would slow at times when high levels of off ramp queuing occurs and that the speed differential would be sufficiently small that mainline drivers would have sufficient warning about a queuing situation; however, it is possible that queuing at individual off ramps could occur at times when mainline traffic congestion is low, thus creating a potential safety issue. Because the Proposed Project is programmatic in nature, it does not include specific development projects or details about the size, nature, or location of individual developments. In addition, future traffic levels and speeds at individual off ramps in and near the Project Area cannot be predicted with any degree of certainty at this time because it is not known how conditions may change over an approximately 20-year period and what measures the City and Caltrans may implement to address any off-ramp queuing issues that arise. Therefore, any detailed analysis of potential future impacts related to off ramp queuing would be speculative. Nevertheless, queuing-related safety issues could potentially arise as additional development occurs in the Project Area, although it is anticipated that the City and Caltrans would address any such issues as they arise, it cannot be determined with certainty that queuing-related safety issues would not occur. As such, safety impacts related to off ramp queuing as growth occurs pursuant to the Plan are ***potentially significant***.

Mitigation Measures

Significant and unavoidable impacts have been identified in relation to the potential for project-specific ramp queuing safety impacts as growth occurs pursuant to the Proposed Project. Potential mitigation may include transportation demand management strategies to reduce a project's trip generation, investments to active transportation infrastructure, or transit system amenities, and/or operational changes to the ramp terminal such as lane reassignment, traffic signalization, signal phasing or timing modifications, etc. However, without specific information on where safety impacts may occur as a result of freeway off ramp queuing, it is not possible to identify appropriate mitigation measures. Therefore, no feasible mitigation can be identified for the Proposed Project. It is anticipated that subsequent land use development projects that are seeking approval under the plan study freeway queuing and safety impacts in more detail per the Interim Guidance for Freeway Safety Analysis.

Significance After Mitigation

Impacts related to highway safety as a result of design features or incompatible uses would be *significant and unavoidable*. All other safety related issues from hazards are *less than significant*.

Threshold 4.15-4	Result in inadequate emergency access
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Impact 4.15-4 **Proposed Project:** The Proposed Project would not result in inadequate emergency access. This impact would be *less than significant*.

Project Impacts

In the City of Los Angeles, fire prevention and suppression and emergency medical services are provided by the LAFD. Public protection service and law enforcement are provided by LAPD. This impact analysis provides an evaluation of impacts to emergency services as they relate to transportation. (EIR Section 4.14 considers the impacts to emergency services and whether that will result in impacts to the environment from the construction or expansion of new fire or emergency service or police facilities.) For individual development projects, this impact criterion considers whether a project would have adequate access to emergency services based on the road configuration and project design. At the program level, individual project design level details, such as location of driveway location and design, are unknown. Therefore, the Draft EIR does not consider impacts to emergency access to particular properties in the Project Area or particular streets based on roadway configurations. The Draft EIR considers, at the detail available, the reasonably foreseeable impacts to roadway congestion from the Proposed Project and the associated impacts to emergency access from any forecasted congestion.

Therefore, the discussion will first consider the Proposed Project's impacts to roadway congestion using LOS and V/C criteria when compared to existing conditions (2021) and then discuss the emergency access impacts associated with roadway congestion.

Roadway Congestion

Many factors influence the LOS and V/C analysis including, but not limited to, land use patterns, the relationship between land use and transportation, how transportation treatments are designed within the existing roadways, how and where the Proposed Project directs anticipated growth within the Project Area, and growth anticipated in the region surrounding the Project Area.

Land Use Patterns

Where and how the Proposed Project directs anticipated growth in relation to transportation will affect transportation use; therefore, land use patterns are factored into the analysis of the circulation system. The Proposed Project would create new housing and employment opportunities, mostly in areas around existing transit systems.

Regional Background Growth

On a regional level, traffic in the Project Area is anticipated to increase in conjunction with regional population, housing, and employment growth projected to occur in the future by SCAG. This growth will occur with or without implementation of the Proposed Project. The background growth influences the transportation analysis by accounting for the increased activity levels under Proposed Project conditions, although those increases would occur with or without the Project. Background growth is included in the City of Los Angeles TDF Model.

Level of Analysis

At the aggregate Project scale, the traffic operations results reflect the impacts related to the Proposed Project and the number of vehicle travel lanes. However, turn lanes, signal timings, and driveways are not accounted for in the analysis at this scale. Each of these features has the potential to affect operations, delay, VMT, and rerouting of traffic at the neighborhood level. Plans that involve large areas and are not expected to be fully implemented until Year 2040 or beyond are not analyzed effectively by detailed intersection V/C analyses. Consequently, roadway segment analysis is commonly used to determine the average service capacity of the roadway network. Street segment capacity impacts are generally evaluated in program-level analyses (such as community plans or long-range development projects) for which details regarding specific land use types, sizes, project access points, etc., are not known (Los Angeles 2006).

Circulation System Analysis

As identified above, two criteria (weighted average V/C ratio and the number of street segments at LOS E or F) are used to evaluate the impacts of the Proposed Project when compared to Existing conditions. **Table 4.15-11** presents the volume-weighted V/C ratios and LOS results for the AM peak period. With the implementation of the Proposed Project and regional growth anticipated in Year 2040; the weighted V/C ratio worsens from 0.680 (LOS B) to 0.971 (LOS E). The percentage of roadway segments operating at LOS E or F also increases from 2 percent to 42 percent. **Table 4.15-12** presents the volume-weighted V/C ratios and LOS results for the PM peak period. With the implementation of the Proposed Project and regional growth anticipated in Year 2040, the weighted V/C ratio worsens from 0.734 (LOS C) to 1.018 (LOS F). The percentage of roadway segments operating at LOS E or F also increases from 5 percent to 46 percent.

TABLE 4.15-11 AM PEAK PERIOD ROADWAY OPERATIONS		
Transportation Metrics	2021 Baseline	2040 Project
Weighted Average V/C	0.680 (LOS B)	0.971 (LOS E)
Percentage (%) of Street Segments at LOS E or F	2%	42%
Weighted Average V/C by Facility Type		
Boulevard/Parkway	N/A	N/A
Avenue	0.701 (LOS C)	1.029 (LOS F)
Local / Collector	0.473 (LOS A)	0.667 (LOS B)
Source: Fehr & Peers, 2021.		

TABLE 4.15-12 PM PEAK PERIOD ROADWAY OPERATIONS		
Transportation Metrics	2021 Baseline	2040 Project
Weighted Average V/C	0.734 (LOS C)	1.018 (LOS F)
Percentage (%) of Street Segments at LOS E or F	5%	46%
Weighted Average V/C by Facility Type		
Boulevard/Parkway	N/A	N/A
Avenue	0.753 (LOS C)	1.074 (LOS F)
Local / Collector	0.569 (LOS A)	0.751 (LOS C)
Source: Fehr & Peers, 2021.		

Emergency Access Impacts Associated with Roadway Congestion

Within the City of Los Angeles, fire prevention and suppression and emergency medical services are provided by the LAFD. Public protection service and law enforcement are provided by LAPD.

While the Proposed Project would impact segment-level LOS as shown above, there is not a direct relationship between predicted travel delay and response times as California state law does require drivers to yield the right-of-way to emergency vehicles and even permits emergency vehicles to use opposing lane of travel, the center turn lanes, or bus-only lanes. LAFD in collaboration with LADOT has developed a Fire Preemption System (FPS), a system that automatically turns traffic lights to green for emergency vehicles traveling on designated streets in the City. (LAFD 2008a). The City of Los Angeles has over 205 miles of routes equipped with FPS. In some instances, roadway reconfigurations with the implementation of the transportation improvements as part of the enhanced network treatments could improve emergency access. For example, a roadway reconfiguration could improve emergency access where a bus-only lane or a contiguous center left-turn lane is introduced where it did not exist. Emergency vehicles are permitted to use bus-only lanes for local access to emergency destinations. People traveling by bicycle are required to pull to the side of the road to yield access to emergency providers regardless if they are traveling in a bicycle-only lane or in a standard travel lane. It is more likely that when in route to an emergency incident, general traffic will be expected to merge into the bus-only lane, permitting the emergency vehicle to pass in the through lane to the left. Emergency responders also routinely use the center left-turn lanes, or even travel in opposing travel lanes if needed. Generally, multi-lane roadways allow the emergency vehicles to travel at higher speeds and permit other traffic to maneuver out of the path of the emergency vehicle.

Knowing exactly how fire and emergency service response times will be affected calls for a great deal of speculation. As explained above, it is not possible to exactly predict the Proposed Project impacts at the street level. This is one factor as to why it is not possible to forecast response times. The other is that, as explained above, the relationship between emergency access and traffic and potential impacts associated with emergency access is complex and involves factors such as the following:

- The proximity of LAFD and LAPD (and other) facilities to those they serve.
- The staffing and equipment at fire stations.
- The opportunity for emergency responders to use alternative routes in an area.
- The specific street configuration. LAFD, in cooperation with LADOT and LADCP, actively participates in the design of specific roadway changes in order to ensure adequate fire/emergency access is maintained. LAFD, in reviewing street and right-of-way projects, comments on particular street configuration designs, and will raise concerns if roadways present particular access challenges, and can recommend no changes be done at all or alternative changes be undertaken if fire and emergency access are particularly impacted.
- As identified in the Thresholds Guide (Los Angeles 2006), on any given project review, LAFD can implement project specific mitigation requirements, such as requiring fire retardant landscaping, prohibiting construction in fire hazard areas, requiring design features that reduce fire potential and developing emergency response plans.
- The changing demand for service is complex. For example, with increasing populations there may be more density and more construction, though new buildings are constructed in accordance with increasingly stringent building and fire codes making them safer and more resistant to fires, such as requiring fire sprinklers. The population is aging, which may increase demand for service. But it is also feasible that the population may not need additional service, as healthcare and other technologies evolve and are improved.

- Future factors that could increase efficiencies in response, including improvements in technology and management, such as changes in deployment of equipment and staff and mutual aid agreements.

As discussed in Section 4.13, *Public Services*, LAFD has a Constitutional mandate to provide fire services as, “the protection of the public safety is the first responsibility of local government.” Cal. Const. Art. XIII, Sec. 35, subd. (a)(2). LAFD “preserves life and property, promotes public safety and fosters economic growth through a commitment to prevention, preparedness, response and recovery as an all risk life safety response provider.” It is the nation’s second busiest provider of Emergency Medical Services (EMS); more than 85% of LAFD’s daily responses are related to EMS. The types of medical response calls received range from minor cuts to trauma and heart attacks. The call volume for structure and brush fires is less frequent.

In 2015, LAFD published a Strategic Plan 2015-2017, *A Safer City*, that focuses on nine goals and corresponding strategic actions that would guide the LAFD for the next three years (LAFD 2015).

In 2018, LAFD released the new Strategic Plan 2018-2020, *A Safer City 2.0*, which reports that since the previous Strategic Plan was released, LAFD has hired hundreds of new firefighters, implemented the Four Bureau Reorganization, and created innovative resources such as the Advanced Provider Response Unit (APRU), the Sober Response Unit and the Fast Response Vehicle program as well as other pilot programs (LAFD 2018). The new Strategic Plan has updated goals that are more refined. The five goals are 1) Provide exceptional public safety and emergency service, 2) Embrace a healthy, safe and productive work environment, 3) Capitalize on Advanced Technology, 4) Enhance LAFD sustainability and community resiliency, and 5) Increase opportunities for personal growth and professional development. Goal 1 includes improving emergency response times, the delivery of EMS, resource deployment and readiness to respond to disasters. Goal 1 includes an objective to complete the Standards of Cover deployment analysis to determine the optimal distribution and concentration of resources and ensure a safe and effective response force for fire suppression, EMS and specialty response situations. The recommendations from the Standards of Cover are expected to be identified based on different geographic areas in the City; the Standards of Cover study was funded in the City’s 2019-2020 budget and is expected to be completed within the next few years (LAFD 2019).

In 2015, Planning Department staff discussed the LAFD Strategic Plan and its relationship to growth and traffic with LAFD staff in order to understand how LAFD responds to growth and changes in traffic (LAFD 2015a). LAFD advised that although increasing congestion is a factor in how they address emergency response, their ongoing planning efforts, including the LAFD Strategic Plan take into account such increases in congestion and LAFD continues to plan for and maintain public safety and emergency service as required. LAFD monitors any impact on-the-ground implementation of the Proposed Project may have on response times and makes adjustments as necessary. These adjustments may or may not include redeploying resources, adding staff or building new fire stations. In the summer of 2019, Planning Department staff met with LAFD staff on the same topic due to public comments received about congestion and emergency response (LAFD 2019a). LAFD staff indicated that there are ongoing assessments of increases in call load or types of calls throughout the City, and LAFD continuously makes resource and deployment adjustments to address these changes, such as hiring additional medical personnel, acquiring new apparatus or flex staffing of personnel during the busiest hours of the day. LAFD staff said incremental changes are currently being addressed but the pending Standards of Cover is expected to have new recommendations for the long term. The Standards would include levels of staffing of firefighters and other personnel, target response times, new facilities and apparatus needed by geography, and address a City where development is expected to become denser and taller around transit infrastructure systems.

LAFD has some adopted response times that are consistent with the response times stated in the National Fire Protection Association guidelines, including call processing, turnout for EMS and non-EMS calls, and travel. LAFD holds regular FireStat meetings to review response times throughout the City. These meetings include battalion chiefs and captains from the four Geographic Bureaus (Central, South, Valley, and West) and the Administrative Bureaus in the City and uses the FireStat data to exercise performance management and spot trends to adjust practices, methods or identify other solutions to maintain response times. Metrics are compared between stations and even across shifts or platoons to determine if there is an issue and to continue always to work on reducing all response times to get closer to the NFPA guidelines. If response times are shown to be increasing, battalion chiefs and captains will be tasked with identifying the reason and put in place mediations to resolve the issue. For example, if it is shown that one platoon is managing a four-minute average response and another platoon at the same station in similar conditions has an average response time of four and a half minutes, the responsible officers for the station will need to determine why one platoon is doing better than another, such as whether one platoon is taking a different route and resolve the differences to improve the slower numbers. If the factors are external to LAFD, LAFD will coordinate with other City departments, such as LADOT or ITA to adjust street light timing, or look for completely new solutions, in order to improve response times. In general, LAFD is constantly monitoring FireStat and utilizing all available resources so that appropriate and feasible response times are being maintained.

Many members of the public focus on response times as operational measures to assess system performance (Fitch 2005) or believe that faster response times mean better patient outcome. Nationwide, the most widely referenced response time standard for advanced life support (ALS) incidents in urban settings has been for emergency responders to respond within 8 minutes and 59 seconds, when including call processing time, for 90 percent of incidents. The National Fire Protection Association *1710 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Career Fire Departments* is for an ALS unit to respond within 8 minutes to 90 percent of incidents, without including call processing time (Fitch, 2010). This response goal time has been commonly cited since Dr. Mickey Eisenberg published a study in 1979, which concluded that survival from cardiac arrest is maximized if the time between collapse to receiving CPR is four minutes and the time from collapse to receiving definitive care (e.g. defibrillation) is 8 minutes, which has led to a widespread goal of an 8-minute response for ALS units responding to life-threatening emergencies (Blanchard et al., 2012).

LAFD publishes average operational response times citywide and by specific fire stations online through FIRESTATLA (<http://www.lafd.org/fsla/stations-map>), and was the first fire agency in the United States to release response times to the public (Los Angeles 2019). ALS operational response times are provided for the full calendar year (January through December) starting with the year 2016; when this document was prepared in June 2022, the data available through FIRESTATLA online for 2022 was January through April. Operational response time is the time interval that starts when first contact is made (either through 911 or the fire dispatch center) and ends when the first Standard Unit arrives on-scene. A Standard Unit has the capacity or equipment to administer the full suite of lifesaving services (LAFD 2019b). Average ALS operational response times for the City and for the two stations in the Project Area is less than the 8-minute 59 seconds standard, including call processing time. See **Table 4.15-13**.

TABLE 4.15-13 LOS ANGELES FIRE DEPARTMENT RESPONSE TIMES		
Year	Station 1 2230 Pasadena Avenue, Los Angeles, CA 90031	Station 44 1410 Cypress Avenue, Los Angeles, CA 90065
2016	6:13	6:16
2017	6:20	5:55
2018	6:16	6:25
2019	6:00	6:38
2020	6:21	6:14
2021	6:29	6:17
2022 /a/	7:00	6:39

/a/ Metrics for 2016, 2017, 2018, 2019, 2020, and 2021 are for January-December; for 2022, the available months were January-April when sourced in June 2022.

SOURCE: LAFD, FIRESTATLA, 2022.

From the data, the average operational response times for ALS incidents for the two fire stations in the Project Area have generally slightly increased in recent years but remain under the 8 minutes 59 seconds standard. Based on all of the above, it is not reasonably foreseeable that the City will not continue to stay below the 8 minutes and 59 second standard for average emergency response times in the Project Area in consideration of the increasing congestion in the Project Area identified above. It is reasonably foreseeable that LAFD will continue to meet its own mission statement and constitutional mandate to provide necessary fire and emergency services to the residents and visitors of the City. LAFD is currently preparing a Standards of Cover that will establish the City’s response time standard and identify the facilities, equipment and staff to maintain that response time, including in consideration of increasing congestion identified above. Additionally, LAFD continues to develop, obtain and innovate new methods, resources and equipment to meet the needs of the City for fire and emergency response, including in the Project Area. Based on the above, the impact of the Proposed Project on emergency medical services and fire protection and police protection would be *less than significant*.

Mitigation Measures

No significant impact has been identified; therefore, mitigation is not required for the Proposed Project.

CUMULATIVE IMPACTS

Cumulative transportation and traffic impacts consider regional population, housing and employment growth projections prepared by SCAG as well as growth anticipated in the Project Area. The RTP also includes a Sustainable Communities Strategy (SCS) that provides guidance on land use planning and transportation to ensure that the region meets CARBs region-specific GHG reduction goals. The RTP also includes large-scale transportation improvements to show how linking transportation and land use planning can reduce automobile trips and greenhouse gas emissions. The 2016-2040 RTP/SCS identifies transportation corridors and transit routes, High Quality Transit Areas (HQTAs), and a variety of strategies to be employed across the region.

MP 2035 and SCAG 2020-2045 RTP/SCS Consistency

The adopted City of Los Angeles Mobility Plan 2035 (MP 2035) could have overlapping impacts with the Proposed Project. In August 2015, the City of Los Angeles adopted MP 2035. MP 2035 (formerly the Transportation Element of the City’s General Plan) is the transportation blueprint for the City of Los Angeles. MP 2035 identifies a number of changes to the City’s circulation system, including policies, an Enhanced Complete Street System, an Action Plan, a Complete Streets Design Guide, and a revised Bicycle

Plan, all of which will influence the network conditions in the Plan Area and adjacent areas in the City of Los Angeles.

MP 2035 provides the framework for future community plans and specific plans, which take a closer look at the transportation system in specific areas of the City and recommend more detailed implementation strategies to realize MP 2035. MP 2035 was prepared in compliance with the 2008 Complete Streets Act, which mandates that the circulation element of a city's General Plan be modified to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan.

The Proposed Project contains a Project List that reflects the vision of MP 2035 and the analysis above considers one option for implementing MP 2035 in the Project Area; however, the Future transportation impact analysis does not reflect full buildout of MP 2035 in adjacent areas of the City of Los Angeles. In the remaining portion of the City outside the Project Area, buildout of MP 2035 was not included in the Future with Proposed Project analysis because, although MP 2035 has been adopted, the timing of implementation has not yet been identified. However, the cumulative impacts analysis evaluates the impacts of the Proposed Project in conjunction with full buildout of MP 2035 throughout the City of Los Angeles.

CEQA Guidelines Section 15064.3, Subdivision (b) Consistency

The Proposed Project meets the City adopted threshold of not exceeding baseline conditions, and therefore does not create a transportation impact itself. While the Proposed Project cannot be used to determine the impact of individual development projects or adjacent community plans, the inclusion of the regionally used future forecasts accounts for potential cumulative impacts in this analysis. Therefore, the Proposed Project's incremental contribution to increased VMT would not be cumulatively considerable and cumulative impacts related to the increased VMT *less than significant*.

Hazards Due to a Geometric Design Feature or Incompatible Uses

The Proposed Project does not include any elements that would promote sharp curves, dangerous intersections, or incompatible uses that could present safety hazards, and promotes policies and programs to encourage safety of users across all modes. Although the Proposed Project describes a reasonably expected future and cannot constitute a commitment to any project-specific development, individual projects would be expected to align with the safety principles of the Proposed Project as well. However, queuing-related safety issues could potentially arise as additional development occurs in the Project Area and elsewhere in the region and, although it is anticipated that the City and Caltrans would address any such issues as they arise, it cannot be determined with certainty that queuing-related safety issues would not occur. Thus, cumulative impacts related to freeway off ramp queuing are considered *significant and unavoidable* and the Proposed Project may make a cumulatively considerable contribution to freeway safety impacts.

Cumulative impacts related to queuing-related safety issues are *significant and unavoidable*. All other cumulative impacts related to transportation hazards are *less than significant*.

Emergency Access

The Proposed Project would increase traffic in the Project Area, which could result in potential delays for emergency vehicles. However, while the MP2035 includes proposed roadway changes, they do not provide intersection-level detail in the Plan Area. It is feasible that some of these improvements to the network would provide benefits to emergency access as well. As noted above, the Department of City Planning staff

have discussed the LAFD Strategic Plan and its relationship to growth and traffic with LAFD staff. While LAFD acknowledged the possible effects of congestion on their efforts, their ongoing planning efforts and new Strategic Plan consider increased congestion and the possible adjustments necessary. These adjustments may include redeploying resources, adding staff, or building new fire stations as deemed necessary. LAFD will continue to monitor growth in the Project Area and any impact they identify will be addressed when needed. Therefore, the Proposed Project's incremental contribution to potential delays for emergency vehicles would not be cumulatively considerable and cumulative impacts related to emergency access would be *less than significant*.

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4.16 TRIBAL CULTURAL RESOURCES

This section analyzes the potential environmental effects on tribal cultural resources and evaluate impacts associated with the Proposed Project. The Proposed Project is evaluated in terms of whether implementation of the Updated Cornfield Arroyo Seco Specific Plan would impact tribal cultural resources.

EXISTING ENVIRONMENTAL SETTING

For a full discussion of the prehistoric and ethnographic history of the Project Area, see Section 4.4, *Cultural Resources*.

REGIONAL SETTING

Prior to Spanish colonization in the mid-1500s, much of the Los Angeles region, including the Project Area, was occupied by an indigenous tribe known as the Gabrielino. The name was applied by the Spanish to the indigenous people that were attached to Mission San Gabriel. Today, most contemporary Gabrielino prefer to identify themselves as Tongva. It is believed that the area has been inhabited for at least 13,000 years, though the ancestors of the Tongva people did not arrive from the Sonoran Desert until around 3,500 years ago. The area inhabited by the Tongva people was known as Tovaangar and consisted of the Los Angeles Basin, portions of the Santa Monica and Santa Ana mountains, and the Southern Channel Islands. Historical evidence and archaeological findings show an intricate material culture of carvings, paintings, baskets, and many tools and decorative objects made from stone, shell, and bone. The Tongva people were hunter-gatherers and survived on a broad diet of sea, river, and land animals, as well as a variety of plants. Primary plant resources included acorns and seeds including chia, sages, various grasses and holly-leaved cherry. The Tongva used wooden boats, harpoons, and clubs for deep-sea hunting; lines, nets, and poisons for river fishing; and traps and bow and arrows for hunting land mammals.

It is estimated that there were approximately 5,000 Tongva in the Los Angeles area prior to colonization by the Spanish in 1542. It would not be until the arrival of the Mission de San Gabriel and the San Fernando Mission in 1771 that the rapid decline of indigenous people in the area began. The forced assimilation of the now “Gabrielino” people (named for the mission) to western European culture, in conjunction with European diseases, lead quickly to the near-complete annihilation of the native people and culture.

LOCAL SETTING

As the Project Area was inhabited by native people for presumably thousands of years, substantial numbers of tribal cultural resources have been discovered over time in the area. Various federal, State, and local regulations have been promulgated to protect archaeological sites and resources. Although the California general plan law calls for mapping of the sites, the exact location of sites is confidential, pursuant to California Government Code Section 6254.10, to protect sites from disturbance, scavenging, and vandalism.

Despite the heavy development of the Project Area, there is still potential for the occurrence of unidentified tribal cultural resources within the Project Area. For example, it is possible that human remains would be located outside of formal cemeteries, as it was common for Native Americans to bury their own beyond the confines of the Mission grounds. However, no known informal cemetery sites are known to exist within the Project Area.

Native American Consultation/Sacred Lands Files

Approved by Governor Brown on September 25, 2014, Assembly Bill 52 (AB 52) establishes a formal notification and, when requested, consultation process for California Native American Tribes to identify potential significant impacts to Tribal Cultural Resources (TCR), as defined in PRC Section 21074, as part of CEQA. Assembly Bill 52 requires meaningful consultation with California Native American Tribes on potential impacts to TCRs, as defined in Public Resources Code Section 21074. Tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either eligible or listed in the California Register of Historical Resources or local register of historical resources.

As part of the AB 52 process, Native American tribes must submit a written request to the City of Los Angeles to be notified of projects within their traditionally and culturally affiliated area. The City of Los Angeles must provide written, formal notification to those tribes within 14 days of deciding to undertake a project where a negative declaration or EIR will be prepared. The tribe must respond to the City of Los Angeles within 30 days of receiving this notification if they want to engage in consultation on the project, and the City of Los Angeles must begin the consultation process within 30 days of receiving the tribe's request. Consultation concludes when either 1) the parties agree to mitigation measures to avoid a significant effect on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes mutual agreement cannot be reached.

The City of Los Angeles sent notification letters to a list of 10 Native American contacts provided by the Native American Heritage Commission (NAHC) in compliance with AB 52 and Senate Bill (SB) 18 on April 7, 2021, to advise them of the Proposed Project and afford them the opportunity to engage in government-to-government consultation pursuant to the requirements of California AB 52. Those tribes include the Fernandeano Tataviam Band of Mission Indians, Gabrieleño Band of Mission Indians-Kizh Nation, Gabrielino Tongva Indians of California Tribal Council, Gabrielino/Tongva Nation, Gabrielino/Tongva San Gabriel Band of Mission Indians, Gabrielino-Tongva Tribe, San Fernando Band of Mission Indians, Soboba Band of Luiseño Indians, and Torres Martinez Desert Cahuilla Indians. At the time of preparation of this EIR, the City of Los Angeles received one response from the Gabrieleño Band of Mission Indians – Kizh Nation on April 16, 2021. The City responded on April 27, 2021, explaining that the Proposed Project is a long-range land use plan that involves rezoning certain properties within the Project Area and establishing new or enhanced development standards and use requirements for which future development must comply. The Gabrieleño Band of Mission Indians – Kizh Nation replied on April 27, 2021, stating that there would be no need for consultation and requesting that they be notified should there be any type of ground disturbance in the future. No other responses were received within the 30-day consultation window or as of the date of this EIR. The City also requested a review of the Sacred Land File (SLF) by the NAHC and received a response on May 18, 2022, which indicated the search of the SLF was positive for Sacred Lands.

REGULATORY FRAMEWORK

This section includes a discussion of the applicable laws governing tribal cultural resources, which must be adhered to before and during implementation of the Proposed Project.

California Senate Bill 18

As of March 1, 2005, SB 18 (Government Code Sections 65352.3 and 65352.4) requires that, prior to the adoption or amendment of a general plan proposed on or after March 1, 2005, a city or county must consult with Native American tribes with respect to the possible preservation of, or the mitigation of impacts to,

specified Native American places, features, and objects located within that jurisdiction. This section does not apply to charter cities, like the City of Los Angeles.

Assembly Bill 52

AB 52 was approved on September 25, 2014. The act amended California PRC Section 5097.94, and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. The primary intent of AB 52 is to involve California Native American Tribes early in the environmental review process and to establish a category of resources related to Native Americans, known as tribal cultural resources, that require consideration under CEQA. PRC Section 21074(a)(1) and (2) defines tribal cultural resources as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe” that are either included or determined to be eligible for inclusion in the California Register or included in a local register of historical resources, or a resource that is determined to be a tribal cultural resource by a lead agency, in its discretion and supported by substantial evidence. A tribal cultural resource is further defined by PRC Section 21074(b) as a cultural landscape that meets the criteria of subdivision (a) to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. PRC Section 21074(c) provides that a historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “nonunique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

PRC Section 21080.3.1 requires that, within 14 days of a lead agency determining that an application for a project is complete, or a decision by a public agency to undertake a project, the lead agency provide formal notification to the designated contact, or a tribal representative, of California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the project (as defined in PRC Section 21073) and who have requested in writing to be informed by the lead agency of projects within their geographic area of concern. Tribes interested in consultation must respond in writing within 30 days from receipt of the lead agency’s formal notification and the lead agency must begin consultation within 30 days of receiving the tribe’s request for consultation.

PRC Section 21080.3.2(a) identifies the following as potential consultation discussion topics: the type of environmental review necessary; the significance of tribal cultural resources; the significance of the project’s impacts on the tribal cultural resources; project alternatives or appropriate measures for preservation; and mitigation measures. Consultation is considered concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

In addition to other CEQA provisions, the lead agency may certify an EIR or adopt a MND for a project with a significant impact on an identified tribal cultural resource, only if a California Native American tribe has requested consultation pursuant to Section 21080.3.1 and has failed to provide comments to the lead agency, or requested a consultation but failed to engage in the consultation process, or the consultation process occurred and was concluded as described above, or if the California Native American tribe did not request consultation within 30 days.

PRC Section 21082.3(c)(1) states that any information, including, but not limited to, the location, description, and use of the tribal cultural resources, that is submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public without the prior consent of the tribe that provided the information. If the lead agency publishes any information submitted by a California Native American tribe during the consultation or environmental review process, that information shall be published

in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.

Confidentiality does not apply to data or information that are, or become publicly available, are already in lawful possession of the project applicant before the provision of the information by the California Native American tribe, are independently developed by the Project applicant or the Project applicant's agents, or are lawfully obtained by the Project applicant from a third party that is not the lead agency, a California Native American tribe, or another public agency.

California Public Resources Code

California PRC Section 5097.98, as amended by Assembly Bill 2641, provides procedures in the event human remains of Native American origin are discovered during project implementation. PRC Section 5097.98 requires that no further disturbances occur in the immediate vicinity of the discovery, that the discovery is adequately protected according to generally accepted cultural and archaeological standards, and that further activities take into account the possibility of multiple burials. PRC Section 5097.98 further requires the Native American Heritage Commission (NAHC), upon notification by a County Coroner, designate and notify a Most Likely Descendant (MLD) regarding the discovery of Native American human remains. Once the MLD has been granted access to the site by the landowner and inspected the discovery, the MLD then has 48 hours to provide recommendations to the landowner for the treatment of the human remains and any associated grave goods. In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition, or if the land owner rejects the recommendation of the descendant, the landowner may, with appropriate dignity, reinter the remains and burial items on the property in a location that will not be subject to further disturbance.

PRC Section 5097.99 prohibits acquisition or possession of Native American artifacts or human remains taken from a Native American grave or cairn after January 1, 1984, except in accordance with an agreement reached with the Native American Heritage Commission.

PRC Section 5097.5 provides protection for tribal resources on public lands, where Section 5097.5(a) states, in part, that:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.

California Penal Code

California Penal Code Section 622.5 provides the following: "Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of archeological or historical interest or value, whether situated on private lands or within any public park or place, is guilty of a misdemeanor."

California Penal Code Section 623 provides the following: "Except as otherwise provided in Section 599c, any person who, without the prior written permission of the owner of a cave, intentionally and knowingly does any of the following acts is guilty of a misdemeanor punishable by imprisonment in the county jail not exceeding one year, or by a fine not exceeding one thousand dollars (\$1,000), or by both such fine and imprisonment: (1) breaks, breaks off, cracks, carves upon, paints, writes or otherwise marks upon or in any manner destroys, mutilates, injures, defaces, mars, or harms any natural material found in any cave. (2) disturbs or alters any archaeological evidence of prior occupation in any cave. (3) kills, harms, or removes any animal or plant life found in any cave. (4) burns any material which produces any smoke or gas which

is harmful to any plant or animal found in any cave. (5) removes any material found in any cave. (6) breaks, forces, tampers with, removes or otherwise disturbs any lock, gate, door, or any other structure or obstruction designed to prevent entrance to any cave, whether or not entrance is gained.

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance were developed based on Appendix G of the CEQA Guidelines. The Proposed Project would have a significant impact to tribal cultural resources if it would:

- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
 - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe (Threshold 4.16-1).

METHODOLOGY

The methodologies employed for the tribal cultural resources impacts analyses are described in the Regulatory Setting and Thresholds, above.

PROJECT IMPACTS

<p>Threshold 4.16-1</p>	<p>Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <p>Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or</p> <p>A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>
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Impact 4.16-1 **Proposed Project:** New reasonably anticipated development from the Proposed Project would involve ground disturbance with the potential to disturb as yet undiscovered tribal cultural resources. However, impacts would be *less than significant with mitigation incorporated*.

Project Impacts

As mentioned above, AB 52 consultation did not identify known tribal cultural resources in the Project Area as part of this analysis; however, the SLF results received from the NAHC were positive for Sacred Lands. Effects on tribal cultural resources are only known once a specific development has been proposed because the effects are highly dependent on both the individual development site conditions and the characteristics of the proposed activity. Future discretionary development under the Proposed Project that is subject to CEQA must comply with the requirements of AB 52, including consultation with California Native American tribes as each project is proposed may result in the identification of tribal cultural resources. As described in Section 4.4, *Cultural Resources*, Los Angeles has a long history of Native American occupation; therefore, tribal cultural resources could be present and development activities that could be implemented under the Proposed Project would have the potential to significantly impact tribal cultural resources. As such, grading and excavation associated with individual development projects that disturb previously undisturbed soils could potentially encounter intact tribal cultural resources. Individual discretionary projects that are subject to CEQA would be subject to AB 52 Native American consultation requirements and, as appropriate, analysis of and/or monitoring for cultural resources. However, “by right” projects would not be subject to either AB 52 or CEQA. Therefore, impacts to tribal cultural resources would be *potentially significant*.

Mitigation Measures

Individual projects subject to CEQA would be required to adhere to Assembly Bill 52 and discretionary projects would be subject to mitigation measures 4.4-2(a), (b), and (c) in Section 4.4, *Cultural Resources*. In addition, the following measures are required for projects in the Project Area.

4.16-1(a) Unanticipated Discovery of Tribal Cultural Resources

If a possible tribal cultural resource is uncovered during earthwork or construction related to any project that requires a permit for grading or excavation, all work shall cease within a minimum distance of 50 feet from the find until a Qualified Tribal Monitor or Archaeological Monitor has been retained to evaluate the find.

Following discovery, the Applicant or Owner shall immediately contact all Native American tribes that have informed the City of Los Angeles they are traditionally and culturally affiliated with the geographic area of the Project, as well as the Department of City Planning, Office of Historic Resources (OHR). If a Qualified Tribal Monitor or Archaeological Monitor determines, pursuant to Public Resources Code Section 21074(a)(2), that the object or artifact appears to be a potential tribal cultural resource, in its discretion and supported by substantial evidence, the Applicant and Owner shall provide any affected tribe a reasonable period of time, not less than five business days, to conduct a site visit and make recommendations to the Applicant or Owner and OHR regarding the monitoring of future Ground Disturbance Activities and the treatment and disposition of any discovered tribal cultural resources. The Applicant or Owner shall implement the tribe’s recommendations if the Qualified Tribal Monitor or Archaeological Monitor reasonably concludes such recommendations are reasonable and feasible.

Consistent with Public Resources Code Section 21083.2, the handling, treatment, preservation, and recordation of tribal cultural resources should occur as follows:

- The find should be preserved in place or left in an undisturbed state unless the Project would damage the resource.
- When preserving in place or leaving in an undisturbed state is not possible, excavation and recovery of the find for scientific study should occur unless testing or studies already completed have adequately recovered the scientifically consequential information from and about the resource, and this determination is documented by a Qualified Tribal Monitor or Qualified Archaeologist.

All collected artifacts and fieldwork notes, if not human remains or other mortuary objects, shall be curated at the Natural History Museum of Los Angeles County or another appropriate curatorial facility for educational purposes. If cleared by the Qualified Tribal Monitor or Archaeological Monitor, Ground Disturbance Activities may continue unimpeded on other portions of the site. Ground Disturbance Activities in the area where resource(s) were found may recommence once the identified resources are properly assessed and processed. A report that describes the resource and its disposition, as well as the assessment methodology shall be prepared by the Qualified Tribal Monitor or Archaeological Monitor, according to current professional standards and maintained pursuant to the proof of compliance requirements in Subsection I.D.6. A copy of the report shall be submitted to OHR, the South Central Coastal Information Center at California State University, Fullerton and to the Native American Heritage Commission for inclusion in its Sacred Lands File. If requested by the City, OHR may review and approve any monitoring or mitigation plan prior to implementation.

4.16-1(b) Native American Consultation and Monitoring for Discretionary Projects

All discretionary projects that involve ground disturbing activities in previously undisturbed soils, shall prepare a cultural resources assessment and do a record search with a study area of no less than 0.5 mile around the project area. Projects conducted in culturally and historically sensitive areas, as determined by a Qualified Archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for Archaeologist, should include a record search with a study area of no less than 1 mile around the project area.

Notification shall be provided to California Native American tribes that are traditionally and culturally affiliated with the geographic area of the project site and have submitted a written request to the Department of City Planning to be notified of projects in that area. Should projects have potential to impact cultural resources, as determined during the environmental assessment or Tribal consultation, a Cultural Resources Monitoring Program (CRMP) shall be prepared by Qualified Archaeologist, in consultation with all interested Tribes, prior to the commencement of any and all ground disturbing activities for the Project, including any archaeological testing. The CRMP shall include compliance with 4.15-1(b) and will provide details regarding the process for infield treatment of inadvertent discoveries and the disposition of inadvertently discovered non-funerary resources and shall be consistent with the treatment of unique archaeological resources in PRC 21083.2.

4.16-1(c) Notices for Non-Discretionary Projects

All projects that are seeking excavation or grading permits, prior to issuance of a permit for grading or excavation, the Department of Building and Safety shall issue the following notice and obtain a signed acknowledgement that the notice was received and read by the applicant and owner.

- Several federal and State laws regulate the treatment of tribal resources and make it a criminal violation to destroy those resources. These include, but are not limited to:
 - California Penal Code Section 622.5 provides the following: "Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of

- archeological or historical interest or value whether situated on private lands or within any public park or place, is guilty of a misdemeanor.”
- Public Resources Code Section 5097.5(a) states, in part, that:

No person shall knowingly or willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archeological, paleontological or historic feature, situated on public lands, except with the express written permission of the public agency having jurisdiction over the lands.
 - California Code of Regulations, Title 14, Section 4307 states: “No person shall remove, injure, deface or destroy any object of paleontological, archeological, or historical interest or value.” Section 1427 “recognizes that California’s archeological resources are endangered by urban development and population growth and by natural forces...Every person, not the owner thereof, who willfully injures, disfigures, defaces, or destroys any object or thing of archeological or historic interest or value, whether situated on private lands or within any public park or place, is guilty of a misdemeanor. It is a misdemeanor to alter any archeological evidence found in any cave, or remove any materials from a cave.”
 - Best practices to ensure that tribal cultural resources are not damaged include but are not limited to the following steps:
 - A Sacred Lands File (SLF) records search shall be requested from and conducted by the California Native American Heritage Commission (NAHC) to determine whether cultural resources associated with any Native American tribe(s) with traditional lands or cultural places located within or near the Project site have been previously identified or whether the Project area is considered sensitive for the presence of tribal cultural resources.
 - All tribes listed on the NAHC’s Native American Contact List included with the SLF search shall be contacted, informed of the Project, and given an opportunity to provide input. If the tribe provides substantial evidence of a potential discovery of tribal cultural resources within the Project site and requests monitoring of Project excavation, grading or other Ground Disturbance Activities, a Qualified Tribal Monitor or Archeological Monitor shall be retained.
 - A Qualified Tribal Monitor or Archeological Monitor shall observe Ground Disturbance Activities within those areas identified in the records search as sensitive for the presence of tribal cultural resources in order to identify resources and avoid potential impacts to such resources. In the event of a possible discovery of a tribal cultural resource, the Qualified Tribal Monitor or Archeological Monitor shall have the authority to temporarily halt earthwork activities within the appropriate radius of the find, as determined by the Qualified Tribal Monitor or Archeological Monitor to ensure the find or any other potential tribal cultural resources on or near the Project site is not damaged.
 - If tribal resources are uncovered (in either a previously disturbed or undisturbed area), all work should cease in the appropriate radius determined by the Qualified Tribal Monitor or Archeological Monitor and in accordance with federal, state, and local guidelines.
 - Any find shall be treated with appropriate dignity and protected and preserved as appropriate with the agreement of the Qualified Tribal Monitor or Archeological Monitor and in accordance with federal, state, and local guidelines.
 - The location of the tribal cultural resources find and the type and nature of the find should not be published beyond providing it to public agencies with jurisdiction or responsibilities related any affected tribal resources.

- Following discovery, the applicant or owner shall immediately contact all Native American tribes that have informed the City of Los Angeles they are traditionally and culturally affiliated with the geographic area of the Project, as well as the Department of City Planning, Office of Historical Resources (OHR).
- The applicant or owner shall provide any affected tribe a reasonable period of time, not less than five business days, to conduct a site visit and make recommendations to the applicant or owner regarding the monitoring of future ground disturbance activities and the treatment and disposition of any discovered tribal cultural resources.
- The applicant or owner shall implement the tribe's recommendations if the Qualified Tribal Monitor or Archeological Monitor reasonably concludes such recommendations are reasonable and feasible and determined to be supported with substantial evidence.
- Consistent with Public Resources Code 21083.2, the handling, treatment, preservation, and recordation of tribal cultural resources shall occur as follows:
 - The find shall be preserved in place or left in an undisturbed state unless the Project would damage the resource.
 - When preserving in place or leaving in an undisturbed state is not possible, excavation and recovery of the find for scientific study shall occur unless testing or studies already completed have adequately recovered the scientifically consequential information from and about the resource, and this determination is documented by a Qualified Tribal Monitor or Archeological Monitor.
 - All collected artifacts and fieldwork notes, if not human remains or other mortuary objects, shall be curated at the Natural History Museum of Los Angeles County or another appropriate curator facility.
 - If cleared by the Qualified Tribal Monitor or Archeological Monitor, Ground Disturbance Activities may continue unimpeded on other portions of the site. Ground Disturbance Activities in the area where the resource(s) were found may commence once the identified resources are properly assessed and processed.
 - Personnel of the Project should not collect or move any tribal cultural resources or associated materials or publish the location of the tribal cultural resources.

Significance After Mitigation

Implementation of the above measures, in combination with **Measures 4.4-2(a)** through **(c)** in Section 4.4, *Cultural Resources*, would reduce impacts to tribal cultural resources to a less than significant level by requiring a process to identify and, if necessary, avoid and/or recover identified tribal cultural resources throughout the Project Area, including areas where resources have been previously identified. The impact would be *less than significant with mitigation* incorporated.

CUMULATIVE IMPACTS

Cumulative development within the Project Area could disturb areas that may potentially contain tribal cultural resources. The potential for impacts from individual developments is site-specific and depends on the location and nature of each individual development proposal. All future development projects would continue to be subject to existing federal, State and local requirements (as described in the Environmental Setting of this section and Section 4.4, Cultural Resources), and discretionary projects may be subject to project-specific mitigation requirements under CEQA. Additionally, with the implementation of the above described mitigation measures, significant cumulative impacts to tribal cultural resources related to the Proposed Project could be avoided or mitigated to a less than significant level. Based on the above, the

incremental effect of the Proposed Project on tribal cultural resources would not be cumulatively considerable and cumulative impacts to tribal cultural resources citywide would ***be less than significant with mitigation.***

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4.17 UTILITIES AND SERVICE SYSTEMS

This section describes the utilities and service systems and evaluates the construction and operational impacts associated with the updated Cornfield Arroyo Seco Plan (CASP) (or “Proposed Project” or “Project”) in the existing CASP area of Los Angeles (or “Project Area”). Topics addressed include wastewater, water supply, solid waste, natural gas, electricity, and telecommunications facilities.

Wastewater and Stormwater Drainage

ENVIRONMENTAL SETTING

EXISTING CONDITIONS

Citywide Wastewater System

The City of Los Angeles sewer system includes more than 6,700 miles of sewers serving a population of more than four million. The sewer system consists of primary sewers (16-inches and larger in diameter) and secondary sewers (less than 16-inches in diameter). The secondary sewers provide service to property laterals and feed into the primary sewer lines. Primary sewers discharge into trunk, interceptor, and outfall pipes. Tributaries to interceptor sewer systems are called sewer reaches. Sewer reaches are usually named after the street to which their alignment is closest. Primary sewers have pipes with a diameter of 15 inches or more and are found in all sewer reaches. Interceptor sewer systems consist of large sewer pipelines that control the conveyance of wastewater to treatment plants.

The Los Angeles sewer system is comprised of three collection systems: Hyperion Sanitary Sewer System, Terminal Island Water Reclamation Plant Sanitary Sewer System, and Regional Sanitary Sewer System (City of Los Angeles 2019). The three collection systems also convey the flows of 29 satellite agencies to plants for treatment. To comply with Waste Discharge Requirements (WDRs), a Sewer System Management Plan (SSMP) was updated in 2019.

The City’s wastewater is then treated at one of the four water reclamation and treatment facilities: Hyperion Water Reclamation Plant, the Terminal Island Water Reclamation Plant, the Donald C. Tillman Water Reclamation Plant, and the Los Angeles-Glendale Water Reclamation Plant. The Hyperion Water Reclamation Plant is the largest of the City’s four water reclamation and treatment facilities. Together, they have a combined capacity of 580 million gallons per day (mgd) of recycled water. The Donald C. Tillman Water Reclamation Plant serves the area between Chatsworth and Van Nuys in the San Fernando Valley. The Los Angeles-Glendale Water Reclamation Plant is located in the San Fernando Valley and services the communities in east San Fernando Valley that are both within and outside of the City limits.

The Hyperion Water Reclamation Plant (HWRP) has a treatment capacity of 450 mgd and was designed to accommodate a maximum peak wet weather flow of 800 mgd. On average, approximately 275 million gallons of wastewater enter the HWRP on a dry weather day (LADPW 2022a). The HWRP performs pretreatment of wastewater (i.e., the removal of large objects), followed by primary and secondary treatments (i.e., elimination of harmful biological contents). In January 2019, an SSMP was prepared for the Hyperion Sanitary Sewer System pursuant to the State Water Resources Control Board’s (SWRCB) May 2, 2006 Statewide General Waste Discharge Requirements (WDRs) (City of Los Angeles 2022a).

The Terminal Island Water Reclamation Plant Sanitary Sewer System covers residential areas in San Pedro, Harbor City, and parts of Wilmington; and industrial areas on Terminal Island (City of Los Angeles 2017). The Terminal Island Water Reclamation Plant has the capability to provide high quality tertiary treatment for up to 30 mgd and currently treats approximately 15 mgd. Sixty percent of the incoming flow to the plant comes from nearby industries while the remaining forty percent is from residential areas (LADPW 2022b).

The Regional Sanitary Sewer System serves the Harbor Gateway, an area approximately five square-miles (City of Los Angeles 2019). Wastewater generated in the service area is processed at the Los Angeles County Sanitation Districts' Joint Water Pollution Control Plant located in the City of Carson. **Figure 4.17-1** on the following page illustrates the geographic area of each collection system and a summary of the collection system assets for each system.

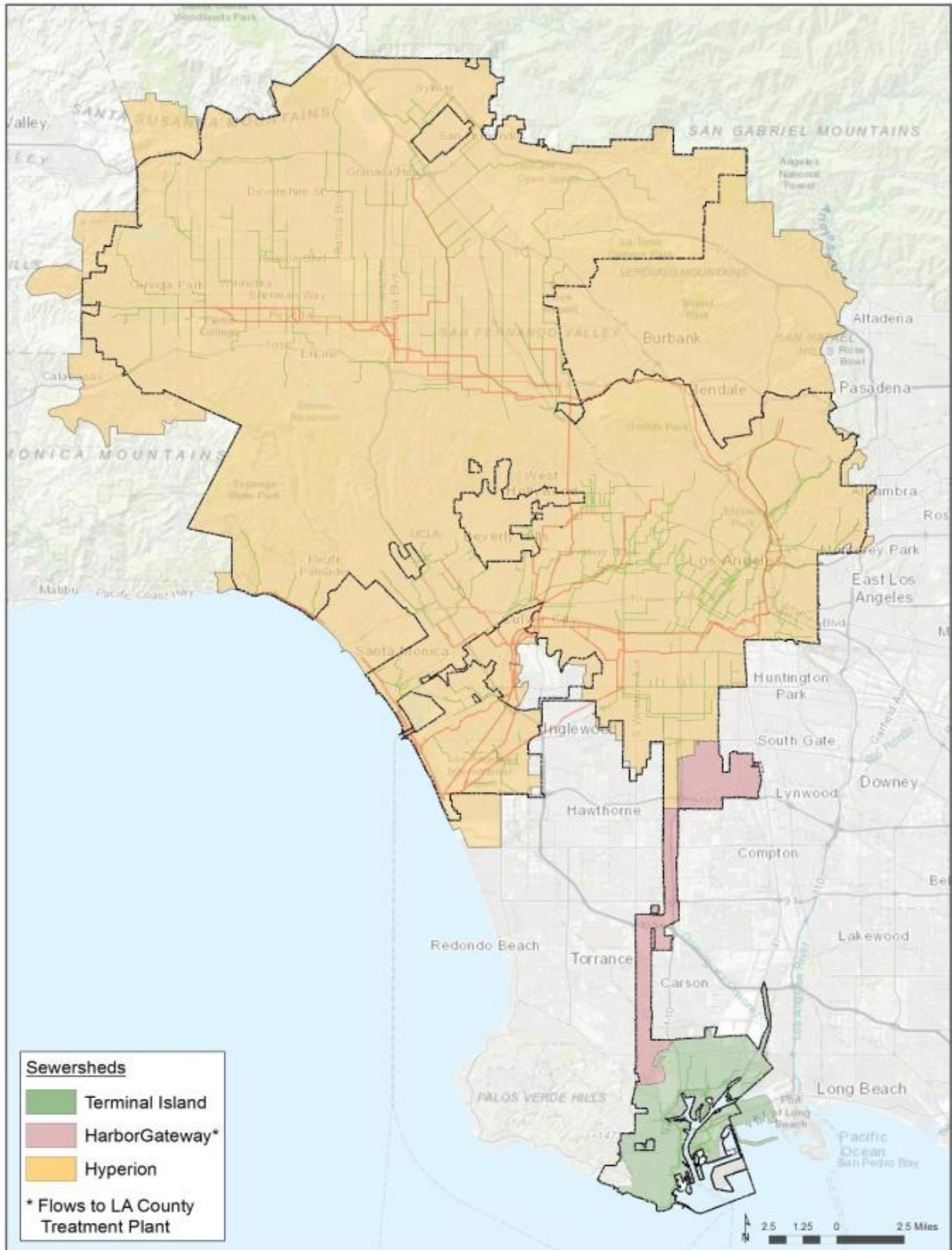
To assess and maintain the condition of this expansive system, the City actively conducts an ongoing dry- and wet-weather flow monitoring program. The monitors use either telephone lines to send data to a central location or staff will download data in the field. Additionally, flow gauging is performed at over 600 strategic locations throughout the City's secondary sewer system on either a quarterly, semi-annual, or annual cycle to monitor flow depth.

New and rehabilitated sewers and pump stations are planned, designed, and constructed to meet the highest performance standards in the industry in accordance with the City's Sewer Design Manual. The Sewer Design Manual is a comprehensive set of criteria for planning and designing of new sewers, pump stations, force mains, and appurtenances, and for the rehabilitation of existing sewers. In conjunction with the Sewer Design Manual, the City also maintains Standard Plans, which are used to provide consistency and quality in design. All system components are designed to meet permit requirements of the various federal, state, and local agencies thereby ensuring that projects benefit from the input of all affected and interested parties, including the communities.

The Sewer Design Manual and Standard Plans are updated, maintained, and administered by LA Sanitation & Environment (LASAN). For all projects, LASAN is responsible for determining the sewer capacity availability for new sewer connections for residential, commercial, and industrial developments. This function is part of an overall sewer connection permitting process that involves a combined effort by LASAN and Bureau of Engineering (BOE) personnel. In issuing a sewer connection permit, the BOE Development Services Division determines if further investigation is needed to evaluate the capacity of an existing sewer line to handle the additional flow from the proposed development or project and take appropriate preemptive action to attenuate potential emergency sewer overflow incidences in the future. In addition to preemptive sewer monitoring and permitting activities, the LASAN Wastewater Collection Systems Division also maintains up-to-date Sanitary Sewer Overflow Response and Reporting Procedures. The procedures outline the necessary actions to provide immediate response to sewage overflows. It is City policy that, "[e]very reported sewage spill affecting public or private property within the City of Los Angeles shall be acted upon by the Division." Crew leaders are immediately notified upon receipt of a reported potential sewer overflow and are instructed to respond immediately.

Sewer capacity planning is prioritized based on two ratios of sewer flow to sewer capacity (d/D): a Trigger ratio and a Relief ratio. Trigger flow is the quantity of flow, that once reached, would initiate planning for a relief or a replacement sewer. The buffer capacity is defined as the product of the estimated years to complete a new sewer project and the rate of recent flow increases in the sewer being evaluated. The Relief d/D is currently 0.75 across the City (i.e., when a sewer is at 75 percent of capacity) for all existing sewers, the Trigger d/D varies on a project by project basis because each project's tributary area has its own unique characteristics such as population growth projection, commercial and industrial discharge forecast, and other contributing factors that determine how quickly flows are projected to increase over time. The Sewer Design Manual requires all new sewers to meet a d/D of 0.5 for the projected design year (i.e., that they be at no more than 50 percent of capacity in their design year).

Figure 4.17-1 City of Los Angeles Wastewater Collection and Treatment Systems



Project Area Wastewater Generation and Conveyance

The Project Area is served by the Hyperion Sanitary Sewer System and is served by a network of local, interceptor, relief, outfall and trunk sewers that convey flow from residential, business and commercial properties to the HWRP. Underground pipes range from as small as 6 inches in diameter to as large as 14 feet in diameter. The backbone of the system, the North Outfall Sewer (NOS), was built in the 1920s. Due in part to the age of the Project Area sewer system, ongoing maintenance and replacement of sewer lines is needed. The Wastewater Capital Improvement Program (WCIP) identifies capital projects developed for the City's wastewater facilities (LA Sanitation & Environment 2018). The WCIP is developed for 10-year periods and was last updated in Fiscal Year 2018/2019 for projects through 2027/2028. The WCIP includes replacement, rehabilitation, and expansion of the City's wastewater treatment and collection system facilities. The WCIP identifies a number of sewer line projects in the Project Area (<https://www.lacitysan.org/cs/groups/public/documents/document/y250/mdm1/~edisp/cnt035434.pdf>).

The estimated wastewater generation of existing land uses in the Project Area is shown in **Table 4.17-1**. Existing development in the Project Area generates an estimated 0.7 mgd of wastewater. Wastewater generated by the Project Area represents less than 0.1 percent of the Hyperion Treatment Plant's (HTP's) current wastewater treatment capacity of 1000 mgd (City of Los Angeles 2022a).

TABLE 4.17-1 CURRENT WASTEWATER GENERATED IN THE PROJECT AREA 2021				
\	Dwelling Units or Jobs in Plan Area	Daily Wastewater Generation Rate (gpd/unit)	Wastewater Generation (gpd)	Wastewater Generation (mgd)
Single-family ¹	402 du	329	132,258	0.1
Multi-family ¹	1,610 du	189	304,290	0.3
Commercial/ Governmental	5,411 jobs	69	373,359	0.3
Total			809,907	0.7
NOTES:				
du = dwelling unit				
gpd – gallons per day				
Totals may not add up due to rounding.				
1. Single-family and multi-family units were estimated by assuming that 20 percent of total household units are single-family and 80 percent are multi-family.				
SOURCE: Wastewater is assumed to be 100% of indoor water use. Per Exhibit 2E of the LADWP 2020 UWMP, indoor water use constitutes 56% of overall water use for single-family residences and 80% of overall water use for multi-family residences. Per the 2020 UWMP, per unit water demand is forecast to decline over time; the forecast 2040 rates per Exhibit 2L of the LADWP 2020 UWMP are assumed to apply to new development.				

Storm Water and Urban Runoff

The Project Area is located within the Los Angeles River Watershed. The Los Angeles River Watershed covers a land area of 834 square miles. The eastern portion spans from the Santa Monica Mountains to the Simi Hills and in the west from the Santa Susana Mountains to the San Gabriel Mountains. The watershed encompasses and is shaped by the path of the Los Angeles River, which flows from its headwaters in the mountains eastward to the northern corner of Griffith Park. Here the channel turns southward through the Glendale Narrows and the Project Area before it flows across the coastal plain and into San Pedro Bay near Long Beach.

The Project Area is an urban center that is primarily paved. Consequently, most storm water and urban runoff travels along the area's roadways and is captured by storm drains and catch basins. The City is served by an extensive urban drainage system comprised of more than 80,000 catch basins, 14 major dams and

reservoirs, 162 debris dams, 2,919 miles of underground storm drain and 487 miles of open channels (LADPW 2022a). Storm water captured by the City's drainage system is channeled into Santa Monica and San Pedro Bays, where it is discharged without treatment (LADPW 2022b). The City's Stormwater Program focuses on flood control and pollution abatement and oversees the City's compliance with federal, state, and local regulations to reduce the amount of stormwater pollution. Regulations to reduce and prevent stormwater pollution are discussed in greater detail in Section 4.9, *Hydrology and Water Quality*.

Water Quality and Flow Monitoring

Los Angeles is constantly monitoring the infrastructure to ensure reliable service. Dischargers are regulated under Waste Discharge Requirements (WDRs) and are required to "self-monitor," that is, to collect regular samples of their effluent and receiving waters according to a prescribed schedule to determine facility performance and compliance with their requirements. In addition to self-monitoring by dischargers, the Los Angeles Regional Water Quality Control Board (LARWQCB) makes unannounced inspections and collects samples to determine compliance with discharge requirements and receiving water objectives and to provide data for enforcement actions. The LARWQCB also responds to a variety of incidents, including accidental and illegal discharges of oil from offshore pipelines, oily waste discharges, and dumping in the storm drains. Each regional board in the state prepares a biennial Water Quality Assessment Report using data collected by regional planning, permitting, surveillance, and enforcement programs. The regional reports contain inventories of the pollutants in the major water bodies of the region.

The Flow Monitoring Expansion Program helps operations and maintenance to manage the conveyance system. Flow data is gathered to support resource allocation.

REGULATORY FRAMEWORK

FEDERAL

Clean Water Act (CWA)

The primary goals of the Federal Clean Water Act (CWA), 33 USC §§ 1251, et seq. (CWA) are to restore and maintain the chemical, physical, and biological integrity of the nation's waters and to make all surface waters fishable and swimmable. The CWA forms the basic national framework for the management of water quality and the control of pollutant discharges. The CWA sets forth a number of objectives in order to achieve the above-mentioned goals. The CWA objectives include regulating pollutant and toxic pollutant discharges; providing for water quality which protects and fosters the propagation of fish, shellfish and wildlife; developing waste treatment management plans; and developing and implementing programs for the control of non-point sources pollution.

National Pollutant Discharge Elimination System (NPDES)

The NPDES permit system was established in the CWA to regulate point source discharges into waters within the United States. Point sources are discrete conveyances such as pipes or manmade ditches. Individual homes connected to a municipal system are not required to obtain a permit under the NPDES, however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

Safe Drinking Water Act (SDWA)

The Safe Drinking Water Act ensures the quality of Americans' drinking water. The law requires actions to protect drinking water and its sources (e.g., rivers, lakes, reservoirs, springs and groundwater wells) and applies to public water systems serving 25 or more people. It authorizes the U.S. Environmental Protection Agency (USEPA) to set national health-based standards for drinking water to protect against both naturally occurring and manmade contaminants. In addition, it oversees the states, municipalities and water suppliers that implement the standards. USEPA standards are developed as a Maximum Contaminant Level (MCL) for each chemical or microbe. The MCL is the concentration that is not anticipated to produce adverse health effects after a lifetime of exposure, based upon toxicity data and risk assessment principles. USEPA's goal in setting MCLs is to assure that even small violations for a period of time do not pose significant risk to the public's health over the long run. National Primary Drinking Water Regulations (NPDWRs) are legally enforceable standards that limit the levels of contaminants in drinking water supplied by public water systems. Secondary standards are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. USEPA recommends secondary standards to water systems but does not require systems to comply. However, states may choose to adopt them as enforceable standards. California has adopted secondary standards in Title 22 of the California Code of Regulations (CCR).

STATE

California Urban Water Management Plan Act

The California Urban Water Management Planning Act (Water Code, Section 10610, et seq.) addresses several state policies regarding water conservation and the development of water management plans to ensure the efficient use of available supplies. The California Urban Water Management Planning Act also requires Urban Water Suppliers to develop Urban Water Management Plans (UWMPs) every five years to identify short-term and long-term demand management measures to meet growing water demands during normal, dry, and multiple-dry years. Urban Water Suppliers are defined as water suppliers that either serve more than 3,000 customers or provide more than 3,000 acre feet per year (afy) of water to customers.

Senate Bill 610 and 221, and Senate Bill 7

Two of the state laws addressing the assessment of water supply necessary to serve large-scale development projects, Senate Bill (SB) 610 and SB 221, became effective January 1, 2002. SB 610, codified in Water Code Sections 10910-10915, specifies the requirements for water supply assessments (WSAs) and their role in the California Environmental Quality Act (CEQA) process, and defines the role UWMPs play in the WSA process. SB 610 requires that, for projects subject to CEQA that meet specific size criteria, the water supplier prepare WSAs that determine whether the water supplier has sufficient water resources to serve the projected water demands associated with the projects. SB 610 provides specific guidance regarding how future supplies are to be calculated in the WSAs where an applicable UWMP has been prepared. Specifically, a WSA must identify existing water supply entitlements, water rights, or water service contracts held by the public water system, and prior years' actual water deliveries received by the public water system. In addition, the WSA must address water supplies over a 20-year period and consider normal, single-dry, and multiple-dry year conditions. In accordance with SB 610, projects for which a WSA must be prepared are those subject to CEQA that meet any of the following criteria:

- Residential developments of more than 500 dwelling units;
- Shopping centers or business establishments employing more than 1,000 persons or having more than 500,000 square feet of floor space;

- Commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- Hotels, motels, or both, having more than 500 rooms;
- Industrial, manufacturing, or processing plants, or industrial parks planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area
- Mixed-use projects that include one or more of the projects specified in this subdivision; or
- Projects that would demand an amount of water equivalent to or greater than the amount of water required by a 500-dwelling-unit project. (Water Code Section 912, CEQA Guidelines Section 15155(a).

The WSA must be approved by the public water supplier serving the project at a regular or special meeting and must be incorporated into the CEQA document. The lead agency must then make certain findings related to water supply based on the WSA.

In addition, under SB 610, a water supplier responsible for the preparation and periodic updating of an UWMP must describe the water supply projects and programs that may be undertaken to meet the total project water use of the service area. If groundwater is identified as a source of water available to the supplier, the following additional information must be included in the UWMP: (1) a groundwater management plan; (2) a description of the groundwater basin(s) to be used and the water use adjudication rights, if any; (3) a description and analysis of groundwater use in the past 5 years; and (4) a discussion of the sufficiency of the groundwater that is projected to be pumped by the supplier.

SB 7, enacted on November 10, 2009, mandates new water conservation goals for UWMPs, requiring Urban Water Suppliers to achieve a 20 percent per capita water consumption reduction by the year 2020 statewide, as described in the “20 x 2020” State Water Conservation Plan. As such, each updated UWMP must now incorporate a description of how each respective urban water supplier will quantitatively implement this water conservation mandate, which requirements in turn must be taken into consideration in preparing and adopting WSAs under SB 610.

SB 221 also addresses water supply in the land use approval process for large residential subdivision projects. However, unlike SB 610 WSAs, which are prepared at the beginning of a planning process, SB 221-required Water Supply Verification (WSV) is prepared at the end of the planning process for such projects. Under SB 221, a water supplier must prepare and adopt a WSV indicating sufficient water supply is available to serve a proposed subdivision, or the local agency must make a specific finding that sufficient water supplies are or will be available prior to completion of a project, as part of the conditions for the approval of a final subdivision map. SB 221 specifically applies to residential subdivisions of 500 units or more. However, Government Code Section 66473.7(i) exempts “...any residential project proposed for a site that is within an urbanized area and has been previously developed for urban uses; or where the immediate contiguous properties surrounding the residential project site are, or previously have been, developed for urban uses; or housing projects that are exclusively for very low and low-income households.”

Senate Bill X7-7, Water Conservation Act

SB X7-7 (Water Conservation Act of 2009), codified in California Water Code Section 10608, requires all water suppliers to increase water use efficiency. Enacted in 2009, this legislation sets an overall goal of reducing per capita urban water use, compared to 2009 use, by 20 percent by December 31, 2020. The State of California was required to make incremental progress towards this goal by reducing per capita water use by at least 10 percent on or before December 31, 2015. Monthly statewide potable water savings reached

25.1 percent in February 2017 as compared to that in February 2013. Cumulative statewide savings from June 2015 through February 2017 were estimated at 22.5 percent. Following a multi-year drought and improvements to hydrologic conditions, statewide potable water savings reached 14.7 percent in August 2017 as compared to August 2013 potable water production.

California Code of Regulations Title 20

Title 20, Section 1605.3 (h) and 1505(i) of the California Code of Regulations (CCR) establishes applicable State efficiency standards (i.e., maximum flow rates) for plumbing fittings and fixtures, including fixtures such as showerheads, lavatory faucets and water closets (toilets). Among the standards, the maximum flow rate for showerheads manufactured on or after July 1, 2018 is 1.8 gpm at 80 psi; and lavatory faucets manufactured after July 1, 2016 is 1.2 gpm at 60 psi. The standard for toilets sold or offered for sale on or after January 1, 2016 is 1.28 gallons per flush.

CALGreen Code

Part 11 of Title 24, the title that regulates the design and construction of buildings, establishes the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or a positive environmental impact and encouraging sustainable construction practices in the following categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. The CALGreen Code includes both mandatory measures as well as voluntary measures. The mandatory measures establish minimum baselines that must be met in order for a building to be approved. The mandatory measures for water conservation provide limits for fixture flow rates, which are the same as those for the Title 20 efficiency standards listed above. The voluntary measures can be adopted by local jurisdictions for greater efficiency.

Plumbing Code

Title 24, Part 5 of the California Code of Regulations establishes the California Plumbing Code. The California Plumbing Code sets forth efficiency standards (i.e., maximum flow rates) for all new federally-regulated plumbing fittings and fixtures, including showerheads and lavatory faucets. The 2019 California Plumbing Code, which is based on the 2018 Uniform Plumbing Code, has been published by the California Building Standards Commission and went into effect on January 1, 2019.

Sustainable Groundwater Management Act of 2014

The Sustainable Groundwater Management Act (SGMA) of 2014, passed in September 2014, is a comprehensive three-bill package that provides a framework for the sustainable management of groundwater supplies by local authorities. The SGMA requires the formation of local groundwater sustainability agencies to assess local water basin conditions and adopt locally based management plans. Local groundwater sustainability agencies were required to be formed by June 30, 2017. The SGMA provides 20 years for groundwater sustainability agencies to implement plans and achieve long-term groundwater sustainability, and protect existing surface water and groundwater rights. The SGMA provides local groundwater sustainability agencies with the authority to require registration of groundwater wells, measure and manage extractions, require reports and assess fees, and request revisions of basin boundaries, including establishing new subbasins. Furthermore, SGMA requires governments and water agencies of high and medium priority basins to stop overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of

implementing their sustainability plans. For the basins that are critically over-drafted the timeline is 2040. For the remaining high and medium priority basins, the deadline is 2042.

State of Drought Emergency Declaration and Executive Orders

In response to California's drought conditions, on January 17, 2014, Governor Brown declared a State of Drought Emergency and directed state officials to take numerous necessary actions with local Urban Water Suppliers and municipalities to reduce the impacts of the ongoing drought conditions that had been occurring in California since approximately 2009. Subsequently, four Executive Orders were issued between April 2015 to April 2017 to address changing drought conditions and provide guidance for addressing the drought conditions.

Executive Order B-29-15 (April 2015) imposed a mandatory 25 percent statewide water reduction on potable water use by Urban Water Suppliers. It prioritized water infrastructure projects, incentivized water efficiencies, and streamlined permitting with new approval processes for water transfers and emergency drinking water projects. Executive Order B-36-15 (November 2015) called for additional actions to build on the state's response to record dry conditions and assisted recovery efforts from devastating wildfires; and Executive Order B-37-16 (May 2016) continued water use restrictions from Executive Order B-29-15 as drought conditions continued to persist. Executive Order B-37-16 called for long-term improvements to local drought preparation across the state, and directed the California State Water Resources Control Board (SWRCB) to develop proposed emergency water restrictions for 2017 if the drought persists.

The regulatory requirements resulting from these Executive Orders were codified in Article 22.5, Drought Emergency Water Conservation of the California Code of Regulations.

In May 2016, SWRCB adopted a revised emergency water conservation regulation, effective June 2016 through at least February 2017, which rescinded numeric reduction targets for Urban Water Suppliers, instead requiring locally developed conservation standards based upon each agency's specific circumstances.

Finally, on April 7, 2017, Executive Order B-40-17 was issued to formally end the drought emergency and lifted the drought emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne. In response to Executive Order B-40-17, on April 26, 2017, the SWRCB partially repealed the emergency regulation in regard to water supply stress test requirements and remaining mandatory conservation standards for urban water suppliers. The order also rescinded two drought-related emergency proclamations and four drought-related executive orders. Cities and water districts throughout the state are required to continue reporting their water use each month. Executive Order B-40-17 continued the ban on wasteful practices, including hosing off sidewalks and running sprinklers when it rains.

California Water Plan

Required by the CWC Section 10005(a), the California Water Plan is the state's strategic plan for managing and developing water resources statewide for current and future generations. It provides a collaborative planning framework for elected officials, agencies, tribes, water and resource managers, businesses, academia, stakeholders, and the public to develop findings and recommendations and make informed decisions for California's water future.

The plan, updated every five years, presents the status and trends of California's water-dependent natural resources; water supplies; and agricultural, urban, and environmental water demands for a range of plausible future scenarios. The Water Plan also evaluates different combinations of regional and statewide resource management strategies to reduce water demand, increase water supply, reduce flood risk, improve water quality, and enhance environmental and resource stewardship. The evaluations and assessments

performed for the plan help identify effective actions and policies for meeting California's resource management objectives in the near term and for several decades to come.

In July 2019, DWR released the Final 2018 Update to the California Water Plan. The document provides recommended actions, funding scenarios, and an investment strategy to bolster efforts by water and resource managers, planners, and decision-makers to overcome the State's most pressing water resource challenges. It reaffirms the State government's role and commitment to sustainable, equitable, long-term water resource management; and introduces implementation tools to inform decision-making. The 2018 Update recommends significant additional investment in infrastructure and ecosystem improvements to overcome challenges to sustainability; and it recommends actions to resolve systemic and institutional issues that contribute to many of the state's water challenges.

California Water Action Plan

The California Water Action Plan is a roadmap for the State's journey towards sustainable water management. The first California Water Action Plan was released in January 2014 under Governor Brown's administration and updated in 2016. The California Water Action Plan discusses the challenges to water in California: uncertain water supplies, water scarcity/drought, declining groundwater supplies, poor water quality, declining native fish species and loss of wildlife habitat, floods, supply disruptions, and population growth and climate change further increasing the severity of these risks.

REGIONAL

As discussed in detail below, the Metropolitan Water District of Southern California (MWD) is a primary source of water supply within Southern California. Based on the water supply planning requirements imposed on its member agencies and ultimate customers, MWD has adopted a series of official reports on the state of its water supplies. As described in further detail below, in response to recent developments in the Sacramento Delta, the MWD has developed plans intended to provide solutions that, when combined with the rest of its supply portfolio, will ensure a reliable long-term water supply for its member agencies, including the City of Los Angeles.

Metropolitan Water District's 2020 Urban Water Management Plan

The Metropolitan Water district's (MWD) 2020 Regional UWMP addresses the future of MWD's water supplies and demand through the year 2045. The 2020 Regional UWMP provides an assessment of the MWD's water service reliability; describes and evaluates sources of water supply, efficient uses of water, demand management measures, implementation strategies, and schedule; and other relevant information and programs. In addition to the water reliability assessments, the UWMP includes an evaluation of frequent and severe periods of droughts, as described in the Drought Risk Assessment, and the preparation and adoption of the Water Shortage Contingency Plan (WSCP). The 2020 UWMP reports also identified projected supplies to meet the long-term demand within its service area.

The 2020 UWMP concluded that the MWD has sufficient supply to meet the expected demands from 2025 through 2045 under a single dry year condition and a period of drought lasting five consecutive water years, as well as in a normal water year hydrologic condition. The analysis for multiple-dry year conditions, i.e., under the most challenging weather conditions such as drought and service interruptions caused by natural disasters, is presented in Table 2-5 of the 2020 UWMP. In the 2020 UWMP, the projected 2045 water demand is 1,564,000 afy, with supply projected to be 2,239,000 afy, resulting in a surplus of 675,000 afy.

Metropolitan Water District's 2015 Urban Water Management Plan

The Metropolitan Water District's (MWD) 2015 Regional UWMP (RUWMP) addresses the future of MWD's water supplies and demand through the year 2040. Evaluations are prepared for average year conditions, single dry-year conditions, and multiple dry-year conditions. The analysis for multiple-dry year conditions, i.e. under the most challenging weather conditions such as drought and service interruptions caused by natural disasters, is presented in Table 2-4 of the 2015 RUWMP. The analysis in the 2015 RUWMP concluded that reliable water resources would be available to continuously meet demand through 2040. In the 2015 RUWMP, the projected 2040 demand water is 2,201,000 afy, whereas the expected and projected 2040 supply is 2,941,000 afy based on current programs, and an additional 398,000 afy is expected to become available under programs under development for a potential surplus in 2040 of 1,138,000 afy.

MWD has comprehensive plans for stages of actions it would undertake to address up to a 50-percent reduction in its water supplies and a catastrophic interruption in water supplies through its Water Surplus and Drought Management and Water Supply Allocation Plans. MWD has also developed an Emergency Storage Requirement to mitigate against potential interruption in water supplies resulting from catastrophic occurrences within the Southern California region and is working with the State to implement a comprehensive improvement plan to address catastrophic occurrences that could occur outside of the Southern California region. MWD is also working with the State on the Delta Risk Management Strategy to reduce the impacts of a seismic event in the Delta that would cause levee failure and disruption of State Water Project (SWP) deliveries. In addition, MWD has plans for supply implementation and continued development of a diversified resource mix, including programs in the Colorado River Aqueduct (CRA), SWP, Central Valley transfers, local resource projects, and in-region storage that enables the region to meet its water supply needs. As set forth in their 2015 UWMP, MWD will also continue investments in water use efficiency measures to help the region achieve the 20 percent per person potable water use reduction by 2020.

MWD's 2015 Integrated Resources Plan

The MWD prepares an Integrated Water Resources Plan (IRP) that provides a water management framework with plans and programs for meeting future water needs. It addresses issues that can affect future water supply such as water quality, climate change, and regulatory and operational changes. The most recent IRP (2015 IRP) was adopted in January 2016. It establishes a water supply reliability mission of providing its service area with an adequate and reliable supply of high-quality water to meet present and future needs in an environmentally and economically responsible way. Among other topics, the 2015 IRP discusses water conservation, local and imported water supplies, storage and transfers, water demand, and adaptation to drought conditions.

The 2015 IRP reliability targets identify developments in imported and local water supply, and in water conservation that, if successful, would provide a future without water shortages and mandatory restrictions under planned conditions. For imported supplies, MWD would make investments to maximize CRA deliveries in dry years. MWD would make ecologically-sound infrastructure investments to the SWP so that the water system can capture sufficient supplies to help meet average year demands and to refill the MWD storage network in above-average and wet years.

Planned actions to keep supplies and demands in balance include, among others, lowering regional residential per capita demand by 20 percent by the year 2020 (compared to a baseline established in 2009 state legislation), reducing water use from outdoor landscapes and advancing additional local supplies. IRP Table ES-1, 2015 IRP Update Total Level of Average-Year Supply Targeted (Acre-Feet), of the 2015 IRP, shows the supply reliability and conservation targets. As presented in the IRP, the total supply reliability target for each five-year increase between 2016 and 2040 would exceed the retail demand after

conservation. In 2040, retail demand after conservation is estimated to be 4,273,000 acre-feet and the total supply reliability target is approximately 4,539,000 acre-feet, representing an excess of 266,000 acre-feet.

MWD's Water Surplus and Drought Management Plan

In 1999, MWD incorporated the water storage contingency analysis that is required as part of any UWMP into a separate, more detailed plan, called the Water Surplus and Drought Management Plan (WSDM Plan). The overall objective of the WSDM Plan is to ensure that shortage allocation of MWD's imported water supplies is not required. The WSDM Plan provides policy guidance to manage MWD's supplies and achieve the goals laid out in the agency's IRP. The WSDM Plan separates resource actions into two major categories: Surplus Actions and Shortage Actions. The WSDM Plan considers the region to be in surplus only after MWD has met all demands for water, including replenishment deliveries. The Surplus Actions store surplus water, first inside then outside of the region. The Shortage Actions of the WSDM are separated into three subcategories: Shortage, Severe Shortage, and Extreme Shortage. Each category has associated actions that could be taken as part of the response to prevailing shortage conditions. Conservation and water efficiency programs are part of MWD's resource management strategy through all categories.

MWD's Water Supply Allocation Plan

While the WSDM Plan included a set of general actions and considerations for MWD staff to address during shortage conditions, it did not include a detailed water supply allocation plan or implementation approach. Therefore, in February 2008, MWD adopted a water supply plan called the Water Supply Allocation Plan (WSAP), which has since been implemented three times, most recently in April 2015 (under the new name Drought Rationing Plan). The WSAP includes a formula for determining equitable, needs-based reductions of water deliveries, with the potential application of a surcharge, to member agencies during extreme water shortages in MWD's service area conditions (i.e., drought conditions or unforeseen interruptions in water supplies).

The WSAP allows member agencies the flexibility to choose among various local supply and conservation strategies to help ensure that demands on MWD stay in balance with limited supplies. The WSAP formula addresses shortages of MWD supplies, by taking into account growth, local investments, changes in supply conditions and the demand hardening aspects of non-potable recycled water use and the implementation of conservation savings programs. The allocation period covers 12 consecutive months from July of a given year through the following June.

LOCAL

Wastewater

Integrated Resources Plan

In 2006, the City approved the Integrated Resources Plan (IRP), which incorporates a Wastewater Facilities Plan. The Integrated Resources Program was developed to meet future wastewater needs of more than 4.3 million residents expected to live in the City by 2020 (LADPW 2006). To meet future demands posed by increased wastewater generation, the City has chosen to expand its current overall treatment capacity, while maximizing the potential to reuse recycled water through irrigation, and other approved uses.

Water IRP 5-year Reviews

The Los Angeles Department of Public Works (LADPW) had been monitoring implementation of the IRP and updating its projections via the preparation Water IRP 5-Year Review Final Documents. The last 5-year review, prior to preparation of the One Water LA Plan that now supersedes the 5-year reviews as

discussed below, was completed in 2012. Based on updated 2008 Southern California Association of Governments (SCAG) data, the estimated future flow of the Hyperion Sanitary Sewer System was forecasted as 500 mgd by 2020, and approximately 496 mgd by 2018. At the same time, IRP data in the five-year review showed that the actual Hyperion Sanitary Sewer System service area flow was less than projected by the 2008 SCAG data used for planning. Per that data, the Hyperion Sanitary Sewer System service area flow had decreased from 400 mgd in 2002 to 350 mgd in 2012. This could be attributed to such factors as water conservation and the economic downturn. The five-year Report estimated reductions in flow requirements indicating that there had been a reduction of wastewater flow of 26.5% relative to the amount estimated in the SCAG projection.

City of Los Angeles Municipal Code

Green Building Code

The City has been pursuing a number of green development initiatives intended to promote energy conservation and reductions in the amount of greenhouse gas emissions generated within the City. While these ordinances do not focus on the provision of sewer services, they do mandate the use of water conservation features in new developments. Examples of such water conservation features include, but are not limited to, low water shower heads, toilets, clothes washers and dishwashers. Because the flow through these fixtures is reduced, residual wastewater passing through is reduced, in turn reducing the demand for sewage conveyance and treatment.

The Los Angeles Municipal Code (LAMC) Chapter IX, Article 9, the Los Angeles Green Building Code (LA Green Building Code, Ordinance No. 181,480), was adopted in April 2008 and provides standards and a mechanism for evaluating projects for their water conservation features during site plan review. The LA Green Building Code has been subsequently amended to incorporate various provisions of the California Green Building Standards (CALGreen) Code. The LA Green Building Code includes mandatory requirements and elective measures pertaining to wastewater for three categories of buildings, the first of which applies to this Project: (1) low-rise residential buildings; (2) non-residential and high-rise residential buildings; and (3) additions and alterations to residential and non-residential buildings.

Water Efficiency Requirements Ordinance

LAMC Chapter XII, Article 5, the Water Efficiency Requirements Ordinance (Ordinance No. 180,822), effective December 1, 2009, requires the installation of efficient water fixtures, appliances, and cooling towers in new buildings and renovation of plumbing in existing buildings, to minimize the effect of water shortages for City customers and enhance water supply sustainability.

Sewer Capacity Availability Review

The LAMC includes regulations that require the City to assure available sewer capacity for new projects and to collect fees for improvements to the infrastructure system. LAMC Section 64.15 requires that the City perform a SCAR when an applicant seeks a sewer permit to connect a property to the City's sewer system, proposes additional discharge through their existing public sewer connection, or proposes a future sewer connection or future development that is anticipated to generate 10,000 gallons or more of sewage per day. A SCAR provides a preliminary assessment of the capacity of the existing municipal sewer system to safely convey a project's newly generated wastewater to the appropriate sewage treatment plant.

Sewerage Facilities Charge

LAMC Sections 64.11 and 64.12 require approval of a sewer permit, also called an "S" Permit, prior to connection to the wastewater system. LAMC Sections 64.11.2 and 64.16.1 require the payment of fees for new connections to the City's sewer system to assure the sufficiency of sewer infrastructure. New

connections to the sewer system are assessed a Sewerage Facilities Charge. The rate structure for the Sewerage Facilities Charge is based upon wastewater flow strength as well as volume. The determination of wastewater flow strength for each applicable project is based on City guidelines for the average wastewater concentrations of two parameters, biological oxygen demand and suspended solids, for each type of land use. Sewerage Facilities Charge fees are deposited in the City's Sewer Construction and Maintenance Fund for sewer and sewage-related purposes, including, but not limited to, industrial waste control and water reclamation purposes.

Bureau of Engineering Special Order

The City establishes design criteria for sewer systems to assure that new infrastructure provides sewer capacity and operating characteristics to meet City standards (Bureau of Engineering Special Order No. SO 06-0691). Per the Special Order, lateral sewers, which are sewers 18 inches or less in diameter, must be designed for a planning period of 100 years. The Special Order also requires that sewers be designed so that the peak dry weather flow depth during their planning period does not exceed one-half of the pipe diameter (D) (i.e., depth-to-diameter ratio or d/D).

Low Impact Development Ordinance

Under LAMC Section 64.72, all development projects in the City are required to integrate low impact development (LID) practices and standards for stormwater pollution mitigation to manage and capture stormwater runoff, to the maximum extent feasible, in priority order: infiltration, evapotranspiration, capture and use, treated through high removal efficiency biofiltration/biotreatment system of all of the runoff on site. High removal efficiency biofiltration/biotreatment systems are required to comply with the standards and requirements of the Development Best Management Practices (BMPs) Handbook.

One Water LA 2040 Plan

In April 2018, the City prepared the One Water LA 2040 Plan (One Water LA Plan), an integrated approach to Citywide recycled water supply, wastewater treatment, and stormwater management. The new plan builds upon the City's Water IRP, which projected needs and set forth improvements and upgrades to wastewater conveyance systems, recycled water systems, and runoff management programs through the year 2020, and extends its planning horizon to 2040. The One Water LA Plan proposes a collaborative approach to managing the City's future water, wastewater treatment, and stormwater needs with the goal of yielding sustainable, long-term water supplies for Los Angeles to ensure greater resilience to drought conditions and climate change. The One Water LA Plan is also intended as a step toward meeting the Mayor's Executive Directive to reduce the City's purchase of imported water by 50 percent by 2024. Major challenges addressed in the One Water LA Plan include recurring drought, climate change, and the availability of recycled water in the future in light of declining wastewater volumes. Volume 2 of the One Water LA Plan is the Wastewater Facilities Plan.

Green New Deal

The City released the first Sustainable City pLAN in April 2015, which has been updated in 2019 as the Green New Deal. The Green New Deal includes a multi-faceted approach to developing a locally sustainable water supply to reduce reliance on imported water, reducing water use through conservation, and increasing local water supply and availability. Towards the end, the Green New Deal establishes a target of recycling 100 percent of all wastewaters for beneficial reuse by 2035, which would be an improvement from the fiscal year 2017-2018, baseline of 27 percent.

The Green New Deal establishes a number of milestones and initiatives:

- 2021: Produce 1.5 mgd of recycled water at HWP for use at LAWA and other local facilities.

- 2025: Recycle 17,000 AFY of water at the Tillman WRP to recharge into groundwater basin.
- 2025/2035: Increase non-potable reuse of recycled water by an additional of 6,000 AFY 2025; and an additional 8,000 AFY by 2035; and
- 2025/2035: Reduce annual sewer spills to fewer than 65 by 2025; and 60 by 2035.

Sewer System Management Plan

The State of California, via the State Water Quality Control Board’s May 2, 2006 Statewide General Waste Discharge Requirements (WDRs), requires a Sewer System Management Plan (SSMP) to be prepared for all publicly owned sanitary sewer systems. The plans include measures to control and mitigate sewer spills and must be made available to the public. Accordingly, the City has prepared three SSMPs, one for each of the three separate sanitary sewer systems owned and operated by LA Sanitation: the Hyperion Sanitary Sewer System, the City of Los Angeles Regional Sanitary Sewer System (Harbor Gateway); and the Terminal Island Water Reclamation Plant Sanitary Sewer System. The City’s SSMPs were last updated in January 2019 as part of a required biennial internal audit. The SMMPs address the proper management, operation, and maintenance of all parts of the systems. The SSMP establishes design and performance standards for the sewer system; provides procedures for evaluating the system and providing capacity assurance; and establishes a performance standard to identify sewers in need of replacement or relief. The City’s SSMP is in full compliance with the WDRs and meets applicable WDR objectives.

Los Angeles Wastewater Capital Improvement Program

Every 10 years, the City of Los Angeles Department of Public Works, Bureau of Sanitation (LASAN) updates the City’s 10-Year Capital Improvement Program, which identifies the wastewater system upgrades, equipment, and modifications to be funded by the City within a 10-year period. Many of these improvements are necessary in order to comply with state and CWA regulations. The most recent update, the Wastewater Capital Improvement Program Fiscal Years 2013/2014 through 2022/2023, identifies improvements scheduled through 2016 for the four treatment plants, collection system, pumping plants, and system-wide operations.

City of Los Angeles General Plan

The City of Los Angeles General Plan Framework Element (Framework), adopted in December 1996, and readopted in 2001, sets forth a citywide comprehensive long-range growth strategy and defines citywide policies regarding land use, housing, urban form, neighborhood design, open space and conservation, economic development, transportation, infrastructure, and public services. Framework land use policies are implemented at the community level through community plans and specific plans. The applicable policies that are related to the City utilities and services systems, including wastewater, are listed in **Table 4.17-2**.

TABLE 4.17-2 RELEVANT GENERAL PLAN UTILITIES AND SERVICE SYSTEMS GOALS, OBJECTIVES, AND POLICIES	
Goal/Objective/Policy	Goal/Objective/Policy Description
FRAMEWORK ELEMENT – CHAPTER 9 INFRASTRUCTURE AND PUBLIC SERVICES	
Goal 9A	Adequate wastewater collection and treatment capacity for the City and in basins tributary to City-owned wastewater treatment facilities.
Objective 9.1	Monitor and forecast demand based upon actual and predicted growth.
Policy 9.1.1	Monitor wastewater generation.
Policy 9.1.2	Monitor wastewater flow quantities in the collection system and conveyed to the treatment plants.

TABLE 4.17-2 RELEVANT GENERAL PLAN UTILITIES AND SERVICE SYSTEMS GOALS, OBJECTIVES, AND POLICIES	
Goal/Objective/Policy	Goal/Objective/Policy Description
Policy 9.1.3	Monitor wastewater effluent discharged into the Los Angeles River, Santa Monica Bay, and San Pedro Harbor to ensure compliance with water quality requirements.
Objective 9.2	Maintain the wastewater collection and treatment system, upgrade it to mitigate current deficiencies, and improve it to keep pace with growth as measured by the City's monitoring and forecasting efforts.
Policy 9.2.1	Collect and treat wastewater as required by law and Federal, State, and regional regulatory agencies.
Policy 9.2.2	Maintain wastewater treatment capacity commensurate with population and industrial needs.
Policy 9.2.3	Provide for additional wastewater treatment capacity in the Hyperion Service Area, as it becomes necessary.
Policy 9.2.4	Continue to implement programs to upgrade the wastewater collection system to mitigate existing deficiencies and accommodate the needs of growth and development.
Policy 9.2.5	Review other means of expanding the wastewater system's capacity.
Objective 9.3	Increase the utilization of Demand Side Management (DSM) strategies to reduce system demand and increase recycling and reclamation.
Policy 9.3.1	Reduce the amount of hazardous substances and the total amount of flow entering the wastewater system.
Policy 9.3.2	Consider the use of treated wastewater for irrigation, groundwater recharge, and other beneficial purposes.
Objective 9.4	Ensure continued provision of wastewater collection and treatment after an earthquake or other emergency.
Policy 9.4.1	Restore minimal operations as soon as possible after an emergency, and full operations as soon as feasible.
Policy 9.4.2	Establish joint cooperation agreements with other jurisdictions for mutual assistance during emergencies.
SOURCE: City of Los Angeles, <i>City of Los Angeles General Plan, Safety Element</i> , adopted 1996; <i>Conservation Element</i> , adopted 2001; and <i>Framework Element</i> , re-adopted 2001.	

Stormwater

County of Los Angeles Hydrology Manual

Drainage and flood control within the CPA is regulated by LADPW and the County of Los Angeles Department of Public Works (CLADPW). The County has jurisdiction over regional drainage facilities. The County's Hydrology Manual requires a storm drain system be designed for a 25-year storm event and that the combined capacity of a storm drain and street flow system accommodate flow from a 50-year storm event.

Los Angeles Department of Public Works (LADPW) Bureau of Engineering (BOE) B-Permit (LAMC §62.106.b)

Any proposed drainage improvements within the street right-of-way or any other property owned by, to be owned by, or under the control of the City requires the approval of a B-permit. Under the B-permit process, storm drain installation plans are subject to the review and approval by BOE. Additionally, any connections to the City's storm drain system from a property line to a catch basin or a storm drain pipe requires a storm drain permit from BOE.

Proposition O

Proposition O, is a \$500 million bond, authorized the City to fund projects that protect public health, capture stormwater for reuse and meet the federal CWA through removal and prevention of pollutants entering regional waterways. Proposition O projects include but are not limited to: the Temescal Canyon Park Stormwater BMP, Los Angeles Zoo Parking Lot, the Westchester Stormwater BMP, Echo Park Lake Rehabilitation Project, and the Hansen Dam Recreational Area Parking Lot and Wetlands Restoration. In addition, Proposition O funds were utilized for the Catch Basin Screen Cover and Insert Project, which provided for the installation of catch basin inserts and screen covers throughout the City beginning in 2005 with completion on September 30, 2007 (Phase I and Phase II). Phase III began in the spring of 2008 and will retrofit approximately 34,000 remaining catch basins with opening screen covers:

Low Impact Development (LID) Ordinance

The LID Ordinance was adopted by the City in 2011. The ordinance requires a variety of BMPs to manage stormwater and urban runoff and reduce runoff pollution. It provides stormwater and rainwater LID strategies for development projects that require building permits in order to maintain or restore the natural hydrologic character of a development site, reduce off-site runoff, improve water quality, and provide groundwater recharge. The ordinance does not apply to development that creates, adds, or replaces less than 500 square feet of impervious area; development that involves emergency construction activity; infrastructure projects within the public right-of-way; development that involves only activity related to gas, water, cable, or electricity services on private property; development involving only restriping of permitted parking lots; and projects involving only exterior movie or television production sets, or facades on an existing developed site.

City of Los Angeles General Plan Framework Element

The General Plan Framework Element is also discussed above under “Regulatory Framework” in the Water Supply subsection. Relevant objectives and policies of the Framework Element related to stormwater drainage facilities are listed in **Table 4.17-2**, above.

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance were developed in accordance with CEQA Guidelines Appendix G. Impacts would be significant if either the Proposed Project

- Require or result in the relocation or construction of new or expanded wastewater treatment, the construction or relocation of which could cause significant environmental effects (Threshold 4.17-1)
- Result in a determination by the wastewater treatment provider which serves or may serve the project that has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments (Threshold 4.17-2)
- Require or result in the relocation or construction stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects (Threshold 4.17-3)

METHODOLOGY

The analysis of the Proposed Project’s impacts with respect to wastewater treatment and conveyance focuses on whether existing and projected infrastructure capacities or supplies would be sufficient to meet future demands associated with anticipated development, including impacts associated with building new facilities to meet future demand. Project-generated demands were calculated using existing level of development in the Project Area, 2040 Reasonably anticipated development in the Project Area, and utility rates per development unit (e.g., water use per dwelling unit). The impact is the net change relative to existing conditions (i.e., 2040 with Proposed Project conditions – baseline conditions).

Water demand rates were obtained from the LADWP’s 2020 Urban Water Management Plan (UWMP), Exhibit 2H and Exhibit 2K (LADWP 2021). Per Exhibit 2E of the 2020 UWMP, indoor water use constitutes the following percentages of overall water use: Residential single family – 56%; Residential multi-family – 80%; Commercial/ Government– 56%; Industrial – 9%; It was assumed that 20 percent of existing residential development is single-family and 80 percent is multifamily. This provides a conservative estimate as the Project Area contains few single-family residential areas and single-family units have higher average utility usage rates than multi-family units. It was also assumed that the number of single-family homes would remain constant under future conditions relative to baseline conditions and all new residential development through 2040 would be multifamily.

State and local policies, plans, initiatives, and projects, such as SBX7-7, SB 1016, Emergency Water Conservation Plan, RENEW LA Plan and Ordinance 181519, as discussed above under Regulatory Setting, are in place or are anticipated to be implemented over the project’s time horizon that would reduce utility consumption rates over time. However, baseline rates were used to calculate projected usage in 2040, as it is speculative to assume the decreases that would result from their implementation. The one exception is for water as the 2020 UWMP provides project water use rates for 2045. These projected rates incorporate savings from codes and ordinances currently in place, but do not take into consideration planned projects, future policies, or initiatives (LADWP 2021), and therefore, also provide a conservative estimate of future consumption. A qualitative discussion of planned capacity-building or supply-enhancing projects is included in the analysis.

Consistent with the Population and Housing analysis, citywide impacts are analyzed assuming growth and demands placed on utilities and service systems based on SCAG projections.

PROJECT IMPACTS

Threshold 4.17-1	Require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects
Threshold 4.17-2	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments

Impact 4.17-1, 4.17-2 Proposed Project: Implementation of the Proposed Project would increase demand for wastewater collection and treatment from the 500 percent increase in wastewater generation projected under the Proposed Project. However, this increase represents only one percent of the HWRP’s available capacity and the HWRP would, therefore, be able to adequately treat project-generated sewage and the treatment requirements. Additionally, ongoing maintenance and identified capital improvement projects would ensure the capacity is preserved. Therefore, impacts to wastewater facilities would be *less than significant*.

Project Impact

Table 4.17-3, below, summarizes projected wastewater generation for the Project Area in 2040 with implementation of the Proposed Project. As indicated in the table, the total wastewater generation with the Proposed Project in 2040 is estimated to be 4.1 mgd of wastewater. The projected net increase of 3.4 mgd of wastewater anticipated under the Proposed Project would constitute over 500 percent increase compared to the baseline generation of just under 0.7 mgd.

On average, 275 million gallons of wastewater enters the HWRP on a dry weather day. Because the amount of wastewater entering HWRP can double on rainy days, the plant was designed to accommodate both dry and wet weather days with a maximum daily flow of 450 million gallons of water per day (mgd) and peak wet weather flow of 800 MGD (LADPW 2022a). The projected wastewater increase to 4.1 mgd generated under the Proposed Project represents approximately one percent of the plant's available capacity. Therefore, the HWRP has sufficient available treatment capacity to serve reasonably foreseeable development in the Project Area. The HWRP would be able to adequately treat project-generated sewage in addition to currently generated sewage, and the treatment requirements of the RWQCB would not be exceeded. Therefore, it is not foreseeable that implementation of the Proposed Project would require construction of a new or expanded wastewater treatment plant.

As discussed above under *Regulatory Framework*, reasonably anticipated growth under the Proposed Project would occur in compliance with the requirements of LAMC 64.11, 64.12 and 64.15, which establishes City standards related to wastewater discharge, peak flow and sewer capacity. Sewer pipeline upgrades would be necessary as development generally occurs in the Project Area. As discussed in the *Environmental Setting*, a number of sewer line projects in the Project Area are identified. Such upgrades would likely occur within existing utility easements and would not result in new areas of disturbance. All upgrades would be subject to subsequent environmental review, wherein potential site- or project-specific impacts, if any, would be addressed. Routine infrastructure projects involving replacing or upgrading wastewater conveyance facilities generally include the preparation of a ND/MND and in some cases may possibly qualify for a Categorical Exemption (e.g., CEQA Guidelines Section 15302). The environmental impacts of the construction and operation of these new or upgraded facilities would be localized in nature and consistent with the impacts that have been evaluated throughout this EIR. To the extent that any significant impacts could result from the unique characteristics of a specific site, those impacts would be speculative at this time.

The City is proactively undertaking capital improvement projects to not only maintain the existing infrastructure but also enhance and expand capacity of treatment plants. Such projects would include rehabilitating old sewer mains and maintenance holes and replacing aging equipment and structures at treatment and pumping plants. As detailed in the *Environmental Setting*, the City maintains the Wastewater Capital Improvement Program (WCIP), which contains the capital projects and estimated costs for the renewal of the City's infrastructure at 10-year intervals.

The LASAN Wastewater Engineering Services Division is responsible for determining sewer capacity availability for new sewer connections for residential, commercial, and industrial developments. Thus, all development activities that require sewer connection permits are evaluated under the purview of existing capacity of sewer lines in the development site's vicinity at the time of development. By doing so, each new development must adhere to the most current Sewer Design Manual specifications as well as appropriate Standard Plan requirements. The Sewer Design Manual and Standard Plan are continuously updated to incorporate the most recent industry practices and materials ensuring appropriate measures are taken to accommodate any potential project. The City also has immediate response and reporting procedures in place to attend to any unexpected sewer overflows. The procedures are maintained in the Wastewater Collection Systems Division's up-to-date Sanitary Sewer Overflow Response and Reporting Procedures. Moreover, the City proactively monitors the sewer system to preemptively identify and resolve deficiencies

before they become problematic. System deficiencies in need of rehabilitation are then included in the WCIP, which are attended to according to their associated priority ranking. The City would require that localized system deficiencies are adequately addressed by the responsible project. Any future upgrades would be designed in accordance with applicable provisions of the Municipal Code and to the satisfaction of the City Engineer.

Upgrades to sewer lines may cause temporary localized disturbance of roads, which may require re-routing of traffic and localized temporary increases in congestion, as well as temporary increases in air pollutant emissions and noise. However, such impacts would be within what is described in this EIR and upgrades would not result in long-term effects. As discussed above, any upgrades would be subject to subsequent environmental review, wherein potential site- or project-specific impacts, if any, would be addressed accordingly. Therefore, impacts related to construction of wastewater conveyance system upgrades would be *less than significant*.

Mitigation Measures

No significant impacts have been identified; therefore, mitigation is not required for the Project.

TABLE 4.17-3 ESTIMATED WASTEWATER GENERATION FOR THE PROJECT AREA 2040				
Land Use	Dwelling Units or Jobs	Wastewater Generation Rate (gpd/unit)	Wastewater Generation (gpd)	Wastewater Generation (mgd)
Single-family Residential	4,007 du	329	1,318,303	1.1
Multi-family Residential	16,029 du	189	3,029,481	2.5
Commercial/ Governmental	8,263 jobs	69	570,147	0.5
Total 2040 with Project Wastewater Generation			4,917,931	4.1
Current Wastewater Generation (2021)			809,907	0.7
Net Change in Wastewater Generation			4,108,024	3.4
Notes: Wastewater generation numbers are rounded to the nearest thousand. Totals may not add up due to rounding. gpd – gallons per day du – dwelling units sf – square feet SOURCE: Wastewater is assumed to be 100% of indoor water use. Per Exhibit 2E of the LADWP 2020 UWMP, indoor water use constitutes 56% of overall water use for single-family residences and 80% of overall water use for multi-family residences. Per the 2020 UWMP, per unit water demand is forecast to decline over time; the forecast 2030 rates per Exhibit 2L of the LADWP 2020 UWMP are assumed to apply to new development.				

Threshold 4.17-3	Require or result in the relocation or construction of stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects
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Impact 4.17-3 **Proposed Project:** Implementation of the Proposed Project would not require construction of new stormwater drainage facilities or expansion of existing facilities; impacts to water drainage facilities would be *less than significant*.

Project Impact

As discussed in Section 4.9, *Hydrology and Water Quality*, of this Draft EIR, implementation of the Proposed Project would not result in a substantial increase in impervious surfaces. Accordingly, anticipated growth from reasonably anticipated development under the Proposed Project would not cause a substantial

increase in the peak flow rates or volumes that would exceed the drainage capacity of existing stormwater facilities. The Proposed Project would not significantly alter the existing drainage pattern and development of projects would be required to comply with all applicable hydromodification and flood control requirements. Compliance with the City's Low Impact Development (LID) Ordinance would further ensure that any future development resulting from the Proposed Project would not require construction of new stormwater drainage facilities and or expansion of existing facilities beyond specific improvements needed for individual development projects. In the long-term, redevelopment of properties in the Proposed Project Area would improve surface water quality by replacing older development with new development that incorporates LID methods. Therefore, impacts related to water drainage facilities would be *less than significant*.

Mitigation Measures

No significant impacts have been identified; therefore, mitigation is not required for the Proposed Project.

CUMULATIVE IMPACTS

The geographic area to analyze cumulatively considerable impacts to wastewater and/or storm drains includes the entire City of Los Angeles and immediately adjacent areas served by common infrastructure. Cumulative development throughout Los Angeles would add both dwelling units and non-residential development to the City. Citywide development through 2040 would add approximately 562,000 new residents, 236,000 new households, and 256,000 new employees (SCAG 2020). Cumulative impacts from this development are discussed below by impact area.

Wastewater

Growth anticipated by the Proposed Project and citywide cumulative growth would generate an increase in wastewater. Total water demand projected by the City's 2020 UWMP accounts for population growth within its jurisdictional boundaries, which is based on SCAG's demographic data and the 2016 RTP. As discussed in Section in 4.12, *Population and Housing*, the Proposed Project would allow for an additional 57,000 persons, 18,000 housing units, and 3,000 jobs to the Project Area. The updates to the existing CASP would accommodate a development capacity consistent with long-range SCAG growth projections.

As described above, the City of Los Angeles is served by four water reclamation plants, which include the HWRP, the Terminal Island Reclamation Plant, the Donald C. Tillman Water Reclamation and the Los Angeles-Glendale Water Reclamation Plant. Combined these reclamation plants have capacity to treat 580 mgd (649,684 afy) of wastewater citywide (LADPW 2020). According to the 2020 UWMP, average dry-weather wastewater influent projections for the City's wastewater treatment plants are expected to increase by approximately 20 percent over the next 25 years. Wastewater treatment projections of average dry-weather flows through 2040 for all four wastewater treatment plants total approximately 478.5 mgd (536,000 afy). Wastewater treatment projections of average dry-weather flows through 2040 for the HWRP are projected to be 366 mgd (410,000 afy), an increase of 91 mgd relative to baseline average dry-weather flows (275 mgd) (LADWP 2021a). Growth anticipated by the Proposed Project would increase wastewater generation by approximately 3.4 mgd, which comprises approximately less than one percent of citywide treatment capacity and one percent of projected wastewater treatment for the HWRP. Citywide growth would further increase wastewater generation, but such increases would not approach overall treatment capacity. Therefore, the cumulative increase in wastewater generation would not exceed the capacity of the City's wastewater treatment plants. Additionally, the City's 2006 Integrated Resources Plan incorporates a Wastewater Facilities Plan to meet future wastewater needs through the expansion of overall treatment capacity, maximizing the potential to reuse recycled water and implementation of new water conservation and technology programs (LADPW 2006).

Growth anticipated by the Proposed Project and citywide cumulative growth would contribute to an anticipated citywide increase in wastewater flow and place added demands on the wastewater conveyance system as future development takes place with the implementation of the Proposed Project. Development under the Proposed Project could require the construction of new or upgraded wastewater facilities. Such upgrades would likely occur within existing utility easements and would not result in new areas of disturbance. Construction of new or expanded conveyance facilities may be needed as a result of reasonably anticipated development and as discussed above, the City's WCIP identifies a number of sewer line projects in the Project Area. The City would require that localized system deficiencies are adequately addressed by the responsible project. Any future upgrades would be designed in accordance with applicable provisions of the Municipal Code and to the satisfaction of the City Engineer.

Routine infrastructure projects involving replacement or upgrade of sewer lines generally result in the preparation of a Mitigated Negative Declaration (MND) or, in some cases, a Categorical Exemption. The City's MNDs for sewer line replacements indicate typical less than significant construction-related impacts, including air quality, noise, and transportation impacts. The environmental impacts of the construction and operation of sewer lines would be consistent with the impacts evaluated throughout this EIR. Specifically, the EIR analyzes anticipated effects of citywide growth related to air quality, noise, traffic, and other environmental impact areas. To the extent that any significant impacts could result from the unique characteristics of a specific project or site, those impacts are too speculative to analyze at this time. As necessary, based on project and site characteristics, any such upgrades would be subject to subsequent environmental review, wherein potential impacts, if any, would be addressed accordingly. Regardless, impacts associated with construction of new facilities would be limited to the area in which the specific construction activity is occurring and would not contribute to any cumulative or citywide environmental impacts.

Any cumulative impacts related to future updates of other community or specific plans would be speculative. Individual infrastructure improvements needed citywide may result in site-specific temporary impacts related to traffic, air quality, and noise, but such impacts would be limited to the area of the construction activity and would not create any cumulative or citywide impacts. Based on the above information, the incremental contribution of the Proposed Project related to wastewater treatment and conveyance would not be cumulatively considerable and cumulative impacts would be *less than significant*.

Stormwater Drainage

Continued compliance with the City's Low Impact Development (LID) Ordinance for all new development would ensure that any future development in Los Angeles would not increase demands on stormwater drainage facilities and or expansion of existing facilities beyond specific improvements needed for individual development projects. As with the Project Area, long-term redevelopment of properties throughout the City would improve surface water quality by replacing older development with new development that incorporates LID methods. Therefore, cumulative impacts related to stormwater drainage facilities would be *less than significant*.

Water Supply

ENVIRONMENTAL SETTING

CITYWIDE SETTING

Los Angeles Department of Water and Power

The LADWP is responsible for providing water supply to the City in compliance with County, State, and Federal regulations. According to the City's 2020 Urban Water Management Plan (UWMP), which is further discussed below under *Regulatory Framework*, the primary LADWP sources of water supplies are water purchased from the Metropolitan Water District (MWD), the Los Angeles Aqueducts (LAA), and local groundwater. Recycled water projects are progressing and expected to be a greater portion of LADWP water supply in the future. Overall, these sources of water provide the necessary water to meet LADWP's water supply needs. In 2019/20 total water demand totaled 106 gallons per person per day or 495,685 AF a year from 2016-2020 (LADWP 2021b, LADWP 2021a). The 2020 UWMP water demand projection for 2045 is approximately 565,751 afy, based on normal weather conditions (LADWP 2021).

The LAA has historically been the primary source of the City's water supply. In recent years, however, the amount of water supplies from the LAA has been limited due to environmental concerns, and the City's water supply relied heavily (average of 42 percent in recent years) on the purchased water from MWD delivered from the Colorado River or the Sacramento-San Joaquin Delta. Local ground water has been a reliable water source, providing an average of 9 percent of the total water supply, but there have been concerns in recent years due to declining groundwater level and contamination issues. The City's recycled water supply is limited to specific projects within the City at this time (LADWP 2021a).

Los Angeles Aqueduct

The LAA system extends approximately 340 miles from the Mono Basin to the City. From 1995 through 2004, the LAA supplied about half of the City's water needs. The City owns approximately 312,000 acres of property in the Owens Valley and appropriates groundwater from its lands in the Owens Valley pursuant to a long-term groundwater management plan with Inyo County (LADWP 2020a).

The LAA conveys snowmelt runoff from the eastern Sierra Nevada Mountains and water supplies are supplemented by groundwater pumping. LAA supplies fluctuate from year to year due to varying annual snowfall and hydrological conditions. In recent years, the LAA supplies have decreased because of environmental obligations to dedicate water resources to mitigate groundwater pumping in the Owens Valley, restore the water level of Mono Lake, and mitigate dust emissions from Owens Lake. The Runoff Forecast Model and the Los Angeles Aqueduct Simulation Model (LAASM) was used jointly to predict water available from the LAA. Absent any system improvements, average long-term LAA is expected to be 184,200 AFY in 2045, with a decline to 1129,300 AFY given multiple dry years.

Local Groundwater

In addition to groundwater extraction from nine wellfields throughout the Owens Valley, the LADWP extracts from three local groundwater basins: San Fernando, Sylmar, and Central. The LADWP plans to continue future pumping from the local basins, with limitations based on water quality and overdraft protection.

The LADWP's groundwater pumping strategy is based on a "safe yield" strategy, in which the amount of water removed over a period of time equals the amount of water entering the groundwater basin through native and imported groundwater recharge. Further, protection from potential overdraft conditions is provided by the court-appointed Los Angeles River Area Watermaster for the San Fernando and Sylmar Basins, and a court-appointed Watermaster Panel for the Central Basin (LADWP 2021a). Annually, the Watermaster prepares a Watermaster Service Report indicating groundwater extractions, replenishment operations, imported water use, recycled water use, finances of Watermaster services, administration of the water exchange pool, and significant water-related events in the Central Basin. Additionally, a long-term groundwater management agreement between the City and Inyo County ensures the protection of LADWP's groundwater resources in Owens Valley from overdraft conditions.

Local Groundwater provided approximately eight percent of the total water supply for the City over the last five years. Additionally, local groundwater has supplied up to 23 percent of total water supply since 1970 during extended dry periods when other supplies were less reliable (LADWP 2021a).

LADWP plans to continue production from its groundwater basins in the coming years to offset reductions in imported supplies. Extraction from the basins is, however, limited by water quality and overdraft protection. Both LADWP and the California Department of Water Resources have programs in place to monitor wells to prevent over drafting.

Recycled Water

LADWP restores wastewater to a level of quality specified by the California Department of Health Services and distributes it for landscaping and industrial uses. The sustainability of the City's water supplies is dependent on the City's ability to maximize water conservation and increase recycled water use. LADWP uses recycled water produced by four wastewater treatment plants: Hyperion Advanced Water Purification Facility, Terminal Island Water Reclamation Plant, Donald C. Tillman Water Reclamation Plant, and the Los Angeles-Glendale Water Reclamation Plant. It is estimated that in 2019 320,000,000 gallons of wastewater was cleaned per day between the four reclamation plants (City of Los Angeles 2019). Currently recycled water provides approximately two percent to the City's water supply (LADWP 2021a). In 2019/20 FY, 366,000 AF came from recycled water.

Purchased Water

The remainder of the City's water demand is supplied by purchases from MWD. The Metropolitan Water District imports its water supplies from Northern California through the State Water Project's California Aqueduct and from the Colorado River by way of the MWD's Colorado River Aqueduct. LADWP is one of 26 member agencies that have preferential rights to purchase water from the MWD. LADWP has a preferential right to purchase water from the MWD pursuant to MWD Act Section 135. As a percentage of the City's total water supply, purchases of MWD water have historically varied from 4 percent in 1983-84 to 71 percent in 2008-09, with a five-year average 42 percent between 2015/16 and 2019/20. The City relies on the MWD even more in dry years and has increased its dependence in recent years as LAA supply has been reduced. Although the City plans to reduce its reliance on MWD supply, it has made significant investments in the MWD anticipating that the City will continue to rely on the wholesaler to meet its current and future supplemental water needs. The 2020 UWMP projects that LADWP's reliance on the MWD water supplies would be an average 175 percent under average weather conditions by 2045 (LADWP 2021a).

Water Supply Treatment Process

LADWP supplies water that meets or exceeds all health-related state and federal standards. LADWP accomplishes such standards by: (1) filtration of the LAA supply; (2) security measures safeguarding access

to water supply and storage areas; (3) control of algae growth in groundwater and reservoirs; (4) continuous disinfection of water entering mains; and (5) regular water quality testing, inspection, and cross-control prevention. LADWP was issued one citation in 2018 for violating the surface water treatment rule. LADWP addressed the citation and put measures in place to prevent this type of occurrence in the future.

All water coming from the LAA, the California Aqueduct, and the Colorado River Aqueduct is filtered and treated at the Los Angeles Aqueduct Filtration Plant to ensure a safe drinking water supply. Once at the filtration plant, all water travels through screens that remove environmental debris such as twigs and dead leaves. Bacteria and other impurities that can affect taste, odor, and color are eliminated by Ozone injections, a super-charged oxygen molecule with powerful disinfecting properties. Treatment chemicals are then quickly dispersed into the water to make fine particles called “floc,” which are subsequently removed via a 6-foot-deep coal filter. The final step is the addition of chlorine and fluoride which ensure lasting disinfection and strengthen tooth enamel. In May 2014, LADWP commissioned a new advanced process at the filtration plant, the Dr. Pankaj Parekh Ultraviolet (UV) Disinfection Facility, which replaces ozone as the primary disinfectant for surface water. The water goes through UV purification, which has been identified as one of the most effective methods of drinking water treatment by USEPA. Then, chlorine and ammonia are added during the final step to ensure lasting disinfection and to protect the water as it travels through the City’s large distribution system.

The Los Angeles Aqueduct Filtration Plant has a water treatment capacity of up to 600 mgd. In the mid-2000’s, LADWP began a comprehensive modernization of the filtration plant to upgrade and replace equipment. The upgrade program is on-going process and will continue to deliver dependable supply of safe, quality water to its customers in an efficient and publicly responsible manner. Furthermore, LADWP continues to invest in improving drinking water quality through its Capital Improvement Program. The approved water budget in FY 2018/2019 is \$1.54 billion with \$891 million earmarked for capital projects.

The City’s groundwater supply in the San Fernando and Central Basins is generally clean. LADWP pumps from the clean parts of the basins and disinfects this groundwater with chlorine as a safeguard against microorganisms. Additionally, LADWP continuously monitors and ensures that all water meets water quality standards and results are far below the maximum contaminant levels permitted by state or federal regulations.

Water Conveyance Facilities

As detailed in the LADWP’s 2020-2021 Fact and Figures document, water supply to the City is provided by the LADWP’s water infrastructure system. LADWP’s infrastructure and conveyance system includes 7,340 of distribution mains and trunk lines, 115 tanks and reservoirs, 85 pump stations, 9 ammoniation stations, 22 chlorination stations, 329 regulator / relief stations, 61,503 fire hydrants and 323,820 acre-feet Total Storage Capacity (LADWP 2021b).

Water Conservation

As reported in the 2020 Los Angeles Urban Water Management Plan, the City of Los Angeles is the national leader in water use efficiency (LADWP 2021a). Despite an increase in population of over one million people, the City’s water usage is lower than it was in the 1970’s. The LADWP’s goal of reducing potable water use per capita by 25% by 2023 will require the implementation of multiple strategies including investments in new technologies, rebates and incentives promoting installation of water-efficient fixtures and appliances, expansion and enforcement of prohibited water use, reduction in outdoor water use, extending education and outreach effort, and encouraging regional conservation efforts. Estimated water saving for 2019/2020 was 417,445 AF. Furthermore, state legislation, which postdates several City water conservation ordinances, has strengthened the City’s commitment to water conservation and provides added

assurance that the City will continue its leadership role in managing demand for water in the near and distant future.

PROJECT AREA SETTING

Table 4.17-4 shows the estimated daily water demand associated with existing land uses in the Project Area. Under existing conditions, Project Area development generates demand for an estimated 0.8 mgd or 913-acre feet per year (afy).

TABLE 4.17-4 CURRENT WATER DEMAND IN THE PROJECT AREA 2021				
Land Use	Dwelling Units or Jobs in Plan Area	Daily Water Use Rate (gpd/unit)	Daily Water Demand (gpd)	Annual Water Demand (afy)
Single-family ^[1]	402 du	329	132,258	148
Multi-family ^[1]	1,610 du	189	304,290	341
Commercial/Government	5,411 jobs	69	373,359	418
Total			809,907	907
NOTES:				
du - dwelling units				
gpd – gallons per day				
afy – acre feet per year (1 af = 325,850 gallons)				
Totals may not add up due to rounding.				
Single-family and multi-family units were estimated by assuming that 20 percent of total household units are single-family and 80 percent are multi-family.				
SOURCE: Source: Water demand rates were obtained from the LADWP's 2020 UWMP, Exhibit 2L. Per the 2020 UWMP, per unit water demand is forecast to decline over time; the forecast 2040 rates are assumed to apply to new development.				

REGULATORY FRAMEWORK

FEDERAL

Safe Drinking Water Act (SDWA)

The Safe Drinking Water Act ensures the quality of Americans' drinking water. The law requires actions to protect drinking water and its sources (e.g., rivers, lakes, reservoirs, springs and groundwater wells) and applies to public water systems serving 25 or more people. It authorizes the U.S. Environmental Protection Agency (USEPA) to set national health-based standards for drinking water to protect against both naturally occurring and manmade contaminants. In addition, it oversees the states, municipalities and water suppliers that implement the standards. USEPA standards are developed as a Maximum Contaminant Level (MCL) for each chemical or microbe. The MCL is the concentration that is not anticipated to produce adverse health effects after a lifetime of exposure, based upon toxicity data and risk assessment principles. USEPA's goal in setting MCLs is to assure that even small violations for a period of time do not pose significant risk to the public's health over the long run. National Primary Drinking Water Regulations (NPDWRs) are legally enforceable standards that limit the levels of contaminants in drinking water supplied by public water systems. Secondary standards are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. USEPA does not enforce these "secondary maximum contaminant levels" (SMCLs). They are established only as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color, and odor. USEPA recommends secondary standards to water systems but does not require systems to comply. However, states may choose to adopt them as enforceable

standards. California has adopted secondary standards in Title 22 of the California Code of Regulations (CCR).

STATE

California Urban Water Management Plan Act

The California Urban Water Management Planning Act (Water Code, Section 10610, et seq.) addresses several state policies regarding water conservation and the development of water management plans to ensure the efficient use of available supplies. The California Urban Water Management Planning Act also requires Urban Water Suppliers to develop Urban Water Management Plans (UWMPs) every five years to identify short-term and long-term demand management measures to meet growing water demands during normal, dry, and multiple-dry years. Urban Water Suppliers are defined as water suppliers that either serve more than 3,000 customers or provide more than 3,000 acre feet per year (afy) of water to customers.

Senate Bill 610 and 221, and Senate Bill 7

Two of the state laws addressing the assessment of water supply necessary to serve large-scale development projects, Senate Bill (SB) 610 and SB 221, became effective January 1, 2002. SB 610, codified in Water Code Sections 10910-10915, specifies the requirements for water supply assessments (WSAs) and their role in the California Environmental Quality Act (CEQA) process, and defines the role UWMPs play in the WSA process. SB 610 requires that, for projects subject to CEQA that meet specific size criteria, the water supplier prepare WSAs that determine whether the water supplier has sufficient water resources to serve the projected water demands associated with the projects. SB 610 provides specific guidance regarding how future supplies are to be calculated in the WSAs where an applicable UWMP has been prepared. Specifically, a WSA must identify existing water supply entitlements, water rights, or water service contracts held by the public water system, and prior years' actual water deliveries received by the public water system. In addition, the WSA must address water supplies over a 20-year period and consider normal, single-dry, and multiple-dry year conditions. In accordance with SB 610, projects for which a WSA must be prepared are those subject to CEQA that meet any of the following criteria:

- Residential developments of more than 500 dwelling units.
- Shopping centers or business establishments employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- Commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- Hotels, motels, or both, having more than 500 rooms;
- Industrial, manufacturing, or processing plants, or industrial parks planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area
- Mixed-use projects that include one or more of the projects specified in this subdivision; or
- Projects that would demand an amount of water equivalent to or greater than the amount of water required by a 500-dwelling-unit project. (Water Code Section 912, CEQA Guidelines Section 15155(a).

The WSA must be approved by the public water supplier serving the project at a regular or special meeting and must be incorporated into the CEQA document. The lead agency must then make certain findings related to water supply based on the WSA.

In addition, under SB 610, a water supplier responsible for the preparation and periodic updating of an UWMP must describe the water supply projects and programs that may be undertaken to meet the total project water use of the service area. If groundwater is identified as a source of water available to the supplier, the following additional information must be included in the UWMP: (1) a groundwater management plan; (2) a description of the groundwater basin(s) to be used and the water use adjudication rights, if any; (3) a description and analysis of groundwater use in the past 5 years; and (4) a discussion of the sufficiency of the groundwater that is projected to be pumped by the supplier.

SB 7, enacted on November 10, 2009, mandates new water conservation goals for UWMPs, requiring Urban Water Suppliers to achieve a 20 percent per capita water consumption reduction by the year 2020 statewide, as described in the “20 x 2020” State Water Conservation Plan. As such, each updated UWMP must now incorporate a description of how each respective urban water supplier will quantitatively implement this water conservation mandate, which requirements in turn must be taken into consideration in preparing and adopting WSAs under SB 610.

SB 221 also addresses water supply in the land use approval process for large residential subdivision projects. However, unlike SB 610 WSAs, which are prepared at the beginning of a planning process, SB 221-required Water Supply Verification (WSV) is prepared at the end of the planning process for such projects. Under SB 221, a water supplier must prepare and adopt a WSV indicating sufficient water supply is available to serve a proposed subdivision, or the local agency must make a specific finding that sufficient water supplies are or will be available prior to completion of a project, as part of the conditions for the approval of a final subdivision map. SB 221 specifically applies to residential subdivisions of 500 units or more. However, Government Code Section 66473.7(i) exempts “...any residential project proposed for a site that is within an urbanized area and has been previously developed for urban uses; or where the immediate contiguous properties surrounding the residential project site are, or previously have been, developed for urban uses; or housing projects that are exclusively for very low and low-income households.”

Senate Bill X7-7, Water Conservation Act

SB X7-7 (Water Conservation Act of 2009), codified in California Water Code Section 10608, requires all water suppliers to increase water use efficiency. Enacted in 2009, this legislation sets an overall goal of reducing per capita urban water use, compared to 2009 use, by 20 percent by December 31, 2020. The State of California was required to make incremental progress towards this goal by reducing per capita water use by at least 10 percent on or before December 31, 2015. Monthly statewide potable water savings reached 25.1 percent in February 2017 as compared to that in February 2013. Cumulative statewide savings from June 2015 through February 2017 were estimated at 22.5 percent. Following a multi-year drought and improvements to hydrologic conditions, statewide potable water savings reached 14.7 percent in August 2017 as compared to August 2013 potable water production.

California Code of Regulations Title 20

Title 20, Section 1605.3 (h) and 1505(i) of the California Code of Regulations (CCR) establishes applicable State efficiency standards (i.e., maximum flow rates) for plumbing fittings and fixtures, including fixtures such as showerheads, lavatory faucets and water closets (toilets). Among the standards, the maximum flow rate for showerheads manufactured on or after July 1, 2018 is 1.8 gpm at 80 psi; and lavatory faucets manufactured after July 1, 2016 is 1.2 gpm at 60 psi. The standard for toilets sold or offered for sale on or after January 1, 2016 is 1.28 gallons per flush.

CALGreen Code

Part 11 of Title 24, the title that regulates the design and construction of buildings, establishes the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or a positive environmental impact and encouraging sustainable construction practices in the following categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. The CALGreen Code includes both mandatory measures as well as voluntary measures. The mandatory measures establish minimum baselines that must be met in order for a building to be approved. The mandatory measures for water conservation provide limits for fixture flow rates, which are the same as those for the Title 20 efficiency standards listed above. The voluntary measures can be adopted by local jurisdictions for greater efficiency.

Plumbing Code

Title 24, Part 5 of the California Code of Regulations establishes the California Plumbing Code. The California Plumbing Code sets forth efficiency standards (i.e., maximum flow rates) for all new federally-regulated plumbing fittings and fixtures, including showerheads and lavatory faucets. The 2019 California Plumbing Code, which is based on the 2018 Uniform Plumbing Code, has been published by the California Building Standards Commission and went into effect on January 1, 2019.

Sustainable Groundwater Management Act of 2014

The Sustainable Groundwater Management Act (SGMA) of 2014, passed in September 2014, is a comprehensive three-bill package that provides a framework for the sustainable management of groundwater supplies by local authorities. The SGMA requires the formation of local groundwater sustainability agencies to assess local water basin conditions and adopt locally based management plans. Local groundwater sustainability agencies were required to be formed by June 30, 2017. The SGMA provides 20 years for groundwater sustainability agencies to implement plans and achieve long-term groundwater sustainability and protect existing surface water and groundwater rights. The SGMA provides local groundwater sustainability agencies with the authority to require registration of groundwater wells, measure and manage extractions, require reports and assess fees, and request revisions of basin boundaries, including establishing new subbasins. Furthermore, SGMA requires governments and water agencies of high and medium priority basins to stop overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For the basins that are critically over-drafted the timeline is 2040. For the remaining high and medium priority basins, the deadline is 2042.

State of Drought Emergency Declaration and Executive Orders

In response to California's drought conditions, on January 17, 2014, Governor Brown declared a State of Drought Emergency and directed state officials to take numerous necessary actions with local Urban Water Suppliers and municipalities to reduce the impacts of the ongoing drought conditions that had been occurring in California since approximately 2009. Subsequently, four Executive Orders were issued between April 2015 to April 2017 to address changing drought conditions and provide guidance for addressing the drought conditions.

Executive Order B-29-15 (April 2015) imposed a mandatory 25 percent statewide water reduction on potable water use by Urban Water Suppliers. It prioritized water infrastructure projects, incentivized water efficiencies, and streamlined permitting with new approval processes for water transfers and emergency drinking water projects. Executive Order B-36-15 (November 2015) called for additional actions to build

on the state's response to record dry conditions and assisted recovery efforts from devastating wildfires; and Executive Order B-37-16 (May 2016) continued water use restrictions from Executive Order B-29-15 as drought conditions continued to persist. Executive Order B-37-16 called for long-term improvements to local drought preparation across the state and directed the California State Water Resources Control Board (SWRCB) to develop proposed emergency water restrictions for 2017 if the drought persists.

The regulatory requirements resulting from these Executive Orders were codified in Article 22.5, Drought Emergency Water Conservation of the California Code of Regulations.

In May 2016, SWRCB adopted a revised emergency water conservation regulation, effective June 2016 through at least February 2017, which rescinded numeric reduction targets for Urban Water Suppliers, instead requiring locally developed conservation standards based upon each agency's specific circumstances.

Finally, on April 7, 2017, Executive Order B-40-17 was issued to formally end the drought emergency and lifted the drought emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne. In response to Executive Order B-40-17, on April 26, 2017, the SWRCB partially repealed the emergency regulation in regard to water supply stress test requirements and remaining mandatory conservation standards for urban water suppliers. The order also rescinded two drought-related emergency proclamations and four drought-related executive orders. Cities and water districts throughout the state are required to continue reporting their water use each month. Executive Order B-40-17 continued the ban on wasteful practices, including hosing off sidewalks and running sprinklers when it rains.

California Water Plan

Required by the CWC Section 10005(a), the California Water Plan is the state's strategic plan for managing and developing water resources statewide for current and future generations. It provides a collaborative planning framework for elected officials, agencies, tribes, water and resource managers, businesses, academia, stakeholders, and the public to develop findings and recommendations and make informed decisions for California's water future.

The Plan, updated every five years, presents the status and trends of California's water-dependent natural resources; water supplies; and agricultural, urban, and environmental water demands for a range of plausible future scenarios. The Water Plan also evaluates different combinations of regional and statewide resource management strategies to reduce water demand, increase water supply, reduce flood risk, improve water quality, and enhance environmental and resource stewardship. The evaluations and assessments performed for the plan help identify effective actions and policies for meeting California's resource management objectives in the near term and for several decades to come.

In July 2019, DWR released the Final 2018 Update to the California Water Plan. The document provides recommended actions, funding scenarios, and an investment strategy to bolster efforts by water and resource managers, planners, and decision-makers to overcome the State's most pressing water resource challenges. It reaffirms the State government's role and commitment to sustainable, equitable, long-term water resource management; and introduces implementation tools to inform decision-making. The 2018 Update recommends significant additional investment in infrastructure and ecosystem improvements to overcome challenges to sustainability; and it recommends actions to resolve systemic and institutional issues that contribute to many of the state's water challenges:

California Water Action Plan

The California Water Action Plan is a roadmap for the State's journey towards sustainable water management. The first California Water Action Plan was released in January 2014 under Governor Brown's

administration and updated in 2016. The California Water Action Plan discusses the challenges to water in California: uncertain water supplies, water scarcity/drought, declining groundwater supplies, poor water quality, declining native fish species and loss of wildlife habitat, floods, supply disruptions, and population growth and climate change further increasing the severity of these risks.

REGIONAL

As discussed in detail below, the Metropolitan Water District of Southern California (MWD) is a primary source of water supply within Southern California. Based on the water supply planning requirements imposed on its member agencies and ultimate customers, MWD has adopted a series of official reports on the state of its water supplies. As described in further detail below, in response to recent developments in the Sacramento Delta, the MWD has developed plans intended to provide solutions that, when combined with the rest of its supply portfolio, will ensure a reliable long-term water supply for its member agencies, including the City of Los Angeles.

Metropolitan Water District's 2020 Urban Water Management Plan

The Metropolitan Water district's (MWD) 2020 Regional UWMP addresses the future of MWD's water supplies and demand through the year 2045. The 2020 Regional UWMP provides an assessment of the MWD's water service reliability; describes and evaluates sources of water supply, efficient uses of water, demand management measures, implementation strategies, and schedule; and other relevant information and programs. In addition to the water reliability assessments, the UWMP includes an evaluation of frequent and severe periods of droughts, as described in the Drought Risk Assessment, and the preparation and adoption of the Water Shortage Contingency Plan (WSCP). The 2020 UWMP reports also identified projected supplies to meet the long-term demand within its service area.

The 2020 UWMP concluded that the MWD has sufficient supply to meet the expected demands from 2025 through 2045 under a single dry year condition and a period of drought lasting five consecutive water years, as well as in a normal water year hydrologic condition. The analysis for multiple-dry year conditions, i.e., under the most challenging weather conditions such as drought and service interruptions caused by natural disasters, is presented in Table 2-5 of the 2020 UWMP. In the 2020 UWMP, the projected 2045 water demand is 1,564,000 afy, with supply projected to be 2,239,000 afy, resulting in a surplus of 675,000 afy.

Metropolitan Water District's 2015 Urban Water Management Plan

The Metropolitan Water District's (MWD) 2015 Regional UWMP (RUWMP) addresses the future of MWD's water supplies and demand through the year 2040. Evaluations are prepared for average year conditions, single dry-year conditions, and multiple dry-year conditions. The analysis for multiple-dry year conditions, i.e. under the most challenging weather conditions such as drought and service interruptions caused by natural disasters, is presented in Table 2-4 of the 2015 RUWMP. The analysis in the 2015 RUWMP concluded that reliable water resources would be available to continuously meet demand through 2040. In the 2015 RUWMP, the projected 2040 demand water is 2,201,000 afy, whereas the expected and projected 2040 supply is 2,941,000 afy based on current programs, and an additional 398,000 afy is expected to become available under programs under development for a potential surplus in 2040 of 1,138,000 afy.

MWD has comprehensive plans for stages of actions it would undertake to address up to a 50-percent reduction in its water supplies and a catastrophic interruption in water supplies through its Water Surplus and Drought Management and Water Supply Allocation Plans. MWD has also developed an Emergency Storage Requirement to mitigate against potential interruption in water supplies resulting from catastrophic occurrences within the Southern California region and is working with the State to implement a comprehensive improvement plan to address catastrophic occurrences that could occur outside of the

Southern California region. MWD is also working with the State on the Delta Risk Management Strategy to reduce the impacts of a seismic event in the Delta that would cause levee failure and disruption of State Water Project (SWP) deliveries. In addition, MWD has plans for supply implementation and continued development of a diversified resource mix, including programs in the Colorado River Aqueduct (CRA), SWP, Central Valley transfers, local resource projects, and in-region storage that enables the region to meet its water supply needs. As set forth in their 2015 UWMP, MWD will also continue investments in water use efficiency measures to help the region achieve the 20 percent per person potable water use reduction by 2020.

MWD's 2015 Integrated Resources Plan

The MWD prepares an Integrated Water Resources Plan (IRP) that provides a water management framework with plans and programs for meeting future water needs. It addresses issues that can affect future water supply such as water quality, climate change, and regulatory and operational changes. The most recent IRP (2015 IRP) was adopted in January 2016. It establishes a water supply reliability mission of providing its service area with an adequate and reliable supply of high-quality water to meet present and future needs in an environmentally and economically responsible way. Among other topics, the 2015 IRP discusses water conservation, local and imported water supplies, storage and transfers, water demand, and adaptation to drought conditions.

The 2015 IRP reliability targets identify developments in imported and local water supply, and in water conservation that, if successful, would provide a future without water shortages and mandatory restrictions under planned conditions. For imported supplies, MWD would make investments to maximize CRA deliveries in dry years. MWD would make ecologically-sound infrastructure investments to the SWP so that the water system can capture sufficient supplies to help meet average year demands and to refill the MWD storage network in above-average and wet years.

Planned actions to keep supplies and demands in balance include, among others, lowering regional residential per capita demand by 20 percent by the year 2020 (compared to a baseline established in 2009 state legislation), reducing water use from outdoor landscapes and advancing additional local supplies. IRP Table ES-1, 2015 IRP Update Total Level of Average-Year Supply Targeted (Acre-Feet), of the 2015 IRP, shows the supply reliability and conservation targets. As presented in the IRP, the total supply reliability target for each five-year increase between 2016 and 2040 would exceed the retail demand after conservation. In 2040, retail demand after conservation is estimated to be 4,273,000 acre-feet and the total supply reliability target is approximately 4,539,000 acre-feet, representing an excess of 266,000 acre-feet.

MWD's Water Surplus and Drought Management Plan

In 1999, MWD incorporated the water storage contingency analysis that is required as part of any UWMP into a separate, more detailed plan, called the Water Surplus and Drought Management Plan (WSDM Plan). The overall objective of the WSDM Plan is to ensure that shortage allocation of MWD's imported water supplies is not required. The WSDM Plan provides policy guidance to manage MWD's supplies and achieve the goals laid out in the agency's IRP. The WSDM Plan separates resource actions into two major categories: Surplus Actions and Shortage Actions. The WSDM Plan considers the region to be in surplus only after MWD has met all demands for water, including replenishment deliveries. The Surplus Actions store surplus water, first inside then outside of the region. The Shortage Actions of the WSDM are separated into three subcategories: Shortage, Severe Shortage, and Extreme Shortage. Each category has associated actions that could be taken as part of the response to prevailing shortage conditions. Conservation and water efficiency programs are part of MWD's resource management strategy through all categories.

MWD's Water Supply Allocation Plan

While the WSDM Plan included a set of general actions and considerations for MWD staff to address during shortage conditions, it did not include a detailed water supply allocation plan or implementation approach. Therefore, in February 2008, MWD adopted a water supply plan called the Water Supply Allocation Plan (WSAP), which has since been implemented three times, most recently in April 2015 (under the new name Drought Rationing Plan). The WSAP includes a formula for determining equitable, needs-based reductions of water deliveries, with the potential application of a surcharge, to member agencies during extreme water shortages in MWD's service area conditions (i.e., drought conditions or unforeseen interruptions in water supplies).

The WSAP allows member agencies the flexibility to choose among various local supply and conservation strategies to help ensure that demands on MWD stay in balance with limited supplies. The WSAP formula addresses shortages of MWD supplies, by taking into account growth, local investments, changes in supply conditions and the demand hardening aspects of non-potable recycled water use and the implementation of conservation savings programs. The allocation period covers 12 consecutive months from July of a given year through the following June.

LOCAL

City of Los Angeles General Plan Framework Element.

The Citywide General Plan Framework Element (General Plan Framework) establishes the conceptual basis for the City's General Plan. The General Plan Framework sets forth a comprehensive Citywide long-range growth strategy and defines Citywide policies regarding land use, housing, urban form and neighborhood design, open space and conservation, economic development, transportation, infrastructure and public services. Chapter 9, Infrastructure and Public Services, of the City's General Plan Framework identifies goals, objectives, and policies for City utilities including water service. Goal 9C is to provide adequate water supply, storage facilities, and delivery system to serve the needs of existing and future water needs. The goals, objectives, and policies of the Framework that are related to water supply, storage, and delivery infrastructure are listed in **Table 4.17-5**.

TABLE 4.17-5 RELEVANT GENERAL PLAN WATER SUPPLY GOALS, OBJECTIVES, AND POLICIES	
Goal/Objective/Policy	Goal/Objective/Policy Description
FRAMEWORK ELEMENT – CHAPTER 9 INFRASTRUCTURE AND PUBLIC SERVICES	
Goal 9C	Adequate water supply, storage facilities, and delivery system to serve the needs of existing and future residents and businesses.
Objective 9.8	Monitor and forecast water demand based upon actual and predicted growth.
Policy 9.8.1	Monitor water usage and population and job forecast to project future water needs.
Objective 9.9	Manage and expand the City's water resources, storage facilities, and water lines to accommodate projected population increases and new or expanded industries and businesses.
Policy 9.9.1	Pursue all economically efficient water conservation measures at the local and statewide level.
Policy 9.9.2	Develop reliable and cost-effective sources of alternative water supplies, including water reclamation and exchanges and transfers.
Policy 9.9.3	Protect existing water supplies from contamination and clean up groundwater supplies so those resources can be more fully utilized.
Policy 9.9.4	Work to improve water quality and reliability of supply from the State Water Project and other sources.

TABLE 4.17-5 RELEVANT GENERAL PLAN WATER SUPPLY GOALS, OBJECTIVES, AND POLICIES	
Goal/Objective/Policy	Goal/Objective/Policy Description
Policy 9.9.5	Maintain existing rights to groundwater and ensure continued groundwater pumping availability.
Policy 9.9.6	Identify the needs for land and facilities necessary to provide an adequate and reliable water supply and develop those facilities in an environmentally and socially sensitive way.
Policy 9.9.7	Incorporate water conservation practices in the design of new projects so as not to impede the City's ability to supply water to its other users or overdraft its groundwater basins.
Policy 9.9.9	Clean or replace where necessary, deficient water distribution lines in the City.
Objective 9.10	Ensure that water supply, storage, and delivery systems are adequate to support planned development.
Policy 9.10.1	Evaluate the water system's capability to meet water demand resulting from the Framework Element's land use patterns.
Policy 9.10.2	Solicit public involvement, when appropriate, in evaluating options for the construction of new and/or expansion of existing water facilities.
Objective 9.11	Ensure, to the extent possible, the continued provision of water capacity, quality and delivery after an earthquake or other emergency.
Policy 9.11.1	Provide for the prompt resumption of water service with adequate quantity and quality of water after an emergency.
SOURCE: City of Los Angeles, <i>City of Los Angeles General Plan, Safety Element</i> , adopted 1996; <i>Conservation Element</i> , adopted 2001., and <i>Framework Element</i> , re-adopted 2001.	

In addition to the Framework Element, the Safety Element (adopted in 2021) has a policy that supports water conservation and local water supply. Policy 1.2.3 (**Local Water**): Continue to lead in water conservation and smart water policy through improvements to per capita water use, watershed management, and wastewater and stormwater recycling.

Los Angeles Municipal Code

The City has adopted several ordinances, later codified in the Los Angeles Municipal Code (LAMC), in an effort to reduce water consumption. A summary of the City's key regulations regarding water conservation is provided below.

- Ordinance Nos. 166,080, 181,288, 183,608, and 184,250—amending LAMC Chapter XII, Article 1 to clarify prohibited uses of water and modify certain water conservation requirements of the City's Emergency Water Conservation Plan. The City's Emergency Water Conservation Plan sets forth six different phases of water conservation, which shall be implemented based on water conditions. As part of these requirements, watering is limited to specific days and hours. In determining which phase of water conservation shall be implemented, LADWP monitors and evaluates the projected water supply and demand. In addition, the Emergency Water Conservation Plan includes penalties for those that violate its requirements.
- Ordinance No. 180,822—amended LAMC Chapter XII, Article 5 to establish water efficiency requirements for new development and renovation of existing buildings, and mandate installation of high efficiency plumbing fixtures in residential and commercial buildings.
- Ordinance No. 181,480—amended LAMC Chapter IX by adding Article 9 (Green Building Code) to the LAMC to incorporate various provisions of the California Green Building Standards Code. This ordinance added mandatory measures for newly constructed low-rise residential and non-

residential buildings to reduce indoor water use by at least 20 percent by: (1) using water saving fixtures or flow restrictions; and/or (2) demonstrating a 20percent reduction in baseline water use.

- Ordinance Nos. 181,899 and 183,833—amended LAMC Chapter VI, Article 4.4, Section 64.72 regarding stormwater and urban runoff to include new requirements, including Low Impact Development (LID) requirements that promote water conservation.
- Ordinance No. 182,849—amended LAMC Chapter IX, Article 9 (Green Building Code) to mandate that for new water service or for additions or alterations requiring upgraded water service for landscaped areas of at least 1,000 square feet, separate sub-meters or metering devices shall be installed for outdoor potable water use. This ordinance also required that for new non-residential construction with at least 1,000 square feet of cumulative landscaped area, weather or soil moisture-based irrigation controllers and sensors be installed.
- Ordinance No. 184,692—amended LAMC Chapter IX, Article 4 (Plumbing Code) by adopting by reference various sections of the California Plumbing Code. This ordinance also added requirements for plumbing fixtures and fixture fitting.
- Ordinance No. 184,248—amended LAMC Chapter IX, Article 4 (Plumbing Code) and Article 9 (Green Building Code) to establish citywide water efficiency standards and mandate a number of new fixture requirements and methods of construction for plumbing and irrigation systems.

The City of Los Angeles also has adopted numerous requirements related to the provision of water for purposes of fire protection. These requirements are set forth in the Fire Code (LAMC Chapter V, Article 7). LAMC Section 57.507.3.1 establishes fire water flow standards. Fire water flow requirements, as determined by the Los Angeles Fire Department (LAFD), vary by project site as they are dependent on land use (e.g., higher intensity land uses require higher flow from a greater number of hydrants), life hazard, occupancy, and fire hazard level. As set forth in LAMC Section 57.507.3.1, fire water flow requirements vary from 2,000 gallons per minute (gpm) in low density residential areas to 12,000 gpm in high density commercial or industrial areas. A minimum residual water pressure of 20 pounds per square inch (psi) is to remain in the water system with the required gpm flowing. As set forth in LAMC Section 57.507.3.1, Industrial and Commercial land uses (which the LAFD has classified the Project as) have a minimum required fire flow of 6,000 gpm to 9,000 gpm from four to six adjacent hydrants flowing simultaneously with a residual pressure of 20 psi unless otherwise determined by LAFD. LAMC Section 57.507.3.2 also addresses land use-based requirements for fire hydrant spacing and type. Land uses in the Industrial and Commercial category require one hydrant per 80,000 square feet of land with 300-foot distances between hydrants, and 2.5 inch by 4 inch double fire hydrants or 4-inch by 4-inch double fire hydrants. Regardless of land use, every first story of a residential, commercial, and industrial building must be within 300 feet of an approved hydrant.

LADWP Urban Water Management Plan

In accordance with the California Urban Water Management Planning Act, UWMPs are updated at 5-year intervals. LADWP adopted the 2020 UWMP on May 25, 2021. The 2020 UWMP complies with the Urban Water Management Planning Act, builds upon the goals and progress made in the 2015 UWMP and currently serves as the City's master plan for reliable water supply and resource management consistent with the City goals and objectives. The UWMP details LADWP's efforts to promote the efficient use and management of its water resources. LADWP's UWMP used a service area-wide methodology in developing its water demand projections. This methodology does not rely on individual development demands to determine area-wide growth. Rather, the projected growth in water use for the entire service area was considered in developing long-term water projections for the City to the year 2045. Long range projections are based on SCAG growth projections. The 2020 UWMP is based on projections in the 2020-2045 RTP/SCS.

The 2020 UWMP takes into account a number of significant changes that have occurred since LADWP prepared its 2015 UWMP. The year 2012 marked the beginning of the current multi-year drought in California. As stated above, in January 2014, Governor Brown proclaimed a drought state of emergency. In July 2014, the SWRCB implemented its Emergency Water Conservation Regulation (Emergency Regulation), as directed by Governor Brown, to take actions to reduce water use by 20 percent statewide. Later, the mandated reductions were increased to 25 percent statewide, with adjustments to account for different climates, expected growth, investment made to create drought-resilient water supplies by different cities through October 2016. In October 2014, Mayor Eric Garcetti issued Executive Directive No. 5 (ED5) Emergency Drought Response which set goals to reduce per capita water use, reduce purchases of imported potable water by 50 percent, and create an integrated water strategy to increase local supplies and improve water security considering climate change and seismic vulnerability. Lastly, in April 2015, the Mayor's Sustainable City pLAN, (updated in 2019 as the City's Green New Deal), was released establishing targets for the City over the next 20 years to strengthen and promote sustainability. The 2020 UWMP incorporates the objectives of these recent initiatives. As a result of water conservation measures, including the first ever statewide mandatory water use restrictions implemented by 2015, the City has reduced its water usage by 18 percent during FY 2019/20 compared to FY 2013/2014.

Single-family residential use decreased by 20 percent, multi-family residential use decreased by 11 percent, commercial use decreased by 23 percent, industrial use decreased by 33 percent, and government use decreased by 21 percent.

The LADWP is committed to meeting all the City's current and future water needs while increasing supply reliability, reducing imported water purchases, and increasing locally produced water by continuing with the strategy to:

- Achieve significant water conservation and water use efficiency enhancements
- Increase stormwater capture capacity
- Maximize water reuse
- Maximize and expand groundwater production
- Maintain and increase operational integrity of the LAA and in-City water distribution systems
- Ensure continued reliability of the water supplies from the MWD through active representation of the City's interests on the MWD Board
- Meet or exceed all federal and State standards for drinking water quality

Green New Deal

The City released the first Sustainable City pLAN in April 2015, which has been updated in 2019 as the City's Green New Deal. The Green New Deal includes a multi-faceted approach to developing a locally sustainable water supply to reduce reliance on imported water, reducing water use through conservation, and increasing local water supply and availability.

One Water LA 2040 Plan

In April 2018, the City prepared the One Water LA 2040 Plan (One Water LA Plan), an integrated approach to Citywide recycled water supply, wastewater treatment, and stormwater management. The new plan builds upon the City's Water IRP, which projected needs and set forth improvements and upgrades to wastewater conveyance systems, recycled water systems, and runoff management programs through the year 2020, and extends its planning horizon to 2040. The One Water LA Plan proposes a collaborative approach to managing the City's future water, wastewater treatment, and stormwater needs with the goal of

yielding sustainable, long-term water supplies for Los Angeles to ensure greater resilience to drought conditions and climate change. The One Water LA Plan is also intended as a step toward meeting the Mayor's Executive Directive to reduce the City's purchase of imported water by 50 percent by 2024. Major challenges addressed in the One Water LA Plan include recurring drought, climate change, and the availability of recycled water in the future in light of declining wastewater volumes.

Los Angeles Water Rate Ordinance

The City's Water Rate Ordinance was adopted in June 1995 and last amended by the City's Board of Water and Power Commissioners pursuant to Ordinance No. 184,130. Effective since April 15, 2016, this City Water Rate Ordinance restructured water rates to help further promote conservation. Specifically, the goal of the ordinance is to incentivize water conservation while recovering the higher costs of providing water to high volume users and accelerating development of sustainable local water supply. Tiered water rate schedules were established for: single-dwelling unit customers; multi-dwelling unit customers; commercial, industrial, and governmental customers and temporary construction; recycled water service; private water service; publicly sponsored irrigation, recreational, agricultural, horticultural, and floricultural uses, community gardens and youth sports. The new water rate structure increases the number of tiers from two to four for single-dwelling unit customers. In addition, this ordinance intends to maintain cost-of-service principles, incremental tier pricing based on the cost of water supply, and added pumping and storage costs.

Landscape Ordinance No. 170978

In 1996, Landscape Ordinance No. 170978 became effective with an overarching goal to improve the efficient use of outdoor water. This Ordinance was amended in 2009 to comply with the Water Conservation in Landscaping Act of 2006 and the Model Water Efficient Landscape Ordinance.

- Ordinance No. 185,198, 185,5585, and 186,789—the Existing Buildings Energy and Water Efficiency (EBEWE) Ordinance amended LAMC Chapter IX, Article 1 (Building Code) in 2017 and made public the annual energy and water consumption of all buildings over 20,000 square feet in the City. Beginning in 2017, privately owned buildings that are 20,000 square feet or more and buildings owned by the City that are 7,500 or more are required to be benchmarked, and owners must disclose annual energy and water consumption. Privately owned buildings that are 100,000 square feet or more must begin benchmarking reporting by December 1, 2017, and smaller buildings must begin reporting over the following two years. The Ordinance is designed to facilitate the comparison of buildings' energy and water consumption, and reduce building operating costs, lower energy and water consumption.

LADWP Policies

The City requires that each applicant coordinate with the LADWP in order to ensure that existing and/or planned water conveyance facilities are capable of meeting water demand/pressure requirements. In coordination with the LADWP, each applicant/contractor shall identify specific on- and off-site improvements needed to ensure that impacts related to water supply and conveyance demand/pressure requirements are addressed at the time that a water connection permit application is submitted. Water supply and conveyance demand/pressure clearance from LADWP shall be required during this time as well.

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance were developed in accordance with CEQA Guidelines Appendix G. Impacts would be significant if the Proposed Project would:

- Require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects (Threshold 4.17-4); and/or
- Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years (Threshold 4.17-5)

METHODOLOGY

The analysis of the Proposed Project's impacts with respect to water quality and supply focuses on whether existing and projected infrastructure capacities or supplies would be sufficient to meet future demands associated with forecast development, including impacts associated with building new facilities to meet future demand. Project-generated demands were calculated using existing level of development in the Project Area, forecast level of development in the Project Area in 2040, and utility rates per development unit (e.g., water use per dwelling unit). The impact is the net change relative to existing conditions (i.e., 2040 with Project conditions – baseline conditions).

Under Threshold 4.17.1, not having adequate facilities to serve the Proposed Project is not in and of itself a significant impact. Rather the question is whether construction of needed facilities results in environmental impacts. As a result, the analysis is two parts: first, whether reasonably anticipated development under the Proposed Project can be served by existing water facilities or if it is reasonably anticipated to cause the need for new or relocated; and second, if it will need new or relocated water facilities, whether it is reasonably anticipated that construction or relocation of such facilities will result in a significant environmental impact.

Under Threshold 4.17.2, the Proposed Project would have a significant impact if the City did not have adequate water supply to serve reasonably anticipated development under the Proposed Project,

Water demand rates were obtained from the LADWP's 2020 UWMP, Exhibit 2F and Exhibit 2L (LADWP 2021a). This provides a conservative estimate as the Project Area contains few single-family residential areas and single-family units have higher average utility usage rates than multi-family units. It was also assumed that the number of single-family homes would remain constant under future conditions relative to baseline conditions and all new residential development through 2040 would be multifamily.

State and local policies, plans, initiatives, and projects, such as SBX7-7, SB 1016, Emergency Water Conservation Plan, RENEW LA Plan and Ordinance 181519, as discussed above under Regulatory Setting, are in place or are anticipated to be implemented over the Proposed Project's time horizon that would reduce utility consumption rates over time. However, baseline rates were used to calculate projected usage in 2040, as it is speculative to assume the decreases that would result from their implementation. The one exception is for water as the 2020 UWMP provides project water use rates for 2045. These projected rates incorporate savings from codes and ordinances currently in place, but do not take into consideration planned projects, future policies, or initiatives (LADWP 2020a), and therefore, also provide a conservative estimate of future consumption. A qualitative discussion of planned capacity-building or supply-enhancing projects is included in the analysis.

Consistent with the Population and Housing Analysis, Citywide impacts are analyzed assuming growth and demands placed on utilities and service systems based on SCAG projections.

PROJECT IMPACTS

Threshold 4.17-4	Require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects
Threshold 4.17-5	Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years

Impact 4.17-4, 4.17-5 Proposed Project: If new facilities are determined to be necessary, the construction of such infrastructure would not be expected to result in significant impacts since it typically involves replacement of lines in the same locations as existing lines. Therefore, impacts related to the construction of new water conveyance infrastructure and water treatment facilities or expansion of existing facilities would be *less than significant*. Implementation of the Proposed Project is forecast to increase water demand in the Project Area by approximately 4,108,024 gpd (17,892 afy), an increase of 100 percent from existing conditions. Although the City’s 2020 UWMP indicates adequate water supply exists to meet projected demand through the year 2045., a water supply assessment will ensure that there is adequate supply to address the increase in population and water supply demand projected. Therefore, impacts to water supply would be *less than significant with mitigation*.

Project Impact

Impacts from Construction of Facilities

As development occurs incrementally throughout the Project Area, upgrades to water conveyance facilities may be required. LADWP installs and maintains the water distribution system. The 2022-2023 LADWP Water Infrastructure Plan establishes goals and targets for replacing and/or upgrading infrastructure. Through infrastructure projects, the LADWP would replace or upgrade major system components that are outdated or malfunctioning. With approximately 7,200 miles of water pipes citywide, LADWP plans to replace approximately 500 miles in the next 10 years giving the highest priority to pipes with high risk of failure.

TABLE 4.17-6 ESTIMATED WATER DEMAND IN THE PROJECT AREA (2040)				
Land Use	Dwelling Units or Jobs in Plan Area	Daily Water Use Rate (gpd/unit)	Daily Water Demand (gpd)	Annual Water Demand (afy)
Single-family Residential	4,007 du	329	1,318,3030	14,767
Multi-family Residential	16,029 du	189	3,029,481	3,393
Commercial/ Governmental	8,263 jobs	69	570,147	639
Total 2040 with Project Water Demand			4,917,931	18,799
Current Water Demand (2021)			809,907	907
Net Change in Water Demand			4,108,024	17,892
NOTES:				
Water demand numbers are rounded to the nearest thousand. Totals may not add up due to rounding.				
du – dwelling unit				
gpd – gallons per day				
afy – acre feet per year (1 af = 325,850 gallons)				
SOURCE: Water demand rates were obtained from the LADWP's 2020 UWMP, Exhibit 2L. Per the 2020 UWMP, per unit water demand is forecast to decline over time; the forecast 2040 rates are assumed to apply to new development.				

The precise location and connection would need to be determined at the time development is proposed. Should any new connections or upgrades be required, such upgrades would be subject to subsequent environmental review. Any future line size modifications or connections would be designed in accordance with applicable provisions of the Municipal Code. In coordination with the LADWP, project applicants are required to identify specific on- and off-site improvements needed to ensure that impacts related to water supply and conveyance demand/pressure requirements are addressed prior to issuance of a certificate of occupancy. Water supply and conveyance demand/pressure clearance from LADWP are required at the time that a water connection permit application is submitted. In addition, the City requires applicants to coordinate with the LAFD and Building and Safety Department to ensure that existing and/or planned fire hydrants are capable of meeting fire flow demand/pressure requirements. The issuance of building permits is dependent upon submission, review, approval, and testing of fire flow demand and pressure requirements, as established by the LAFD and Building Safety Department prior to occupancy.

Development under the Proposed Project could require the construction of new or upgraded water distribution facilities. However, if new facilities are determined to be necessary at some point in the future, the construction of such infrastructure would not be expected to result in significant environmental impacts since it typically involves replacement of lines in the same locations as existing lines. Routine infrastructure projects involving replacing or upgrading water distribution facilities, such as trunk lines, generally include the preparation of a ND/MND and in some cases may possibly qualify for a Categorical Exemption (e.g., CEQA Guidelines Section 15302). The environmental impacts of the construction and operation of these new or upgraded facilities are consistent with the impacts that have been evaluated throughout this EIR. Specifically, the EIR analyzes anticipated effects of citywide growth related to air quality, noise, traffic, and other environmental impact areas. To the extent that any significant impacts could result from the unique characteristics of a specific site, those impacts would be speculative at this time. Any such upgrades would be subject to subsequent environmental review, wherein potential impacts, if any, would be addressed. Therefore, impacts related to the construction of new water conveyance infrastructure and water treatment facilities or expansion of existing facilities under the Proposed Project would be *less than significant*.

Water Supplies

Table 4.17-6, above, summarizes estimated water demand for the Project Area in 2040 with implementation of the Proposed Project. As indicated in the table below, new development forecast under the Project through 2040 would generate an estimated demand of 4,917,931 gpd, or 18,799 afy, which is an increase of about 100 percent compared to the baseline generation of 809,907 gpd, or 907 afy.

Per the 2020 UWMP, current water supplies, planned future water conservation efforts, and planned future water supplies will enable LADWP to reliably provide water that meets the demands of the City for a 25-year planning horizon (through 2045). The 2020 UWMP indicates that water deliveries to the City totaled approximately 300,000 afy in 2020. Projected total water demand for the City under average year conditions for year 2040 is 697,800afy. Projected total water demand for the City for 2040 under single/multiple dry years conditions is 714,400 afy. The 2020 UWMP projects an increase of 58,000 afy (8 percent) in water demand between 2025 and 2045, under single/multiple dry year conditions. The projected net increase in water demand of 17,892 afy generated by new development facilitated by the Proposed Project would represent about 31 percent of the forecasted water demand increase through 2045. The 2020 UWMP water demand projections are based on SCAG demographic data and population projections and the 2020 Regional Transportation Plan (RTP). As discussed in Section 4.12, *Population and Housing*, updates to the CASP would accommodate a development capacity consistent with long-range SCAG growth projections for the City. Because the water demand projections for the Project Area have been accounted for in the 2020 UWMP, adequate supply should be available to meet estimated demand of the Project Area during normal and single dry year conditions and multiple dry years up to the year 2045.

As discussed in the *Regulatory Setting*, new development facilitated by the Proposed Project would be required to comply with the City's water conservation ordinances, such as the Model Water Efficient Landscape Ordinance, which requires that new construction projects develop water budgets for landscaping, reduction of erosion and irrigation related runoff, utilization of recycled water if available, irrigation audits, development of requirements for landscape and irrigation design, and scheduling of irrigation based on localized climate. Compliance with the Water Efficiency Requirements Ordinance and Supply Ordinance No. 165004 would require new buildings to install water conservation fixtures, such as ultra-low-flush toilets, urinals, taps, and showerheads, and plumbing fixtures in order to obtain building permits in the City of Los Angeles. Although the City's 2020 UWMP indicates adequate water supply exists to meet projected demand through the year 2045, the projected increase in water demand in the Project Area by approximately 4,108,024 gpd (17,892 afy), an increase of 100 percent from existing conditions, would result in impacts to future water supplies that are *potentially significant*.

Mitigation Measures

4.17-1 Water Supply Assessment

A Water Supply Assessment (WSA), prepared by a qualified water expert to meet the requirements herein, shall be required and furnished to the City for inclusion in any environmental documentation for certain developments (as defined in Water Code 10912[a]) in the Project Area subject to California Environmental Quality Act. Under SB 221, approval by the City of certain residential subdivisions should require a affirmative written verification of sufficient water supplies. The WSA must identify existing water supply entitlements, water rights, or water service contracts held by the public water system, and prior years' actual water deliveries received by the public water system. The WSA must address water supplies over a 20-year period and consider normal, single-dry, and multiple-dry year conditions.

Significance After Mitigation

To ensure there is adequate water supply, Mitigation Measure 4.17-1 requires completion of a Water Supply Assessment for all discretionary projects in the Project Area if required by SB 221. With this, impacts would be *less than significant with mitigation*.

CUMULATIVE IMPACTS

The geographic area to analyze cumulatively considerable impacts to water includes the entire City of Los Angeles. Cumulative development throughout Los Angeles would add both dwelling units and non-residential development to the City. Citywide development through 2040 would add approximately 562,000 new residents, 236,000 new households, and 256,000 new employees (SCAG 2020). Cumulative impacts from this development are discussed below by impact area.

Total water demand projected by the City's 2020 UWMP accounts for population growth within its jurisdictional boundaries, which is based on SCAG's demographic data and the 2020 RTP/SCS. Per the 2020 UWMP, demographic projections for the LADWP service area include a population of 4,670,693 persons, 1,757,976 housing units and 2,150,360 jobs for 2040 (LADWP 2020a). As shown in **Table 4.17-6**, projected total water demand for the City for 2040 under single/multiple dry year conditions is 732,700 afy. Per the 2020 UWMP, based on current water supplies, planned future water conservation and planned future water supplies, LADWP will be able to reliably provide water to meet the demands of the City for the 25-year planning horizon identified in the 2020 UWMP. Therefore, cumulative development related to the Proposed Project would not result in a cumulative impacts with respect to water supply and the Proposed Project's incremental contribution to water supply demand would not be cumulatively considerable. Cumulative impacts related to water supply are *less than significant*.

As discussed in Section 4.12, *Population and Housing*, and under Impact 4.17- and 4.17-2, the Proposed Project, an update to the existing CASP, would provide for a development capacity consistent with long-range Citywide SCAG growth projections; therefore, implementation of the Proposed Project would result in an increase in water demand consistent within UWMP projections. As discussed above, the 2020 UWMP water demand projections are based on SCAG population projections, so since the UWMP forecasts adequate water supplies based on these projections water supply shortages are not anticipated. Additionally, future community and specific plan updates would be required to adhere to existing state and local requirements related to water supply.

The increase in water demand could potentially increase pressure on the City's water infrastructure, including water mainline and trunk lines. In 2018, LADWP prepared a Water Infrastructure Plan, which addresses the City's long-term goals for replacing the City's water infrastructure. The report states that LADWP plans to replace approximately 500 miles of leak-prone and high-risk water mainlines in the next 10 years, and LADWP is increasing the rate at which they replace water distribution mainline to bring the pipe replacement cycle closer to the expected pipe life cycle by year 2020. The upgrading and replacement of the City's water infrastructure generally result in the preparation of an MND or, in some cases, a Categorical Exemption. The City's MNDs for water line replacements typically indicate less-than-significant impacts, including air quality, noise, and traffic impacts. The environmental impacts of the construction and operation of water lines are localized in nature and consistent with the impacts evaluated throughout this EIR. Specifically, the EIR analyzes anticipated effects of citywide growth related to air quality, noise, traffic, and other environmental impact areas. To the extent that any significant impacts could result from the unique characteristics of a specific project site, those impacts are too speculative to analyze at this time. Therefore, the Proposed Project's contribution to impacts related to water conveyance would not be cumulatively considerable.

Based on the above information, the incremental contribution of the Proposed Project related to water supply or conveyance would not be cumulatively considerable and cumulative impacts would be *less than significant*.

Solid Waste

ENVIRONMENTAL SETTING

CITYWIDE SETTING

Solid waste management, including collection and disposal services and landfill operation in Los Angeles is administered by various public agencies and private companies. Refuse on public streets is collected by the City Department of Public Works Bureau of Sanitation (LASAN) and disposed of at City operated landfills. LASAN administers the City of Los Angeles's Clean Water, Solid Resources, Watershed Protection, and Environmental Quality Programs with the mission to protect public health and the environment. Additionally, LASAN provides collection services primarily to single-family residences and some of the smaller multi-family residences, collecting over one million tons of refuse annually from 750,000 customers including single- and small multi-family residences, averaging 6,652 tons per day (LADPW 2022a). The City is also responsible for collecting waste from the City Hall complex, some public buildings, parks, and fire stations. Large multi-family residences, such as apartment complexes and condominiums, and commercial and industrial buildings, contract with a private company to collect and transport their materials for disposal or recycling (City of Los Angeles 2022c).

Waste generated by construction and the majority of multi-family residential sources and all commercial and industrial sources is collected by private contractors. Private contractors can dispose of waste at a City-operated landfill or a landfill of their choosing. On April 15, 2014, the Mayor and City Council approved the ordinance that established the Zero Waste LA Franchise System, which allows the City to establish an exclusive franchise system with 11 zones. With a single trash hauler responsible for each zone, the franchise system allows for the efficient collection and sustainable management of solid waste resources and recyclables. The Franchise System serves all users within a zone that are not serviced by LASAN and became operational in July, 2017.

As of 2012, the City achieved a diversion rate of 76.4 percent (City of Los Angeles 2022c). As discussed further under *Regulatory Framework*, per the Solid Waste Integrated Resources Plan (SWIRP), landfill solid waste disposal for the City of Los Angeles totaled 2,849,237 annual tons in 2010. Assuming no additional programs are implemented to reduce waste and that the City maintains its 2010 baseline diversion rate (72 percent), citywide disposal is projected to increase by 10 percent to 3,121,937 annual tons by 2030 (LADPW 2022c).

Landfills

Solid waste generated in Los Angeles is sent to waste disposal sites (i.e., landfills) operated by the City and County as well as by private companies. In addition, transfer stations temporarily store debris until larger haul trucks are available to transport the materials directly to the landfills. **Table 4.17-7** lists the city in which each landfill is located, remaining capacity, daily intake, and Annual Tonnage (County of Los Angeles 2020). The Commerce Refuse to Energy Facility and the Southeast Resource Recovery Facility extend the landfill capacity by combusting solid waste and selling energy generated by combustion to local utility companies. While neither facility currently encounters maximum capacity issues, both are restricted in regard to the daily amount and type of solid waste that they can accept and process. Another alternate solid waste disposal method includes recycling businesses, with the most notable location being the Azusa

Reclamation facility. The City is primarily served by the Sunshine Canyon Landfill, which accepts residential, commercial, and construction waste (City of Los Angeles 2019). As shown in **Table 4.17-7**, the combined daily intake average is 18,620 tons per day.

TABLE 4.17-7 SOLID WASTE FACILITIES SERVING THE CITY OF LOS ANGELES				
Facility Name	Landfill Site Location	Remaining Capacity (Mil. tons)^[1]	2019 Average Disposal (tons/day)	Annual Tonnage
Antelope Valley	Palmdale	11.0	2,046	638,400
Calabasas	Agoura	4.3	842	262,800
Chiquita Canyon	Castaic	57.0	5,115	1,596,000
Lancaster	Lancaster	9.9	350	109,100
Sunshine Canyon	Los Angeles	55.2	6,919	2,158,700
Scholl Canyon	Glendale	3.8	1,075	335,500
Commerce Refuse to Energy Facility/b/	Commerce	-	-	-
Southeast Resource Recovery Facility/b/	Long Beach	-	1,235	444,600
Azusa Land Reclamation	Azusa	59	1,038	373,680
Totals		200.2	18,620	5,918,780
SOURCE: County of Los Angeles 2020				

Recycling Facilities

Waste generated in the City may also be diverted from landfills and recycled. In 2017 the City of Los Angeles launched the recyclLA program with the goal of extending recycling opportunities to the City. LA service providers (RSPs) are contractually bound to meet stringent landfill diversion goals, invest in waste recycling infrastructure, and develop innovative strategies to help meet state-mandated recycling laws and become a landfill free City. As of 2019, over 66,000 businesses and multi-family residences within the City are now able to recycle due to the recyclLA program. recyclLA also offers an innovative, first-of-its-kind program that mandates that the RSPs fund Food Rescue activities through partnerships with non-profit organizations. RSPs are required to increase activities in these sectors through direct funding, in-kind services, or sub-contracting. Funding is equal to at least \$1,000 per 100 customer accounts annually. In the 2019 fiscal year, 3,193 tons of rescued food were collected and redistributed to food insecure City residents (City of Los Angeles 2019).

PROJECT AREA SETTING

As shown in **Table 4.17-8**, below, existing development in the Project Area currently generates an estimated 5.1 tons of solid waste per day or 1,869 tons per year. The current solid waste generation calculation for the Project Area does not take into account diversion of solid waste from landfills. Not accounting for the current 76 percent diversion rate, solid waste generated in the Project Area that is actually sent to area landfills totals roughly 1,869 tons annually.

TABLE 4.17-8 CURRENT SOLID WASTE GENERATION IN THE PROJECT AREA				
Land Use	Dwelling Units (du⁽¹⁾) or Jobs in Plan Area	Annual Waste Generation Rate	Annual Waste Generation (tons)	Daily Waste Generation (tons)
Residential	2,012 du	2.2	925.5	2.5
Commercial/ Governmental	5,411 jobs	5.7	943.2	2.6
Total			1,868.8	5.1
<p>NOTES: du – dwelling units sf – square feet lbs – pounds Totals may not add up due to rounding. SOURCE: CalEEMod Land Use SubType</p>				

REGULATORY FRAMEWORK

FEDERAL

Title 40 Code of Federal Regulations, Part 258 Subtitle D of the Resource Conservation and Recovery Act (RCRA)

Title 40 Code of Federal Regulations, Part 258 Subtitle D of the Resource Conservation and Recovery Act (RCRA) establishes minimum location standards for siting municipal solid waste landfills. Because California laws and regulations governing the approval of solid waste landfills meet the requirements of Subtitle D, the USEPA delegated the enforcement responsibility to the State of California.

STATE

California Integrated Waste Management Act of 1989 (Assembly Bill 939)

The California Integrated Waste Management Act of 1989 (Assembly Bill [AB] 939), as amended, was enacted to reduce, recycle, and reuse solid waste generated in the state. AB 939 requires city and county jurisdictions to divert 50 percent of the total waste stream from landfill disposal. AB 939 also requires each city and county to promote source reduction, recycling, and safe disposal or transformation. AB 939 further requires each city and county to conduct a Solid Waste Generation Study and to prepare a Source Reduction and Recycling Element to describe how it would reach these goals. The Source Reduction and Recycling Element contains programs and policies for fulfillment of the goals of AB 939, including the above-noted diversion goals, and must be updated annually to account for changing market and infrastructure conditions. As projects and programs are implemented, the characteristics of the waste stream, the capacities of the current solid waste disposal facilities, and the operational status of those facilities are upgraded, as appropriate. California cities and counties are required to submit annual reports to CalRecycle to update their progress toward the AB 939 goals.

Assembly Bill 341

The purpose of AB 341 is to reduce GHG emissions by diverting commercial solid waste to recycling efforts and to expand the opportunity for additional recycling services and recycling manufacturing facilities in California. In addition to Mandatory Commercial Recycling, AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020.

Senate Bill 1016

Senate Bill (SB) 1016 requires expressing the 50 percent solid waste diversion requirement established by AB 939 in pounds per person per day. SB 1016 changed the CalRecycle review process for each municipality's integrated waste management plan. After an initial determination of diversion requirements in 2006 and establishing diversion rates for subsequent calendar years, the Board reviews a jurisdiction's diversion rate compliance in accordance with a specified schedule. Beginning January 1, 2018, the Board will be required to review a jurisdiction's source reduction and recycling element and hazardous waste element once every two years.

Assembly Bill 1327

The California Solid Waste Reuse and the Recycling Access Act of 1991 (AB 1327) is codified in Public Resources Code Sections 42900-42911. As amended, AB 1327 requires each local jurisdiction to adopt an ordinance requiring commercial, industrial, or institutional building, marina, or residential buildings having five or more living units to provide an adequate storage area for the collection and removal of recyclable materials. The size of these storage areas is to be determined by the appropriate jurisdiction's ordinance. Pursuant to AB 1327, the City of Los Angeles adopted the Space Allocation Ordinance (Ordinance No. 171,687), discussed below.

Senate Bill 1374

Signed in 2002, the Construction and Demolition Waste Materials Diversion Requirements (Senate Bill [SB] 1374) were codified in Public Resources Code Section 42919. SB 1374 requires that jurisdictions include in their annual AB 939 report a summary of the progress made in diverting construction and demolition waste. The legislation also required that CalRecycle adopt a model ordinance for diverting 50 to 75 percent of all construction and demolition waste from landfills. The model ordinance was adopted by CalRecycle on March 16, 2004.

Assembly Bill 1826

AB 1826 requires jurisdictions to implement an organic waste recycling program for businesses, including outreach, education, and monitoring of affected businesses. Additionally, each jurisdiction is to identify a multitude of information, including barriers to siting organic waste recycling facilities, as well as closed or abandoned sites that might be available for new organic waste recycling facilities. AB 1826 defines "organic waste" as food waste, green waste, landscape and pruning waste, non-hazardous wood waste, and food-soiled paper waste that is mixed in with food waste. It also defines a "business" as a commercial or public entity, including, but not limited to, a firm, partnership, proprietorship, joint stock company, corporation, or association that is organized as a for-profit or nonprofit entity, or a multifamily residential dwelling consisting of five or more units. As of January 1, 2017, businesses that generate 4 cubic yards or more of organic waste per week are subject to this requirement. Commencing January 1, 2019, businesses that generate 4 cubic yards or more of commercial solid waste per week also are required to arrange for organic waste recycling services. CalRecycle may reduce this triggering threshold for organics recycling to 2 cubic yards or more of commercial solid waste per week as of January 1, 2020.

Zero Waste California

Zero Waste California is a state program launched by CalRecycle in 2002 to promote a new vision for the management of solid waste by maximizing existing recycling and reuse efforts, while ensuring that products are designed for the environment and have the potential to be repaired, reused, or recycled. The Zero Waste California program promotes the goals of market development, recycled product procurement, and research and development of new and sustainable technologies.

California Green Building Standards

The 2019 California Green Building Standards Code, referred to as the CALGreen Code, sets standards for new structures to minimize the state's carbon output. California requires that new buildings reduce water consumption, increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials. Each local jurisdiction retains the administrative authority to exceed the new CALGreen standards. The 2019 CALGreen Code went into effect January 1, 2020.

Senate Bill 1383

Signed in 2016, SB 1383 established methane emission reduction targets to reduce emissions of short-lived climate pollutants in various sectors of the state's economy. The bill establishes statewide targets to reduce the amount of organic waste disposed statewide targets to reduce the amount of organic waste that is disposed of in landfills. The bill established targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. It also sets a goal to rescue at least 20% of currently disposed edible food by 2025 and redirect that food to people in need. As of January 1, 2022, all California residences and businesses are now required to separate organic waste from other trash and non-organic recyclables and participate in an organics collection program.

REGIONAL

The Los Angeles County Integrated Waste Management Plan

Pursuant to AB 939, each County is required to prepare and administer a CoIWMP, including preparation of an Annual Report. The CoIWMP is to comprise of the various counties' and cities' solid waste reduction planning documents, plus an Integrated Waste Management Summary Plan (Summary Plan) and a Countywide Siting Element (CSE). The Summary Plan describes the steps to be taken by local agencies, acting independently and in concert, to achieve the mandated state diversion rate by integrating strategies aimed toward reducing, reusing, recycling, diverting, and marketing solid waste generated within the County. The County's Department of Public Works is responsible for preparing and administering the Summary Plan and the CSE.

The County continually evaluates landfill disposal needs and capacity as part of the preparation of the CoIWMP Annual Report. Within each annual report, future landfill disposal needs over the next 15-year planning horizon are addressed in part by determining the available landfill capacity. The most recent annual report, the CoIWMP 2019 Annual Report, published in September 2020, provides disposal analysis and facility capacities for 2019, as well as projections to the CoIWMP's horizon year of 2034. As stated within the CoIWMP 2019 Annual Report, the County is not anticipating a solid waste disposal capacity shortfall within the next 15 years under current conditions. A variety of strategies, including mandatory commercial recycling, diversion of organic waste from landfills, and development of alternative technology facilities would ensure that the County would be able to accommodate the solid waste daily disposal demand under different scenarios through the horizon year of 2034.

LOCAL

City of Los Angeles General Plan Framework Element

The Framework Element was adopted in 1996 and recently amended in August 2001. The Framework Element is a general, long-term, programmatic document that has goals and policies that are implemented by the various individual elements of the General Plan. The goals of the Framework Element that are related to the solid waste disposal and landfills are listed in **Table 4.17-9**.

TABLE 4.17-9 RELEVANT GENERAL PLAN SOLID WASTE GOALS, OBJECTIVES, AND POLICIES	
Goal/Objective/Policy	Goal/Objective/Policy Description
FRAMEWORK ELEMENT – CHAPTER 9 INFRASTRUCTURE AND PUBLIC SERVICES	
Goal 9D	An integrated solid waste management system that maximizes source reduction and materials recovery and minimizes the amount of waste requiring disposal.
Goal 9E	Adequate Recycling Facility Development - expanded siting of facilities that enhance the City's reduction, recycling and composting efforts using methods and strategies that are economically, socially, and politically acceptable.
Goal 9F	Adequate collection, transfer and disposal of mixed solid waste - the City shall seek to ensure that all mixed solid waste that cannot be reduced, recycled or composted is collected, transferred and disposed of in a manner that minimizes adverse environmental impacts.
Goal 9G	An environmentally sound solid waste management system that protects public health, safety, and natural resources and minimizes adverse environmental impacts.
Goal 9H	A cost-effective solid waste management system that emphasizes source reduction, recycling, reuse, and market development and is adequately financed to meet operational and maintenance needs.
SOURCE: City of Los Angeles, <i>City of Los Angeles General Plan, Safety Element</i> , adopted 1996; <i>Conservation Element</i> , adopted 2001.;and <i>Framework Element</i> , re-adopted 2001.	

City of Los Angeles Solid Waste Integrated Resources Plan

The City of Los Angeles Solid Waste Integrated Resources Plan (SWIRP), prepared by the Bureau of Sanitation, is a 20-year master plan to reduce waste, increase recycling, and manage trash in the City. The SWIRP outlines the City’s objectives to provide sustainability, resource conservation, source reduction, recycling, renewable energy, maximum material recovery, public health and environmental protection for solid waste management planning through 2030 with a goal of a “zero waste city”. Although the City of Los Angeles SWIRP is a long-term overarching plan to manage solid resources, it also encompasses all of the solutions and programs currently in place within the City by addressing all solid waste generators within the City, including residential, commercial, industrial, and institutional uses. In addition, the SWIRP process identifies the number, types, and size of new solid waste disposal facilities that the City will need in the future. Per the SWIRP, landfill solid waste disposal for the City of Los Angeles totaled 2,849,237 annual tons in 2010. The SWIRP provides the projected solid waste quantities by generator sector based on projected changes in population and employment provided by SCAG. Assuming no additional programs are implemented to reduce waste and that the City maintains its 2010 baseline diversion rate (72 percent), citywide disposal is projected to increase by 10 percent to 3,121,937 annual tons by 2030 (LADPW 2013a).

Recovering Energy, Natural Resources and Economic Benefit from Waste for Los Angeles (RENEW LA Plan)

A resource management blueprint called RENEW LA was adopted by the City Council in February 2006. This 20-year plan is the blueprint that will guide the City in reducing the use of landfills by maximizing recycling and reuse and converting much of the solid waste that currently would go to landfills into clean energy and/or valuable raw materials. Many of the plan components have been and continue to be implemented.

Citywide Construction and Demolition (C&D) Waste Recycling Ordinance (Ordinance 181519)

On March 5, 2010, the City Council adopted the Citywide C&D Waste Recycling Ordinance (Ordinance 181519) that requires all mixed C&D waste generated within City limits be taken to City certified C&D waste processors. All haulers and contractors responsible for handling C&D waste must obtain a Private Solid Waste Hauler Permit prior to collecting, hauling and transporting C&D waste and C&D waste can only be taken to City certified C&D Processing Facilities. Among the various purposes of this program is the goal of maintaining an open and competitive market for all companies providing solid waste and disposal services in the City, and to mandate the recycling of construction and demolition waste.

City of Los Angeles General Plan

The applicable policies that are related to the City utilities and services systems, including solid waste and recycling, are listed in **Table 4.17-2**.

Citywide Recycling Chute Ordinance (Ordinance 181227)

On July 7, 2010, the City Council approved the Citywide Recycling Chute Ordinance that requires all new development projects, all existing multi-family residential development projects of four or more units where the addition of floor area is 25 percent or more, and all other existing development projects where the addition of floor area is 30 percent or more, to provide an adequate recycling area or room for the collection and loading of recyclable materials. When a new development project provides a trash chute, or an existing development project adds a trash chute, a recycling chute shall also be provided in both cases. Recycling chutes shall be clearly marked "recycling only" at every point of entry.

Zero Waste LA Franchise System

Zero Waste LA Franchise System is a public-private partnership to address three-million tons of waste disposed yearly by City of Los Angeles businesses, consumers, and residents. The Zero Waste LA Franchise System was approved by City Council in April 2014 and expected to go into full effect by July 2017. As part of the program, the City is divided into 11 zones that are served by a single trash hauler that would allow for the efficient collection and sustainable management of solid waste resources and recyclables. LASAN solid waste collection services will continue to be provided to current City customers, including the collection of bulky items from all residents. Zero Waste LA goals include the following:

- Reduction of landfill disposal by 1,000,000 tons per year by 2025.
- Transparent and predictable solid waste and recycling service rates for the next 10-20 years.
- Quality customer service standards with LASAN monitoring and enforcement.
- Franchise hauler accountability for program outcomes and customer satisfaction through a series of measures implemented by LASAN, up to and including liquidated damages.

- Compliance with environmental regulations, including mandatory commercial and organics recycling.
- Investment of over \$200 million in new and improved solid resources infrastructure.
- Clean fuel vehicles; and
- Decrease and recycling of food waste and increase in food rescue.

City of Los Angeles Space Allocation Ordinance

Pursuant to the California Solid Waste Reuse and the Recycling Access Act of 1991 (AB 1327), the City enacted the Space Allocation Ordinance (Ordinance No. 171,687) on August 13, 1997, which is incorporated in various sections of the LAMC. The Space Allocation Ordinance requires the provision of an adequate recycling area or room for collecting and loading recyclable materials in all new construction projects, all existing multi-family residential projects of four or more units where the addition of floor area is 25 percent or more, and all other existing development projects where the addition of floor area is 30 percent or more.

City of Los Angeles Green Building Ordinance

On December 17, 2013, the Los Angeles City Council approved Ordinance No. 182,849, which amended Chapter IX, Article 9 of the LAMC to reflect local administrative changes and incorporate by reference portions of the CALGreen Code. The amended Article 9 is referred to as the “Los Angeles Green Building Code.” Projects must comply with the Los Angeles Green Building Code as amended to comply with various provisions of the CALGreen Code. The City’s Green Building Code creates a set of development standards and guidelines to further energy efficiency and reduction of greenhouse gases, including provisions regarding construction waste reduction, disposal and recycling. It builds upon and sets higher standards than those incorporated in CALGreen and is implemented through the building permit process.

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance were developed in accordance with CEQA Guidelines Appendix G. Impacts would be significant if the Proposed Project would:

- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals (Threshold 4.17-6)
- Not comply with federal, state, and local management and reduction statutes and regulations related to solid waste (Threshold 4.17-7)

METHODOLOGY

The analysis of the Proposed Project’s impacts to solid waste focuses on whether the project would impair attainment of solid waste reduction goals by generating solid waste in excess of local standards or in excess of infrastructure capacities or would not comply with solid waste management and reduction regulations. Project-generated demands were calculated using existing level of development in the Project Area, forecast level of development in the Project Area in 2040, and utility rates per development unit. The impact is the net change relative to existing conditions (i.e., 2040 with Project conditions – baseline conditions).

Waste generation rates were obtained from CalEEMod. This provides a conservative estimate as the Project Area contains few single-family residential areas and single-family units have higher average utility usage rates than multi-family units. It was also assumed that the number of single-family homes would remain constant under future conditions relative to baseline conditions and all new residential development through 2040 would be multifamily.

Consistent with the Population and Housing Analysis, citywide impacts are analyzed assuming growth and demands placed on utilities and service systems based on SCAG projections.

PROJECT IMPACTS

Threshold 4.17-6	Would the Proposed Project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals
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Impact 4.17-6 **Proposed Project:** Implementation of the Proposed Project would generate an increase of approximately 36 tons of solid waste per day above existing conditions that would need to be disposed of at local landfills. However, projected future solid waste generation would remain within the capacity of landfills serving the City; therefore, impacts would be *less than significant* for the Project.

Project Impact

As shown in **Table 4.17-10**, reasonably anticipated development under the Proposed Project would increase the amount of solid waste generated in the Project Area by approximately 30 tons per day, or 10,991 tons per year, above existing conditions. The calculation for the Proposed Project does not take into consideration current and planned City programs to divert solid waste from landfills. For example, compliance with LAMC Section 66.32 would ensure that at least 50 percent of the demolition and construction waste generated by development under the Project would be diverted from landfills serving the City. In addition, the City will continue to implement waste reduction policies set forth by the RENEW LA Plan and the Framework Element. As shown, the combined daily intake capacity of landfills serving the Project Area is 18,620 tons per day. Therefore, available capacity (200.2 million tons per day) can accommodate the estimated daily solid waste that would be generated in the Project Area. Assuming no diversion, the increase in Project Area generated solid waste would represent less than 1 percent of the total available daily capacity.

Based on the County of Los Angeles Countywide Integrated Waste Management Plan (CIWMP) 2019 Annual Report (County of Los Angeles 2020), Los Angeles County would be able to meet the disposal needs of all County jurisdictions through the 15-year planning period for six of seven scenarios considered. Although daily capacity at area landfills is currently available (as noted above), the CIWMP Annual Report concludes that reliance on existing permitted County landfill capacity alone is insufficient to meet the County's long-term disposal needs; however, under the "status quo" scenario (i.e., solid waste disposed will continue to be managed by existing permitted in-County disposal infrastructure and available out-of-County landfill capacity and diversion efforts by individual jurisdictions continue, resulting in a countywide diversion rate of 65 percent) and each of the other scenarios contemplated in the CIWMP Annual Report, no shortfall in capacity is expected. The "status quo" scenario is conservative insofar as it assumes no new waste reduction programs or disposal facilities and no increase in waste diversion. Based on these facts, sufficient permitted capacity is anticipated to be available to accommodate the Project Area's solid waste disposal needs and impacts related to solid waste would be *less than significant*.

TABLE 4.17-10 ESTIMATED FUTURE SOLID WASTE GENERATION IN THE PROJECT AREA				
Land Use	Dwelling Units or Square Feet	Annual Waste Generation Rate	Annual Waste Generation (tons)	Daily Waste Generation (tons)
Residential	20,036	2.2	9,216.6	25.3
Commercial/ Governmental	8,263 jobs	2.3	3,644.1	9.9
Total 2040 Project Area Solid Waste Generation			12,860.7	35.2
Current Solid Waste Generation (2021)			1,868.8	5.1
Net Change in Waste Generation			10,991.9	30.1
NOTES: Waste generation (tons) was rounded to the nearest whole number. Totals may not add up due to rounding. du – dwelling unit sf – square feet SOURCE: CalEEMod Land Use SubType				

Mitigation Measures

No significant impacts have been identified; therefore, mitigation is not required for the Proposed Project.

Threshold 4.17-7	Would the Proposed Project not comply with federal, state, and local management and reduction statutes and regulations related to solid waste
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Impact 4.17-7 **Proposed Project:** Development under the Proposed Project would comply with applicable solid waste policies and objectives from the SWIRP and RENEW LA Plan as well as local ordinances; impacts would be *less than significant* Project.

Project Impact

Future development in the Project Area would be required to comply with LAMC Section 66.32 regarding demolition activities. Compliance with LAMC Section 66.32 would ensure that at least 50 percent of the demolition and construction waste generated by future development would be diverted from landfills serving the City of Los Angeles. Additionally, implementation of the Proposed Project would be consistent with all waste reduction goals set forth by SWIRP, RENEW LA Plan, and the Framework Element, which are discussed in the Regulatory Framework section above. The Proposed Project would not conflict with any solid waste policies and objectives in the SWIRP or Framework Element.

All solid waste-generating activities in the City of Los Angeles are subject to the requirements set forth in AB 939 and other local ordinances, such as LAMC Section 66.32. As discussed in the Environmental Setting, the City already exceeds State goals with respect to reduction of solid waste generation and diversion of solid waste from landfills. Therefore, because future development permitted under the Proposed Project would comply with applicable solid waste policies and objectives, impacts related to compliance with federal, state, and local statutes and regulations related to solid waste would be *less than significant*.

Mitigation Measures

No significant impacts have been identified; therefore, mitigation is not required for implementation of the Proposed Project.

CUMULATIVE IMPACTS

The geographic area to analyze cumulatively considerable impacts to solid waste includes the entire City of Los Angeles. Cumulative development throughout Los Angeles would add both dwelling units and non-residential development to the City. Citywide development through 2040 would add approximately 562,000 new residents, 236,000 new households, and 256,000 new employees (SCAG 2020). Cumulative impacts from this development are discussed below by impact area.

Cumulative citywide development would increase solid waste disposal at local landfills. Landfill solid waste disposal for the City of Los Angeles totaled 4,282,012 annual tons in 2019 (11,732 daily tons) (LADPW 2019a). The SWIRP provides the projected solid waste quantities by generator sector based on -projected changes in population and employment provided by SCAG. Assuming that no additional programs are implemented to reduce waste and that the City maintains its baseline diversion rate (76 percent), citywide disposal is projected to increase by 10 percent to 3,121,937 tons annually by 2030 (12,007 tons daily) (LADPW 2013a). This would not cause existing landfills serving the City of Los Angeles to exceed their combined daily intake capacity of 200.2 million tons per day (see **Table 4.17-7**). As noted under Impact 4.17-6, the County's CIWMP 2019 Annual Report concludes that reliance on County landfills alone would not provide adequate capacity through 2034, the status quo scenario (which includes continued export of some waste to out-of-County landfills, but no new waste diversion programs or facility expansions) provides adequate solid waste disposal capacity to meet future demand. Consequently, waste disposal capacity is adequate to meet cumulative solid waste disposal projections.

The Project Area would contribute less than 1 percent of citywide disposal in 2040, as it would generate 12,861 tons annually in 2040 (approximately 36 tons daily). As discussed under Impact 4.17-6 and above, solid waste generated citywide and in the Project Area would not exceed the available daily capacity of landfills serving the City and the County's CIWMP 2019 Annual Report forecasts adequate capacity through at least 2034 under the status quo scenario. Any cumulative impacts related to future updates of other community or specific plans would be speculative, however, as discussed above, the SWIRP solid waste generation projections are based on SCAG population projections so since the SWIRP forecasts adequate solid waste disposal capacity based on these projections, solid waste disposal capacity exceedances are not anticipated. Additionally, future plan updates would be required to adhere to existing state and local requirements related to solid waste disposal.

Based on the above information, the incremental effect of the Proposed Project related to solid waste disposal facilities would not be cumulatively considerable and cumulative impacts would be *less than significant*.

Electric Power, Natural Gas, and Telecommunications Facilities

ENVIRONMENTAL SETTING

The environmental setting for electrical power and natural gas is described in Section 4.5, Energy. The environmental setting for telecommunications is described below.

CITYWIDE SETTING

There are 42 cellular towers that serve the City of Los Angeles. Cellular towers that serve the City are located in the following cities/communities.

- Catalina Island (4)
- Gorman (3)
- Palos Verdes (3)
- Palmdale (3)
- Glendale (2)
- Los Angeles (2)
- Pearblossom (2)
- San Pedro (2)
- Acton
- Agua Dulce
- Altadena
- Arcadia
- Azusa
- Calabasas
- Chatsworth
- Commerce
- Glendora
- Lancaster
- Long Beach
- Malibu
- Pacific Palisades
- Pomona
- Pasadena
- Rolling Hills
- Santa Clarita
- Santa Monica
- Saugus

Range and service for an individual tower can vary; therefore, the towers described above likely serve cities outside of Los Angeles County. All cellular towers and equipment are managed by private telecommunications service providers under the jurisdiction of the Federal Communications Commission (FCC).

PROJECT AREA SETTING

Electricity

Electrical power is supplied to the Project Area by LADWP, which supplies more than 22 million megawatt (MW) hours of electricity a year for the City's 1.4 million customers. Business and industry consume about 70 percent of the electricity in Los Angeles, but residences constitute the largest number of customers. In addition, the LADWP lights public streets and highways, powers the city's water system, and sells

electricity to other utilities. The City's first power plant, located at Division Creek, was built in 1905 to supply hydroelectric power for the construction of the Los Angeles Aqueduct. LADWP has continued to provide additional electric generation facilities since then to meet the increasing demand for power in Los Angeles. The Los Angeles City Council approved LADWP's ten-year IRP on August 15, 2000. The IRP is designed to improve reliability while keeping rates stable and preserving the environment. The IRP calls for a \$1.7 billion investment to finance 2,400 megawatts (MW) of in-basin power generation including new combustion turbines, development of new renewable energy resources, and energy efficiency programs (LADWP, July 14, 2009).

According to the City of Los Angeles General Plan (General Plan) Framework Element, "LADWP obtains 17 percent of the required power are met by municipally-owned power plants within the Los Angeles Basin. The remaining LADWP requirements are met by sources outside of the Los Angeles Basin. The current emphasis on purchasing power from non-LADWP power systems is to improve fuel diversity, take advantage of low-priced surplus electricity, and to minimize the air emissions in the South Coast Air Basin." (City of Los Angeles, July 14, 2009)

Natural Gas

The City of Los Angeles, including the Project Area, is served by the investor-owned Southern California Gas Company (SoCal Gas), a unit of Sempra Energy. SoCal Gas serves approximately 21.8 million customers through 5.9 million meters of gas lines within a 24,000-square-mile service area that includes over 500 communities in Central and Southern California. The City contains existing natural gas infrastructure, including both pipelines and one storage facility (located in Playa del Rey), and in general, the majority of natural gas lines run underground to provide secure transfer and reduce risk of damage.

In 2016, a total of approximately 5,124 million therms of natural gas were consumed by SoCal Gas' customers. Of this total, residential, industrial, commercial and miscellaneous other customers consumed 2,136 million, 1,725 million, 893 million, and 313 million therms of natural gas, respectively. In 2020, a total of 5,231 million therms of natural gas were consumed by SoCal Gas' customers. Of this total, residential, industrial, commercial and miscellaneous other customers consumed 2,426 million, 1,616 million, 802 million, and 388 million therms of natural gas, respectively. California natural gas anticipates gas demand to decline at an annual rate of 1.4 percent between 2016 and 2035 as a result of modest growth in the Natural Gas Vehicle (NGV) market, economic growth, energy efficiency standards, other sources of renewable energy, metering infrastructure and the decline in demand of commercial and industrial sectors. More specifically, from 2016 to 2035, SoCal Gas residential demand is expected to decline from 239 billion cubic feet (Bcf) to 218 Bcf, reflecting an annual decline rate of 0.5 percent, and non-residential markets are expected to decline from 113 Bcf in 2016 to 105 Bcf by 2035, reflecting an annual decline rate of 0.24 percent.

SoCal Gas natural gas supplies originate from sedimentary basins located in California, New Mexico (San Juan Basin), west Texas (Permian Basin), the Rocky Mountains, western Canada, and local California supplies. Interstate pipelines used by SoCalGas and San Diego Gas and Electric (SDG&E) have a natural gas upstream capacity of 6,725 million cubic feet per day (MMcf/d). Additionally, SoCal Gas and SDG&E currently have firm receipt capacity (i.e., access to supply from interstate pipelines for core customers) of 3,875 MMcf/d of natural gas. Locally, SoCalGas distributes natural gas through an extensive network of approximately 41,500 miles of underground gas mains.

Underground storage of natural gas plays a vital role in balancing the region's energy supply and demand. SoCal Gas owns and operates four underground storage facilities located in Aliso Canyon, Honor Rancho, Goleta, and Playa Del Rey. These facilities have a total storage capacity of 137.1 Bcf. Stored gas is appropriated as follows: 83 Bcf is allocated to core residential, small industrial and commercial customers; 4.2 Bcf is used for system balancing; and the remainder is available to other customers. In October 2015

the storage facility in Aliso Canyon had a natural gas leak resulting in DOGGR (now CalGEM) imposing a moratorium on the storage facility with a safety review for all 114 wells within the facility. The safety review requires the wells to be thoroughly tested for safe operation or removed from operation and isolated from the underground reservoir.

Telecommunications Facilities

Telecommunication services in the City of Los Angeles are provided by various companies, such as but not limited to, AT&T, Verizon, and SBC Telecom. Telecommunication companies are regulated by California Public Utilities Commission (CPUC). A wide array of products and telecommunication services for residential and commercial uses are offered by various companies, including internet services, wireless services, television technology utilizing digital fiber optic technology, and satellite technology. A variety of telecommunication facilities exist along roadways and other areas around the City.

Range and service for an individual tower can vary; therefore, the towers likely serve cities outside of Los Angeles County. All cellular towers and equipment are managed by private telecommunications service providers under the jurisdiction of the Federal Communications Commission (FCC).

Communication systems located throughout the Project Area include underground fiber optic cable, telephone transmission lines (overhead and underground), and cellular towers owned or leased by telecommunications service providers.

Landline telephone service in the Project Area is provided by various commercial communication companies. The majority of the landline facilities are located in county- or city-owned rights-of-way and on private easements. Telecommunications lines are either copper wire or fiber optic cable and are routed overhead on utility poles and underground.

In addition to landline service, communication facilities have been constructed throughout the Project Area for cellular telephone service. Cellular service is available, to varying degrees, throughout the Project Area. Regulatory framework

The regulatory framework for electrical power and natural gas is described in Section 4.5, Energy. The regulatory framework for telecommunications is described below.

FEDERAL

Federal Communications Commission (FCC)

The FCC was passed by the Communication Act of 1934 in order to replace the outdated Federal Radio Commission. As communications expanded and television became more prominent, the role of the FCC was expanded to include regulating all forms of communication in the United States. The FCC regulates content, award station charters, and monitor innovation to make sure that all forms of communication can co-exist, including the Internet.

Telecommunications Act of 1996

The Telecommunication Act of 1996 opened up competition by local telephone companies, long distance providers, and cable companies with each other. It also reconfirms the government's commitment to universal service, in part by connecting all schools, libraries, and hospitals to the information superhighway by the end of the decade.

STATE

California Independent System Operator

The California ISO is an independent public benefit corporation responsible for operating California's long-distance electric transmission lines. The California ISO is led by a five-member board appointment by the Governor and is also regulated by FERC. While transmission owners and private electric utilities own their lines, the California ISO operates the transmission system independently to ensure that electricity flows comply with federal operational standards. The California ISO analyzes current and future electrical demand and plans for any needed expansion or upgrade of the electric transmission system.

California Public Utilities Commission (CPUC)

In 1911, the CPUC was established by a Constitutional Amendment as the Railroad Commission and the following year, the state Legislature passed the Public Utilities Act, expanding the Commission's regulatory authority to include natural gas, electric, telephone, and water companies as well as railroads and marine transportation companies. In 1946, the Commission was renaming the CPUC. Today, in regard to telecommunications and broadband services, the CPUC develops and implements policies for the telecommunications industry, including ensuring fair, affordable universal access to necessary services; developing clear rules of the game and regulatory tools to allow flexibility without compromising due process; removing barriers that prevent a fully competitive market; and reducing or eliminating burdensome regulation.

California Energy Commission

The CEC is a planning agency which provides guidance on setting the state's energy policy. Responsibilities include forecasting electricity and natural gas demand, promoting and setting energy efficiency standards throughout the state, developing renewable energy resources and permitting thermal power plants 50 megawatts and larger. The CEC also has specific regulatory authority over publicly owned utilities to certify, monitor and verify eligible renewable energy resources procured.

Senate Bill 1389

Senate Bill (SB) 1389 (Public Resources Code Sections 25300–25323), adopted in 2002, requires the development of an integrated plan for electricity, natural gas, and transportation fuels. Under the bill, the CEC must adopt and transmit to the Governor and Legislature an Integrated Energy Policy Report every two years. In 2018, the CEC decided to write the Integrated Energy Policy Report in two volumes. The Volume I, which was published on August 1, 2018, highlights the implementation of California's innovative policies and the role they have played in moving toward a clean energy economy. Volume II, which was adopted in February 2019, identifies several key energy issues and actions to address these issues and ensure the reliability of energy resources.

Senate Bill 822 (SB 822)

SB 822 was signed into law in September 2018 as California's net neutrality law. SB 822 would ban internet providers from the following: blocking or throttling legal apps and websites; offering paid prioritization of content, or zero-rating (offering free data for specific apps). Shortly after SB 822 was signed, the U.S. Department of Justice filed suit against California over SB 822 on preemption grounds; California later agreed to hold off on enforcing its new net neutrality law until the U.S. Court of Appeals for the D.C. Circuit determines whether the FCC lawfully revoked its net neutrality regulations. In February 2021, the Department of Justice dropped the lawsuit and a preliminary injunction brought against SB 822 by the telecom industry was declined. As a result, SB 822 was allowed to go into effect.

Senate Bill 649

Senate Bill 649 (SB 649) requires small cellular installations be on vertical infrastructure and on property outside of public rights-of-way. The installation is required to comply with all applicable federal, State, and local health and safety regulations. Additionally, cellular equipment that is no longer in use is required to be removed at no cost to the City.

LOCAL**City of Los Angeles Information Technology Agency**

Mayor Eric Garcetti established the City of Los Angeles Information Technology Agency (ITA), which is responsible for a broad spectrum of services within 18 divisions that deliver 366 different technology services to both internal and external customers. These services range from classic IT services, such as computer support, enterprise applications, data networks, and a 24/7 data center to progressive digital services, such as TV station, 3-1-1 Call Center, public safety radio/microwave communications, helicopter avionics, enterprise social media, and more. ITA's Video Services Regulation Division regulates and monitors the compliance of video/cable TV service providers comply with local, state, and federal laws and oversees the video/cable TV service interests of City residents.

City of Los Angeles Municipal Code Section 10.5.4

Section 10.5.4 of the City's Municipal Code states that telecommunications providers are required to comply with all City, state, and federal regulations during installation and operation of equipment. Additionally, each lease, sublease, or license facilitated by telecommunications providers are required to seek approval from the City.

ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The following threshold of significance was developed in accordance with CEQA Guidelines Appendix G. Impacts would be significant if the Project would:

- Require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects (Threshold 4.17-8)

METHODOLOGY

The analysis of the Proposed Project's impacts related to the potential construction and relocation of electric power, natural gas, and telecommunications facilities focuses on whether existing and projected infrastructure capacities or supplies would be sufficient to meet future demands associated with forecast development and, if not, whether the construction of needed new or expanded facilities would result in significant environmental effects.

Project-generated demands were calculated based on the existing level of development in the Project Area and the forecast level of development in the Project Area in 2040. However, cellular towers vary in range of service and maximum number of users. Therefore, this analysis qualitatively evaluates need for additional telecommunication facilities.

PROJECT IMPACTS

Threshold 4.17-8	Require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
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Impact 4.17-8 **Proposed Project:** Implementation of the Proposed Project would generate energy and telecommunications demand. Forecast demand may require the construction of new energy or telecommunication facilities or the expansion of such facilities, but the construction of such facilities is not expected to result in significant environmental effects. This impact would be *less than significant*.

Project Impact

Electrical Power

As shown in **Table 4.17-6** and **Table 4.17-7** in Section 4.5, *Energy*, implementation of the Proposed Project would result in an approximately 73 percent decrease in per capita electricity consumption and 68 percent decrease in per capita natural gas consumption compared to 2021 baseline conditions. Overall electricity consumption is projected to increase from 85,989 MWh in 2021 to 212,296 MWh in 2040, while overall natural gas consumption is projected to increase from 11 billion Btu in 2021 to 342 billion Btu in 2040, with implementation of the Proposed Project. Implementation of the Proposed Project may require construction of new or expanded energy facilities to meet future energy needs in the Project Area, including electrical transmission and distribution infrastructure and natural gas facilities (e.g., storage, pipelines).

As discussed in the *Environmental Setting*, the LADWP utilizes a long-term planning process to plan for increased energy demand in the future with its publication of ten-year Transmission Plans. The most recent, LADWP's 2017 Power Integrated Resource Plan (IRP), identifies actions that are central to the continued reliability of the LADWP Power System, including energy efficiency and demand response, energy storage, and addressing net demand in peak hours, while meeting all regulatory requirements. The 2017 IRP provides detailed analysis and results of several new IRP resource cases, which investigated the economic and environmental impact of an increased Renewable Portfolio Standard (RPS) of 55 percent by 2030 and 65 percent by 2036, local solar, energy storage, and various levels of transportation electrification within a 20-year horizon.

In order to achieve 100 percent renewable energy generation, the LADWP is two years ahead of schedule for early coal replacement by 2025, accelerating its RPS to 50 percent by 2025, 55 percent by 2030, and 65 percent by 2036. In addition, the LADWP is implementing a strategy of 15 percent energy efficiency by 2020, repowering coastal in-basin generating units with new, highly efficient units by 2029 to provide grid reliability and critical ramping capability, accelerating electric transportation to absorb GHG emission from the transportation sector, and investing in a Power System Reliability Program to maintain a robust and reliable Power System.

Although the introduction of new renewable energy sources is expected to meet energy demands associated with future population growth, many renewable energy sources reduce a power grid's baseload reliability due to the fluctuating nature of energy captured (i.e., solar energy is only accumulated during optimum sunlight hours and conditions while energy is consumed 24 hours a day). To meet this challenge, the LADWP's 2022 Power Infrastructure Plan states the following long-term goals to diversify energy generation sources, improve energy storage capabilities, and secure energy reliability in the future (LADWP 2016):

- Replace 4,000 poles, 13,892 crossarms, 1,340 transformers, and 60 miles of lead and synthetic cables annually by fiscal year 2025-2026.
- Resolve 11,000 “fix-it” tickets annually to reduce backlog to an acceptable level in 10 years.
- Expand 4.8kV system capacity by 800 megawatts (MW) and 34.5kV system capacity by 1,700 MW by 2040 to address overloads and accommodate growth of electrification.
- Upgrade or replace aging substations and construct 10 new facilities by 2045 to accommodate load growth and maintain reliability.

The California Independent System Operator Corporation’s (Cal-ISO) 2021-2022 Transmission Plan also provides a comprehensive evaluation of the ISO transmission grid to identify upgrades needed to successfully meet California’s policy goals, in addition to examining conventional grid reliability and requirements. The Cal-ISO 2021-2022 Transmission Plan is a ten-year planning document that assesses California’s energy supply capability and reliability and has identified the need for two supply reliability projects, both of which are located in the Southern California Electric (SCE) service area.

No system improvements have specifically been identified as needed to meet new policy-driven or economic-driven demands. Nevertheless, reasonably anticipated growth in the Project Area would contribute to the need for distribution infrastructure improvements and expansions. Such expansions would result in temporary construction-related impacts pertaining to such issues as transportation, air quality, and noise. These impacts are anticipated to be within the parameters of what is described in this EIR and any new or expanded facilities, the construction of which may result in impacts beyond those identified herein, would be subject to further environmental review under CEQA. Impacts would be *less than significant*.

Natural Gas

As shown in **Table 4.17-7** in Section 4.5, *Energy*, natural gas use in the Project Area with the implementation of the Proposed Project is estimated to account for less than 0.1 percent of statewide demand for natural gas. The Proposed Project would be within the projected available supply for natural gas and the current trend of energy efficient practices, increased use of renewable power, and a decreased use of natural gas would further reduce future energy demands. Nevertheless, reasonably anticipated development in the Project Area may necessitate the construction of new or expanded natural gas distribution facilities. Such expansions would result in temporary construction-related impacts pertaining to such issues as transportation, air quality, and noise. These impacts are anticipated to be within the parameters of what is described in this EIR and any new or expanded facilities, the construction of which may result in impacts beyond those identified herein, would be subject to further environmental review under CEQA. Impacts would be *less than significant*.

Telecommunications

As discussed in Section 4.12, *Population and Housing*, reasonably anticipated development in the Project Area would allow for an additional 57,000 persons, 18,000 housing units, and 3,000 jobs through 2040. The telecommunication requirements for the Project Area are expected to evolve as development increases and technologies change. Construction of additional telecommunications facilities or upgrades to existing facilities to meet Project Area demands would be undertaken by private telecommunication service providers in accordance with applicable federal, state, and local regulations. No restrictions on the ability to provide adequate telecommunication service are anticipated, but new or expanded facilities may be needed to meet increased demand in the Project Area. Such expansions would result in temporary construction-related impacts pertaining to such issues as transportation, air quality, and noise. These impacts are anticipated to be within the parameters of what is described in this EIR and any new or expanded

facilities, the construction of which may result in impacts beyond those identified herein, would be subject to further environmental review under CEQA. Impacts would be *less than significant*.

Mitigation Measures

No significant impacts have been identified; therefore, mitigation is not required.

CUMULATIVE IMPACTS

The geographic area to analyze cumulatively considerable impacts related to electrical power, natural gas, and telecommunications includes the entire City of Los Angeles. Cumulative development throughout Los Angeles would add both dwelling units and non-residential development to the City. Citywide development through 2040 would add approximately 562,000 new residents, 236,000 new households, and 256,000 new employees (SCAG 2020). Cumulative impacts associated with the construction of new or expanded electrical, natural gas, and telecommunications facilities necessitated by this development are discussed below by impact area.

Electrical Power

Citywide development through 2040 would cumulatively increase demand for electrical power. However, as discussed above, LADWP's 2017 IRP identifies actions that would achieve the continued reliability of the LADWP Power System throughout the LADWP service area while meeting all regulatory requirements. The Proposed Project would contribute to the overall citywide demand for electrical power but would not result in an exceedance of existing or planned system capacity. Future plan updates would be required to adhere to existing state and local requirements related to electrical power.

New or expanded facilities for the generation, transmission, storage, and distribution of electricity may be needed to meet increased citywide demand. Impacts associated with the construction of new facilities would depend on the location, size, and nature of such facilities, but would primarily consist of temporary construction-related impacts pertaining to such issues as transportation, air quality, and noise. These impacts are anticipated to be within the parameters of what is described in this EIR and any new or expanded facilities, the construction of which may result in impacts beyond those identified herein, would be subject to further environmental review under CEQA.

Based on the above information, the incremental effect of the Proposed Project related to the provision of electrical power infrastructure would not be cumulatively considerable and cumulative impacts would be *less than significant*.

Natural Gas

Citywide development through 2040 would cumulatively increase demand for natural gas. However, as discussed above, the current trend of energy efficient practices, increased use of renewable power, and a decreased use of natural gas, including a City Ordinance prohibiting residential natural gas hookups, would further reduce future energy demands. Natural gas use in the Project Area is estimated to account for less than 0.1 percent of statewide demand for natural gas and would not exceed the projected available supply for natural gas or require the construction of new or expanded natural gas facilities. Future plan updates would be required to adhere to existing state and local requirements related to natural gas.

New or expanded facilities for the transmission and distribution of natural gas may be needed to meet increased citywide demand. Impacts associated with the construction of new facilities would depend on the location, size, and nature of such facilities, but would primarily consist of temporary construction-related impacts pertaining to such issues as transportation, air quality, and noise. These impacts are anticipated to

be within the parameters of what is described in this EIR and any new or expanded facilities, the construction of which may result in impacts beyond those identified herein, would be subject to further environmental review under CEQA.

Based on the above information, the incremental effect of the Proposed Project related to the provision of natural gas infrastructure would not be cumulatively considerable and cumulative impacts would be *less than significant*.

Telecommunications

Citywide development through 2040 would cumulatively increase demand for telecommunication service. However, as discussed above, the City is well served by telecommunications facilities and no restrictions on the expansion of service as necessary to meet future demands is anticipated anywhere in the City, including the Project Area. Future plan updates would be required to adhere to existing state and local requirements related to telecommunication service.

New or expanded telecommunication facilities may be needed to meet increased citywide demand. Impacts associated with the construction of new facilities would depend on the location, size, and nature of such facilities, but would primarily consist of temporary construction-related impacts pertaining to such issues as transportation, air quality, and noise. These impacts are anticipated to be within the parameters of what is described in this EIR and any new or expanded facilities, the construction of which may result in impacts beyond those identified herein, would be subject to further environmental review under CEQA.

Based on the above information, the incremental effect of the Proposed Project related to the provision of telecommunication infrastructure would not be cumulatively considerable and cumulative impacts would be *less than significant*.

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5.0 ALTERNATIVES

5.1 INTRODUCTION

As required by Section 15126.6 of the CEQA Guidelines, the EIR must examine a range of reasonable alternatives to the Proposed Project that would feasibly attain most of the basic project objectives but would avoid or substantially lessen any of its significant environmental effects. The primary purpose of analyzing alternatives for a project is to identify and disclose ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1). Key provisions of the CEQA Guidelines pertaining to alternatives analysis are summarized below.

- The discussion of alternatives shall focus on alternatives to the project, including alternative locations that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly (CEQA Guidelines Section 15126.6(b)).
- The EIR shall include a brief discussion of the rationale for selecting alternatives to be discussed and should identify any alternatives that were considered but were rejected as infeasible during the scoping process and briefly explain the reason underlying the lead agency's decision. Among others, the following factors may be used to eliminate alternatives from detailed consideration in an EIR: (1) failure to meet most of the basic project objectives; (2) infeasibility; or (3) inability to avoid significant environmental impacts (CEQA Guidelines Section 15126.6(c)).
- The No Project Alternative shall be evaluated along with its impacts. The "no project" alternative analysis shall discuss existing conditions at the time the Notice of Preparation is published, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services (CEQA Guidelines Section 15126.6(e)(2)).
- When the project involves an update to an existing land use or regulatory plan, the "no project" alternative will be the continuation of the existing plan, policy or operation into the future (CEQA Guidelines Section 15126.6(e)(3)(A)).
- The range of alternatives required in an EIR is governed by a "rule of reason." Therefore, the EIR must evaluate only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the proposed project (CEQA Guidelines Section 15126.6(f)).
- For alternative locations, only locations that are feasible and would avoid or substantially less any of the significant effects of the project need be considered for inclusion in the EIR (CEQA Guidelines Section 15126.6(f)(2)(A)).
- An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative (CEQA Guidelines Section 15126.6(f)(3)).
- The evaluation of alternatives would include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be

discussed, but in less detail than the significant effects of the proposed project (CEQA Guidelines Section 15126.6(d)).

- CEQA Guidelines Section 15126.6(a) states:

An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic project objectives but would substantially lessen any of the significant effects of the project,” and specifies that “An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. An EIR is not required to consider alternatives which are infeasible.”

- CEQA Guidelines Section 15126.6(f)(1) explains that:

...factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries...and whether the proponent can reasonably acquire, control or otherwise have access to the alternative sites...

Based on the above, this Section identifies, describes, and evaluates a reasonable range of project alternatives with the same focus as the Proposed Project. It is intended to inform the public and decision-makers about the comparative effects of alternatives that address concerns raised by the public during the outreach process and identified in this EIR. The analysis is particularly focused on alternatives that could achieve most of the basic project objectives while reducing or avoiding the Proposed Project’s significant environmental effects.

As noted in Section 4 of this EIR, the unavoidably significant effects of the Proposed Project after implementation of all feasible mitigation measures are:

- **Air Quality:** Criteria Air Pollutant Emissions Exceed Standards related to construction emissions (NO_x, PM₁₀, and PM_{2.5}) and operational emissions (VOC, NO_x, CO, PM₁₀ and PM_{2.5}); cumulative impact related to construction emissions of NO_x, PM_{2.5}, and PM₁₀; and cumulative impact related to operation emissions of VOC, NO_x, CO, PM_{2.5}, and PM₁₀.
- **Cultural Resources:** Historical Resources; Cumulative Historical Resources; Cumulative Archaeological Resources
- **Noise:** Temporary (stationary) and permanent (mobile) ambient noise level impacts; Construction-related groundborne noise and vibration impacts; Cumulative temporary (stationary) and permanent (mobile) ambient noise level impacts; Cumulative Construction-related groundborne noise and vibration impacts
- **Transportation:** Safety impacts related to off-ramp queuing; cumulative safety impacts related to off-ramp queuing

The following issues were found to have impacts that would be reduced to a less-than-significant level with implementation of mitigation measures:

- **Air Quality:** Construction-related emissions of toxic air contaminants
- **Biological Resources:** Candidate, sensitive, or special status species; Wetlands
- **Cultural Resources:** Archaeological resources
- **Geology:** Paleontological Resources; Cumulative Paleontological Resources

- **Hazards and Hazardous Materials:** Hazardous Materials within ¼-Mile of School; Hazardous Materials Sites
- **Tribal Cultural Resources:** Tribal Cultural Resources; Cumulative Tribal Cultural Resources
- **Utilities:** Water Facilities and Supply

See **Table ES-3** in the Executive Summary (Chapter 2), for the proposed mitigation measures.

5.2 PROJECT OBJECTIVES

CEQA requires an EIR to include a statement of the objectives sought by a project proponent, in this case the City of Los Angeles. The statement of objectives should include the underlying purpose of the project.

UNDERLYING PURPOSE OF THE PROJECT

The underlying purpose of the Proposed Project is to encourage the production of affordable, mixed-income, and permanent supportive housing in the Project Area. The Proposed Project will entail updates to the CASP's zoning regulations, land use incentives, boundaries, and other key provisions to facilitate the production of housing, in a manner consistent with the underlying vision and purpose of the existing CASP.

Objectives of the Proposed Project are as follows:

- Increase the production of affordable and mixed-income housing within the Project Area.
- Protect residents, especially low-income households, from indirect and direct displacement, and ensure stability of existing vulnerable communities.
- Design and regulate housing to promote health and well-being, increase access to amenities such as parks and public transit, contribute to a sense of place, foster community and belonging, and plan for a sustainable future.
- Build, operate, and maintain welcoming and accessible housing for Angelenos with unique needs, including those with disabilities, large families, older adults, and other people facing housing barriers and economic insecurity.
- Refine Plan standards, processes, and procedures to be more intuitive and transparent, with the goal of enhancing development certainty for both market-rate and affordable housing developers; and
- While reducing overall employment capacity, preserve employment areas that show a concentration of jobs, while supporting small and/or legacy businesses, local employment, and new productive uses and employment spaces, such as light industrial and general commercial uses.

5.3 SELECTION OF ALTERNATIVES FOR ANALYSIS

The following analysis considers three alternatives, including the CEQA-required “no project” alternative. As required by CEQA, this section also includes a discussion of the “environmentally superior alternative” among those studied. The alternatives are listed below:

- Alternative 1: No Project Alternative
- Alternative 2: No Urban Village Alternative
- Alternative 3: Reduced Urban Village Alternative

EIR alternatives analyses is required to focus on alternatives that reduce or avoid the unavoidably significant environmental impacts of the Proposed Project and feasibly attain most of the Proposed Projects basic objectives. The Proposed Project’s unavoidably significant impacts are those associated with temporary (construction-related) and long-term air pollutant emissions, the possible loss of historical and cumulative archaeological resources, safety issues related to off-ramp queuing, , and temporary construction-related noise and vibration. Impacts identified as significant, but that can be reduced to a less than significant level with proposed mitigation measures include construction-related emissions of toxic air contaminants, biological resources, archeological and paleontological resources, hazardous sites, tribal cultural resources, and water supply. All these potential impacts could be reduced to some degree by limiting the amount of development in the Project Area; however, outside of a moratorium on new development, none of the impacts could be reduced to below a level of significance. Moreover, limiting development in the Project Area may simply divert more growth and development to other areas of the City, thus, increasing the potential for similar impacts in other areas of the City. Diverting growth and development to other areas that have few transit options may increase overall regional air pollutant emissions and vehicle miles traveled (VMT) compared to focusing more development in the Project Area.

Table 5-1 shows the housing, population and employment projections under each alternative and the percentage of growth projected from 2021 through 2040, over existing baseline conditions, for each alternative.

TABLE 5-1 HOUSING, POPULATION AND EMPLOYMENT GROWTH PROJECTIONS						
Scenario	Total Summary for 2040			Percent Growth 2021-2040		
	Housing (du)	Population (person)	Employment (job)	Housing	Population	Employment
Existing 2021 Conditions	2,012*	6,027	5,411	--	--	--
SCAG 2016 RTP/SCS	5,039*	14,444	8,797	250%	240%	163%
Proposed Project	20,036	56,501	8,263	996%	937%	153%
Alternative 1 (No Project)	12,773	36,021	10,005	635%	598%	185%
Alternative 2	15,434	43,523	9,551	767%	722%	177%
Alternative 3	17,208	48,527	9,055	855%	805%	167%

Notes:
du = dwelling unit; *For conservative purposes, this number represents households and does not include vacant units.
Source: SCAG 2016-2040 RTP/SCS; Los Angeles Department of City Planning, 2022

5.4 ANALYSIS METHODOLOGY

Feasible alternatives that address the City's need to accommodate foreseeable growth in the City and Project Area are evaluated herein. The analysis compares the impacts of the Proposed Project to those of each alternative, concluding whether the alternative's impact would be less than, similar to, or greater than that of the Proposed Project. The analysis also concludes whether the alternative would either create or avoid a significant impact and discusses what, if any, mitigation would be required for the alternative.

5.5 COMPARATIVE IMPACT ANALYSIS

ALTERNATIVE 1: NO PROJECT ALTERNATIVE

Alternative Description

The "No Project" alternative involves continued implementation of the existing CASP. This alternative assumes that the City's existing plans and policies would continue to accommodate development in accordance with existing zoning designations. As shown in **Table 5-1**, under Alternative 1, the Project Area is projected to accommodate a population of 36,021 residents, 12,773 housing units, and 10,005 jobs by 2040. SCAG projects growth of the Project Area to reach 14,444 residents, 5,039 housing units, and 8,797 jobs by 2040. Therefore, population and housing growth in the Project Area would exceed SCAG's forecasts under current plans, as would forecasted employment growth. Overall, current land use patterns limit population and housing growth in the Project Area, as compared to the Proposed Project, and would likely cause development to occur elsewhere in the region to meet the SCAG's 2040 Citywide projections. This may increase regional emissions of air pollutants and greenhouse gases as well as increased regional energy consumption, and VMT.

Alternative 1 was selected because it meets CEQA's requirement to study a "no project" alternative. The analysis of Alternative 1 treats the alternative as a "new" project similar to the other alternatives and discusses both potentially "significant" impacts and mitigation requirements. However, it should be recognized that Alternative 1 would not actually require any new discretionary approval from the City and, therefore, would not technically have any new impacts under CEQA, nor would the City have a mechanism for imposing the mitigation measures proposed for the Proposed Project and other Project alternatives.

Alternative 1 would partially meet some of the basic Project objectives. Alternative 1 would preserve employment areas that show a concentration of jobs, while supporting small and/or legacy businesses, local employment, and new productive uses and employment spaces, such as light industrial and general commercial uses and would not reduce overall employment capacity as compared to SCAG's forecasts or the Proposed Project. Alternative 1 would also partially meet the objective to build, operate, and maintain welcoming and accessible housing for Angelenos with unique needs, including those with disabilities, large families, older adults, and other people facing housing barriers and economic insecurity. Alternative 1 would be subject to existing federal, state and local regulations regarding housing accessibility, but it would not include new specific plan regulations and incentives that support housing of different types. Alternative 1 would partially meet the objective of increasing the production of affordable and mixed-income housing within the Project Area. However, as noted in **Table 5-1**, dwelling units and population growth forecast under this alternative are less than those forecast under the Proposed Project. In addition, Alternative 1 would not include the same regulations and incentives as the Proposed Project intended to promote affordable and low-income income housing and would result in less of those housing options being developed.

Absent the strengthened affordable housing incentives and requirements of the Proposed Project, or its alignment with the new Zoning Code, Alternative 1 would not be consistent with the following Project objectives: Protect residents, especially low-income households, from indirect and direct displacement, and ensure stability of existing vulnerable communities; and refine Plan standards, processes, and procedures to be more intuitive and transparent, with the goal of enhancing development certainty for both market-rate and affordable housing developers.

As discussed below, Alternative 1 would incrementally increase impacts related to transportation, energy and GHG emissions as compared to the Proposed Project and would have the same significant and unavoidable impacts to air quality, historic resources, construction noise and vibration, recreation and transportation safety related to freeway off-ramps.

Impact Analysis

Aesthetics

Under Alternative 1, development would continue under current planned land use patterns in Project Area. The Project Area is primarily characterized by a variety of high and low intensity development areas with an assortment of different development scales and a variety of visual character, including scattered parks, residential neighborhoods, commercial districts, restaurants, and industrial manufacturing facilities. Compared to the Proposed Project's designations, Alternative 1 would generally accommodate less residential zoning capacity but have the same overall building height, scale and intensity.

The current Specific Plan regulations would generally accommodate development with similar overall height, scale and intensity, as compared to the Proposed Project, and thus would likely not result in changes in visual character, obstruction of scenic views, alterations of historical resource and shading effects. Any development would be implemented in accordance with applicable state and local plans, policies and guidelines including, but not limited to, the City's General Plan Framework, Conservation Element, Mobility Plan 2035, relevant specific plans, the City of Los Angeles Citywide Design Guidelines and provisions of the LAMC as it relates to development standards, visual character and historical resources. Like the Proposed Project, Alternative 1 could introduce new sources of light and glare in the Project Area. However, development in most of the Project Area already experiences high levels of nighttime lighting and glare, such that any additional effects would be incremental. In addition, future development would comply with applicable regulations regarding permitted light and glare. Similarly, development in the Project Area accommodated by Alternative 1 may increase shading and shadows in specific locations; however, shadows would be limited to the immediate area of each new development and would be typical of highly urbanized neighborhoods. Overall, similar to the Proposed Project, development accommodated by Alternative 1 may benefit, and would generally enhance, the visual character of the Project Area, and impacts related to aesthetics would be *less than significant*.

Air Quality

Alternative 1 would accommodate less overall housing development and associated population growth than the Proposed Project while resulting in more employment growth. Alternative 1 would result in 7,263 fewer housing units, 20,480 fewer residents, and 1,742 more jobs, through 2040 than would be anticipated under the Proposed Project. However, like the Proposed Project, Alternative 1 would generate growth that is consistent with the 2020-2045 RTP/SCS and 2022 AQMP forecasts at a Citywide level and as a result, would not conflict with and obstruct implementation of the 2020-2045 RTP/SCS or the 2022 AQMP. As with the Proposed Project, impacts related to conflicting with or obstructing implementation of the applicable air quality plans would be *less than significant*.

Although less construction may occur overall under Alternative 1 as compared to the Proposed Project, maximum daily emissions would be similar to what would occur under the Proposed Project since the nature and magnitude of individual construction projects would be similar. Therefore, it is reasonable to assume that development would result in construction emissions of NO_x that exceed SCAQMD regional and local significance thresholds, and emissions of PM₁₀ and PM_{2.5} that exceed SCAQMD LSTs. Similarly, because less residential development would occur under Alternative 1, it is reasonable to assume that overall operational emissions would be less within the Project Area as compared to the Proposed Project. However, growth would likely occur elsewhere in the City and potentially result in increased operational emissions outside of the Project Area. The increase in development in the Project Area accommodated by Alternative 1 could result in daily emissions of VOC that would exceed the SCAQMD regional significance thresholds due to expanded use of consumer products and increased energy demand, similar to the Proposed Project. In addition, future development in the Project Area accommodated by Alternative 1 would result in daily emissions of NO_x, PM₁₀ and PM_{2.5} from area sources and mobile sources (brake and tire wear) that would exceed the SCAQMD regional significance thresholds. Additionally, it is reasonable to assume that exposure of sensitive receptors to temporary construction emissions would be less with Alternative 1 because less overall construction may occur and similar mitigation measures are found in the existing Specific Plan. Exposure to odors would also be similar to the *less than significant impact* identified for the Proposed Project. As with the Proposed Project, impacts related to construction and operational emissions would be *significant and unavoidable*, while similar mitigation measures limiting impacts from exposure of sensitive receptors to temporary construction emissions would result in *less than significant* impacts.

Biological Resources

In the Project Area, which is expected to experience new development under the existing CASP, individual reasonably anticipated development could potentially impact biological resources. However, the Project Area is already urbanized and generally lacks riparian habitat, wetlands, wildlife corridors and habitat that would support special status plant or animal species. The Los Angeles River and Arroyo Seco, as well as small portions of parks and open space, trees and minor urban landscaping are the only sources of biological habitat in and around the Project Area. There are a variety of bird species protected by the Migratory Bird Treaty Act (MBTA) that have adapted to human activity and may utilize existing trees and shrubs for nesting or foraging. Additionally, temporary direct and indirect impacts from the Proposed Project include the removal or degradation (e.g., excessive noise, dust, or light) of this habitat. Indirect impacts could result from excessive dust generated by developments occurring in the vicinity of the Los Angeles River and Arroyo Seco. Similar to the Proposed Project, Alternative 1 would include increased development in the Project Area, which would also potentially result in impacts related to certain bird species and dust generated by increased development. However, the extent of anticipated development would be lower under Alternative 1 which could result in reduced impacts to bird species. Because this alternative would be subject to the existing biological mitigation measures of the Specific Plan, impacts related to biological resources would be *less than significant*.

Cultural Resources

In the Project Area, which is expected to experience substantial new development, individual reasonably anticipated development could potentially cause a substantial adverse change in or disturbance of historical resources and archeological resources. As with the Proposed Project, Alternative 1 may result in demolition or alteration of historical resources or their setting or disturb areas that may potentially contain archaeological resources. Alternative 1 would accommodate development consistent with current land use designation and patterns and, as such, may result in slightly reduced impacts to historical resources and associated settings as compared to the Proposed Project. However, development under either Alternative 1 or the Proposed Project would have the potential to disturb archaeological resources and/or human remains. All future development projects would continue to be subject to existing federal, state, and local requirements with respect to cultural resources and discretionary projects may be subject to project-specific

mitigation requirements under CEQA. Under the Proposed Project, implementation of **Mitigation Measures 4.4-1(a), (b) and (c)** would reduce the potential to disturb historic resources and **4.4-2(a), (b), and (c) and (d)** would reduce the potential to disturb archaeological resources and human remains. In addition, although existing regulations provide certain protections for significant historical resources, individual developments allowed by Alternative 1 could potentially cause a substantial adverse change in or disturbance of historical and archaeological resources as defined in CEQA Guidelines Section 15064.5. Therefore, while Alternative 1 would impose similar Mitigation Measures found in the existing Specific Plan, the potential for disturbance of cultural resources would be the same as under the Proposed Project and impacts to cultural resources would remain *significant and unavoidable*.

Energy

As compared to the Proposed Project, development under Alternative 1 would result in less transportation energy use and less electricity and natural gas consumption than the Proposed Project in 2040. However, on a per capita basis, Alternative 1 would result in more transportation energy use and more electricity and natural gas consumption than the Proposed Project for year 2040 because of the increased job opportunities coupled with reduced housing density in the Project Area. In addition, Alternative 1 would result in 2040 per capita electricity and natural gas consumption higher than under 2021 baseline conditions, while the Proposed Project would result in lower per capita electricity and natural gas consumption in 2040 as compared to year 2021 baseline conditions. The lower per capita energy use that would occur under the Proposed Project can be attributed in part to the fact that implementation of the Proposed Project would lower per capita VMT due to the location of jobs and housing in close proximity to each other and creation of substantial opportunities to use such transportation modes as transit, bicycling, and walking.

Because Alternative 1 would consume less energy overall, but more energy than the Proposed Project on a per capita basis, it may result incrementally greater impacts with respect to the inefficient, unnecessary, or wasteful direct or indirect consumption of energy as compared to the Proposed Project. Nevertheless, as with the Proposed Project, Alternative 1 would not result in energy demands that exceed the existing or planned capacity for the service area or the wider Southern California region. In addition, neither Alternative 1 nor the Proposed Project would conflict with applicable federal, state, or local energy conservation policies aimed at reducing reliance on fossil fuels and increasing reliance on renewable energy sources. Overall, impacts would be *less than significant* under Alternative 1, as with the Proposed Project.

Geology and Soils

Implementation of the City's current General Plan and existing CASP would generally accommodate development in the same footprints as existing structures in the Project Area. Any new development in the Project Area under either Alternative 1 or the Proposed Project would be exposed to existing geologic and soil hazards; however, it would not increase the potential for such hazards or create new hazards. Compliance with existing regulatory requirements and policies, including the LAMC and CBC would reduce impacts from adverse effects related to seismic activity and ground shaking, liquefaction, on or off-site landslides, ground failure; or adverse effects related to expansive soil, or to a geologic unit or soil that is unstable or would become unstable as a result of the project and result in landslide, lateral spreading, liquefaction or collapse. In some cases, future development in the Project Area may reduce the potential for property damage and/or safety concerns by replacing older structures with new structures built to current seismic standards. Similar to the Proposed Project, Alternative 1 would have the potential to disturb paleontological resources to the same degree. Implementation of the Proposed Project's **Mitigation Measures 4.6-1(a), (b) and (c)** would reduce the potential to disturb or damage paleontological resources. As similar mitigation measures are found in the existing Specific Plan, the potential for disturbance of paleontological resources would remain *less than significant* with Alternative 1.

Greenhouse Gas Emissions

Development accommodated by either Alternative 1 or the Proposed Project would generate GHG emissions through individual project construction and operation. GHG emissions would be generated by direct sources such as motor vehicles, natural gas consumption, solid waste handling/treatment, and indirect sources such as electricity generation. Alternative 1 would accommodate less residential development overall than the Proposed Project and would result in fewer GHG emissions in the Project Area. However, it would accommodate less intense development and associated growth in the Project Area, which may result in more population and housing growth elsewhere in the City and region where fewer transit options are available and the distances between residences, jobs, and services are greater. Additionally, the increased number of jobs in the Project Area coupled with the reduced dwelling units under Alternative 1 would increase per capita VMT and transportation related GHG emissions. As a result, overall citywide and regional GHG emissions as a function of VMT may increase and Alternative 1 would not be as consistent with AB 32, SB 32, SB 375 (through demonstration of conformance with the 2020-2045 RTP/SCS), the Sustainable City pLAN and GreenLA as the Proposed Project. Overall GHG emissions would be incrementally greater than those of the Proposed Project. However, impacts related to GHG would be *less than significant* under Alternative 1, as with the Proposed Project.

Hazards and Hazardous Materials

Development under Alternative 1 would continue under the current zoning regulations of the existing CASP. Alternative 1 would involve no change to planned land use patterns and would involve less overall residential development capacity and associated growth than would occur under the Proposed Project. Similar to the Proposed Project, operational activities associated with development under Alternative 1 would not create increased potential for upset or accident conditions involving hazardous materials release from transport, use or disposal. As such, as with the Proposed Project, impacts related to the routine transport, use, or disposal of hazardous materials or upset or accident conditions involving hazardous materials would be *less than significant*.

Similar to the Proposed Project, this alternative would pose no or less than significant issues related to airports or emergency management plans because there are no airports or private airstrips in or near the Project Area, and development under Alternative 1 would not interfere with circulation plans or emergency management plans. Therefore, *no impacts* related to airports would occur and *less than significant impacts* related to emergency management plans would occur. No wildland fire hazard areas are present in the Project Area; therefore, *no impacts* related to wildland fire risks would occur.

As with the Proposed Project, redevelopment, renovation, and demolition of structures built before 1979 could potentially involve asbestos or lead but asbestos and lead would not be released into the atmosphere with compliance of existing regulations. In addition, future development would potentially occur in Methane Zones and Methane Buffer Zones and near oil wells. Grading and construction activity could also potentially result in the release of soil and/or groundwater contamination, which could potentially affect schools. Compliance with applicable regulations would reduce such impacts to a less than significant level. As with the Proposed Project, grading and construction activity could potentially result in the release of soil and/or groundwater contamination, which could potentially affect schools or involve a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment. Overall impacts associated with Alternative 1 would be similar to, but slightly less than, those of the Proposed Project since the overall level of development would be lower. As with the Proposed Project, impacts related to the potential disturbance of contaminated soils would be significant. Adherence to **Mitigation Measures 4.8-4(a)** and **4.8-4(b)**, as discussed in Section 4.8, *Hazards and Hazardous Materials*, would reduce impacts related to contaminated soils. Because this alternative has similar mitigation measures, the potential for exposure to contaminants

to the public due to possible construction on hazardous sites, and release of hazardous emissions which could potentially affect schools would be similar to the Proposed Project and would be *less than significant*.

Hydrology and Water Quality

The Project Area is urbanized and almost entirely paved and developed except for parks, green spaces, and the Los Angeles River, which runs through the center of the Project Area. Alternative 1 would accommodate development in a manner consistent with current land use patterns and, therefore, would not substantially alter drainage patterns or result in substantial erosion, siltation, or flooding on- or off-site. Development accommodated by either Alternative 1 or the Proposed Project would be subject to federal, state, and local requirements that prevent violations of water quality standards or waste discharge requirements and support the preservation and expansion of pervious surfaces. In addition, new development projects under either Alternative 1 or the Proposed Project would be required to incorporate Best Management Practices to manage stormwater and reduce runoff during construction and operation, and industrial sources would be subject to additional stormwater management and discharge requirements under the NPDES program for industrial uses. Compliance with the City's LID Ordinance would further ensure that any future development resulting from either this alternative or the Proposed Project would not require construction of new stormwater drainage facilities and or expansion of existing facilities beyond specific improvements needed for individual development projects. In the long-term, redevelopment of sites in the Project Area under either Alternative 1 or the Proposed Project would improve surface water quality by replacing older development with new development that incorporates LID methods. Therefore, like the Proposed Project, Alternative 1 would not adversely affect conditions with respect to hydrology and water quality and impacts would be *less than significant*.

Land Use and Planning

Under Alternative 1, development would continue under current planned land use patterns in the City. This alternative would not accommodate the greater residential development capacity that could occur in portions of the Project Area under the Proposed Project. Like the Proposed Project, Alternative 1 would be generally consistent with 2020-2045 RTP/SCS policies related to the provision of high intensity and transit-oriented development as well as with the City's General Plan and Framework Element, Mobility Plan 2035, and Housing Element 2013-2021. However, as discussed under *Air Quality*, Alternative 1 may implement 2020-2045 RTP/SCS, AQMP, and Air Quality Element policies related to concentrating development near transit and reducing regional VMT to a lesser degree than the Proposed Project since the lower overall residential development totals may result in increased residential development elsewhere in the City and incrementally higher regional VMT. Like the Proposed Project, Alternative 1 would not physically divide an established community or conflict with an applicable habitat conservation plan, natural community conservation plan. Overall, like the Proposed Project, this alternative would not conflict with land use plans and policies or divide a community. Overall, impacts related to land use would be *less than significant* under Alternative 1, as with the Proposed Project.

Noise

New sensitive uses accommodated by either Alternative 1 or Proposed Project would be exposed to ambient noise that is in the "normally unacceptable" to "clearly unacceptable" range based on noise level/land use compatibility standards in the Noise Element the City's General Plan. Although all construction would be required to comply with the appropriate Regulatory Compliance Measures as well as LAMC Chapter 41.40, Section 112.05, reasonably anticipated development under Alternative 1 would potentially result in construction with lengthy durations, substantial soil movement, use of large, heavy-duty equipment, and/or pile driving near noise-sensitive land uses that would result in significant impacts that cannot be feasibly mitigated. Therefore, like the Proposed Project, the impact generated by temporary construction noise under Alternative 1 would also be *significant and unavoidable*.

Any future development in the Project Area would include mechanical equipment, loading, trash pick-up, and other noise-generating activities. However, such activities would be typical of the urban environment in the Project Area. In addition, any on-site activities would be required to comply with applicable provisions of the LAMC. Future development accommodated by either Alternative 1 or the Proposed Project would also increase vehicle trips in the Project Area that would generate mobile noise. Mobile noise would increase noise levels to be above the “normally unacceptable” category for land uses adjacent to these corridors. With this, like the Proposed Project, permanent noise increases due to mobile operational activities under Alternative 1 would be *significant and unavoidable*.

All construction would be required to comply with the appropriate Regulatory Compliance Measures as well as LAMC Chapter 41.40, Section 112.05. Nevertheless, maximum noise levels generated by construction equipment under Alternative 1 could potentially involve two subterranean levels or more, construction durations of 18 months or more, use of large, heavy-duty equipment rated 300 horsepower or greater, or the potential for impact pile driving. In addition, **Mitigation Measure 4.11-1** for the Proposed Project would not apply. Therefore, impacts from temporary construction noise resulting from implementation of Alternative 1 would be *significant and unavoidable* and be greater than that of the Proposed Project.

Any future construction activity, specifically pile driving, could potentially generate vibration exceeding the 90 VdB threshold for buildings extremely susceptible to building damage (e.g., historical structures). Although mitigation is available to minimize the potential effects of vibration, it cannot be assured that construction-related vibration would not result in building damage. **Mitigation Measure 4.11-2(a) and (b)** would not apply and thus, construction-related vibration would be greater to that of the Proposed Project and remain *significant and unavoidable impact*.

It is not anticipated that new development in the Project Area would involve activities that would result in substantial vibration levels (e.g., blasting operations). Like the Proposed Project, operational groundborne vibration in the vicinity of new development associated with Alternative 1 would be primarily generated by vehicular travel on the local roadways. According to the FTA *Transit Noise and Vibration Impact Assessment* guidance document, rubber tires and suspension systems dampen vibration levels from trucks to a level that is rarely perceptible (2006). Accounting for additional vehicle trips that would be accommodated by Alternative 1, traffic vibration levels would be similar to existing conditions and not perceptible. Therefore, like the Proposed Project, Alternative 1 would result in a *less than significant impact* for operational vibration.

Population and Housing

As shown in **Table 5-1**, under Alternative 1 the Project Area is projected to accommodate a population of 36,021 residents, 12,773 housing units, and 10,005 jobs by 2040. SCAG projects growth of the Project Area to reach 14,444 residents, 5,039 housing units, and 8,797 jobs by 2040. The population forecast for Alternative 1 is greater than under SCAG’s RTP/SCS, but Alternative 1 would concentrate forecast growth in an area with a mix of jobs and housing and with good transit access. As such, although it would not implement RTP/SCS policies related to jobs/housing balance and concentrating growth and development near transit to the same degree that the Proposed Project would, it would not result in significant impacts related population or housing growth. Alternative 1 would have less potential to displace housing than the Proposed Project but would also include less replacement and affordable housing. Like the Proposed Project, Alternative 1 would result in an overall increase in housing that would more than offset any housing displacement that may occur. It should be noted, however, that limiting housing development in the Project Area as would occur under Alternative 1 may result in increased housing development elsewhere in the City, which could potentially increase displacement of existing housing in other Los Angeles neighborhoods. Like the Proposed Project Alternative 1 would not induce substantial population growth

inconsistent with the regional growth plans. Overall, impacts related to population and housing would be *less than significant* under Alternative 1, as with the Proposed Project.

Public Services

Implementation of Alternative 1 would involve less overall development and associated growth than the Proposed Project. Nevertheless, the increased growth under either scenario may require additional public facilities to serve new residents. With respect to fire and police services, both Alternative 1 or the Proposed Project would accommodate new development that would increase demand for fire and police protection service. This may result in the need for new or expanded fire and police facilities. Based on the urbanized character of the Project Area, it is anticipated that new or expanded facilities could be built without creating significant environmental impacts. Depending on the location or nature of new facilities, the construction of needed new facilities could potentially result in impacts; however, like the Proposed Project, those impacts would be consistent with those already identified in this EIR for construction or operations. Project-specific environmental analysis under CEQA would be required to address any site-specific environmental concerns.

With respect to schools, as summarized below in **Table 5-2**, residential and non-residential development accommodated by Alternative 1 would result in approximately 5,534 new students by 2040. Of this total, an estimated 2,869 would enroll in elementary school, 874 would enroll in middle school, 1,601 would enroll in high school, and 189 would enroll in special day classes. Overall Alternative 1 would result in approximately 36 percent less students as compared to the Proposed Project. As such, Alternative 1 would accommodate development that would increase the student population of the Proposed Project and would create the need for new or expanded school facilities, but to a lesser extent than the Proposed Project. As with the Proposed Project, developers would be required to pay applicable school impact fees. As with the Proposed Project, any impacts associated with new school construction would be similar to those analyzed and identified in the EIR for other types of development, any site-specific impacts would be speculative and would be addressed by LAUSD as part of a project-level CEQA review.

TABLE 5-2 ALTERNATIVE 1 ANTICIPATED STUDENT GENERATION IN THE PROJECT AREA						
	Units	Student Generation				
		Elementary School (TK-5)	Middle School (6-8)	High School (9-12)	SDC	Total Students Generated
Residential ¹	12,773 du	2,495	687	1,368	189	4739
Non-Residential ²	16,418,000 sf	374	187	233	--	795
Total Students Generated by the No Project Alternative		2,869	874	1,601	189	5,534

Note: du = dwelling units; sf = square feet; TK = Transitional Kindergarten; SDC = Specialized Day Care
 Totals may not add up due to rounding.

¹ Student generation rates for residential use is based on Level 1 – Developer Fee Justification Study for Los Angeles Unified School District (LAUSD 2022c). Residential Generation Rates: Elementary: 0.1953/du, Middle School: 0.0538/du, High School: 0.1071 /du, SDC: 0.0148/du

² Student generation rates for non-residential use is based on the average of office and retail/service student generation rates for a conservative estimate, taken from the LAUSD Commercial/Industrial Development School Fee Justification Study, September 2010 (LAUSD 2010). Non-residential Generation Rates: Elementary: 0.0228/1,000 sf, Middle School: 0.0114/1,000 sf, High School: 0.0142/1,000 sf. Non-residential uses include commercial, industrial, and public facilities.

With respect to libraries, either Alternative 1 or the Proposed Project would increase demand for library facilities. However, the Project Area is well served by library facilities and would not require the construction of new or expanded facilities.

Overall, impacts related to public services would be *less than significant* under Alternative 1, as with the Proposed Project.

Recreation

Implementation of Alternative 1 would involve less overall development and associated population increases than the Proposed Project. However, any new development would increase the use of existing park and recreational facilities throughout the City, including in and around adjacent to the Project Area. The City of Los Angeles Public Recreation Plan states that in order to meet long-range local recreational standards, the City should maintain a minimum of two acres of neighborhood facilities and two acres of community recreational facilities for every 1,000 persons, or a combination of neighborhood and community facilities adding up to four acres. Under Alternative 1, the Project Area population is projected to increase to approximately 36,000 residents, which would result in a ratio of parks to residents of approximately 27.3 acres per 1,000 residents- exceeding the City's 4 acres per 1,000 residents goal for neighborhood and community facilities. Therefore, like the Proposed Project, impacts related to deterioration of existing parks in and around the Project Area would be *less than significant*.

Reasonably expected development from Alternative 1 would increase demand for recreational and park facilities that serve the Project Area but would not require construction of new recreational or park facilities. Furthermore, based on the urban nature of the Project Area and the presence of constraints to the development of large park facilities, the construction and operation of new facilities would not be expected to result in significant environmental impacts. Like the Proposed Project, impacts from the construction or expansion of new recreational facilities would be *less than significant*.

Transportation/Traffic

Alternative 1 would result in less residential development and population growth in the project area compared to the Proposed Project. However, it would also result in an increased amount of job growth in the Project Area. The increased number of jobs in the Project Area coupled with the reduced dwelling units under Alternative 1 would increase per capita VMT and result in more traffic related impacts citywide and in the Project Area as employees would have to travel from other locations to get to their jobs and would be less likely to use transit options.

As with the Proposed Project, Alternative 1 would not increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), or result in inadequate emergency access. However, as with the Proposed Project, freeway off ramp queuing-related safety issues could potentially arise as additional development occurs in the Project Area. As with the Proposed Project, this would result in *significant and unavoidable impacts* to freeway safety impacts.

Tribal Cultural Resources

As described in Section 4.4, *Cultural Resources*, Los Angeles has a long history of Native American occupation, and any development activities that include ground disturbance have the potential to significantly impact tribal cultural resources. Effects on tribal cultural resources are only known once a specific development has been proposed because the effects are highly dependent on both the individual development site conditions and the characteristics of the proposed activity. Development accommodated by either Alternative 1 or the Proposed Project may disturb areas that potentially contain tribal resources. Similar to the Proposed Project, all future development projects under Alternative 1 would continue to be subject to existing federal, state, and local requirements and discretionary projects, subject to CEQA review would be required to comply with AB 52, which for projects relying on a [mitigated] negative declaration or an EIR, would require consultation with California Native American tribes. Implementation of **Mitigation Measures 4.4-2 (a), (b), (c), and (d)** in Section 4.4, *Cultural Resources*, and **Measures 4.16-**

1(a), (b), and (c) in Section 4.16-1, *Tribal Cultural Resources*, would reduce the potential to disturb tribal cultural resources. However, this Alternative would not be subject to the same mitigation measures proposed in the Proposed Project. Therefore, unlike the Proposed Project which would have less than significant impacts with the mitigation, Alternative 1's potential for disturbance of tribal cultural resources would be greater than under the Proposed Project and instead be *significant and unavoidable*.

Utilities and Service Systems

Implementation of Alternative 1 would involve less overall development and associated growth than the Proposed Project and, instead, result in 7,263 fewer housing units, 20,480 fewer residents, and 1,742 more jobs through 2040 than would be anticipated under the Proposed Project. As shown in **Table 4.17-3**, in Section 4.17, *Utilities and Service Systems*, projected wastewater generation for the Project Area in 2040 with implementation of the Proposed Project would generate an estimated 2.5 mgd of wastewater, which would represent about 2 percent of the HWRP excess capacity of 175 mgd. By comparison, **Table 5-3**, indicates that implementation of Alternative 1 would increase wastewater generation in the Project Area by approximately 1,754,164 mgd, which represents about 1 percent of the HWRP excess capacity of 175 mgd. Alternative 1 would generate approximately 52 percent less wastewater as compared to the Proposed Project. Therefore, as with the Proposed Project, the HWRP would have sufficient available treatment capacity to serve the Project Area under Alternative 1. In addition, the HWRP would be able to adequately treat future project-generated sewage under Alternative 1 and the treatment requirements of the RWQCB would not be exceeded so new or expanded treatment facilities would not be needed. Expansion/replacement of Project Area conveyance infrastructure may be needed and various facility improvements are already planned. Temporary traffic, air quality, and noise impacts associated with construction of such improvements would be within the parameters described for the Proposed Project. Continued compliance with the City's Low Impact Development (LID) Ordinance for all new development would ensure that any future development under Alternative 1 would not increase demands on stormwater drainage facilities and or expansion of existing facilities beyond specific improvements needed for individual development projects and impacts would remain *less than significant*.

With respect to water demand, per the 2020 Urban Water Management Plan, current water supplies, planned future water conservation efforts, and planned future water supplies will enable LADWP to reliably provide water that meets the demands of the City for a 25-year planning horizon (through 2045), based on SCAG's population projections. The 2020 UWMP projects an increase of 58,000 acre feet per year (afy) (8 percent) in water demand between 2025 and 2045, under single/multiple dry year conditions. As shown on **Table 5-4**, the projected net increase in water demand of 8,765 afy generated by new development accommodated by Alternative 1 would represent about 15 percent of the forecasted water demand increase through 2045. By comparison, as shown in **Table 4.17-6**, in Section 4.17, *Utilities and Service Systems*, estimated water demand for the Project Area in 2045 with implementation of the Proposed Project would be 17,892 afy. This represents about 31 percent of the forecasted citywide water demand increase through 2045. Alternative 1 would demand approximately 51 percent less water as compared to the Proposed Project. Therefore, as with the Proposed Project, adequate water supply exists to meet projected demand through the year 2045 for Alternative 1 and development of new water supplies would not be necessary. Expansion/replacement of water distribution infrastructure may be needed, but temporary traffic, air quality, and noise impacts associated with construction of such improvements would be within the parameters described for the Proposed Project and impacts would similarly be *less than significant*.

TABLE 5-3 ALTERNATIVE 1 PROJECTED WASTEWATER GENERATION			
Land Use	Dwelling Units or Jobs	Wastewater Generation Rate (gpd/unit)	Wastewater Generation (gpd)
Residential ¹	12,773 du	137.9	17,613,967
Commercial	6,642 jobs	59.8	397,192
Industrial	3,257 jobs	123	400,611
Public Facilities	105 jobs	46.4	4,872
Total 2040 with Alternative 1 Wastewater Generation			2,564,071
Current Wastewater Generation			809,907
Net Change in Wastewater Generation			1,754,164
<p>Notes: Wastewater generation numbers are rounded to the nearest thousand. Totals may not add up due to rounding. gpd – gallons per day du – dwelling units sf – square feet</p> <p>SOURCE: Wastewater is assumed to be 100% of indoor water use. Per Exhibit 2E of the LADWP 2020 UWMP, indoor water use constitutes 56% of overall water use for single-family residences and 80% of overall water use for multi-family residences. Per the 2020 UWMP, per unit water demand is forecast to decline over time; the forecast 2030 rates per Exhibit 2L of the LADWP 2020 UWMP are assumed to apply to new development.</p>			

TABLE 5-4 ALTERNATIVE 1 PROJECTED WATER DEMAND IN THE PROJECT AREA				
Land Use	Dwelling Units or Jobs in Plan Area	Daily Water Use Rate (gpd/unit)	Daily Water Demand (gpd)	Annual Water Demand (afy)
Residential	12,773 du	202.8	2,590,364	7,097
Commercial	6,642 jobs	78.7	522,725	1,432
Industrial	3,257 jobs	125.5	408,754	1,120
Public Facilities	105 jobs	78.7	8,264	23
Total 2040 with Alternative 1 Demand			3,530,107	9,672
Current Water Demand			809,907	907
Net Change in Water Demand			2,720,200	8,765
<p>NOTES: du - dwelling units gpd – gallons per day afy – acre feet per year (1 af = 325,850 gallons) Totals may not add up due to rounding. Single-family and multi-family units were estimated by assuming that 20 percent of total household units are single-family and 80 percent are multi-family.</p> <p>SOURCE: Source: Water demand rates were obtained from the LADWP's 2020 UWMP, Exhibit 2L. Per the 2020 UWMP, per unit water demand is forecast to decline over time; the forecast 2040 rates are assumed to apply to new development.</p>				

As shown in **Table 4.17-7** in Section 4.17, *Utilities and Service Systems*, the combined daily intake capacity of landfills serving the Project Area is 45,540 tons per day and the average disposal intake is 18,620 tons per day, resulting in an available capacity of 200.2 million tons per day. As shown in **Table 5-5**, implementation of Alternative 1 would generate an increase of approximately 22.7 tons of solid waste per day, or 10,156 tons per year, above existing conditions, which would represent about .009 percent of the total available daily capacity (200.2 million ton per day) at local landfills. As shown in **Table 4.17-9** in

Section 4.17, *Utilities and Service Systems*, development accommodated by the Proposed Project would increase the amount of solid waste generated in the Project Area by 35 tons per day, or 12,861 tons per year, above existing conditions. This would represent less than 1 percent of the available intake capacity of landfills serving the Project Area. With that said, Alternative 1 would generate approximately 79 percent less waste than the Proposed Project. Based on the County of Los Angeles Countywide Integrated Waste Management Plan (CIWMP) 2019 Annual Report, sufficient permitted capacity is available to accommodate the County's long-term disposal needs under the status quo. Sufficient permitted capacity is available to accommodate the Project Area's solid waste disposal needs. Therefore, as with the Proposed Project, implementation of Alternative 1 would result in solid waste generation that would remain within the capacity of waste disposal facilities serving the City. Therefore, similar to the Proposed Project, new or expanded facilities would not be needed and impacts would be *less than significant*.

TABLE 5-5 ALTERNATIVE 1 ESTIMATED FUTURE SOLID WASTE GENERATION IN THE PROJECT AREA				
Land Use	Dwelling Units or Square Feet	Annual Waste Generation Rate	Annual Waste Generation (tons)	Daily Waste Generation (tons)
Residential	12,773	2.2	5,805.9	15.9
Commercial/ Governmental	10,005 jobs	2.3	4,350.0	11.9
Total 2040 Project Area Solid Waste Generation			10,155.9	27.8
Current Solid Waste Generation (2021)			1,868.8	5.1
Net Change in Waste Generation			8,287.1	22.7
NOTES:				
Waste generation (tons) was rounded to the nearest whole number. Totals may not add up due to rounding.				
du – dwelling unit				
sf – square feet				
SOURCE: CalEEMod Land Use SubType				

Electrical and natural gas supplies are not expected to be adversely affected by development under Alternative 1, but improvements to Project Area distribution and telecommunication facilities may be needed. Temporary traffic, air quality, and noise impacts associated with construction of such improvements would be within the parameters described for the Proposed Project.

Overall, impacts related to utilities and service systems would be *less than significant* under Alternative 1, as with the Proposed Project.

Conclusion

Alternative 1 would include less residential development capacity overall and thus less residential growth in the Project Area, as compared to the Proposed Project. Nevertheless, as with the Proposed Project, this alternative would have the potential to disturb cultural and tribal cultural resources and would also generate air pollutant emissions, ambient noise, and construction noise and vibration exceeding applicable thresholds. Finally, similar to the Proposed Project, it may result in safety related impacts due to highway off-ramp queuing. Because this alternative would not be subject to the same mitigation measures proposed in the Proposed Project, the level of impact for noise and tribal resources would be greater than under the Proposed Project despite the lower overall intensity of development in the Project Area. In addition, limiting development potential in the Project Area may induce higher levels of growth in other areas of the City and region that have fewer transit options and longer distances between housing, jobs, and services. As such, Alternative 1 may incrementally increase impacts related to energy, greenhouse gas emissions, land use and planning, population and housing, and transportation.

ALTERNATIVE 2: NO URBAN VILLAGE ALTERNATIVE

Alternative Description

The “No Urban Village” alternative does not include the expansion of the residential Urban Village zone to any new parcels, but it includes other changes to the existing CASP that are likely to increase housing production, such as the establishment of the new Public Use (P2) zone and allowing 100% affordable housing in the Urban Center, Urban Innovation, and Public Use (P2) zones. As shown in **Table 5-1**, under Alternative 2 the Project Area is projected to accommodate a population of 43,523 residents, 15,434 housing units, and 9,551 jobs by 2040. SCAG projects growth of the Project Area to reach 14,444 residents, 5,039 housing units, and 8,797 jobs by 2040. Therefore, population, housing and employment growth in the Project Area would exceed SCAG’s forecasts under current plans, though the City has discretion in how it allocates growth across the City to meet other objectives and has historically allocated more growth to the Project Area than SCAG, consistent with the City’s General Plan Framework. Overall, the lack of the residential Urban Village zone expansion would limit population and housing growth in the Project Area, as compared to the Proposed Project but would result in increased job opportunities in the Project Area as commercial and light industrial uses would take the place of residential development.

Under Alternative 2, the Project Area would have reduced residential development capacity, as compared to the Proposed Project. Therefore, Alternative 2 was selected because it was expected to incrementally reduce the significant unavoidable impacts of the Proposed Project with regard to air quality, cultural resources, and construction noise and vibration, as well as reduce the Proposed Project’s less than significant with mitigation impacts related to biology, geology and soils, hazardous materials, public services, recreation, tribal cultural resources, and utilities and service systems while still meeting most of the basic project objectives.

Alternative 2 would meet the objective to preserve employment areas that show a concentration of jobs, while supporting small and/or legacy businesses, local employment, and new productive uses and employment spaces, such as light industrial and general commercial uses but would not reduce overall employment capacity to a greater extent than the Proposed Project.

Due to the lack of increased housing without the inclusion of the expansion of the residential Urban Village zone, Alternative 2 would partially meet the following objectives, but not to the same extent as the Proposed Project:

- Increase the production of affordable and mixed-income housing within the Project Area.
- Protect residents, especially low-income households, from indirect and direct displacement, and ensure stability of existing vulnerable communities.
- Design and regulate housing to promote health and well-being, increase access to amenities such as parks and public transit, contribute to a sense of place, foster community and belonging, and plan for a sustainable future.
- Build, operate, and maintain welcoming and accessible housing for Angelenos with unique needs, including those with disabilities, large families, older adults, and other people facing housing barriers and economic insecurity.
- Refine Plan standards, processes, and procedures to be more intuitive and transparent, with the goal of enhancing development certainty for both market-rate and affordable housing developers

As discussed below, Alternative 2 would incrementally increase impacts related to energy, greenhouse gas emissions, land use and planning, population and housing, and transportation as compared to the Proposed

Project and would have the same significant and unavoidable impacts to air quality, historic resources, construction noise and vibration, and transportation safety related to freeway off-ramps.

Impact Analysis

Aesthetics

Alternative 2 would include developments with the same overall scale and intensity as the Proposed Project and thus would result in the same impacts to visual character, obstruction of scenic views, alterations of historical resource and shading effects. Nevertheless, any development would be implemented in accordance with applicable state and local plans, policies and guidelines including, but not limited to, the City's General Plan Framework, Conservation Element, Mobility Plan 2035, relevant specific plans, the City of Los Angeles Citywide Design Guidelines and provisions of the LAMC as it relates to development standards, visual character and historical resources. Like the Proposed Project, Alternative 2 could introduce new sources of light and glare in the Project Area. However, development in most of the Project Area already experiences high levels of nighttime lighting and glare, such that any additional effects would be incremental. In addition, future development would comply with applicable regulations regarding permitted light and glare. Similarly, development in the Project Area accommodated by Alternative 2 may increase shading and shadows in specific locations; however, shadows would be limited to the immediate area of each new development and would be typical of highly urbanized neighborhoods. Overall, similar to the Proposed Project, development accommodated by Alternative 2 may benefit, and would generally enhance, the visual character of the Project Area, and impacts related to aesthetics would be *less than significant*.

Air Quality

Alternative 2 would accommodate less overall housing development and associated population growth than the Proposed Project while resulting in more employment growth. Alternative 2 would result in 4,602 fewer housing units, 12,978 fewer residents, and 1,288 more jobs, through 2040 than would be anticipated under the Proposed Project. However, like the Proposed Project, Alternative 2 would generate growth that is consistent with the 2020-2045 RTP/SCS and 2022 AQMP forecasts at the Citywide level, and as a result, it would not conflict with and obstruct implementation of the 2020-2045 RTP/SCS or the 2022 AQMP. As with the Proposed Project, impacts related to conflicting with or obstructing implementation of the applicable air quality plans would be *less than significant*.

Although less construction may occur overall under Alternative 2 as compared to the Proposed Project, maximum daily emissions would be similar to what would occur under the Proposed Project since the nature and magnitude of individual construction projects would be similar. Therefore, it is reasonable to assume that development would result in construction emissions of NO_x that exceed SCAQMD regional and local significance thresholds, and emissions of PM₁₀ and PM_{2.5} that exceed SCAQMD LSTs. Similarly, because less residential development would occur under Alternative 2, it is reasonable to assume that overall operational emissions would be less as compared to the Proposed Project. The increase in development in the Project Area accommodated by Alternative 2 could result in daily emissions of VOC that would exceed the SCAQMD regional significance thresholds due to expanded use of consumer products and increased energy demand, similar to the Proposed Project. In addition, future development in the Project Area accommodated by Alternative 2 would result in daily emissions of NO_x, PM₁₀ and PM_{2.5} from area sources and mobile sources (brake and tire wear) that would exceed the SCAQMD regional significance. Mitigation measures required for the Proposed Project would also be required for Alternative 2 and would reduce impacts associated with this alternative. Exposure to odors would also be similar to the *less than significant impact* identified for the Proposed Project. As with the Proposed Project, impacts related to construction and operational emissions would be *significant and unavoidable*, and even with implementation of

mitigation measures limiting impacts from exposure of sensitive receptors to temporary construction emissions would result in *significant and unavoidable impacts*.

Biological Resources

In the Project Area, which is expected to experience new development under Alternative 2, individual reasonably anticipated development could potentially impact biological resources. However, the Project Area is already urbanized and generally lacks riparian habitat, wetlands, wildlife corridors and habitat that would support special status plant or animal species. The Los Angeles River and Arroyo Seco, as well as small portions of parks and open space, trees and minor urban landscaping are the only sources of biological habitat in and around the Project Area. There are a variety of bird species protected by the Migratory Bird Treaty Act (MBTA) that have adapted to human activity and may utilize existing trees and shrubs for nesting or foraging. Additionally, temporary direct and indirect impacts from the Proposed Project include the removal or degradation (e.g., excessive noise, dust, or light) of this habitat. Indirect impacts could result from excessive dust generated by developments occurring in the vicinity of the Los Angeles River and Arroyo Seco. Similar to the Proposed Project, Alternative 2 would include increased development in the Project Area, which would also potentially result in impacts related to certain bird species and dust generated by increased development. However, the extent of anticipated development would be lower under Alternative 2 which could result in reduced impacts to bird species. Because this alternative would be subject to the same biological mitigation measures as the Specific Plan, impacts related to biological resources would be *less than significant with mitigation*.

Cultural Resources

In the Project Area, which is expected to experience substantial new development, individual reasonably anticipated development could potentially cause a substantial adverse change in or disturbance of historical resources and archeological resources. As with the Proposed Project, Alternative 2 may result in demolition or alteration of historical resources or their setting or disturb areas that may potentially contain archaeological resources. Alternative 2 would accommodate development consistent with current land use designation and patterns and, as such, may result in slightly reduced impacts to historical resources and associated settings as compared to the Proposed Project. However, development under either Alternative 2 or the Proposed Project would have the potential to disturb archaeological resources and/or human remains. All future development projects would continue to be subject to existing federal, state, and local requirements with respect to cultural resources and discretionary projects may be subject to project-specific mitigation requirements under CEQA. Under the Proposed Project, implementation of **Mitigation Measures 4.4-1(a), (b) and (c)** would reduce the potential to disturb historic resources and **4.4-2(a), (b), and (c) and (d)** would reduce the potential to disturb archaeological resources and human remains. In addition, although existing regulations provide certain protections for significant historical resources, individual developments allowed by Alternative 2 could potentially cause a substantial adverse change in or disturbance of historical and archaeological resources as defined in CEQA Guidelines Section 15064.5. Alternative 2 would be subject to these same mitigation measures and the potential for disturbance of cultural resources would be similar under the Proposed Project and would remain *significant and unavoidable*.

Energy

As compared to the Proposed Project, development under Alternative 2 would result in less transportation energy use and less electricity and natural gas consumption than the Proposed Project in 2040. However, on a per capita basis, Alternative 2 would result in more transportation energy use and more electricity and natural gas consumption than the Proposed Project for year 2040 because of the increased job opportunities coupled with reduced housing density in the Project Area. In addition, Alternative 2 would result in 2040 per capita electricity and natural gas consumption higher than under 2021 baseline conditions, while the Proposed Project would result in lower per capita electricity and natural gas consumption in 2040 as

compared to year 2021 baseline conditions. The lower per capita energy use that would occur under the Proposed Project can be attributed in part to the fact that implementation of the Proposed Project would lower per capita VMT due to the location of jobs and housing in close proximity to each other and creation of substantial opportunities to use such transportation modes as transit, bicycling, and walking.

Because Alternative 2 would consume less energy overall, but more energy than the Proposed Project on a per capita basis, it may result in incrementally greater impacts with respect to the inefficient, unnecessary, or wasteful direct or indirect consumption of energy as compared to the Proposed Project. Nevertheless, as with the Proposed Project, Alternative 2 would not result in energy demands that exceed the existing or planned capacity for the service area or the wider Southern California region. In addition, neither Alternative 2 nor the Proposed Project would conflict with applicable federal, state, or local energy conservation policies aimed at reducing reliance on fossil fuels and increasing reliance on renewable energy sources. Overall, impacts would be *less than significant* under Alternative 2, as with the Proposed Project.

Geology and Soils

Under Alternative 2, future development in the Project Area would generally occur on the same land as existing structures in the Project Area. Any new development in the Project Area under either Alternative 2 or the Proposed Project would be exposed to existing geologic and soil hazards; however, it would not increase the potential for such hazards or create new hazards. Compliance with existing regulatory requirements and policies, including the LAMC and CBC would reduce impacts from adverse effects related to seismic activity and ground shaking, liquefaction, on or off-site landslides, ground failure; or adverse effects related to expansive soil, or to a geologic unit or soil that is unstable or would become unstable as a result of the project and result in landslide, lateral spreading, liquefaction or collapse. In some cases, future development in the Project Area may reduce the potential for property damage and/or safety concerns by replacing older structures with new structures built to current seismic standards. Similar to the Proposed Project, Alternative 2 would have the potential to disturb paleontological resources and result in potentially significant impacts. Implementation of **Mitigation Measures 4.6-1(a), (b) and (c)** would reduce the potential to disturb or damage paleontological resources. Alternative 2 would also be subject to these mitigation measures, so the potential for disturbance of paleontological resources would be similar to the Proposed Project and impacts would be *less than significant after mitigation*.

Greenhouse Gas Emissions

Development accommodated by either Alternative 2 or the Proposed Project would generate GHG emissions through individual project construction and operation. GHG emissions would be generated by direct sources such as motor vehicles, natural gas consumption, solid waste handling/treatment, and indirect sources such as electricity generation. Alternative 2 would accommodate less residential development overall than the Proposed Project and would result in fewer GHG emissions. However, it would accommodate less intense development and associated growth in the Project Area, which may result in more population and housing growth elsewhere in the City and region where fewer transit options are available and the distances between residences, jobs, and services are greater. Additionally, the increased number of jobs in the Project Area coupled with the reduced dwelling units under Alternative 2 would increase per capita VMT and transportation related GHG emissions. As a result, overall citywide and regional GHG emissions as a function of VMT may increase and Alternative 2 would not be as consistent with AB 32, SB 32, SB 375 (through demonstration of conformance with the 2020–2045 RTP/SCS), the Sustainable City pLAN and GreenLA as the Proposed Project. Overall GHG emissions would be incrementally greater than those of the Proposed Project. However, impacts would remain *less than significant*.

Hazards and Hazardous Materials

Alternative 2 would involve less overall residential development capacity and associated residential growth than would occur under the Proposed Project. Similar to the Proposed Project, operational activities associated with development under Alternative 2 would not create increased potential for upset or accident conditions involving hazardous materials release from transport, use or disposal. As such, as with the Proposed Project, impacts related to the routine transport, use, or disposal of hazardous materials or upset or accident conditions involving hazardous materials would be *less than significant*.

Similar to the Proposed Project, this alternative would pose no or less than significant issues related to airports or emergency management plans because there are no airports or private airstrips in or near the Project Area, and development under Alternative 2 would not interfere with circulation plans or emergency management plans. Therefore, *no impacts* related to airports would occur and *less than significant impacts* related to emergency management plans would occur. No wildland fire hazard areas are present in the Project Area; therefore, *no impacts* related to wildland fire risks would occur.

As with the Proposed Project, redevelopment, renovation, and demolition of structures built before 1979 could potentially involve asbestos or lead but asbestos and lead would not be released into the atmosphere with compliance of existing regulations. In addition, future development would potentially occur in Methane Zones and Methane Buffer Zones and near oil wells. Compliance with applicable regulations would reduce such impacts to a *less than significant level*. As with the Proposed Project, grading and construction activity could potentially result in the release of soil and/or groundwater contamination, which could potentially affect schools or involve a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment. Overall impacts associated with Alternative 2 would be similar to, but slightly less than, those of the Proposed Project since the overall level of development would be lower. As with the Proposed Project, impacts related to the potential disturbance of contaminated soils would be significant. Adherence to **Mitigation Measures 4.8-4(a)** and **4.8-4(b)**, as discussed in Section 4.8, *Hazards and Hazardous Materials*, would reduce impacts related to contaminated soils. Alternative 2 would also be subject to these mitigation measures so the potential for exposure to contaminants to the public due to possible construction on hazardous sites, and release of hazardous emissions which could potentially affect schools would be similar to the Proposed Project and impacts would be *less than significant with mitigation* incorporated.

Hydrology and Water Quality

The Project Area is urbanized and almost entirely paved and developed except for parks, green spaces, and the Los Angeles River, which runs through the center of the Project Area. Alternative 2 would accommodate development in a manner consistent with current land use patterns and, therefore, would not substantially alter drainage patterns or result in substantial erosion, siltation, or flooding on- or off-site. Development accommodated by the either Alternative 2 or the Proposed Project would be subject to federal, state, and local requirements that prevent violations of water quality standards or waste discharge requirements and support the preservation and expansion of pervious surfaces. In addition, new development projects under either Alternative 2 or the Proposed Project would be required to incorporate Best Management Practices to manage stormwater and reduce runoff during construction and operation, and industrial sources would be subject to additional stormwater management and discharge requirements under the NPDES program for industrial uses. Compliance with the City's LID Ordinance would further ensure that any future development resulting from either this alternative or the Proposed Project would not require construction of new stormwater drainage facilities and or expansion of existing facilities beyond specific improvements needed for individual development projects. In the long-term, redevelopment of sites in the Project Area under either Alternative 2 or the Proposed Project would improve surface water quality by replacing older development with new development that incorporates LID methods. Therefore, like the Proposed Project,

Alternative 2 would not adversely affect conditions with respect to hydrology and water quality and impacts would be *less than significant*.

Land Use and Planning

Development under Alternative 2 would not accommodate the same degree of residential development that could occur in portions of the Project Area under the Proposed Project. Like the Proposed Project, Alternative 2 would be generally consistent with 2020-2045 RTP/SCS policies related to the provision of high intensity and transit-oriented development as well as with the City's General Plan and Framework Element, Mobility Plan 2035, and Housing Element 2013-2021. However, as discussed under *Air Quality*, Alternative 2 may implement 2020-2045 RTP/SCS, AQMP, and Air Quality Element policies related to concentrating development near transit and reducing regional VMT to a lesser degree than the Proposed Project since the lower overall development totals may result in increased development elsewhere in the City and incrementally higher regional VMT. Like the Proposed Project, Alternative 2 would not physically divide an established community or conflict with an applicable habitat conservation plan, natural community conservation plan. Overall, like the Proposed Project, this alternative would not conflict with land use plans and policies or divide a community. Overall, impacts related to land use would be *less than significant* under Alternative 2, as with the Proposed Project.

Noise

New sensitive uses accommodated by either Alternative 2 or Proposed Project would be exposed to ambient noise that is in the "normally unacceptable" to "clearly unacceptable" range based on noise level/land use compatibility standards in the Noise Element of the City's General Plan. Although all construction would be required to comply with the appropriate Regulatory Compliance Measures as well as LAMC Chapter 41.40, Section 112.05, reasonably anticipated development under Alternative 2 would potentially result in construction with lengthy durations, substantial soil movement, use of large, heavy-duty equipment, and/or pile driving near noise-sensitive land uses that would result in significant impacts that cannot be feasibly mitigated. Therefore, like the Proposed Project, the impact generated by temporary construction noise under Alternative 2 would also be *significant and unavoidable*.

Any future development in the Project Area would include mechanical equipment, loading, trash pick-up, and other noise-generating activities. However, such activities would be typical of the urban environment in the Project Area. In addition, any on-site activities would be required to comply with applicable provisions of the LAMC. Future development accommodated by either Alternative 2 or the Proposed Project would also increase vehicle trips in the Project Area that would generate mobile noise. Mobile noise would increase noise levels to be above the "normally unacceptable" category for land uses adjacent to these corridors and with mitigation, impacts would also be *significant and unavoidable*.

All construction would be required to comply with the appropriate Regulatory Compliance Measures as well as LAMC Chapter 41.40, Section 112.05. Nevertheless, maximum noise levels generated by construction equipment under Alternative 2 could potentially involve two subterranean levels or more, construction durations of 18 months or more, use of large, heavy-duty equipment rated 300 horsepower or greater, or the potential for impact pile driving. Although **Mitigation Measure 4.11-1** for the Proposed Project would also apply, impacts from temporary construction noise resulting from implementation of Alternative 2 would be similar to those of the Proposed Project and remain *significant and unavoidable*.

Any future construction activity, specifically pile driving, could potentially generate vibration exceeding the 90 VdB threshold for buildings extremely susceptible to building damage (e.g., historical structures). Although mitigation is available to minimize the potential effects of vibration, it cannot be assured that construction-related vibration would not result in building damage. Although **Mitigation Measure 4.11-**

2(a) and **(b)** would also apply to reduce this impact, construction-related vibration would be similar to that of the Proposed Project and remain *significant and unavoidable* impact.

It is not anticipated that new development in the Project Area would involve activities that would result in substantial vibration levels (e.g., blasting operations). Like the Proposed Project, operational groundborne vibration in the vicinity of new development associated with Alternative 2 would be primarily generated by vehicular travel on the local roadways. According to the FTA *Transit Noise and Vibration Impact Assessment* guidance document, rubber tires and suspension systems dampen vibration levels from trucks to a level that is rarely perceptible (2006). Accounting for additional vehicle trips that would be accommodated by Alternative 2, traffic vibration levels would be similar to existing conditions and not perceptible. Therefore, like the Proposed Project, Alternative 2 would result in a *less than significant* impact for operational vibration.

Population and Housing

As shown in **Table 5-1**, under Alternative 2 the Project Area is projected to accommodate a population of 43,523 residents, 15,434 housing units, and 9,551 jobs by 2040. SCAG projects growth of the Project Area to reach 14,444 residents, 5,039 housing units, and 8,797 jobs by 2040. The population forecast for Alternative 2 is greater than under SCAG's RTP/SCS, but Alternative 2 would concentrate forecast growth in an area with a mix of jobs and housing and with good transit access. As such, although it would not implement RTP/SCS policies related to jobs/housing balance and concentrating growth and development near transit to the same degree that the Proposed Project would, it would not result in significant impacts related population or housing growth. Alternative 2 would have less potential to displace housing than the Proposed Project but would also include less replacement and affordable housing. Like the Proposed Project, Alternative 2 would result in an overall increase in housing that would more than offset any housing displacement that may occur. It should be noted, however, that limiting housing development in the Project Area as would occur under Alternative 2 may result in increased housing development elsewhere in the City, which could potentially increase displacement of existing housing in other Los Angeles neighborhoods. Like the Proposed Project Alternative 2 would not induce substantial population growth inconsistent with the regional growth plans. Overall, impacts related to population and housing would be *less than significant* under Alternative 2, as with the Proposed Project.

Public Services

Implementation of Alternative 2 would involve less overall development and associated growth than the Proposed Project. Nevertheless, the increased growth under either scenario may require additional public facilities to serve new residents. With respect to fire and police services, both Alternative 2 or the Proposed Project would accommodate new development that would increase demand for fire and police protection service. This may result in the need for new or expanded fire and police facilities. Based on the urbanized character of the Project Area, it is anticipated that new or expanded facilities could be built without creating significant environmental impacts. Depending on the location or nature of new facilities, the construction of needed new facilities could potentially result in impacts; however, like the Proposed Project, those impacts would be consistent with those already identified in this EIR for construction or operations. Project-specific environmental analysis under CEQA would be required to address any site-specific environmental concerns.

With respect to schools, as summarized in **Table 5-6**, residential and non-residential development accommodated by Alternative 2 would result in approximately 6,489 new students by 2040. Of this total, an estimated 3,373 would enroll in elementary school, 1,010 would enroll in middle school, 1,877 would enroll in high school, and 288 would enroll in special day classes. Overall Alternative 2 would result in approximately 43 percent less students as compared to the Proposed Project. As such, Alternative 2 would accommodate development that would increase the student population of the Project Area and would create

the need for new or expanded school facilities, but to a lesser extent than the Proposed Project. As with the Proposed Project, developers would be required to pay applicable school impact fees. As with the Proposed Project, any impacts associated with new school construction would be similar to those analyzed and identified in the EIR for other types of development, any site-specific impacts would be speculative and would be addressed by LAUSD as part of a project-level CEQA review.

TABLE 5-6 ALTERNATIVE 2 ANTICIPATED STUDENT GENERATION IN THE PROJECT AREA						
	Units	Student Generation				Total Students Generated
		Elementary School (TK-5)	Middle School (6-8)	High School (9-12)	SDC	
Residential ¹	15,434 du	3014	830	1653	228	5,726
Non-Residential ²	15,756,000 sf	359	180	224	--	763
Total Students Generated by the No Project Alternative		3,373	1,010	1,877	228	6,489

Note: du = dwelling units; sf = square feet; TK = Transitional Kindergarten; SDC = Specialized Day Care
 Totals may not add up due to rounding.

¹ Student generation rates for residential use is based on Level 1 – Developer Fee Justification Study for Los Angeles Unified School District (LAUSD 2022c). Residential Generation Rates: Elementary: 0.1953/du, Middle School: 0.0538/du, High School: 0.1071 /du, SDC: 0.0148/du

² Student generation rates for non-residential use is based on the average of office and retail/service student generation rates for a conservative estimate, taken from the LAUSD Commercial/Industrial Development School Fee Justification Study, September 2010 (LAUSD 2010). Non-residential Generation Rates: Elementary: 0.0228/1,000 sf, Middle School: 0.0114/1,000 sf, High School: 0.0142/1,000 sf. Non-residential uses include commercial, industrial, and public facilities.

With respect to libraries, either Alternative 2 or the Proposed Project would increase demand for library facilities. However, the Project Area is well served by library facilities and would not require the construction of new or expanded facilities.

Overall, impacts related to public services would be *less than significant* under Alternative 2, as with the Proposed Project.

Recreation

Implementation of Alternative 2 would involve less overall development and associated population increases than the Proposed Project. However, any new development would increase the use of existing park and recreational facilities throughout the City, including in and around adjacent to the Project Area. The City of Los Angeles Public Recreation Plan states that in order to meet long-range local recreational standards, the City should maintain a minimum of two acres of neighborhood facilities and two acres of community recreational facilities for every 1,000 persons, or a combination of neighborhood and community facilities adding up to four acres. Under Alternative 2, the Project Area population is projected to increase to approximately 43,500 residents, which would result in a ratio of parks to residents of approximately 22.6 acres per 1,000 residents- exceeding the City’s 4 acres per 1,000 residents goal for neighborhood and community facilities. Therefore, like the Proposed Project, impacts related to deterioration of existing parks in and around the Project Area would be *less than significant*.

Reasonably anticipated development from Alternative 2 would increase demand for recreational and park facilities that serve the Project Area but would not require construction of new recreational or park facilities. Furthermore, based on the urban nature of the Project Area and the presence of constraints to the development of large park facilities, the construction and operation of new facilities would not be expected to result in significant environmental impacts. Like the Proposed Project, impacts from the construction or expansion of new recreational facilities would be *less than significant*.

Transportation/Traffic

Alternative 2 would result in less residential development and population growth in the Project Area compared to the Proposed Project. However, it would also result in an increased amount of job growth in the Project Area. The increased number of jobs in the Project Area coupled with the reduced dwelling units under Alternative 2 would increase per capita VMT and result in more traffic related impacts citywide and in the Project Area as employees would have to travel from other locations to get to their jobs and would be less likely to use transit options.

As with the Proposed Project, Alternative 2 would not increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), or result in inadequate emergency access. However, as with the Proposed Project, freeway off ramp queuing-related safety issues could potentially arise as additional development occurs in the Project Area. As with the Proposed Project, this would result in *significant and unavoidable* impacts to freeway safety impacts.

Tribal Cultural Resources

As described in Section 4.4, *Cultural Resources*, Los Angeles has a long history of Native American occupation, and any development activities that include ground disturbance have the potential to significantly impact tribal cultural resources. Effects on tribal cultural resources are only known once a specific development has been proposed because the effects are highly dependent on both the individual development site conditions and the characteristics of the proposed activity. Development accommodated by either Alternative 2 or the Proposed Project may disturb areas that potentially contain tribal resources, resulting potentially significant impacts. Similar to the Proposed Project, all future development projects under Alternative 2 would continue to be subject to existing federal, state, and local requirements and discretionary projects, subject to CEQA review would be required to comply with AB 52, which for projects relying on a [mitigated] negative declaration or an EIR, would require consultation with California Native American tribes. Implementation of **Mitigation Measures 4.4-2 (a), (b), (c), and (d)** in Section 4.4, *Cultural Resources*, and **Measures 4.16-1(a), (b), and (c)** in Section 4.16-1, *Tribal Cultural Resources*, would reduce the potential to disturb tribal cultural resources. Alternative 2 would also be subject to these mitigation measures. Therefore, the potential for disturbance of tribal cultural resources would be similar than under the Proposed Project and would be *less than significant with mitigation* incorporated.

Utilities and Service Systems

Implementation of Alternative 2 would involve less overall residential development and associated growth than the Proposed Project. Also, it would result in 12,978 fewer residents and 1,288 more jobs through 2040 than would be anticipated under the Proposed Project. As shown in **Table 4.17-3**, in Section 4.17, *Utilities and Service Systems*, projected wastewater generation for the Project Area in 2040 with implementation of the Proposed Project would generate an estimated 4.1 mgd of wastewater, which would represent about 2 percent of the HWRP excess capacity of 175 mgd. By comparison, **Table 5-7** indicates that implementation of Alternative 2 would increase wastewater generation in the Project Area by approximately 2.9 mgd, which represents about 1.6 percent of the HWRP excess capacity of 175 mgd. Alternative 2 would generate approximately 51 percent less wastewater when compared to the Proposed Project. Therefore, as with the Proposed Project, the HWRP would have sufficient available treatment capacity to serve the Project Area under Alternative 2. In addition, the HWRP would be able to adequately treat future project-generated sewage under Alternative 2 and the treatment requirements of the RWQCB would not be exceeded so new or expanded treatment facilities would not be needed. Expansion/replacement of Project Area conveyance infrastructure may be needed and various facility improvements are already planned. Temporary traffic, air quality, and noise impacts associated with construction of such improvements would be within the parameters described for the Proposed Project. Continued compliance with the City's Low Impact Development (LID) Ordinance for all new development would ensure that any future development under

Alternative 2 would not increase demands on stormwater drainage facilities and or expansion of existing facilities beyond specific improvements needed for individual development projects and impacts would remain *less than significant*.

With respect to water demand, per the 2020 Urban Water Management Plan, current water supplies, planned future water conservation efforts, and planned future water supplies will enable LADWP to reliably provide water that meets the demands of the City for a 25-year planning horizon (through 2045), based on SCAG's population projections. The 2020 UWMP projects an increase of 58,000 afy (8 percent) in water demand between 2025 and 2045, under single/multiple dry year conditions. As shown on **Table 5-8**, the projected net increase in water demand of 10,176 afy generated by new development accommodated by Alternative 2 would represent about 17 percent of the forecasted water demand increase through 2045. By comparison, as shown in **Table 4.17-6**, in Section 4.17, *Utilities and Service Systems*, estimated water demand for the Project Area in 2045 with implementation of the Proposed Project would be 17,892 afy. This represents about 31 percent of the forecasted citywide water demand increase through 2045. Alternative 2 would demand approximately 55 percent less water as compared to the Proposed Project. Therefore, as with the Proposed Project, adequate water supply exists to meet projected demand through the year 2045 for Alternative 2 and development of new water supplies would not be necessary. Expansion/replacement of water distribution infrastructure may be needed, but temporary traffic, air quality, and noise impacts associated with construction of such improvements would be within the parameters described for the Proposed Project and impacts would similarly be *less than significant*.

TABLE 5-7 ALTERNATIVE 2 PROJECTED WASTEWATER GENERATION			
Land Use	Dwelling Units or Jobs	Wastewater Generation Rate (gpd/unit)	Wastewater Generation (gpd)
Residential	15,434 du	137.9	2,128,349
Commercial	5,962 jobs	59.8	356,528
Industrial	3,493 jobs	123	429,639
Public Facilities	97 jobs	46.4	4,501
Total 2040 with Alternative 2 Wastewater Generation			2,919,016
Current Wastewater Generation			809,907
Net Change in Wastewater Generation			2,109,109
Notes: Wastewater generation numbers are rounded to the nearest thousand. Totals may not add up due to rounding. gpd – gallons per day du – dwelling units sf – square feet SOURCE: Wastewater is assumed to be 100% of indoor water use. Per Exhibit 2E of the LADWP 2020 UWMP, indoor water use constitutes 56% of overall water use for single-family residences and 80% of overall water use for multi-family residences. Per the 2020 UWMP, per unit water demand is forecast to decline over time; the forecast 2030 rates per Exhibit 2L of the LADWP 2020 UWMP are assumed to apply			

TABLE 5-8 ESTIMATED ALTERNATIVE 2 PROJECTED WATER DEMAND IN THE PROJECT AREA				
Land Use	Dwelling Units or Jobs in Plan Area	Daily Water Use Rate (gpd/unit)	Daily Water Demand (gpd)	Annual Water Demand (afy)
Residential	15,434 du	202.8	3,130,015	8,575
Commercial	5,962 jobs	78.7	469,209	1,286
Industrial	3,493 jobs	125.5	438,372	1,201
Public Facilities	97 jobs	78.7	7,634	21

TABLE 5-8 ESTIMATED ALTERNATIVE 2 PROJECTED WATER DEMAND IN THE PROJECT AREA		
Total 2040 with Alternative 2 Demand	4,045,230	11,083
Current Water Demand	809,907	907
Net Change in Water Demand	3,235,323	10,176
Notes: Water demand numbers are rounded to the nearest thousand. Totals may not add up due to rounding. du – dwelling unit gpd – gallons per day afy – acre feet per year (1 af = 325,850 gallons)		
SOURCE: Water demand rates were obtained from the LADWP's 2015 Urban Water Management Plan (UWMP), Exhibit2K (LADWP 2016). Per the UWMP, per unit water demand is forecast to decline over time; the forecast 2040 rates are assumed to apply to new development.		

As shown in **Table 4.17-7** in Section 4.17, *Utilities and Service Systems*, the combined daily intake capacity of landfills serving the Project Area is 45,540 tons per day and the average disposal intake is 18,620 tons per day, resulting in an available capacity of 200.2 million tons per day. As shown in **Table 5-9**, implementation of Alternative 2 would generate an increase of approximately 26 tons of solid waste per day above existing conditions, which would represent about 1 percent of the total available daily capacity (200.2 million ton per day) at local landfills. As shown in **Table 4.17-9** in Section 4.17, *Utilities and Service Systems*, development accommodated by the Proposed Project would increase the amount of solid waste generated in the Project Area by 30 tons per day, or 10,991 tons per year, above existing conditions. This would represent less than 1 percent of the available intake capacity of landfills serving the Project Area. Alternative 2 would generate approximately 14 percent less waste when compared to the Proposed Project. Based on the County of Los Angeles Countywide Integrated Waste Management Plan (CIWMP) 2019 Annual Report, sufficient permitted capacity is available to accommodate the County's long-term disposal needs under the status quo. Sufficient permitted capacity is available to accommodate the Project Area's solid waste disposal needs. Therefore, as with the Proposed Project, implementation of Alternative 2 would result in solid waste generation that would remain within the capacity of waste disposal facilities serving the City. Therefore, similar to the Proposed Project, new or expanded facilities would not be needed and impacts would be *less than significant*.

TABLE 5-9 ESTIMATED ALTERNATIVE 2 SOLID WASTE GENERATION IN THE PROJECT AREA				
Land Use	Dwelling Units or Square Feet	Annual Waste Generation Rate	Annual Waste Generation (tons)	Daily Waste Generation (tons)
Residential	15,434	2.2	7015.5	19.2
Commercial/ Governmental	9,551 jobs	2.3	4152.6	11.4
Total 2040 Project Area Solid Waste Generation			11168.1	30.6
Current Solid Waste Generation (2021)			1,868.80	5.1
Net Change in Waste Generation			9299.3	25.5
NOTES: Waste generation (tons) was rounded to the nearest whole number. Totals may not add up due to rounding. du – dwelling unit sf – square feet SOURCE: CalEEMod Land Use SubType				

Electrical and natural gas supplies are not expected to be adversely affected by development under Alternative 2, but improvements to Project Area distribution and telecommunication facilities may be needed. Temporary traffic, air quality, and noise impacts associated with construction of such improvements would be within the parameters described for the Proposed Project.

Overall, impacts related to utilities and service systems would be *less than significant* under Alternative 2, as with the Proposed Project.

Conclusion

Alternative 2 would accommodate less residential development overall and thus accommodate less growth in the Project Area, as compared to the Proposed Project. Therefore, Alternative 2 would result in a reduced level of impact for biological resources, geology and soil, hazards and hazardous materials, public services, recreation, tribal cultural resources, and utilities/service systems compared to the Proposed Project. Impacts related to air quality, cultural resources, and noise would be reduced compared to the Proposed Project but remain *significant and unavoidable* with Alternative 2. Impacts related to energy, greenhouse gas emissions, land use and planning, and population and housing would be increased compared to the Proposed Project but would remain *less than significant* with Alternative 2. In addition, limiting development potential in the Project Area may induce higher levels of growth in other areas of the City and region that have fewer transit options and longer distances between housing, jobs, and services. As such, Alternative 2 may incrementally increase regional transportation impacts, which would remain *significant and unavoidable*.

ALTERNATIVE 3: REDUCED URBAN VILLAGE ALTERNATIVE

Alternative Description

The “Reduced Urban Village” does include the expansion of the residential Urban Village zone to new parcels, but not to the same extent as the Proposed Project. Compared to the Proposed Project, Alternative 3 does not include any new Urban Village zoning east of the Los Angeles River, or in an area along Main Street west of the Los Angeles River. As shown in **Table 5-1**, under Alternative 3 the Project Area is projected to accommodate a population of 48,527 residents, 17,208 housing units, and 9,055 jobs by 2040. SCAG projects growth of the Project Area to reach 14,444 residents, 5,039 housing units, and 8,797 jobs by 2040. Therefore, population, housing and employment growth in the Project Area would exceed SCAG’s forecasts under current plans. Overall, the reduced expansion of the residential Urban Village zone would limit population and housing growth in the Project Area, as compared to the Proposed Project but would result in increased job opportunities in the Project Area as commercial and light industrial uses would take the place of residential development.

Under Alternative 3, the Project Area would have reduced residential development capacity, as compared to the Proposed Project. Therefore, Alternative 3 was selected because it was expected to incrementally reduce the significant unavoidable impacts of the Proposed Project with regard to air quality, cultural resources, and construction noise and vibration, as well as the Proposed Project’s less than significant with mitigation impacts related to biological and tribal cultural resources while still meeting most of the basic project objectives.

Alternative 3 would meet the objective to preserve employment areas that show a concentration of jobs, while supporting small and/or legacy businesses, local employment, and new productive uses and employment spaces, such as light industrial and general commercial uses and would not reduce overall employment capacity to a greater extent than the Proposed Project.

Due to the lack of increased housing without the inclusion of the full expansion of the residential Urban Village zone, Alternative 3 would partially meet the following objectives, but not to the same extent as the Proposed Project:

- Increase the production of affordable and mixed-income housing within the Project Area.
- Protect residents, especially low-income households, from indirect and direct displacement, and ensure stability of existing vulnerable communities.
- Design and regulate housing to promote health and well-being, increase access to amenities such as parks and public transit, contribute to a sense of place, foster community and belonging, and plan for a sustainable future.
- Build, operate, and maintain welcoming and accessible housing for Angelenos with unique needs, including those with disabilities, large families, older adults, and other people facing housing barriers and economic insecurity.

As discussed below, Alternative 3 would incrementally increase impacts related to energy, greenhouse gas emissions, land use and planning, and population and housing as compared to the Proposed project and would have the same significant and unavoidable impacts to air quality, historic resources, construction noise and vibration, and transportation safety related to freeway off-ramps.

Impact Analysis

Aesthetics

Compared to existing conditions, either Alternative 3 or the Proposed Project would generally not result in buildings of greater height, scale and intensity. Alternative 3 would include developments with the same overall high scale and intensity as the Proposed Project thus would result in the same impacts to in visual character, obstruction of scenic views, alterations of historical resource and shading effects. Nevertheless, any development would be implemented in accordance with applicable state and local plans, policies and guidelines including, but not limited to, the City's General Plan Framework, Conservation Element, Mobility Plan 2035, relevant specific plans, the City of Los Angeles Citywide Design Guidelines and provisions of the LAMC as it relates to development standards, visual character and historical resources. Like the Proposed Project, Alternative 3 could introduce new sources of light and glare in the Project Area. However, development in most of the Project Area already experiences high levels of nighttime lighting and glare, such that any additional effects would be incremental. In addition, future development would comply with applicable regulations regarding permitted light and glare. Similarly, development in the Project Area accommodated by Alternative 3 may increase shading and shadows in specific locations; however, shadows would be limited to the immediate area of each new development and would be typical of highly urbanized neighborhoods. Overall, similar to the Proposed Project, development accommodated by Alternative 3 may benefit, and would generally enhance, the visual character of the Project Area, and impacts related to aesthetics would be *less than significant*.

Air Quality

Alternative 3 would accommodate less overall housing development and associated population growth than the Proposed Project while resulting in more employment growth. Alternative 3 would result in 2,828 fewer housing units, 7,974 fewer residents, and 792 more jobs, through 2040 than would be anticipated under the Proposed Project. However, like the Proposed Project, Alternative 3 would generate growth that is consistent with the 2020-2045 RTP/SCS and 2022 AQMP Citywide forecasts and as a result, it would not conflict with and obstruct implementation of the 2020-2045 RTP/SCS or the 2022 AQMP. As with the Proposed Project, impacts related to conflicting with or obstructing implementation of the applicable air quality plans would be *less than significant*.

Although less construction may occur overall under Alternative 3 as compared to the Proposed Project, maximum daily emissions would be similar to what would occur under the Proposed Project since the nature and magnitude of individual construction projects would be similar. Therefore, it is reasonable to assume that development would result in construction emissions of NO_x that exceed SCAQMD regional and local significance thresholds, and emissions of PM₁₀ and PM_{2.5} that exceed SCAQMD LSTs. Similarly, because less residential development would occur under Alternative 3, it is reasonable to assume that overall operational emissions would be less as compared to the Proposed Project. The increase in development in the Project Area accommodated by Alternative 3 could result in daily emissions of VOC that would exceed the SCAQMD regional significance thresholds due to expanded use of consumer products and increased energy demand, similar to the Proposed Project. In addition, future development in the Project Area accommodated by Alternative 3 would result in daily emissions of NO_x, PM₁₀ and PM_{2.5} from area sources and mobile sources (brake and tire wear) that would exceed the SCAQMD regional significance. Mitigation measures required for the Proposed Project would also be required for Alternative 3 and would reduce impacts associated with this alternative. Additionally, exposure of sensitive receptors to temporary construction emissions could be significant and unavoidable without the mitigation measure and impacts from toxic air contaminants (TACs) from distribution center truck activity would be greater than that of the Proposed Project. While Alternative 3 would be required to implement the same construction emission reduction mitigation measures identified in Impact Section 4.2-2, even with Mitigation Measure 4.2-2 Alternative 3 would still have **significant and unavoidable impacts**. Exposure to odors would also be similar to the **less than significant** impact identified for the Proposed Project. As with the Proposed Project, impacts related to construction and operational emissions would be **significant and unavoidable**, and the lack of mitigation measures limiting impacts from exposure of sensitive receptors to temporary construction emissions would result in **significant and unavoidable** impacts.

Biological Resources

In the Project Area, is expected to experience new development under the existing CASP, individual reasonably anticipated development could potentially impact biological resources. However, the Project Area is already urbanized and generally lacks riparian habitat, wetlands, wildlife corridors and habitat that would support special status plant or animal species. The Los Angeles River, as well as small portions of parks and open space, trees and minor urban landscaping are the only sources of biological habitat in and around the Project Area. There are a variety of bird species protected by the Migratory Bird Treaty Act (MBTA) that have adapted to human activity and may utilize existing trees and shrubs for nesting or foraging. Additionally, temporary direct and indirect impacts from the Proposed Project include the removal or degradation (e.g., excessive noise, dust, or light) of this habitat. indirect impacts could result from excessive dust generated by developments occurring in the vicinity of the Los Angeles River and Arroyo Seco. Similar to the Proposed Project, Alternative 3 would include development in the Project Area, which would also potentially result in impacts related to certain bird species and dust generated by increased development. As with the Proposed Project, impacts related to biological resources less than **significant with mitigation**.

Cultural Resources

In the Project Area, which is expected to experience substantial new development, individual reasonably anticipated development could potentially cause a substantial adverse change in or disturbance of historical resources and archeological resources. As with the Proposed Project, Alternative 3 may result in demolition or alteration of historical resources or their setting or disturb areas that may potentially contain archaeological resources. Alternative 3 would accommodate development consistent with current land use designation and patterns and, as such, may result in slightly reduced impacts to historical resources and associated settings as compared to the Proposed Project. However, development under either Alternative 3 or the Proposed Project would have the potential to disturb archaeological resources and/or human remains. All future development projects would continue to be subject to existing federal, state, and local

requirements with respect to cultural resources and discretionary projects may be subject to project-specific mitigation requirements under CEQA. Under the Proposed Project, implementation of **Mitigation Measures 4.4-1(a), (b) and (c)** would reduce the potential to disturb historic resources and **4.4-2(a), (b), and (c) and (d)** would reduce the potential to disturb archaeological resources and human remains. In addition, although existing regulations provide certain protections for significant historical resources, individual developments allowed by Alternative 3 could potentially cause a substantial adverse change in or disturbance of historical and archaeological resources as defined in CEQA Guidelines Section 15064.5. Alternative 3 would be subject to these same mitigation measures and the potential for disturbance of cultural resources would be similar under the Proposed Project and would remain *significant and unavoidable*.

Energy

As compared to the Proposed Project, development under Alternative 3 would result in less transportation energy use and less electricity and natural gas consumption than the Proposed Project in 2040. However, on a per capita basis, Alternative 3 would result in more transportation energy use and more electricity and natural gas consumption than the Proposed Project for year 2040 because of the increased job opportunities coupled with reduced housing density in the Project Area. In addition, Alternative 3 would result in 2040 per capita electricity and natural gas consumption higher than under 2021 baseline conditions, while the Proposed Project would result in lower per capita electricity and natural gas consumption in 2040 as compared to year 2021 baseline conditions. The lower per capita energy use that would occur under the Proposed Project can be attributed in part to the fact that implementation of the Proposed Project would result in lower per capita VMT due to the location of jobs and housing in close proximity to each other and creation of substantial opportunities to use such transportation modes as transit, bicycling, and walking.

Because Alternative 3 would consume less energy overall, but more energy than the Proposed Project on a per capita basis, it may result in incrementally greater impacts with respect to the inefficient, unnecessary, or wasteful direct or indirect consumption of energy as compared to the Proposed Project. Nevertheless, as with the Proposed Project, Alternative 3 would not result in energy demands that exceed the existing or planned capacity for the service area or the wider Southern California region. In addition, neither Alternative 3 nor the Proposed Project would conflict with applicable federal, state, or local energy conservation policies aimed at reducing reliance on fossil fuels and increasing reliance on renewable energy sources. Overall, impacts would be *less than significant* under Alternative 3, as with the Proposed Project.

Geology and Soils

Implementation of the City's current General Plan and Project would generally accommodate development in the same footprints as existing structures in the Project Area. Any new development in the Project Area under either Alternative 3 or the Proposed Project would be exposed to existing geologic and soil hazards; however, it would not increase the potential for such hazards or create new hazards. Compliance with existing regulatory requirements and policies, including the LAMC and CBC would reduce impacts from adverse effects related to seismic activity and ground shaking, liquefaction, on or off-site landslides, ground failure; or adverse effects related to expansive soil, or to a geologic unit or soil that is unstable or would become unstable as a result of the project and result in landslide, lateral spreading, liquefaction or collapse. In some cases, future development in the Project Area may reduce the potential for property damage and/or safety concerns by replacing older structures with new structures built to current seismic standards. Similar to the Proposed Project, Alternative 3 would have the potential to disturb paleontological resources. Implementation of **Mitigation Measures 4.6-1(a), (b) and (c)** would reduce the potential to disturb or damage paleontological resources. Alternative 3 would also be subject to these mitigation measures, so the potential for disturbance of paleontological resources would be similar to the Proposed Project and impacts would be *less than significant after mitigation*.

Greenhouse Gas Emissions

Development accommodated by either Alternative 3 or the Proposed Project would generate GHG emissions through individual project construction and operation. GHG emissions would be generated by direct sources such as motor vehicles, natural gas consumption, solid waste handling/treatment, and indirect sources such as electricity generation. Alternative 3 would accommodate less residential development overall than the Proposed Project and would result in fewer GHG emissions. However, it would accommodate less intense development and associated growth in the Project Area, which may result in more population and housing growth elsewhere in the City and region where fewer transit options are available and the distances between residences, jobs, and services are greater. Additionally, the increased number of jobs in the Project Area coupled with the reduced dwelling units under Alternative 3 would increase per capita VMT and transportation related GHG emissions. As a result, overall citywide and regional GHG emissions as a function of VMT may increase and Alternative 3 would not be as consistent with AB 32, SB 32, SB 375 (through demonstration of conformance with the 2020-2045 RTP/SCS), the Sustainable City pLAN and GreenLA as the Proposed Project. Overall GHG emissions would be incrementally greater than those of the Proposed Project but remain *less than significant*.

Hazards and Hazardous Materials

Alternative 3 would involve less overall development capacity and associated growth than would occur under the Proposed Project. Similar to the Proposed Project, operational activities associated with development under Alternative 3 would not create increased potential for upset or accident conditions involving hazardous materials release from transport, use or disposal. As such, as with the Proposed Project, impacts related to the routine transport, use, or disposal of hazardous materials or upset or accident conditions involving hazardous materials would be *less than significant*.

Similar to the Proposed Project, this alternative would pose no or less than significant issues related to airports or emergency management plans because there are no airports or private airstrips in or near the Project Area, and development under Alternative 3 would not interfere with circulation plans or emergency management plans. Therefore, *no impacts* related to airports would occur and *less than significant impacts* related to emergency management plans would occur. No wildland fire hazard areas are present in the Project Area; therefore, *no impacts* related to wildland fire risks would occur.

As with the Proposed Project, redevelopment, renovation, and demolition of structures built before 1979 could potentially involve asbestos or lead but asbestos and lead would not be released into the atmosphere with compliance of existing regulations. In addition, future development would potentially occur in Methane Zones and Methane Buffer Zones and near oil wells. Compliance with applicable regulations would reduce such impacts to a *less than significant* level. As with the Proposed Project, grading and construction activity could potentially result in the release of soil and/or groundwater contamination, which could potentially affect schools or involve a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment. Overall impacts associated with Alternative 3 would be similar to, but slightly less than, those of the Proposed Project since the overall level of development would be lower. As with the Proposed Project, impacts related to the potential disturbance of contaminated soils would be significant. Adherence to **Mitigation Measures 4.8-4(a)** and **4.8-4(b)**, as discussed in Section 4.8, *Hazards and Hazardous Materials*, would reduce impacts related to contaminated soils. Alternative 3 would also be subject to these mitigation measures so the potential for exposure to contaminants to the public due to possible construction on hazardous sites, and release of hazardous emissions which could potentially affect schools would be similar to the Proposed Project and impacts would be *less than significant with mitigation* incorporated.

Hydrology and Water Quality

The Project Area is urbanized and almost entirely paved and developed except for parks, green spaces, and the Los Angeles River, which runs through the center of the Project Area. Alternative 3 would accommodate development in a manner consistent with current land use patterns and, therefore, would not substantially alter drainage patterns or result in substantial erosion, siltation, or flooding on- or off-site. Development accommodated by either Alternative 3 or the Proposed Project would be subject to federal, state, and local requirements that prevent violations of water quality standards or waste discharge requirements and support the preservation and expansion of pervious surfaces. In addition, new development projects under either Alternative 3 or the Proposed Project would be required to incorporate Best Management Practices to manage stormwater and reduce runoff during construction and operation, and industrial sources would be subject to additional stormwater management and discharge requirements under the NPDES program for industrial uses. Compliance with the City's LID Ordinance would further ensure that any future development resulting from either this alternative or the Proposed Project would not require construction of new stormwater drainage facilities and or expansion of existing facilities beyond specific improvements needed for individual development projects. In the long-term, redevelopment of sites in the Project Area under either Alternative 3 or the Proposed Project would improve surface water quality by replacing older development with new development that incorporates LID methods. Therefore, like the Proposed Project, Alternative 3 would not adversely affect conditions with respect to hydrology and water quality and impacts would be *less than significant*.

Land Use and Planning

Like the Proposed Project, Alternative 3 would be generally consistent with 2020-2045 RTP/SCS policies related to the provision of high intensity and transit-oriented development as well as with the City's General Plan and Framework Element, Mobility Plan 2035, and Housing Element 2013-2021. Implementation of the 2020-2045 RTP/SCS, AQMP, and Air Quality Element policies related to concentrating development near transit and reducing regional VMT would be to a lesser degree than the Proposed Project, since the lower overall residential development totals may result in increased development elsewhere in the City and incrementally higher regional VMT. Like the Proposed Project, Alternative 3 would not physically divide an established community or conflict with an applicable habitat conservation plan, natural community conservation plan. Overall, like the Proposed Project, this alternative would not conflict with land use plans and policies or divide a community. Overall, impacts related to land use would be *less than significant* under Alternative 3, as with the Proposed Project.

Noise

New sensitive uses accommodated by either Alternative 3 or Proposed Project would be exposed to ambient noise that is in the "normally unacceptable" to "clearly unacceptable" range based on noise level/land use compatibility standards in the Noise Element the City's General Plan. Although all construction would be required to comply with the appropriate Regulatory Compliance Measures as well as LAMC Chapter 41.40, Section 112.05, reasonably anticipated development under Alternative 3 would potentially result in construction with lengthy durations, substantial soil movement, use of large, heavy-duty equipment, and/or pile driving near noise-sensitive land uses that would result in significant impacts that cannot be feasibly mitigated. Therefore, like the Proposed Project, the impact generated by temporary construction noise under Alternative 3 would also be *significant and unavoidable*.

Any future development in the Project Area would include mechanical equipment, loading, trash pick-up, and other noise-generating activities. However, such activities would be typical of the urban environment in the Project Area. In addition, any on-site activities would be required to comply with applicable provisions of the LAMC. Future development accommodated by either Alternative 3 or the Proposed Project would also increase vehicle trips in the Project Area that would generate mobile noise. Mobile noise

would increase noise levels to be above the “normally unacceptable” category for land uses adjacent to these corridor, and like the Proposed Project, permanent noise increases due to mobile operational activities under Alternative 3 would be lesser than the Proposed Project but would remain *significant and unavoidable*.

All construction would be required to comply with the appropriate Regulatory Compliance Measures as well as LAMC Chapter 41.40, Section 112.05. Nevertheless, maximum noise levels generated by construction equipment under Alternative 3 could potentially involve two subterranean levels or more, construction durations of 18 months or more, use of large, heavy-duty equipment rated 300 horsepower or greater, or the potential for impact pile driving. Although **Mitigation Measure 4.11-1** for the Proposed Project would also apply impacts from temporary construction noise resulting from implementation of Alternative 3 would be similar to those of the Proposed Project and remain *significant and unavoidable*.

Any future construction activity, specifically pile driving, could potentially generate vibration exceeding the 90 VdB threshold for buildings extremely susceptible to building damage (e.g., historical structures). Although mitigation is available to minimize the potential effects of vibration, it cannot be assured that construction-related vibration would not result in building damage. Although **Mitigation Measure 4.11-2(a)** and **(b)** would also apply, construction-related vibration would be similar to that of the Proposed Project and remain *significant and unavoidable* impact.

It is not anticipated that new development in the Project Area would involve activities that would result in substantial vibration levels (e.g., blasting operations). Like the Proposed Project, operational groundborne vibration in the vicinity of new development associated with Alternative 3 would be primarily generated by vehicular travel on the local roadways. According to the FTA *Transit Noise and Vibration Impact Assessment* guidance document, rubber tires and suspension systems dampen vibration levels from trucks to a level that is rarely perceptible (2006). Accounting for additional vehicle trips that would be accommodated by Alternative 3, traffic vibration levels would be similar to existing conditions and not perceptible. Therefore, like the Proposed Project, Alternative 3 would result in a *less than significant impact* for operational vibration.

Population and Housing

As shown in **Table 5-1**, under Alternative 3 the Project Area is projected to accommodate a population of 48,527 residents 17,208 housing units, and 9,055 jobs by 2040. SCAG projects growth of the Project Area to reach 14,444 residents, 5,039 housing units, and 8,797 jobs by 2040. The population forecast for Alternative 3 is greater than under SCAG’s RTP/SCS, but Alternative 3 would concentrate forecast growth in an area with a mix of jobs and housing and with good transit access. As such, although it would not implement RTP/SCS policies related to concentrating growth and development near transit to the same degree that the Proposed Project would, it would not result in significant impacts related population or housing growth. Alternative 3 would have less potential to displace housing than the Proposed Project but would also include less replacement and affordable housing. Like the Proposed Project, Alternative 3 would result in an overall increase in housing that would more than offset any housing displacement that may occur. It should be noted, however, that limiting housing development in the Project Area as would occur under Alternative 3 may result in increased housing development elsewhere in the City, which could potentially increase displacement of existing housing in other Los Angeles neighborhoods. Like the Proposed Project, Alternative 3 would not induce substantial population growth inconsistent with the regional growth plans. Overall, impacts related to population and housing would be *less than significant* under Alternative 3, as with the Proposed Project.

Public Services

Implementation of Alternative 3 would involve less overall development and associated growth than the Proposed Project. Nevertheless, the increased growth under either scenario may require additional public facilities to serve new residents. With respect to fire and police services, both Alternative 3 or the Proposed Project would accommodate new development that would increase demand for fire and police protection service. This may result in the need for new or expanded fire and police facilities. Based on the urbanized character of the Project Area, it is anticipated that new or expanded facilities could be built without creating significant environmental impacts. Depending on the location or nature of new facilities, the construction of needed new facilities could potentially result in impacts; however, like the Proposed Project, those impacts would be consistent with those already identified in this EIR for construction or operations. Project-specific environmental analysis under CEQA would be required to address any site-specific environmental concerns.

With respect to schools, as summarized in **Table 5-10**, residential and non-residential development accommodated by Alternative 3 would result in approximately 7,110 new students by 2040. Of this total, an estimated 3,703 would enroll in elementary school, 1,097 would enroll in middle school, 2,065 would enroll in high school, and 255 would enroll in special day classes. Overall Alternative 3 would result in approximately 47 percent less students as compared to the Proposed Project. As such, Alternative 3 would accommodate development that would increase the student population of the Proposed Project and would create the need for new or expanded school facilities, but to a lesser extent than the Proposed Project. As with the Proposed Project, developers would be required to pay applicable school impact fees. As with the Proposed Project, any impacts associated with new school construction would be similar to those analyzed and identified in the EIR for other types of development, any site-specific impacts would be speculative and would be addressed by LAUSD as part of a project-level CEQA review.

	Units	Student Generation				
		Elementary School (TK-5)	Middle School (6-8)	High School (9-12)	SDC	Total Students Generated
Residential ¹	117,208 du	3,361	926	1,843	255	6,384
Non-Residential ²	14,998,000 sf	342	171	213		726
Total Students Generated by the No Project Alternative		3,703	1,097	2,056	255	7,110

Note: du = dwelling units; sf = square feet; TK = Transitional Kindergarten; SDC = Specialized Day Care
 Totals may not add up due to rounding.

³ Student generation rates for residential use is based on Level 1 – Developer Fee Justification Study for Los Angeles Unified School District (LAUSD 2022c). Residential Generation Rates: Elementary: 0.1953/du, Middle School: 0.0538/du, High School: 0.1071 /du, SDC: 0.0148/du

³ Student generation rates for non-residential use is based on the average of office and retail/service student generation rates for a conservative estimate, taken from the LAUSD Commercial/Industrial Development School Fee Justification Study, September 2010 (LAUSD 2010). Non-residential Generation Rates: Elementary: 0.0228/1,000 sf, Middle School: 0.0114/1,000 sf, High School: 0.0142/1,000 sf. Non-residential uses include commercial, industrial, and public facilities.

With respect to libraries, either Alternative 3 or the Proposed Project would increase demand for library facilities. However, the Project Area is well served by library facilities and would not require the construction of new or expanded facilities.

Overall, impacts related to public services would be *less than significant* under Alternative 3, as with the Proposed Project.

Recreation

Implementation of Alternative 3 would involve less overall development and associated population increases than the Proposed Project. However, any new development would increase the use of existing park and recreational facilities throughout the City, including in and around adjacent to the Project Area. The City of Los Angeles Public Recreation Plan states that in order to meet long-range local recreational standards, the City should maintain a minimum of two acres of neighborhood facilities and two acres of community recreational facilities for every 1,000 persons, or a combination of neighborhood and community facilities adding up to four acres. Under Alternative 3, the Project Area population is projected to increase to approximately 48,500 residents, which would result in a ratio of parks to residents of approximately 20.3 acres per 1,000 residents- exceeding the City's 4 acres per 1,000 residents goal for neighborhood and community facilities. Therefore, like the Proposed Project, impacts related to deterioration of existing parks in and around the Project Area would be *less than significant*.

Reasonably anticipated development from Alternative 3 would increase demand for recreational and park facilities that serve the Project Area but would not require construction of new recreational or park facilities. Furthermore, based on the urban nature of the Project Area and the presence of constraints to the development of large park facilities, the construction and operation of new facilities would not be expected to result in significant environmental impacts. Like the Proposed Project, impacts from the construction or expansion of new recreational facilities would be *less than significant*.

Transportation/Traffic

Alternative 3 would result in less residential development and population growth in the Project Area compared to the Proposed Project. However, it would also result in an increased amount of job growth in the Project Area. The increased number of jobs in the Project Area coupled with the reduced dwelling units under Alternative 3 would increase per capita VMT and result in more traffic related impacts citywide and in the Project Area as employees would have to travel from other locations to obtain jobs located in the Project Area and would be less likely to use local transit options.

As with the Proposed Project, Alternative 3 would not increase traffic hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), or result in inadequate emergency access. However, as with the Proposed Project, freeway off ramp queuing-related safety issues could potentially arise as additional development occurs in the Project Area. As with the Proposed Project, this would result in *significant and unavoidable* impacts to freeway safety impacts.

Tribal Cultural Resources

As described in Section 4.4, *Cultural Resources*, Los Angeles has a long history of Native American occupation, and any development activities that include ground disturbance have the potential to significantly impact tribal cultural resources. Effects on tribal cultural resources are only known once a specific development has been proposed because the effects are highly dependent on both the individual development site conditions and the characteristics of the proposed activity. Development accommodated by either Alternative 3 or the Proposed Project may disturb areas that potentially contain tribal resources. Similar to the Proposed Project, all future development projects under Alternative 3 would continue to be subject to existing federal, state, and local requirements and discretionary projects, subject to CEQA review would be required to comply with AB 52, which for projects relying on a [mitigated] negative declaration or an EIR, would require consultation with California Native American tribes. Implementation of **Mitigation Measures 4.4-2 (a), (b), (c), and (d)** in Section 4.4, *Cultural Resources*, and **Measures 4.16-1(a), (b), and (c)** in Section 4.16-1, *Tribal Cultural Resources*, would reduce the potential to disturb tribal cultural resources. Alternative 3 would also be subject to these mitigation measures. Therefore, the potential

for disturbance of tribal cultural resources would be similar than under the Proposed Project and would remain *less than significant with mitigation* incorporated.

Utilities and Service Systems

Implementation of Alternative 3 would involve less overall development and associated growth than the Proposed Project and would result in 2,828 fewer housing units, 7,974 fewer residents, and 792 more jobs, through 2040 than would be anticipated under the Proposed Project. As shown in **Table 4.17-3**, in Section 4.17, *Utilities and Service Systems*, projected wastewater generation for the Project Area in 2040 with implementation of the Proposed Project would generate an estimated 4.1 mgd of wastewater, which would represent less than one percent of the HWRP available capacity. By comparison, **Table 5-11** indicates that implementation of Alternative 3 would increase wastewater generation in the Project Area by approximately 2.3 mgd, which is less than one percent of the HWRP capacity. Alternative 3 would generate approximately 56 percent less wastewater as compared to the Proposed Project. Therefore, as with the Proposed project, the HWRP would have sufficient available treatment capacity to serve the Project Area under Alternative 3. In addition, the HWRP would be able to adequately treat future project-generated sewage under Alternative 3 and the treatment requirements of the RWQCB would not be exceeded so new or expanded treatment facilities would not be needed. Expansion/replacement of Project Area conveyance infrastructure may be needed and various facility improvements are already planned. Temporary traffic, air quality, and noise impacts associated with construction of such improvements would be within the parameters described for the Proposed Project. Continued compliance with the City's Low Impact Development (LID) Ordinance for all new development would ensure that any future development under Alternative 3 would not increase demands on stormwater drainage facilities and or expansion of existing facilities beyond specific improvements needed for individual development projects and impacts would remain *less than significant*.

With respect to water demand, per the 2020 Urban Water Management Plan, current water supplies, planned future water conservation efforts, and planned future water supplies will enable LADWP to reliably provide water that meets the demands of the City for a 25-year planning horizon (through 2045), based on SCAG's population projections. The 2020 UWMP projects an increase of 58,000 afy (8 percent) in water demand between 2025 and 2045, under single/multiple dry year conditions. As shown on **Table 5-12**, the projected net increase in water demand of 11,029 afy generated by new development accommodated by Alternative 3 would represent about 18 percent of the forecasted water demand increase through 2045. By comparison, as shown in **Table 4.17-6**, in Section 4.17, *Utilities and Service Systems*, estimated water demand for the Project Area in 2045 with implementation of the Proposed Project would be 17,892 afy. This represents about 31 percent of the forecasted citywide water demand increase through 2045. Alternative 3 would demand approximately 61 percent less water as compared to the Proposed Project. Therefore, as with the Proposed Project, adequate water supply exists to meet projected demand through the year 2045 for Alternative 3 and development of new water supplies would not be necessary. Expansion/replacement of water distribution infrastructure may be needed, but temporary traffic, air quality, and noise impacts associated with construction of such improvements would be within the parameters described for the Proposed Project and impacts would similarly be *less than significant*.

TABLE 5-11 ALTERNATIVE 3 PROJECTED WASTEWATER GENERATION			
Land Use	Dwelling Units or Jobs	Wastewater Generation Rate (gpd/unit)	Wastewater Generation (gpd)
Residential	17,208 du	137.9	2,372,983
Commercial	5,666 jobs	59.8	338,827
Industrial	3,296 jobs	123	405,408
Public Facilities	93 jobs	46.4	4,315
Total 2040 with Alternative 3 Wastewater Generation			3,121,533
Current Wastewater Generation			809,907
Net Change in Wastewater Generation			2,311,626
<p>Notes: Wastewater generation numbers are rounded to the nearest thousand. Totals may not add up due to rounding. gpd – gallons per day du – dwelling units sf – square feet</p> <p>SOURCE: Wastewater is assumed to be 100% of indoor water use. Per Exhibit 2E of the LADWP 2020 UWMP, indoor water use constitutes 56% of overall water use for single-family residences and 80% of overall water use for multi-family residences. Per the 2020 UWMP, per unit water demand is forecast to decline over time; the forecast 2030 rates per Exhibit 2L of the LADWP 2020 UWMP are assumed to apply to new development.</p>			

TABLE 5-12 ALTERNATIVE 3 PROJECTED WATER DEMAND IN THE PROJECT AREA				
Land Use	Dwelling Units or Jobs in Plan Area	Daily Water Use Rate (gpd/unit)	Daily Water Demand (gpd)	Annual Water Demand (afy)
Residential	17,208 du	202.8	3,489,782	9,561
Commercial	5,666 jobs	78.7	445,914	1,222
Industrial	3,296 jobs	125.5	413,648	1,133
Public Facilities	93 jobs	78.7	7,319	20
Total 2040 with Alternative 3 Demand			4,356,664	11,936
Current Water Demand			809,907	907
Net Change in Water Demand			3,546,757	11,029
<p>NOTES: Water demand numbers are rounded to the nearest thousand. Totals may not add up due to rounding. du – dwelling unit gpd – gallons per day afy – acre feet per year (1 af = 325,850 gallons)</p> <p>SOURCE: Water demand rates were obtained from the LADWP's 2020 UWMP, Exhibit 2L. Per the 2020 UWMP, per unit water demand is forecast to decline over time; the forecast 2040 rates are assumed to apply to new development.</p>				

As shown in **Table 4.17-7** in Section 4.17, *Utilities and Service Systems*, the combined daily intake capacity of landfills serving the Project Area is 45,540 tons per day and the average disposal intake is 18,620 tons per day, resulting in an available capacity of 200.2 million tons per day. As shown in **Table 5-13**, implementation of Alternative 3 would generate an increase of approximately 27 tons of solid waste per day above existing conditions, which would represent about 1 percent of the total available daily capacity (200.2 million ton per day) at local landfills. As shown in **Table 4.17-9** in Section 4.17, *Utilities and Service Systems*, development accommodated by the Proposed Project would increase the amount of solid waste generated in the Project Area by 30 tons per day, or 10,991 tons per year, above existing conditions. This

would represent less than 1 percent of the available intake capacity of landfills serving the Project Area. Alternative 3 would generate approximately 1.11 percent less waste as compared to the Proposed Project. Based on the County of Los Angeles Countywide Integrated Waste Management Plan (CIWMP) 2019 Annual Report, sufficient permitted capacity is available to accommodate the County's long-term disposal needs under the status quo. Sufficient permitted capacity is available to accommodate the Project Area's solid waste disposal needs. Therefore, as with the Proposed Project, implementation of Alternative 3 would result in solid waste generation that would remain within the capacity of waste disposal facilities serving the City. Therefore, similar to the Proposed Project, new or expanded facilities would not be needed and impacts would be *less than significant*.

Electrical and natural gas supplies are not expected to be adversely affected by development under Alternative 3, but improvements to Project Area distribution and telecommunication facilities may be needed. Temporary traffic, air quality, and noise impacts associated with construction of such improvements would be within the parameters described for the Proposed Project.

TABLE 5-13 ALTERNATIVE 3 SOLID WASTE GENERATION IN THE PROJECT AREA				
Land Use	Dwelling Units or Square Feet	Annual Waste Generation Rate	Annual Waste Generation (tons)	Daily Waste Generation (tons)
Residential	17,208	2.2	7,821.8	21.4
Commercial/ Governmental	9,055 jobs	2.3	3,937.0	10.8
Total 2040 Project Area Solid Waste Generation			11,758.8	32.2
Current Solid Waste Generation (2021)			1,868.80	5.1
Net Change in Waste Generation			9,890.0	27.1
NOTES:				
Waste generation (tons) was rounded to the nearest whole number. Totals may not add up due to rounding.				
du – dwelling unit				
sf – square feet				
SOURCE: CalEEMod Land Use SubType				

Overall, impacts related to utilities and service systems would be *less than significant* under Alternative 3, as with the Proposed Project.

Conclusion

Alternative 3 would accommodate less residential development overall and thus accommodate less growth in the Project Area, as compared to the Proposed Project. Therefore, Alternative 3 would result in a reduced level of impact for biological resources, geology and soil, hazards and hazardous materials, public services, recreation, tribal cultural resources, and utilities/service systems compared to the Proposed Project. Impacts related to air quality, cultural resources, and noise would be reduced compared to the Proposed Project but remain *significant and unavoidable* with Alternative 3. Impacts related to energy, greenhouse gas emissions, land use and planning, and population and housing would be increased compared to the Proposed Project but would remain *less than significant* with Alternative 3. In addition, limiting development potential in the Project Area may induce higher levels of growth in other areas of the City and region that have fewer transit options and longer distances between housing, jobs, and services. As such, Alternative 3 may incrementally increase regional transportation impacts, which would remain *significant and unavoidable*.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires identification of the environmentally superior alternative among the options studied. In general, the environmentally superior alternative is the alternative that would be expected to generate the fewest adverse impacts. If the No Project Alternative (Alternative 1) is identified as environmentally superior, then another environmentally superior alternative shall be identified among the other alternatives.

As shown in **Table 5-14**, Alternatives 1, 2, and 3 would all incrementally reduce impacts for multiple issue areas compared to the Proposed Project. This is because these alternatives would all reduce overall development levels in the Project Area. However, none of these alternatives would avoid any of the significant and unavoidable impacts of the Proposed Project. Alternative 1 would involve the lowest overall level of population growth and development in the Project Area. However, because Alternative 1 would not be subject to all of the same mitigation measures as proposed in the Proposed Project, it may result in higher greater overall impacts than the Proposed Project for certain issues, such as noise and tribal cultural resources. In addition, by limiting growth in the Project Area, Alternative 1 could cause more forecast growth and associated development to occur in other areas of the City or region that have less access to transit and longer distances between housing, jobs, and services. In this way, Alternative 1 may also result in greater overall regional VMT and associated air pollutant and GHG emissions.

Between the two other alternatives, Alternative 2 has the potential to reduce impacts more so than Alternative 3, although both are very similar with respect to environmental impacts. Alternative 2 would accommodate less growth in the Project Area, as compared to Alternative 3, potentially resulting in slightly reduced impacts to air quality (operational emissions), cultural resources, hazards/hazardous materials, public services, and utilities/service systems, although Alternative 2 would still result in the same impact conclusions as Alternative 3 and the Proposed Project in all impact categories. Similar to Alternative 1, limiting development potential in the Project Area may induce higher levels of growth in other areas of the City and region that have fewer transit options and longer distances between housing, jobs, and services, potentially increasing regional traffic and related GHG emissions. Additionally, while significant impacts would potentially be less under Alternative 2, impacts related to historical resources, air quality, construction noise and vibration, and transportation safety impacts related to freeway off-ramp queuing would remain *significant and unavoidable*. Nonetheless, Alternative 2 is identified as the Environmentally Superior Alternative as it would be expected to generate the fewest adverse impacts.

TABLE 5-14 IMPACT COMPARISON OF ALTERNATIVES			
Issue	Alternative 1: No Project	Alternative 2: No Urban Village	Alternative 3: Reduced Urban Village
Aesthetics	=	=	=
Air Quality	+	+	+
Biology	+	+	+
Cultural Resources	+	+	+
Energy	-	-	-
Geology and Soils	+	+	+
Greenhouse Gas Emissions	-	-	-
Hazards/Hazardous Materials	+	+	+
Hydrology/Water Quality	=	=	=
Land Use and Planning	-	-	-
Noise	-	+	+
Population and Housing	-	-	-
Public Services	+	+	+
Recreation	+	+	+
Transportation/Traffic	-	-	-
Tribal Cultural Resources	-	+	+
Utilities/Service Systems	+	+	+
<p>+ Superior to the Proposed Project (reduced level of impact) - Inferior to the Proposed Project (increased level of impact) = Similar level of impact to the Proposed Project</p> <p>Significant and unavoidable impacts are bolded and red. Note that for Alternative 1, impacts would not technically be "significant" under CEQA since that alternative involves continued implementation of the existing CASP; impacts are identified as "significant and unavoidable" if the physical effect associated with the alternative would be equivalent to a "significant impact" if the alternative involved a new discretionary action.</p>			

5.6 ALTERNATIVES CONSIDERED BUT REJECTED

Section 15126.6 (c) of the *CEQA Guidelines* requires that an EIR identify those alternatives that were considered but rejected by the lead agency because they either did not meet the objectives of the project, were considered infeasible, or would not avoid or substantially lessen one or more significant effects of the Proposed Project. No other alternatives were identified that would feasibly attain most of the basic project objectives but would also avoid or substantially lessen the significant effects of the Proposed Project. Outside of a complete moratorium on new development, none of the impacts could be reduced to below a level of significance. Any demolition or construction activity in the Project Area would have the potential to adversely affect historical resources or generate significant construction-related noise. Moreover, as previously noted, limiting development in the Project Area may simply divert more growth and development to other areas of the City, thus increasing the potential for similar impacts in other areas and increasing overall Citywide and regional VMT and associated air pollutant and GHG emissions.

6.0 OTHER CEQA CONSIDERATIONS

Section 15126 of the California Environmental Quality Act (CEQA) Guidelines requires that all phases of a project must be considered when evaluating its impact on the environment. As part of this analysis, in addition to the impact analysis done in Chapter 4 and the alternative analysis in Chapter 5, the EIR must also analyze and identify (1) significant irreversible environmental changes that would result from implementation of the Proposed Project, (2) growth-inducing impacts of the Proposed Project, and (3) any secondary impacts from the proposed mitigation measures identified in Chapter 4. These impacts are analyzed in this Chapter.

6.1 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

Section 15126.2(c) of the CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by the Proposed Project. Specifically, Section 15126.2(c) states:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irreversible commitments of resources should be evaluated to assure that such current consumption is justified.

Generally, a project would result in significant irreversible environmental changes if any of the following would occur:

- The primary and secondary impacts would generally commit future generations to similar uses.
- The project would involve a large commitment of nonrenewable resources.
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Resources that would be consumed as a result of implementation of the Proposed Project include water, electricity, natural gas, and fossil fuels; however, the amount and rate of consumption of these resources would not result in significant environmental impacts related to the unnecessary, inefficient, or wasteful use of resources (see Chapters 4.5, *Energy*, and 4.17, *Utilities and Service Systems*). In addition, construction activities related to the reasonably anticipated development would result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas, and gasoline for automobile and construction equipment. However, use of such resources would not be unusual as compared to other construction projects and would not substantially affect the availability of such resources.

With respect to operation activities, compliance with applicable building codes, as well as mitigation measures, would ensure that natural resources are conserved or recycled to the maximum extent feasible. It

is also likely that in response to GHG reduction mandates, new technologies or systems will emerge, or will become more cost-effective or user-friendly, that will further reduce the reliance of Project Area development upon nonrenewable natural resources. However, even with implementation of conservation measures, consumption of natural resources would generally increase with implementation of the Proposed Project due to population increases.

In summary, implementation of the Proposed Project would involve irreversible environmental changes to existing natural resources, such as the commitment of energy and water resources as a result of the operation and maintenance of future development. However, the Proposed Project would not involve wasteful or unjustifiable use of energy or other resources, and energy conservation efforts would also occur with new construction. New development accommodated by the Project would be constructed and operated in accordance with specifications contained in Title 24 of the California Code of Regulations and local green building requirements, as discussed in Section 4.5, *Energy*. Therefore, the use of energy related to the Proposed Project would occur in an efficient manner.

6.2 GROWTH INDUCING IMPACTS

Section 15126.2(d) of the CEQA Guidelines requires that growth inducing impacts of a project be considered. Growth inducing impacts are characteristics of a project that could directly or indirectly foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. According to the CEQA Guidelines, such projects include those that would remove obstacles to population growth (e.g., a major expansion of a wastewater treatment plant). In addition, as set forth in the CEQA Guidelines, increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. The CEQA Guidelines also state that it must not be assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment. Generally, a project is considered to result in growth inducing effects if it results in one of the following:

- The extension of infrastructure (sewer, water, etc.) to an area currently undeveloped and/or lacking adequate infrastructure, thus removing an obstacle to growth; and/or
- The provision of housing or employment to an area currently undeveloped or lacking in adequate housing or employment.

The Project Area is an urbanized community with road, water, sewer, storm drain, and other infrastructure in place. Although the Project would include certain utility upgrades, such upgrades are specifically intended to accommodate the growth planned for the Project Area and would not induce growth outside the Project Area. Rather, the Proposed Project is specifically intended to concentrate development in an area that is already served by infrastructure in order to ensure that infrastructure is utilized efficiently and in a manner that reduces the environmental impacts of development.

As analyzed in Chapter 4.12, *Population, Housing, and Employment*, of this EIR, the Proposed Project would accommodate substantial growth in population and employment in the Project Area. However, such growth would not induce growth outside the Project Area beyond what is anticipated to result from the Proposed Project itself. To the contrary, by concentrating growth in the Project Area, it is anticipated that implementation of the Proposed Project would actually limit growth in other areas of the City to some degree. Because growth in the Project Area would involve high density, mixed-use infill development in an area that is well-served by transit, it is actually anticipated to reduce per capita vehicle miles traveled (VMT) and associated air pollutant and GHG emissions relative to development in other areas of the City. Further, concentrating development in the urbanized Project Area would generally avoid impacts to agricultural, biological, and mineral resources while redevelopment of properties with new development

built to current standards would generally improve surface water quality and reduce the potential for substantial seismic damage.

The Proposed Project would not result in unplanned growth; rather, it would ensure that projected growth is accommodated. In conclusion, the Proposed Project is anticipated to satisfy a portion of the anticipated population growth in the region in an efficient manner consistent with state, regional and City policies. The Proposed Project would be consistent with the projected growth forecast for the Los Angeles region and regional policies to reduce urban sprawl. To that end, it would efficiently utilize existing infrastructure, reduce regional congestion, and improve air quality.

6.3 POTENTIAL SECONDARY EFFECTS

CEQA Guidelines Section 15126.4(a)(1)(D) states that, “[i]f a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measures shall be discussed but in less detail than the significant effects of the project as proposed.” In accordance with the Guidelines, the following provides a discussion of the potential impacts that could occur from implementation of the proposed mitigation measures.

Air Quality

Mitigation Measure 4.2-2 would reduce regional and local emissions generated by various construction activities, including equipment operation and truck trips, through best management practices. Implementation of this measure would have a beneficial impact on reducing air quality impacts and would not result in adverse secondary impacts.

Biology

Mitigation Measure 4.3-1 requires that an applicant retain a qualified biologist, who is not likely to cause secondary impacts due to their education and training, conduct an initial site assessment for projects that have the potential to disturb biological resources. Similarly, **Mitigation Measures 4.3-2(a)** and **4.3-2(b)** involve surveying and notification, which are not activities that would cause secondary impacts when performed under a qualified biologist.

Cultural Resources

Mitigation Measures 4.4-1(a), **4.4-1(b)** and **4.4-1(c)** would ensure that historic resources are identified and treated appropriately to avoid or minimize potential impacts. **Mitigation Measures 4.4-2(a)**, **4.4-2(b)**, and **4.4-2(c)**, would provide for the recovery of any significant archaeological resources that cannot be preserved in place. These mitigation measures are procedural actions that would not result in physical changes in the environment that could result in secondary impacts.

Geology

Mitigation Measures 4.6-6(a), **4.6-6(b)**, and **4.6-6(c)** would ensure that potential paleontological resources are identified and either further avoided or recovered. These mitigation measures are procedural actions that would not result in physical changes in the environment that could result in secondary impacts.

Hazards and Hazardous Materials

Mitigation Measures **4.8-4(a)** and **4.8-4(b)** would require preliminary investigation for hazardous materials potential on all Project Area excavation and grading. These mitigation measures are procedural actions that would not result in physical changes in the environment that could result in secondary impacts. Any potential remediation of contamination would be required to comply with regulations and regulatory agency oversight, which may require subsequent environmental review. Any impacts from remediation would be speculative at this time.

Noise

Mitigation Measure **4.11-1** involves specific construction-related measures to substantially reduce noise levels. Mitigation Measures **4.11-2(a)** and **4.11-2(b)** involve specific construction-related measures to substantially reduce vibration levels. These measures would not result in additional secondary impacts. The potential use of some measures, such as sound barriers and building designs, could affect the visual environment. However, the potential visual effects from this mitigation measure are expected to be similar to the effects that have been evaluated in the Aesthetics section of this EIR. No adverse secondary impacts would result from these measures.

Tribal Resources

Mitigation Measures **4.16-1(a)**, **4.16-1(b)**, and **4.16-1(c)** would ensure that tribal resources are identified and either further avoided or recovered. These mitigation measures are procedural actions that would not result in physical changes in the environment that could result in secondary impacts.

7.0 PREPARERS OF THE DRAFT EIR

7.1 LEAD AGENCY

CITY OF LOS ANGELES

Los Angeles Department of City Planning
200 North Spring Street, Room 667
Los Angeles, CA 90012

Community Planning Team: Brittany Arceneaux
 Clare Kelley
 Craig Weber
 Michael Sin

City Attorney: Kathryn C. Phelan
 Lilliana Rodriguez

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Senior Transportation Planner: Nico Boyd

Planner: Dongyang Lin

Appendix A

NOP and Responses

**DEPARTMENT OF
CITY PLANNING**

COMMISSION OFFICE
(213) 978-1300

CITY PLANNING COMMISSION

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PRESIDENT

CAROLINE CHOE
VICE-PRESIDENT

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DEPUTY DIRECTOR

**NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT
AND NOTICE OF SCOPING MEETING FOR
UPDATES TO THE CORNFIELD ARROYO SECO SPECIFIC PLAN (CASP)**

TO: Agencies, Organizations, and Interested Parties

DATE: April 8, 2021

The City of Los Angeles is the Lead Agency under the California Environmental Quality Act (CEQA) and will prepare an Environmental Impact Report (EIR) for a project involving updates to the Cornfield Arroyo Seco Specific Plan ("CASP Update" or "Proposed Project" or "Project"). The CASP Update would amend the text, maps, and tables of the CASP, including new land use and zoning regulations, incentives, and boundaries, for the purpose of encouraging affordable and mixed-income housing production. More details on the Project are provided below.

The City is requesting identification of environmental issues, environmental impacts, and information that you or your organization believes needs to be considered and analyzed in the EIR, including environmental impacts, mitigation measures, and alternatives.

NOTICE OF SCOPING MEETING

Pursuant to California Public Resources Code Section 21083.9 and California Code of Regulations, Title 14, Chapter 3, ("CEQA Guidelines") Section 15082, the Lead Agency will conduct a scoping meeting for the purpose of soliciting oral and written comments from interested parties requesting notice, responsible agencies, agencies with jurisdiction by law, trustee agencies, and involved federal agencies, as to the appropriate scope and content of the EIR.

The Public Scoping Meeting will be held virtually in an online format using Zoom to share information regarding the Project and the environmental review process and to provide information on how interested parties can provide written comments. City staff and environmental consultants will be available during this virtual meeting which will begin with a pre-recorded presentation. After the Public Scoping Meeting has ended, a copy of the pre-recorded presentation will be posted to the Department's website at <https://planning.lacity.org/development-services/eir>.

The City encourages all interested individuals and organizations to attend this virtual meeting. Questions may be submitted via the chat box in the control panel or verbally for participants joining by telephone during the Question and Answer session. Interested parties wishing to provide comments or public testimony in response to the NOP should provide them in writing, as described under "Submittal of Written Comments," below. No decisions about the Project will be made at the Public Scoping Meeting. A separate

public hearing for the CASP Update, along with other public engagement activities, will be scheduled at a later date. The date, time, and virtual location of the Public Scoping Meeting are as follows:

Date: Thursday, April 22, 2021
Time: 4:00 PM
Virtual Location: Join Zoom Meeting <https://planning-lacity-org.zoom.us/j/84993793018>
Meeting ID: 849 9379 3018
Password: 912684

Instructions for joining by telephone:
Dial by your location
+1 213 338 8477 US (Los Angeles)
+1 669 900 9128 US (San Jose)
Meeting ID: 849 9379 3018

Participants will be asked for a Meeting ID, enter "(Meeting ID listed above)", followed by "#" (pound sign).
Participants will be asked to enter a participant ID, enter "#" (pound sign) to continue.

ACCOMMODATIONS: As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate. Closed captioning or other assistive services may be provided upon request. Other services, such as translation between English and other languages, may also be provided upon request. To ensure availability of services, please make your request no later than three working days (72 hours) prior to the meeting by contacting Clare Kelley at (213) 978-1207 or clare.kelley@lacity.org.

RESPONSIBLE AND TRUSTEE AGENCIES

The City requests your agency's views on the scope and content of the environmental information relevant to your agency's statutory responsibilities in connection with the project, in accordance with the CEQA Guidelines, Section 15082(b). Your agency will need to use the EIR prepared by the City when considering any permits or other project approvals that your agency must issue. As such, your responses to this Notice of Preparation (NOP), at a minimum should identify: (1) The significant environmental issues and reasonable alternatives and mitigation measures that your agency will need to have explored in the EIR; and (2) Whether your agency will be a responsible or trustee agency for this project.

REVIEW AND RESPONSE PERIOD

April 8, 2021 to May 8, 2021

Pursuant to CEQA Guidelines, Section 15082(b), responses to this NOP must be provided during this response period.

PROJECT LOCATION

The Project location is the Cornfield Arroyo Seco Specific Plan Area ("CASP Area" or "Project Area"), a geographically contiguous, approximately 660-acre (1.0 square mile) area located within portions of the Central City North, Northeast Los Angeles, and Silver Lake-Echo Park-Elysian Valley Community Plan Areas. The Project Area encompasses the Los Angeles State Historic Park, segments of the Los Angeles River and Arroyo Seco, segments of Interstate 5 and California State Route 110, and the Lincoln/Cypress Metro L Line station. Approximately 6,201 individuals (1,814 households) reside within the Project Area, which is bordered by the neighborhoods of Chinatown to the west, Lincoln Heights to the east, and Cypress Park to the north. The regional context of the CASP is shown on **Figure 1**. The CASP Area boundaries are shown in **Figure 2**.

PROJECT BACKGROUND

On June 28, 2013, the City adopted the CASP and certified its Environmental Impact Report (ENV-2009-599-EIR, SCH No. 2009031002). The CASP involved substantial revisions to portions of the Central City North, Northeast Los Angeles, and Silver Lake-Echo Park-Elysian Valley Community Plans and the establishment of a specific plan to guide the future development of the predominantly industrial, approximately 660-acre area. Broadly, the CASP includes the following:

- The designation of new mixed-use zoning districts that replace former industrial zoning, and the identification of the types and intensities of uses permitted within these districts, as well as building height, massing, and façade standards,
- The establishment of new affordable housing land use incentives,
- The designation of new open spaces and parks and the establishment of open space requirements for new developments,
- Circulation and parking standards,
- Revised street designations and standards,
- Resource conservation standards, and
- Mitigation measures for subsequent development projects.

The intent of the adopted CASP is to guide the transition of an underserved, vehicular-oriented industrial and public facility area into a cluster of mixed-use, pedestrian-oriented neighborhoods. Policies in the CASP support a range of housing options, new public spaces, opportunities for walking and bicycling, and the retention of land for existing industrial businesses and the clean technology businesses of the future. Among its numerous goals, a key priority of the CASP is to facilitate the production and continued provision of affordable housing for Extremely Low Income and Very Low Income households.

However, since the CASP's adoption, housing production of any kind has been extremely limited. Among the projects proposed and approved, all involved discretionary actions from the City Planning Commission or Area Planning Commission to deviate from the CASP, with less than one percent of total units reserved for low-income households. The limited supply of available housing units (0.9 percent residential vacancy rate), together with the low average household income and strong demand for housing in the area, creates growing displacement pressure for existing residents and disproportionately in communities of color. The Project Area has seen rents increase at a higher rate than in nearby neighborhoods that have experienced greater increases to their housing supply.

In light of the present housing situation, and in response to a City Council Motion (Council File No. 13-0078-S2) calling for the evaluation and amendment of the Specific Plan, the City of Los Angeles is updating the CASP with the goal of further bolstering the production of affordable and mixed-income housing in the Project Area. The Proposed Project will entail updates to the CASP's zoning regulations, land use incentives, boundaries, and other key provisions to facilitate the production of housing, in a manner consistent with the underlying vision and purpose of the adopted CASP.

PROJECT DESCRIPTION

The Proposed Project is the update of the CASP and the adoption of necessary revisions and any other amendments necessary to implement this update, including amendments to General Plan elements (such as the Framework Element), Community Plans, the LAMC (Chapter 1 and Chapter 1A), specific plans, and other ordinances to implement those updates. The primary objective of the Proposed Project is to encourage affordable and mixed-income housing production in the Project Area.

The Proposed Project would accommodate additional housing in the Project Area by expanding the residential Urban Village zoning designation to more parcels within the CASP and allowing 100% affordable housing developments in the Urban Innovation and Urban Center zones where they are not currently

permitted. The changes would result in a more even split between Urban Village and Urban Innovation zoning compared to the existing CASP. Additionally, the existing 10% non-residential use requirement for projects in the Urban Village zone would be removed. At the same time, the CASP's affordable housing zoning incentives would be recalibrated and updated for those development projects seeking additional FAR rights.

The Proposed Project would also update the building form, urban design, open space, parking, conservation, performance, and sign standards of the CASP as necessary to support housing production, and amend the CASP text with technical revisions that ensure consistency, clarity, and ease of implementation and reflect current and future demographic, regulatory, environmental, and economic conditions. The CASP boundaries would be revised to exclude parcels that currently do not contain CASP zoning, such as RD zones. The Project would retain the existing ministerial review process for subsequent development projects.

Project Objectives

The primary objectives of the Project will be to:

- Increase the production of affordable and mixed-income housing within the Project Area,
- Protect residents, especially low-income households, from indirect and direct displacement, and ensure stability of existing vulnerable communities,
- Design and regulate housing to promote health and well-being, increase access to amenities such as parks and public transit, contribute to a sense of place, foster community and belonging, and plan for a sustainable future,
- Build, operate, and maintain welcoming and accessible housing for Angelenos with unique needs, including those with disabilities, large families, older adults, and other people facing housing barriers and food insecurity,
- Refine Plan standards, processes, and procedures to be more intuitive and transparent, with the goal of enhancing development certainty for both market-rate and affordable developers, and
- Preserve employment areas that show a concentration of jobs, while supporting small and/or legacy businesses, local employment, new productive uses, and employment spaces, such as light industrial and general commercial uses.

ISSUES TO BE ADDRESSED IN THE EIR

Based on the project description and the Lead Agency's understanding of the environmental issues associated with the CASP update, the following topics will be analyzed in the EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

The EIR will analyze the reasonably foreseeable indirect physical changes to the environment in the above topic areas caused by the project, including the updates to the CASP and any other necessary amendments to the General Plan or the LAMC.

The Hazards and Hazardous Materials section of the Draft EIR will discuss the potential impacts associated with housing development on sites identified as hazardous materials sites, known as the Cortese List, pursuant to Government Code Section 65962.5. The Project area includes hundreds of sites, some of which are on the Cortese List. Interested parties can view the Cortese List sites within the CASP Area at the following link: <https://planning4la.org/odoc/corteseList>.

Alternatives to be analyzed in the EIR are to be defined and analyzed consistent with the requirements of CEQA Guidelines, Section 15126.6. The specific alternatives to be evaluated will include a “No Project” alternative, as required by CEQA, and may include alternative land use configurations.

DOCUMENT AVAILABILITY

The NOP can be viewed on the City of Los Angeles Department of City Planning website at: <https://planning.lacity.org/development-services/environmental-review/published-documents>.

To request an appointment to view a hard copy of the documents, please contact Clare Kelley at (213) 978-1207 or clare.kelley@lacity.org.

SUBMITTAL OF WRITTEN COMMENTS

The Lead Agency solicits comments regarding the scope, content and specificity of the EIR from all interested parties requesting notice, responsible agencies, agencies with jurisdiction by law, trustee agencies, and involved agencies. Please send written/typed comments (including a name, telephone number, and contact information) electronically or by mail to the following:

City of Los Angeles, Department of City Planning
ATTN: Clare Kelley, City Planner
Case Numbers: CPC-2021-2642-SP; ENV-2021-2643-EIR
200 N. Spring Street, Room 667, Los Angeles, CA 90012

E-mail: clare.kelley@lacity.org
Phone: (213) 978-1207

In accordance with CEQA Section 15082, this Notice of Preparation is being circulated for a 30-day comment period. **The City of Los Angeles requests that written comments be provided at the earliest possible date, but no later than 5:00 p.m. on May 8, 2021.**

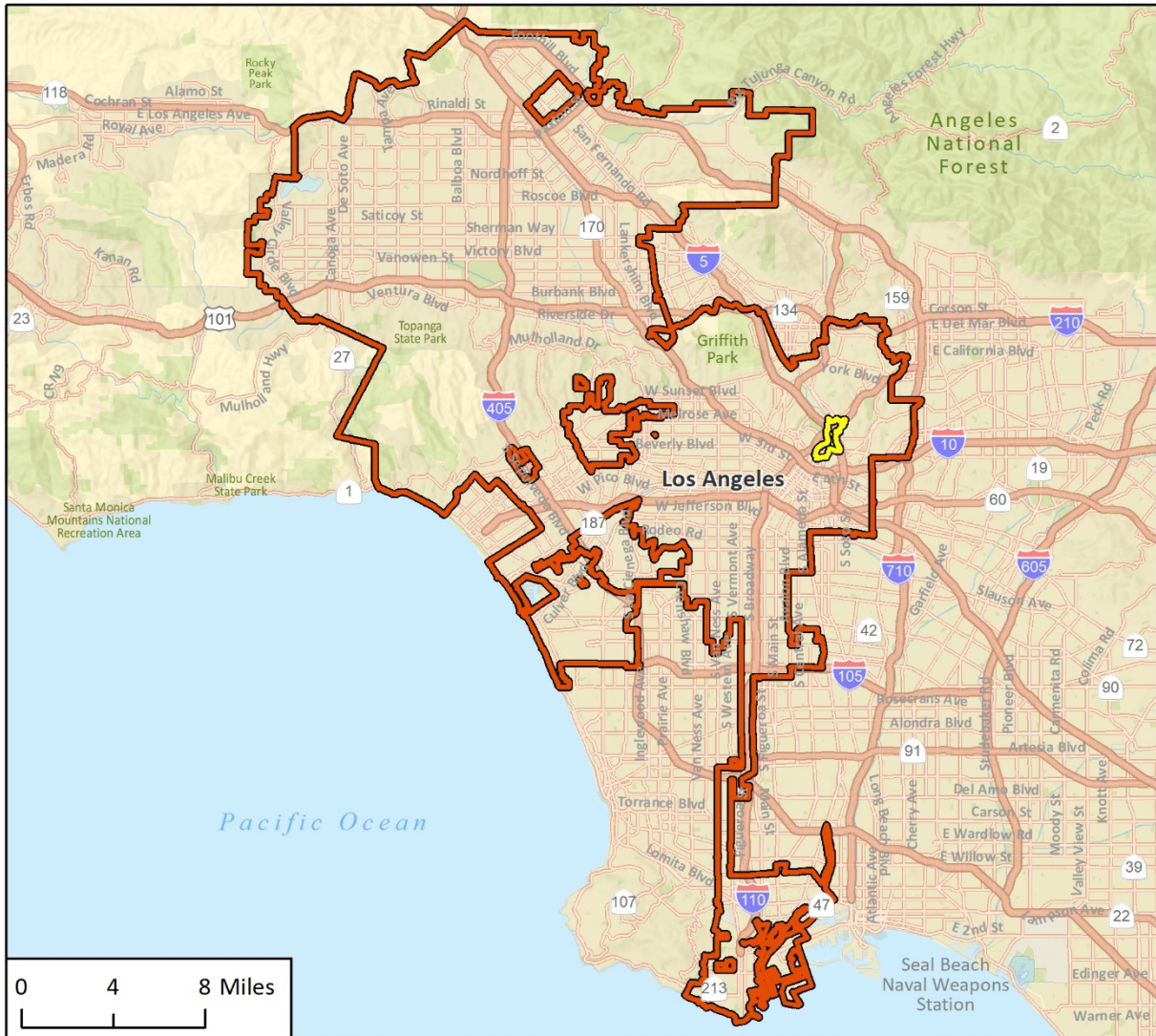
For more information about the CASP Update, please visit Planning4LA.org/casp-update.

ALL INTERESTED PARTIES ARE INVITED TO ATTEND THE PUBLIC SCOPING MEETING TO ASSIST IN IDENTIFYING ISSUES TO BE ADDRESSED IN THE EIR. ATTENDEES WILL HAVE AN OPPORTUNITY TO PROVIDE INPUT TO THE CONSULTANTS PREPARING THE EIR.




Clare Kelley, City Planner
City of Los Angeles Department of City Planning

Attachments
Figure 1: Regional Context Map
Figure 2: CASP Area Boundaries Map

Figure 1 Regional Context Map



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-  Plan Boundary
-  Los Angeles City Boundary

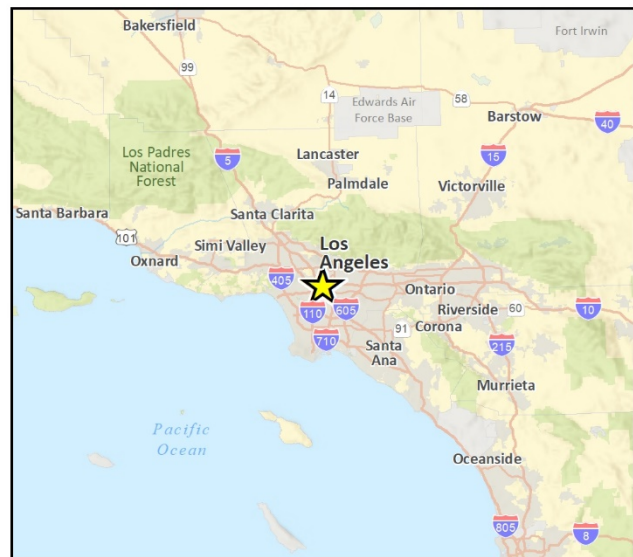


Fig 1 Regional Location-2

Figure 2 CASP Area Boundaries Map



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Fig 2 Project Location

DEPARTMENT OF TRANSPORTATION
DISTRICT 7- OFFICE OF REGIONAL PLANNING
100 S. MAIN STREET, SUITE 100
LOS ANGELES, CA 90012
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*Making Conservation
a California Way of Life.*

April 22, 2021

City of Los Angeles, Department of City Planning
ATTN: Clare Kelley, City Planner
Case Numbers: CPC-2021-2642-SP; ENV-2021-2643-EIR
200 N. Spring Street, Room 667,
Los Angeles, CA 90012

RE: Cornfield Arroyo Seco Specific Plan (CASP)
Update – Notice of Preparation (NOP)
SCH# 2021040206
GTS# 07-LA-2021-03543
Vic. LA-Multiple

Dear Clare Kelley,

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The Proposed Project is an update of the CASP. The primary objective of the Proposed Project is to encourage affordable and mixed-income housing production in the Project Area by expanding the residential Urban Village zoning designation to more parcels within the CASP and allowing 100% affordable housing developments in the Urban Innovation and Urban Center zones where they are not currently permitted. The changes would result in a more even split between Urban Village and Urban Innovation zoning compared to the existing CASP. Additionally, the existing 10% non-residential use requirement for projects in the Urban Village zone would be removed. At the same time, the CASP's affordable housing zoning incentives would be recalibrated and updated for those development projects seeking additional FAR rights. The Proposed Project would also update the building form, urban design, open space, parking, conservation, performance, and sign standards of the CASP as necessary to support housing production, and amend the CASP text with technical revisions that ensure consistency, clarity, and ease of implementation and reflect current and future demographic, regulatory, environmental, and economic conditions. The CASP boundaries would be revised to exclude parcels that currently do not contain CASP zoning, such as RD zones. The Project would retain the existing ministerial review process for subsequent development projects.

The nearest State facilities to the proposed project are SR 110 and I-5. After reviewing the NOP, Caltrans has the following comments:

Caltrans acknowledges and supports mixed-use, infill development that prioritizes affordable housing, like the proposed Specific Plan aims to facilitate. The primary goals of the updated CASP are in direct alignment with State-level sustainable transportation policy goals which seek to

reduce the number of trips made by driving, reduce Greenhouse Gas (GHG) emissions, and encourage alternative modes of travel. Caltrans' Strategic Management Plan has set targets of tripling trips made by bicycle and doubling trips made by walking and public transit, as well as achieving a reduction in statewide, per capita, vehicle miles traveled (VMT). Similar goals are embedded in the California Transportation Plan 2040, California Transportation Plan 2050, and Southern California Association of Governments (SCAG) Connect SoCal (2020-2045 Regional Transportation Plan/Sustainable Communities Strategy). Statewide legislation such as AB 32 and SB 375, as well as Executive Order S-3-05 and N-19-19, echo the need to pursue more sustainable development. Projects, like the one proposed, can help California meet these goals.

Caltrans has the following recommendations for two of the Specific Plan sections outlined in the NOP that should be addressed while developing the Draft Environmental Impact Report:

1. Street Designations and Standards:

Caltrans recommends creating the safest streetscape possible for pedestrians and people on bikes. Wide roadways with numerous travel lanes are associated with higher vehicle speeds and less safe conditions for people walking and biking. Elements should be considered to create the most comfortable environment possible for all the people who will be walking and biking within the specific plan area. The most effective methods to reduce pedestrian and bicyclist exposure to vehicles is through physical design and geometrics. These methods include the construction of physically separated facilities such as Class IV bike lanes, curb extensions or bulb-outs, sidewalks, pedestrian refuge islands, landscaping, street furniture, and reductions in crossing distances through roadway narrowing. Visual indicators such as, pedestrian and bicyclist warning signage, flashing beacons, crosswalks, signage, and striping should be used in addition to physical design improvements to indicate to motorists that they can expect to see and yield to pedestrians and people on bikes.

2. Circulation and Parking Standards:

Caltrans encourages the lead agency to seriously consider eliminating car parking requirements altogether. Research looking at the relationship between land-use, parking, and transportation indicates that the amount of car parking supplied can undermine a project's ability to encourage public transit and active modes of transportation. Additionally, Rates of car ownership and vehicle miles traveled (VMT) are significantly lower for low-income households than they are for high-income households. Seeing as one of the primary objectives of this specific plan update is to encourage affordable housing, including developments with 100% affordable housing, this should be taken into serious consideration. There is sufficient justification to consider eliminating parking requirements to promote affordability and achieve the project's goals.

Caltrans also recommends that at least one long-term bicycle parking space be provided per residential unit, allowing residents to take advantage of the Specific Plan's central location and choose the bicycle as their mode of travel more easily. Long-term bicycle parking should be located onsite, indoors, on the ground floor, and within 200 feet of primary pedestrian entrances.

While Caltrans does not expect project approval to result in a direct adverse impact to the existing State transportation facilities, the Cornfield Arroyo Seco Specific Plan area is immediately adjacent to SR 110 and I-5, so an encroachment permit will be required for any project work proposed on or in the vicinity of the Caltrans right-of-way and all environmental concerns must be adequately addressed. Please note that any modifications to State facilities will be subject to additional review by the Office of Permits prior to issuance of the permit.

Caltrans looks forward to the forthcoming Draft Environmental Impact Report to confirm that the Project will result in a net reduction in Vehicle Miles Traveled.

If you have any questions, please contact project coordinator Anthony Higgins, at anthony.higgins@dot.ca.gov and refer to GTS# 07-LA-2021-03543.

Sincerely,



MIYA EDMONSON

IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse



State of California – Natural Resources Agency

DEPARTMENT OF FISH AND WILDLIFE

South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201

www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



April 27, 2021

Clare Kelley
City of Los Angeles
200 N. Spring St, Room 667
Los Angeles, CA 90012
Clare.Kelley@lacity.org

Subject: Notice of Preparation of a Draft Environmental Impact Report for Updates to the Cornfield Arroyo Seco Specific Plan, SCH #2021040206, City of Los Angeles, Los Angeles County

Dear Ms. Kelley:

The California Department of Fish and Wildlife (CDFW) has reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) from the City of Los Angeles (City; Lead Agency) for the Updates to the Cornfield Arroyo Seco Specific Plan (Project; CASP). Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish & G. Code, §§ 711.7, subdivision (a) & 1802; Pub. Resources Code, § 21070; California Environmental Quality Act (CEQA) Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect State fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 *et seq.*). Likewise, to the extent implementation of the Project as proposed may result in "take", as defined by State law, of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 *et seq.*), or CESA-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish & G. Code, §1900 *et seq.*), CDFW recommends the Project proponent obtain appropriate authorization under the Fish and Game Code.

Conserving California's Wildlife Since 1870

Clare Kelley
City of Los Angeles
April 27, 2021
Page 2 of 14

Project Description and Summary

Objective: The intent of the adopted CASP is to guide the transition of an underserved, vehicular-oriented industrial and public facility area into a cluster of mixed-use, pedestrian-oriented neighborhoods. Policies in the CASP support a range of housing options, new public spaces, opportunities for walking and bicycling, and the retention of land for existing industrial businesses and the clean technology businesses of the future. Among its numerous goals, a key priority of the CASP is to facilitate the production and continued provision of affordable housing for Extremely Low Income and Very Low-Income households. The City of Los Angeles is updating the CASP with the goal of further production of affordable and mixed-income housing in the Project Area. The proposed Project will entail updates to the CASP's zoning regulations, land use incentives, boundaries, and other key provisions to facilitate the production of housing, in a manner consistent with the underlying vision and purpose of the adopted CASP. The primary objectives of the Project will be to:

- Increase the production of affordable and mixed-income housing within the Project Area;
- Protect residents, especially low-income households, from indirect and direct displacement, and ensure stability of existing vulnerable communities;
- Design and regulate housing to promote health and well-being, increase access to amenities such as parks and public transit, contribute to a sense of place, foster community and belonging, and plan for a sustainable future;
- Build, operate, and maintain welcoming and accessible housing for people with unique needs, including those with disabilities, large families, older adults, and other people facing housing barriers and food insecurity;
- Refine CASP standards, processes, and procedures to be more intuitive and transparent, with the goal of enhancing development certainty for both market-rate and affordable developers; and
- Preserve employment areas that show a concentration of jobs, while supporting small and/or legacy businesses, local employment, new productive uses, and employment spaces, such as light industrial and general commercial uses.

Location: The Project location is a geographically contiguous, approximately 660-acre (1.0 square mile) area located within portions of the Central City North, Northeast Los Angeles, and Silver Lake-Echo Park-Elysian Valley Community Plan Areas. The Project area encompasses the Los Angeles State Historic Park, segments of the Los Angeles River and Arroyo Seco, segments of Interstate 5 and California State Route 110, and the Lincoln/Cypress Metro L Line station. The Project area is bordered by the neighborhoods of Chinatown to the west, Lincoln Heights to the east, and Cypress Park to the north.

Comments and Recommendations

CDFW offers the comments and recommendations below to assist the City in adequately identifying, avoiding, and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources.

Specific Comments

- 1) California Protected Areas. CDFW recommends the City consider the Project's potential

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impacts on the following areas within or adjacent to the Project boundary: Arroyo Seco, Los Angeles River, Los Angeles State Historic Park, Confluence Park, Downey Playground and Recreation Center, Albion Riverside Park, and Elysian Park. All these areas are a part of the California Protected Areas Database (CPAD). The CPAD contains data on lands owned in fee by governments, non-profits, and some private entities that are protected for open space purposes. Data includes all such areas in California, from small urban parks to large national parks and forests (CPAD 2020).

CDFW recommends the City avoid development that may have an adverse direct or indirect impact on CPAD sites. CDFW recommends the DEIR include measures where any future development facilitated by the Project mitigate (avoid if feasible) for impacts on biological resources occurring within these CPAD sites, as well as mitigate for impacts on wildlife, sensitive natural communities, and aquatic and riparian resources. CDFW also recommends new development occur in areas that are not adjacent to CPAD sites, if feasible. CDFW recommends the City consider configuring Project construction and activities, as well as the development footprint to fully avoid impacts to areas, such as CPAD sites, that may provide habitat for wildlife (see General Comment #7.d). Lastly, CDFW recommends effective setbacks be established to where building adjacent to these sites is infeasible. The environmental document should provide a justification for the effectiveness of the chosen distance for the setback.

- 2) Jurisdictional Waters. Figure 2 of the NOP shows that the Los Angeles River and the Arroyo Seco flow through the Project area. As a Responsible Agency under CEQA, CDFW has authority over activities in streams and/or lakes that will divert or obstruct the natural flow, or change the bed, channel, or bank (including vegetation associated with the stream or lake) of a river or stream or use material from a streambed. For any such activities, the project applicant (or "entity") must provide written notification to CDFW pursuant to Fish and Game Code Section 1600 *et seq.*
 - a) CDFW's issuance of a Lake and Streambed Alteration (LSA) Agreement for a project that is subject to CEQA will require CEQA compliance actions by CDFW as a Responsible Agency. As a Responsible Agency, CDFW may consider the environmental document of the local jurisdiction (Lead Agency) for the Project. To minimize additional requirements by CDFW pursuant to section 1600 *et seq.* and/or under CEQA, the environmental document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring, and reporting commitments for issuance of the LSA Agreement. Please visit CDFW's [Lake and Streambed Alteration Program](#) webpage for information about LSA Notification (CDFWa 2020).
 - b) In the event the Project area may support aquatic, riparian, and wetland habitats; a preliminary delineation of the streams and their associated riparian habitats should be included in the environmental document. The delineation should be conducted pursuant to the U.S. Fish and Wildlife Service (USFWS) wetland definition adopted by CDFW (Cowardin et al. 1970). Be advised that some wetland and riparian habitats subject to CDFW's authority may extend beyond the jurisdictional limits of the U.S. Army Corps of Engineers' Section 404 permit and Regional Water Quality Control Board Section 401 Certification.

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- c) In Project areas which may support ephemeral or episodic streams, herbaceous vegetation, woody vegetation, and woodlands also serve to protect the integrity of these resources and help maintain natural sedimentation processes. Therefore, CDFW recommends effective setbacks be established to maintain appropriately sized vegetated buffer areas adjoining ephemeral drainages. The environmental document should provide a justification for the effectiveness of the chosen distance for the setback.
 - d) Project-related changes in upstream and downstream drainage patterns, runoff, and sedimentation should be included and evaluated in the environmental document.
 - e) As part of the LSA Notification process, CDFW requests a hydrological evaluation of the 200, 100, 50, 25, 10, 5, and 2-year frequency storm event for existing and proposed conditions. CDFW recommends the environmental document evaluate the results and address avoidance, minimization, and/or mitigation measures that may be necessary to reduce potential significant impacts.
- 3) Nesting Birds. CDFW recommends the DEIR include measures where future development facilitated by the Project avoids potential impacts to nesting birds. These avoidance measure should especially consider any development that may occur adjacent to parks and open space, such as the Los Angeles State Historic Park or Elysian Park. Project activities occurring during the bird and raptor breeding and nesting season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment.
- a) Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (Code of Federal Regulations, Title 50, § 10.13). Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). It is unlawful to take, possess, or needlessly destroy the nest or eggs of any raptor.
 - b) CDFW recommends that measures be taken to fully avoid impacts to nesting birds and raptors. Ground-disturbing activities (e.g., mobilizing, staging, drilling, and excavating) and vegetation removal should occur outside of the avian breeding season which generally runs from February 15 through September 15 (as early as January 1 for some raptors) to avoid take of birds, raptors, or their eggs.
 - c) If impacts to nesting birds and raptors cannot be avoided, CDFW recommends the DEIR include measures where future development facilitated by the Project mitigates for impacts. CDFW recommends surveys by a qualified biologist with experience conducting breeding bird and raptor surveys. Surveys are needed to detect protected native birds and raptors occurring in suitable nesting habitat that may be disturbed and any other such habitat within 300 feet of the Project disturbance area, to the extent allowable and accessible. For raptors, this radius should be expanded to 500 feet and 0.5 mile for special status species, if feasible. Project personnel, including all contractors working on site, should be instructed on the sensitivity of the area. Reductions in the nest buffer distance may be appropriate depending on the avian species involved, ambient levels of human activity, screening vegetation, or possibly other factors.

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- 4) Loss of Bird and Raptor Nesting Habitat. The Project site has potential for nesting bird habitat in areas such as Los Angeles State Historic Park and in and around the Los Angeles River and Arroyo Seco. According to ebird, raptors such as the red-tailed hawk (*Buteo jamaicensis*) and American kestrel (*Falco sparverius*) have been recorded within the Project area. The biggest threat to birds is habitat loss and conversion of natural vegetation into another land use such as development (e.g., commercial, residential, industrial). In the greater Los Angeles, urban forests and street trees, both native and some non-native species, provide habitat for a high diversity of birds (Wood and Esaian 2020). Some species of raptors have adapted to and exploited urban areas for breeding and nesting (Cooper et al. 2020). For example, raptors (*Accipitridae*, *Falconidae*) such as red-tailed hawks and Cooper's hawks (*Accipiter cooperii*) can nest successfully in urban sites. Red-tailed hawks commonly nest in ornamental vegetation such as eucalyptus (Cooper et al. 2020).
- a) CDFW recommends the DEIR provide measures where future development facilitated by the Project avoids removal of any native trees, large and dense-canopied native and non-native trees, and trees occurring in high density (Wood and Esaian 2020). CDFW also recommends avoiding impacts to trees protected by the City's Protected Tree Ordinance. CDFW also recommends avoiding impacts to understory vegetation (e.g., ground cover, subshrubs, shrubs, and trees).
 - b) If impacts to trees cannot be avoided, trees should be replaced to compensate for the temporal or permanent loss habitat within a project site. Depending on the status of the bird or raptor species impacted, replacement habitat acres should increase with the occurrence of a California Species of Special Concern. Replacement habitat acres should further increase with the occurrence of a CESA-listed threatened or endangered species.
 - c) CDFW recommends planting native tree species preferred by birds. This includes coast live oak (*Quercus agrifolia*) and California sycamore (*Platanus racemosa*) (Wood and Esaian 2020). CDFW recommends Audubon Society's [Plants for Birds](#) for more information on selecting native plants and trees beneficial to birds (Audubon Society 2020).
- 5) Loss of Wading Bird Habitat. The Project proposes to increase housing production within the Project area. This increase in residences may increase human presence in and adjacent to the Los Angeles River or Arroyo Seco. This population increase could require the need for new infrastructure for recreational uses within or adjacent to the Los Angeles River or Arroyo Seco. It will be necessary to consider the impacts on wading bird habitat with any new development in or along the Los Angeles River or Arroyo Seco. Aerial photography indicates the presence of algal mats within the Los Angeles River. Any activity that may disturb or cover areas where algal mats form may prevent birds from utilizing the area for foraging. Algal mats along with other herbaceous vegetation might no longer persist in that portion of the river.

In these concrete-lined rivers, the resulting sheet-flows allow phytoplankton (algae and cyanobacteria), microorganisms, and herbaceous vegetation to establish. The algae provide habitat and a food source for benthic invertebrates, a vital food source for wading birds, such as black necked stilts (*Himantopus mexicanus*). In addition, wading birds, such as mallards (*Anas platyrhynchos*), also feed on herbaceous vegetation. Stilts and mallards are

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just some of the wading birds that have been identified in this stretch of the Los Angeles River.

- a) Changes to hydrology through new infrastructure installation are reasonable potential direct and indirect physical changes in the environment. Changes in the occurrence, distribution, movement, and increases/reductions in water flow should be considered with new infrastructure installation. These changes and their potential impacts on biological resources should be analyzed and disclosed in an environmental document.
 - b) CDFW recommends the City include an analysis of potential impacts on biological resources within the river resulting from the Project. At a minimum, an analysis should include:
 - i. A map of plant communities and important bird foraging habitat occurring in the Project area, namely within the Los Angeles River. Plant communities should be mapped at the alliance/association level using the [Manual of California Vegetation](#), second edition (Sawyer et al. 2009). Also, CDFW recommends an updated and thorough floristic-based assessment of plant communities, following CDFW's [Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities](#) (CDFW 2018).
 - ii. A comprehensive list of sensitive and special status plant and wildlife species, and sensitive plant communities, occurring in the Los Angeles River and Arroyo Seco within the Project site. For each biological resource, provide:
 1. A summary of species-specific habitat requirements;
 2. A discussion as to how the species or plant community may be significantly impacted directly or indirectly through habitat modification, as result of changes to hydrology (reduced flow), hydraulics (water depth, wetted perimeter, velocity), and sunlight exposure (photosynthetic ability of plants and algae); and,
 3. A quantitative analysis and/or adequate discussion to evaluate whether the Project would result in those significant impacts.
 - iii. A discussion of whether construction, operations, and maintenance of any development within or adjacent to the river would have direct and/or indirect, permanent, or temporal impact on biological resources.
 - iv. An adequate discussion of Project-related impacts on biological resources in relation to cumulative changes to the hydrologic regime.
- 6) Bats. Numerous bat species are known to roost in trees and structures throughout Los Angeles County (Remington and Cooper 2014). In urbanized areas, bats use trees and man-made structures for daytime and nighttime roosts. Accordingly, CDFW recommends the DEIR provide measures where future increases in development, such as in areas in and adjacent to the Los Angeles State Historic Park, Elysian Park, or other parks and open space, facilitated by the Project avoids potential impacts to bats.
- a) Bats are considered non-game mammals and are afforded protection by state law from take and/or harassment (Fish & G. Code, § 4150; Cal. Code of Regs., § 251.1). Project

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construction and activities, including (but not limited to) ground disturbance, vegetation removal, and any activities leading to increased noise levels may have direct and/or indirect impacts on bats and roosts.

- b) CDFW recommends a project-level biological resources survey provide a thorough discussion and adequate disclosure of potential impacts to bats and roosts from Project construction and activities including (but not limited to) ground-disturbing activities (e.g., mobilizing, staging, drilling, and excavating) and vegetation removal. If necessary, to reduce impacts to less than significant, a project-level environmental document should provide bat-specific avoidance and/or mitigation measures [CEQA Guidelines, § 15126.4(a)(1)].

General Comments

- 1) Disclosure. An environmental document should provide an adequate, complete, and detailed disclosure about the effect which a proposed project is likely to have on the environment (Pub. Resources Code, § 20161; CEQA Guidelines, §15151). Adequate disclosure is necessary so CDFW may provide comments on the adequacy of proposed avoidance, minimization, or mitigation measures, as well as to assess the significance of the specific impact relative to the species (e.g., current range, distribution, population trends, and connectivity).
- 2) Mitigation Measures. Public agencies have a duty under CEQA to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of feasible alternatives or mitigation measures [CEQA Guidelines, §§ 15002(a)(3), 15021]. Pursuant to CEQA Guidelines section 15126.4, an environmental document shall describe feasible measures which could mitigate for impacts below a significant level under CEQA.
 - a) Level of Detail. Mitigation measures must be feasible, effective, implemented, and fully enforceable/imposed by the lead agency through permit conditions, agreements, or other legally binding instruments (Pub. Resources Code, § 21081.6(b); CEQA Guidelines, §§ 15126.4, 15041). A public agency shall provide the measures that are fully enforceable through permit conditions, agreements, or other measures (Pub. Resources Code, § 21081.6). CDFW recommends that the City prepare mitigation measures that are specific, detailed (i.e., responsible party, timing, specific actions, location), and clear in order for a measure to be fully enforceable and implemented successfully via a mitigation monitoring and/or reporting program (CEQA Guidelines, § 15097; Pub. Resources Code, § 21081.6). Adequate disclosure is necessary so CDFW may provide comments on the adequacy and feasibility of proposed mitigation measures.
 - b) Disclosure of Impacts. If a proposed mitigation measure would cause one or more significant effects, in addition to impacts caused by the Project as proposed, the environmental document should include a discussion of the effects of proposed mitigation measures [CEQA Guidelines, § 15126.4(a)(1)]. In that regard, the environmental document should provide an adequate, complete, and detailed disclosure about a project's proposed mitigation measure(s). Adequate disclosure is necessary so CDFW may assess the potential impacts of proposed mitigation measures.

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- 3) Biological Baseline Assessment. An adequate biological resources assessment should provide a complete assessment and impact analysis of the flora and fauna within and adjacent to a Project site and where a Project may result in ground disturbance. The assessment and analysis should place emphasis upon identifying endangered, threatened, sensitive, regionally, and locally unique species, and sensitive habitats. Impact analysis will aid in determining any direct, indirect, and cumulative biological impacts, as well as specific mitigation or avoidance measures necessary to offset those impacts. CDFW recommends avoiding any sensitive natural communities found on or adjacent to a Project. CDFW also considers impacts to Species of Special Concern a significant direct and cumulative adverse effect without implementing appropriate avoid and/or mitigation measures. A Project-level environmental document should include the following information:
- a) Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region [CEQA Guidelines, § 15125(c)]. An environmental document should include measures to fully avoid and otherwise protect Sensitive Natural Communities from Project-related impacts. CDFW considers these communities as threatened habitats having both regional and local significance. Plant communities, alliances, and associations with a state-wide ranking of S1, S2, S3 and S4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by visiting [Vegetation Classification and Mapping Program - Natural Communities](#) webpage (CDFWb 2020);
 - b) A thorough, recent, floristic-based assessment of special status plants and natural communities following CDFW's [Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities](#) (CDFW 2018). Adjoining habitat areas should be included where Project construction and activities could lead to direct or indirect impacts off site;
 - c) Floristic, alliance- and/or association-based mapping and vegetation impact assessments conducted at a Project site and within the neighboring vicinity. The [Manual of California Vegetation](#) (MCV), second edition, should also be used to inform this mapping and assessment (Sawyer et al. 2009). Adjoining habitat areas should be included in this assessment where Project activities could lead to direct or indirect impacts off site. Habitat mapping at the alliance level will help establish baseline vegetation conditions;
 - d) A complete, recent, assessment of the biological resources associated with each habitat type on site and within adjacent areas that could also be affected by a Project. CDFW's [California Natural Diversity Database](#) (CNDDDB) in Sacramento should be contacted to obtain current information on any previously reported sensitive species and habitat (CDFWc 2020). An assessment should include a nine-quadrangle search of the CNDDDB to determine a list of species potentially present at a Project site. A lack of records in the CNDDDB does not mean that rare, threatened, or endangered plants and wildlife do not occur in the Project site. Field verification for the presence or absence of sensitive species is necessary to provide a complete biological assessment for adequate CEQA review [CEQA Guidelines, § 15003(i)];
 - e) A complete, recent, assessment of rare, threatened, and endangered, and other sensitive species on site and within the area of potential effect, including California

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Species of Special Concern, and California Fully Protected Species (Fish & G. Code, §§ 3511, 4700, 5050, and 5515). Species to be addressed should include all those which meet the CEQA definition of endangered, rare, or threatened species (CEQA Guidelines, § 15380). Seasonal variations in use of a Project site should also be addressed such as wintering, roosting, nesting, and foraging habitat. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, may be required if suitable habitat is present. See CDFW's [Survey and Monitoring Protocols and Guidelines](#) for established survey protocol for select species (CDFWd 2020). Acceptable species-specific survey procedures may be developed in consultation with CDFW and the U.S. Fish and Wildlife Service;

- f) A recent wildlife and rare plant survey. CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of a proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if build out could occur over a protracted time frame or in phases; and,
 - g) A biological resources survey should include identification and delineation of any rivers, streams, and lakes and their associated natural plant communities/habitats. This includes any culverts, ditches, storm channels that may transport water, sediment, pollutants, and discharge into rivers, streams, and lakes.
- 4) Wetland Resources. CDFW, as described in Fish and Game Code section 703(a), is guided by the Fish and Game Commission's (Commission) policies. The [Wetlands Resources](#) policy the Commission "...seek[s] to provide for the protection, preservation, restoration, enhancement and expansion of wetland habitat in California. Further, it is the policy of the Fish and Game Commission to strongly discourage development in or conversion of wetlands. It opposes, consistent with its legal authority, any development or conversion that would result in a reduction of wetland acreage or wetland habitat values. To that end, the Commission opposes wetland development proposals unless, at a minimum, Project mitigation assures there will be 'no net loss' of either wetland habitat values or acreage. The Commission strongly prefers mitigation which would achieve expansion of wetland acreage and enhancement of wetland habitat values" (CFGF 2005).
- a) The Wetlands Resources policy provides a framework for maintaining wetland resources and establishes mitigation guidance. CDFW encourages avoidance of wetland resources as a primary mitigation measure and discourages the development or type conversion of wetlands to uplands. CDFW encourages activities that would avoid the reduction of wetland acreage, function, or habitat values. Once avoidance and minimization measures have been exhausted, a Project must include mitigation measures to assure a "no net loss" of either wetland habitat values, or acreage, for unavoidable impacts to wetland resources. Conversions include, but are not limited to, conversion to subsurface drains, placement of fill or building of structures within the wetland, and channelization or removal of materials from the streambed. All wetlands and watercourses, whether ephemeral, intermittent, or perennial, should be retained and provided with substantial setbacks, which preserve the riparian and aquatic values and functions for the benefit to on-site and off-site wildlife populations. CDFW recommends mitigation measures to compensate for unavoidable impacts be included in an environmental document and

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these measures should compensate for the loss of function and value.

- b) The Fish and Game Commission's [Water policy](#) guides CDFW on the quantity and quality of the waters of this State that should be apportioned and maintained respectively so as to produce and sustain maximum numbers of fish and wildlife; to provide maximum protection and enhancement of fish and wildlife and their habitat; encourage and support programs to maintain or restore a high quality of the waters of this State; prevent the degradation thereof caused by pollution and contamination; and, endeavor to keep as much water as possible open and accessible to the public for the use and enjoyment of fish and wildlife (CFGF 1994). CDFW recommends avoidance of water practices and structures that use excessive amounts of water, and minimization of impacts that negatively affect water quality, to the extent feasible (Fish & G. Code, § 5650).
- 5) Data. CEQA requires that information developed in environmental impact reports be incorporated into a database which may be used to make subsequent or supplemental environmental determinations [Pub. Resources Code, § 21003, subd. (e)]. Accordingly, please report any special status species and natural communities detected by completing and submitting [CNDDDB Field Survey Forms](#) (CDFW 2020e). The City should ensure data collected at a Project-level has been properly submitted, with all data fields applicable filled out. The data entry should also list pending development as a threat and then update this occurrence after impacts have occurred.
- 6) Biological Direct, Indirect, and Cumulative Impacts. CDFW recommends providing a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts. The DEIR should address the following:
- a) A discussion regarding Project-related indirect impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands [e.g., preserve lands associated with a Natural Community Conservation Plan (NCCP, Fish & G. Code, § 2800 et. seq.)]. Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated in the DEIR;
 - b) A discussion of both the short-term and long-term effects to species population distribution and concentration and alterations of the ecosystem supporting the species impacted [CEQA Guidelines, § 15126.2(a)];
 - c) A discussion of potential adverse impacts from lighting, noise, temporary and permanent human activity, and exotic species, and identification of any mitigation measures;
 - d) A discussion on Project-related changes on drainage patterns; the volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and, post-Project fate of runoff from the Project sites. The discussion should also address the potential water extraction activities and the potential resulting impacts on the habitat (if any) supported by the groundwater. Mitigation measures proposed to alleviate such Project impacts should be included;

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- e) An analysis of impacts from proposed changes to land use designations and zoning, and existing land use designation and zoning located nearby or adjacent to natural areas that may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the DEIR; and,
 - f) A cumulative effects analysis, as described under CEQA Guidelines section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant and wildlife species, habitat, and vegetation communities. If the City determines that the Project would not have a cumulative impact, the environmental document should indicate why the cumulative impact is not significant. The City's conclusion should be supported by facts and analyses [CEQA Guidelines, § 15130(a)(2)].
- 7) Project Description and Alternatives. To enable CDFW to adequately review and comment on the proposed Project from the standpoint of the protection of plants, fish, and wildlife, we recommend the following information be included in the DEIR:
- a) A complete discussion of the purpose and need for, and description of, the proposed Project;
 - b) CEQA Guidelines section 15126.6(a) states that an environmental document shall describe a reasonable range of potentially feasible alternatives to the Project, or to the location of the Project, which would feasibly attain most of the basic objectives of the Project but would avoid or substantially lessen any of the significant effects of the Project. CEQA Guidelines section 15126.6(f)(2) states if the Lead Agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion and should include reasons in the environmental document; and,
 - c) A range of feasible alternatives to Project component location and design features to avoid or otherwise minimize direct and indirect impacts to sensitive biological resources and wildlife movement areas. CDFW recommends the City consider configuring Project construction and activities, as well as the development footprint, in such a way as to fully avoid impacts to sensitive and special status plants and wildlife species, habitat, and sensitive vegetation communities. CDFW also recommends the City consider establishing appropriate setbacks from sensitive and special status biological resources. Setbacks should not be impacted by ground disturbance or hydrological changes for the duration of the Project and from any future development. As a general rule, CDFW recommends reducing or clustering the development footprint to retain unobstructed spaces for vegetation and wildlife and provide connections for wildlife between properties and minimize obstacles to open space.
- Project alternatives should be thoroughly evaluated, even if an alternative would impede, to some degree, the attainment of the Project objectives or would be more costly (CEQA Guidelines, § 15126.6).
- d) Where the Project may impact aquatic and riparian resources, CDFW recommends the City consider alternatives that would fully avoid impacts to such resources. CDFW also recommends alternatives that would allow not impede, alter, or otherwise modify existing

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surface flow; watercourse and meander; and water-dependent ecosystems and vegetation communities. Project-related designs should consider elevated crossings to avoid channelizing or narrowing of streams. Any modifications to a river, creek, or stream may cause or magnify upstream bank erosion, channel incision, and drop in water level and cause the stream to alter its course of flow.

- 8) CESA. CDFW considers adverse impacts to a species protected by CESA to be significant without mitigation under CEQA. As to CESA, take of any endangered, threatened, candidate species, or CESA-listed plant species that results from the Project is prohibited, except as authorized by state law (Fish & G. Code §§ 2080, 2085; Cal. Code Regs., tit. 14, §786.9). Consequently, if the Project or any Project-related activity during the life of the Project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, CDFW recommends that the Project proponent seek appropriate take authorization under CESA prior to implementing the Project. Appropriate authorization from CDFW may include an Incidental Take Permit (ITP) or a consistency determination in certain circumstances, among other options [Fish & Game Code, §§ 2080.1, 2081, subds. (b) and (c)]. Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that CDFW issue a separate CEQA document for the issuance of an ITP unless the Project CEQA document addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP.
- 9) Translocation/Salvage of Plants and Animal Species. Translocation and transplantation is the process of moving an individual from a project site and permanently moving it to a new location. CDFW generally does not support the use of, translocation or transplantation as the primary mitigation strategy for unavoidable impacts to rare, threatened, or endangered plant or animal species. Studies have shown that these efforts are experimental and the outcome unreliable. CDFW has found that permanent preservation and management of habitat capable of supporting these species is often a more effective long-term strategy for conserving sensitive plants and animals and their habitats.
- 10) Compensatory Mitigation. An environmental document should include mitigation measures for adverse Project related direct or indirect impacts to sensitive plants, animals, and habitats. Mitigation measures should emphasize avoidance and reduction of Project-related impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed. Areas proposed as mitigation lands should be protected in perpetuity with a conservation easement, financial assurance and dedicated to a qualified entity for long-term management and monitoring. Under Government Code, section 65967, the Lead Agency must exercise due diligence in reviewing the qualifications of a governmental entity, special district, or nonprofit organization to effectively manage and steward land, water, or natural resources on mitigation lands it approves.
- 11) Long-term Management of Mitigation Lands. For proposed preservation and/or restoration,

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an environmental document should include measures to protect the targeted habitat values from direct and indirect negative impacts in perpetuity. The objective should be to offset the Project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include (but are not limited to) restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, and increased human intrusion. An appropriate non-wasting endowment should be set aside to provide for long-term management of mitigation lands.

Conclusion

We appreciate the opportunity to comment on the NOP for the Updates to the Cornfield Arroyo Seco Specific Plan to assist the City of Los Angeles in identifying and mitigating Project impacts on biological resources. If you have any questions or comments regarding this letter, please contact Felicia Silva, Environmental Scientist, at Felicia.Silva@wildlife.ca.gov.

Sincerely,

DocuSigned by:

Erinn Wilson-Olgin

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Environmental Program Manager I
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Clare Kelley
City of Los Angeles
April 27, 2021
Page 14 of 14

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Clare Kelley <clare.kelley@lacity.org>

CDFW comments on Cornfield Arroyo Seco Specific Plan NOP

2 messages

Silva, Felicia@Wildlife <Felicia.Silva@wildlife.ca.gov>

Tue, Apr 27, 2021 at 12:18 PM

To: "Clare.Kelley@lacity.org" <Clare.Kelley@lacity.org>

Cc: "Tang, Victoria@Wildlife" <Victoria.Tang@wildlife.ca.gov>, "Wilson-Olgin, Erinn@Wildlife" <Erinn.Wilson-Olgin@wildlife.ca.gov>, "Valand, Andrew@Wildlife" <Andrew.Valand@wildlife.ca.gov>, "Kwan-Davis, Ruby@Wildlife" <Ruby.Kwan-Davis@wildlife.ca.gov>, "Rieman, Frederic@Wildlife" <Frederic.Rieman@wildlife.ca.gov>, "state.clearinghouse@opr.ca.gov" <state.clearinghouse@opr.ca.gov>, "Howell, Susan@Wildlife" <Susan.Howell@wildlife.ca.gov>

Good afternoon Ms. Kelley,

Please see the attached letter regarding CDFW's comments on the Notice of Preparation for the Draft Environmental Impact Report for the Updates to the Cornfield Arroyo Seco Specific Plan for the City of Los Angeles. If you have any questions or concerns relating to this letter, please feel free to contact CDFW at your convenience. Thank you for the opportunity to comment and have a good day.

Regards,

Felicia Silva

Environmental Scientist | California Department of Fish and Wildlife

South Coast | Region 5 | Habitat Conservation Planning Program

4665 Lampson Ave, Suite C | Los Alamitos, CA 90720

Temporary office number (562) 292-8105 | Felicia.Silva@wildlife.ca.gov**CDFW comments on Cornfield Arroyo Seco NOP.pdf**

811K

Clare Kelley <clare.kelley@lacity.org>

Tue, Apr 27, 2021 at 12:42 PM

To: Felicia.Silva@wildlife.ca.gov

Cc: "Tang, Victoria@Wildlife" <Victoria.Tang@wildlife.ca.gov>, "Wilson-Olgin, Erinn@Wildlife" <Erinn.Wilson-Olgin@wildlife.ca.gov>, "Valand, Andrew@Wildlife" <Andrew.Valand@wildlife.ca.gov>, "Kwan-Davis, Ruby@Wildlife" <Ruby.Kwan-Davis@wildlife.ca.gov>, "Rieman, Frederic@Wildlife" <Frederic.Rieman@wildlife.ca.gov>, "state.clearinghouse@opr.ca.gov" <state.clearinghouse@opr.ca.gov>, "Howell, Susan@Wildlife" <Susan.Howell@wildlife.ca.gov>, Michael Sin <michael.sin@lacity.org>, Valerie Watson <valerie.watson@lacity.org>

Good afternoon,

Thank you for your email. We are in receipt of your comments on the Notice of Preparation (NOP) of the Draft EIR for the CASP Update.

Regards,

[Quoted text hidden]

--



Clare Kelley

She, Her, Hers

City Planner

Los Angeles City Planning

200 N. Spring St., Room 667

Los Angeles, CA 90012

Planning4LA.org

T: (213) 978-1207



DATE: 05/07/2021

TO: Los Angeles Department of City Planning
200 N. Spring Street, Room 667 Los Angeles, CA 90012

ATTN: Clare Kelley City Planner, CASP Update PM clare.kelley@lacity.org 213-978-1207

CC: Michael Sin City Plnr.Assoc. michael.sin@lacity.org 213-978-1345
Valerie Watson Snr City Planner valerie.watson@lacity.org
CD1 Snr Plan.Dir., Gerald Gubatan gerald.gubatan@lacity.org
Lincoln Heights Neigh.Cncl Richard Larsen PLU Comte
RWLarsen.LAPA@gmail.com
Historic-Cultural North NC Lau Mai Wah VP-NC mxl056@gmail.com
Valerie Hanley

FROM: Dr. Tom Williams, 323-528-9682 ctwilliams2012@yahoo.com
LA-32 NC Director, President Citizens Coalition for A Safe Community

SUBJECT: Cornfield Arroyo Seco Specific Plan Update
EIR Scoping Meeting CPC-2021-2642-SP; ENV-2021-2643-EIR

RE: Notice of Preparation (NOP) & Scoping Review Public Comments

After review of the many pages, I find the NOP and “initial studies” to be incomplete and inadequate for scoping of the proposed “update” of the Cornfields Arroyo Seco Specific Plan (CASP). I have prepared more than 400 CEQA/EIR+ and NEPA/EIS+ worldwide and in the US, since I prepared my first EIR in 1972 for the City of San Jose. I am experienced in preparation and review of CEQA/NEPA documents and their contents. I and a few others contributed to the initial 2010 CASP development and commented on such.

As a Specific Plan, the process is different from that of a General/Community Plan update and must achieve greater clarity, quantification, and informative content for public/community participation, review, and comments. I recommend that the LACity Dept.City Planning withdraw current documents, revise and supplement based on the attached comments and recommendations, and recirculate for post-Covid review and comment by stakeholder and the Public. DCP must also involve Dept.Publ.Wrks.-Bur.of Engineering because of the many infrastructure facilities involved in such a major transformation from industrial/public related facilities and systems to residential and commercial land uses.

The CASP was adopted in 2013 but the problems were known and arose immediately:

- Large parcel sizes and corporate ownerships without resources to profit from housing conversions;
- Prop-13 ownerships (LLP/LLCs) of parcels and need for owners to participate in partnerships;
- Century of industrial direct and groundwater expanded contamination and potential costs of remediation;
- Historic housing protections and considerations; and
- Lack of and expense for housing infrastructure – drains, sewers, cabling/transformers.

SEE attached also/below

COMMENTS:

Update to the CASP will also include:

- Explore ways to encourage affordable and mixed-income housing production in the Plan Area, such as:
- Expanding the Urban Village zoning designation to more parcels;
- Allowing 100% affordable housing developments in Urban Innovation and Urban Center zones, where they are not currently permitted;
- Eliminating the existing 10% non-residential use requirement in the Urban Village zone; and/or
- Recalibrating affordable housing incentives.

The primary objectives

- Increase the production of affordable and mixed-income housing within the Project Area;
- Prevent displacement and promote housing stability;
- Design and regulate housing to promote health and well-being, increased access to amenities such as parks and public transit, and sustainability;
- Promote welcoming and accessible housing for Angelenos with unique needs;
- Refine Plan standards, processes, and procedures to be more intuitive and transparent; and
- Preserve existing employment areas that show a concentration of jobs, while supporting small and/or legacy businesses, local employment, new productive uses, and employment spaces

SCAG 2020-45 Projections of population, households (dwelling units required) and jobs and employees commutes

Discretionary City Approvals –
Amendment of the CASP

- Certification of an EIR
- Adoption of necessary revisions and any other amendments necessary to implement this update, such as amendments to
General Plan elements (such as the Framework Element),
Community Plans,
the LAMC,
specific plans, and
other ordinances to implement those updates

Cornfield Arroyo Seco Specific Plan (CASP) Update | Los Angeles City Planning (lacity.org)

Key Provisions

A key feature of the CASP is its groundbreaking value capture incentive zoning system,...additional floor area rights in exchange for setting aside affordable units for low-income households. to make targeted revisions to the CASP, including its incentive zoning system...further strengthen the original vision and intent of the Specific Plan.

Update Components:

- Recalibrating zoning regulations and incentives to incentivize affordable housing development more strongly;
- Identifying additional opportunity areas that could allow for affordable and mixed-income housing development;
- Updating the Specific Plan to reflect current and future demographic, regulatory, environmental, and economic conditions; and
- Updating the Specific Plan's standards, processes, and procedures to be more intuitive and transparent.

The NOP uses the “standard” alphabetic content list for environmental sectors which leads to an arbitrary unconnected description and assessment of environmental sectors without ecosystem/environmental associations and relationships between the sectors and the project’s environment, qualities, and impacts. I recommend the NOP/Initial Studies be reorganized as follows:

- Aesthetics - Provide viewsheds, conflicting images, and River views/use
- Noise (Tunnels, UP/ATSFRR, freeways, warehouse/reflectance and hills) - Provide traffic noise assessment with model, including RR uses
- Air Quality - Greenhouse Gas Emissions - Energy
Provide SR-110 tunnel emissions and modeling of cold NOX
Delineate TOCs for the CASP area and within 1000ft of boundary
- Biological Resources - Provide river flyways, closest wildfire risk area (ZIMAS), and vegetated hills
- Cultural Resources - Tribal Cultural Resources
Provide thorough, complete review for endemic peoples – especially for the river confluence and summer water sources for villages
Review of historic documents, ground and aerial photos, and assess potential for subsurface remains as found in Union Station during Red Line construction
- Geology and Soils - Mineral Resources
Provide Fault zones maps of entire CASP and within 1000ft of boundary (ZIMAS)
Provide the historic seismicity (>0.1 RM) North Spring and Avenue 18 north edge of fault zone
Confirm/Provide current LA Oil Field and related wells and EDR Aerial Photos
- Hazards and Hazardous Materials
Provide historic hazardous materials from industries with storage tanks and from LA Oil Field for fueling engines and tankers in Cornfields Yard
Provide review of historic hazardous materials from railroad/trains liquids and dumping contamination including hydraulic fluids with dioxane
Provide HazWaste inventory based on historic photography and accounts. Locate and prioritize contamination related to residential land use development and guidelines
Provide for program and zoning requirements for borings, exhaust stacks, and vapor recovery/extraction for all residential structures and zoning areas. Zero (0.00000 ppm) tolerance for all VOCs and all H2S in soil vadose zones.

- Hydrology and Water Quality
Provide current and planned Storm Water runoff projections and infiltration/recharge for Low Impact Development compliance.
Provide groundwater surveys and modeling for contamination by LA Oil Field, leakage along fault zones, industrial/railroad use/spillage into alluvium, and human wastes/septage and anaerobic decomposition with H2S formation in contaminated groundwater.
Provide geologic borings for at least three E-W geological cross-section from the bottom of the alluvial groundwater to its upper limits and the vadose zones above.
Provide inventory of ground gaseous emissions confined by extensive asphaltting/paving of surface with sand bed storage/conveyance.
Provide CASP wide groundwater probe-boring and liquid/gases levels monitoring and flow modeling from 2022 to completion of development.
Provide CASP wide boring, sampling, testing, source locating, and remediation of vadose and saturated soil/geologic zones.

- Land Use / Planning
Provide transition zones (150ft zones) between public facilities, commercial, industrial, and residential uses/zonings.
Provide a planning development model for parcellation of current plots of >220,000 sqft.

- Population / Housing (and Economics)
Provide SCAG projections through 2045 for all TAZs in CASP and within 30min (5-miles) commutes/bus trips during AM/PM commutes.
Provide current home ownership, home rentals, and R2-R5 rental levels and costs for 2010-2020 and 2020-current.

Provide economic and household financial summaries for CASP and included TAZs Incomes affordable housing.

Provide definitions/enumerations for economic status and affordability (quarterly levels – Median/50%ile 25%ile 75%ile 90%ile) and estimated % of Income for rental rates by status-group, of all included TAZs (SCAG) in and within 5280ft of the CASP boundaries.

- Public Services - Recreation - Transportation - Utilities / Service Systems

Provide a program and schedule for major services and support improvements/upgrades required for changes from industrial land uses to housing/residential services.

Provide services availabilities for R3-R5 averaged for the city, then apply same service levels to all TAZs in Specific Plan and those immediately adjacent to the CASP and provide for differentials during the CASP upgrade implementation period.

- Mandatory Findings of Significance

Provide numerical/quantified level of findings and of significance and their statutory sources.

- Cumulative impacts consists of **impacts** that are created by a combination of the project evaluated in the environmental **impact** report (**EIR**) together with other projects causing related **impacts**.

Provide transportation, sewage, and power/water improvements leading to and supporting/inducing land use upgrades requiring/inducing increased social/medical services.

Provide an air quality modeling (for, NOX, PM1, and CO) for current conditions and those projected for 2045 and any exceedances of current or assumed future air quality parameters.

- EIR requires an analysis of a “**reasonable** range” of **feasible** alternatives

Provide definitions and specific examples for reasonable and feasible alternatives.

Provide an economic review and models for projected zoning/land use changes, since feasible usually includes economic considerations.

- Project alternatives to be determined based on Draft EIR analysis, and include the required “No Project” alternative

Provide alternative including only 66% and 33% of current non-residential properties developed for R3-5 residential uses.

Provide alternative with 100% Mixed C+R uses for all parcels other than for recreational uses and public facilities..

THEN ALSO

Provide Draft Mitigation Monitoring and REPORTING Plan in the DEIR.

Provide account for gentrification pressure that current residents and small businesses.

Provide strategies to retain and support small community-serving businesses.

Provide preservation of industrial land remain a goal of the CASP.

Provide demand for industrial land use

Provide areas targeting to mixed use

target current pollution issues - SR-110 Tunnel Exhausts, RR exhausts Tier 4

Provide SCAG 2045 projections for Population, Households, and Jobs within CASP Transportation Analysis Zones (TAZ).

Provide estimates of AM/PM commutes to/from area based on populations, households, expected employed, and jobs within CASP and with 30min commute/bus trips.

Provide EIR Alternatives - doubling of William Mead Homes (as done in the Rose Hill Courts project underway).

Provide any new or updated incentives result in deeply affordable units that serve current residents, and include community benefits such as parks and community spaces.
Provide CASP limits Floor Area Ratio (FAR) of housing.
Provide the existing Option A and Option B bonus structure
Provide allow additional incentives to create more affordable and mixed-income units via FAR and Height
Provide additional housing be attainment paths

Provide the questions asked in this Q&A on your web page
Provide update accommodate people of all income levels \$25-75K, \$75-\$125K, \$125 and above
Provide the City CASP market study.
Provide updated CASP for TOC and/or state density bonus options and those incentives in the CASP, thus allowing additional housing

Provide inventory of current, permitted/zoned, and projected housing in the plan area and within 30 min commute.

Provide historic inventory of all structures built in part or wholly pre-1930.
Provide review/analyses of all historic aerial and surface photos of structures within the CASP.
Provide archaeological review of the area for potential endemic, Spanish, and Mexican buried/subsurface cultural remains (e.g., 1000ft of the confluence of the Arroyo Seco and LA River).

Provide planning and permit fees in the CASP to help offset the current high development and remediation costs.

Provide CASP area-wide hazardous material/wastes/contamination review/study/inventory for the area due to historic railroad and industrial development and the Los Angeles oil fields.

Provide information about the height restrictions for each building.

Specific NOP Comments - No pagination makes references difficult for public.

ALTERNATIVES

1/2 The City is requesting identification of environmental issues, environmental impacts, and information that you or your organization believes needs to be considered and analyzed in the EIR, including environmental impacts, mitigation measures, and **alternatives**.

2/3 RESPONSIBLE AND TRUSTEE AGENCIES The City requests your agency's views on the scope and content of the environmental information relevant to your agency's statutory responsibilities in connection with the project, in accordance with the CEQA Guidelines, Section 15082(b)....

(1) The significant environmental issues and **reasonable alternatives** and mitigation measures that your agency will need to have explored in the EIR; and

NOP 2/5 **Alternatives** to be analyzed in the EIR are to be defined and analyzed consistent with the requirements of CEQA Guidelines, Section 15126.6. The **specific alternatives** to be evaluated will include a "No Project" alternative, as required by CEQA, and may include alternative land use configurations.

In order to propose alternatives, the NOP/Scoping Docs must provide clear and numerical "Goals" and "Objectives" for the CASP Update and how applied to alternatives.

In order to present "reasonable alternatives" and "specific alternatives", parameters and definitions must be provided but have not been, thereby restricting the public from proposing such alternatives. Provide definitions and differentiations and general examples for public consideration and submissions for alternatives, reasonable alternatives, and specific alternatives for the CASP

NOP 3/2 The intent of the adopted CASP is to guide the transition of an underserved, vehicular-oriented industrial and public facility area into a cluster of mixed-use, pedestrian-oriented neighborhoods. **Policies**

in the CASP support a range of housing options, new public spaces, opportunities for walking and bicycling, and the retention of land for existing industrial businesses and the clean technology businesses of the future. Among **its numerous goals**, a key priority of the CASP is to facilitate the production and continued provision of affordable housing for Extremely Low Income and Very Low Income households.

No basis is provided for alternatives to be provided compared to “Do-Nothing”.

Provide appropriate reasonable, specific, numerous, and feasible Goals, Objectives, Policies for which the public can provide appropriate alternatives.

Provide definitions, differences, and examples of policies and goals as referenced herein.

Provide definition and numbers for affordability, median/averaged/separated household incomes for the CASP areas.

NOP 4/2 The Proposed Project would also update the **building form, urban design, open space, parking, conservation, performance, and sign standards** of the CASP as necessary to support housing production, and amend the CASP text with technical revisions that ensure consistency, clarity, and **ease of implementation** and

reflect current and future demographic, regulatory, environmental, and economic conditions.

The Project would retain the **existing ministerial review process for subsequent development projects**.

Provide specific tables indicating the parcel(s) new (2021) zoning designations and specific numerical definitions for building form, urban design, open space, parking, conservation, performance, and sign standards.

Provide specific existing 2013, current 2021, and any post-2021 review processes for implementation of the updated Specific Plan ministerial and discretionary processes.

Upgrade does not provide for/include public utilities, services, and facilities nor roads and parkways. Provide projected populations, households, jobs, required dwelling units, and all appropriate facilities, services, and utilities commensurate with the community.

4/3 **Project Objectives** The **primary objectives** of the Project will be to:

- Increase the production of affordable and mixed-income housing within the Project Area,
- Protect residents, especially low-income households, from indirect and direct displacement, and ensure stability of existing vulnerable communities,
- Design and regulate housing to promote health and well-being, increase access to **amenities such as parks and public transit**, contribute to a sense of place, foster community and belonging, and plan for a sustainable future,
- Build, operate, and maintain welcoming and accessible housing for Angelenos with unique needs, including those with disabilities, large families, older adults, and other people facing housing barriers and food insecurity,
- Refine Plan standards, processes, and procedures to be more intuitive and transparent, with the goal of enhancing development certainty for both market-rate and affordable developers, and
- Preserve **employment areas** that show a **concentration of jobs**, while supporting small and/or **legacy** businesses, local employment, new productive uses, and employment spaces, such as light industrial and general commercial uses.

Provide all, primary and secondary objectives. Provide enumeration/quantification, and numerical parameters for such and the methods by which they will fulfil the Goals of the CASP.

Provide clear, direct, and enumerated relationships (“model”) between Goals, Policies, and objectives, which has not been included in available document.

Provide actual/projected population, households, and jobs for all SCAG-TAZ in CASP for 2010 to 2025.

Provide definition of concentration, employment/jobs, and definitions of small, medium, and large businesses.

Provide listing of any “legacy businesses” other than railroads.

Provide existing City examples of standards, processes, and procedures which are sufficiently intuitive/transparent and enhance development certainty for both market-rate and affordable housing and proponents.

More Coming 050821



Michael Sin <michael.sin@lacity.org>

CASP Scoping Notice of Preparation (NOP) & Scoping Review Public Comments for Groundwater and Hazardous Contaminations

1 message

Tom Williams <ctwilliams2012@yahoo.com> Sat, May 8, 2021 at 12:49 PM
To: "clare.kelley@lacity.org" <clare.kelley@lacity.org>, "michael.sin@lacity.org" <michael.sin@lacity.org>, "valerie.watson@lacity.org" <valerie.watson@lacity.org>
Cc: "gerald.gubatan@lacity.org" <gerald.gubatan@lacity.org>, Richard Larsen <rwlarsen.lhnc@gmail.com>, "mxl056@gmail.com" <mxl056@gmail.com>, "vhanley.hcnnc@gmail.com" <vhanley.hcnnc@gmail.com>

DATE: 05/08/2021
TO: Los Angeles Department of City Planning
200 N. Spring Street, Room 667 Los Angeles, CA 90012

ATTN: Clare Kelley City Planner, CASP Update PM clare.kelley@lacity.org 213-978-1207

CC: Michael Sin City Plnr.Assoc. michael.sin@lacity.org 213-978-1345
Valerie Watson Snr City Planner valerie.watson@lacity.org
CD1 Snr Plan.Dir., Gerald Gubatan gerald.gubatan@lacity.org
Lincoln Heights Neigh.Cncl Richard Larsen PLU Comte
RWLarsen.LAPA@gmail.com
Historic-Cultural North NC Lau Mai Wah VP-NC mxl056@gmail.com
Valerie Hanley vhanley.hcnnc@gmail.com

FROM: Dr. Tom Williams, 323-528-9682 ctwilliams2012@yahoo.com LA-32 NC
Director, President Citizens Coalition for A Safe Community

SUBJECT: Cornfield Arroyo Seco Specific Plan Update EIR Scoping Meeting CPC-2021-2642-SP; ENV-2021-2643-EIR

RE: Notice of Preparation (NOP) & Scoping Review Public Comments for Groundwater and Hazardous Contaminations

After review of the many pages, I find the NOP and "initial studies" to be incomplete and inadequate for scoping of the proposed "update" of the Cornfields Arroyo Seco Specific Plan (CASP).

The CASP was adopted in 2013 but the problems were known and arose immediately:
Century-plus of industrial direct and groundwater expanded contamination;
Large parcel sizes and corporate ownerships without resources to profit from housing conversions;
Prop-13 ownerships (LLP/LLCs) of parcels and need for owners to participate in partnerships;
Historic housing protections and considerations; and
Lack of and expense for housing infrastructure – drains, sewers, cabling/transformers.

Following review of scoping documents and other materials, the DEIR must include a CASP Groundwater Model for entire Specific Plan area to locate and provide plan-wide groundwater flows, depths, and thicknesses. Such environmental description must be provided to assess environmental impacts of such upon existing and future impacts subjecting land uses and residents to upward spreading contamination and degassing from oil rich geology and historic/current industrial contamination west of Avenue 18/Daly (I-5).

Based on the description and assessment of contaminations, impacts can be mitigated and compensated for by the City and major developments.

Proposed structural development over the contaminated soils/alluvium may contain the contamination and promoting downstream movement of contaminated liquids and gases.

Mitigation/compensation by the City should include borings and well fields along Main, Spring, and Bolera and any public facilities along the CASP southerly boundaries. Some evidence of contamination was encountered during construction of Red Line Phase 1 south of Chavez Av.

Historic aerial photos of 1923, -27, -28, -31, and -38 may provide evidence of historic contamination by RR and tankage and focus additional borings and investigations to locate and evaluate levels of industrial and railroad contaminations. Such information must become the basis for describing contamination, evaluations of such, and mitigation measures for decontamination and exposures of residents to toxic gases out gassing into overlying new land uses.

Assessments and mitigation of significant toxic gases/liquids must include any increase in downward recharging of storm waters and leaching of contaminations through 20ft of soil/alluvium/vadose into the underlying groundwater and then compressing of the vadose zone and entrapped toxic gases above a rising groundwater table, augmented by increased stormwater recharge.

Eastside of river and I-5, the CASP has thinner alluvium/soils and thereby contamination maybe more local and static with thinner alluvium with easier/cheaper studies to find and remove.

Mitigation measures for west of I-5 must be far larger and expensive than those east of I-5. Any mitigation studies and measures must reflect initial geological/soil studies.

The EIR must describe and assess the effects of the LA Oil Field, including a Methane Zone related to the field. EIR must include a CalGEM map of the underground oil field and all leases include therein. This must be further directly related to the oil/gas producing zones and the geological structure of the Upper Elysian Park Fault across the easterly end of the oil field. Soil/alluvial borings and gas sampling must be included as methane/sulphide/toxic gas mitigation to locate, remove, and treat for methane and other gases. Such mitigation must be incorporated into parcel development regarding surface recharging/barriers and gas collection-treatment-release.

The EIR must include a complete groundwater setting and river along with surface recharge, passage southward of the Bolera Lane and westward extension of "Alhambra Ave." (=railroad). Overall application of Low Impact Development requirements must consider and mitigate any recharge reductions and/or increases across the entire CASP and releases.

The LA River lined channel was rendered generally impervious by concreting, but constructed channel designs incorporated in channel "weep-holes" (>15 from upstream concrete margin south to Chavez/US-101) which establishes a local base groundwater level of >20ft below the surface (west of Channel).



Michael Sin <michael.sin@lacity.org>

CASP Update ENV-2021-2643-EIR NOP Public Comments #1

1 message

Tom Williams <ctwilliams2012@yahoo.com>

Fri, May 7, 2021 at 4:50 PM

To: "clare.kelley@lacity.org" <clare.kelley@lacity.org>, "michael.sin@lacity.org" <michael.sin@lacity.org>, "valerie.watson@lacity.org" <valerie.watson@lacity.org>

Cc: "mxl056@gmail.com" <mxl056@gmail.com>, Richard Larsen <rwlarsen.lhnc@gmail.com>, Gerald Gubatan <gerald.gubatan@lacity.org>

DATE: 05/05/2021

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200 N. Spring Street, Room 667 Los Angeles, CA 90012

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CC: Michael Sin City Plnr.Assoc. michael.sin@lacity.org 213-978-1345

Valerie Watson Snr City Planner valerie.watson@lacity.org

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Lincoln Heights Neigh.Cncl Richard Larsen PLU Comte

RWLarsen.LAPA@gmail.com

Historic-Cultural North NC Lau Mai Wah VP-NC mxl056@gmail.com

Valerie Hanley

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LA-32 NC Director, President Citizens Coalition for A Safe Community

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Lack of and expense for housing infrastructure – drains, sewers, cabling/transformers.

SEE attached also/below. More to Come

 **CASP0508Cmts0507Sbmttd.docx**
29K



ENV-2021-2463-EIR fo single parcel on Ave. 18 or for update of Cornfields AND Scoping Comments

5 messages

Tom Williams <ctwilliams2012@yahoo.com>

Sun, Apr 11, 2021 at 2:29 PM

To: "Michael Sin" <micheal.sin@lacity.org>, "clare.kelley@lacity.org" <clare.kelley@lacity.org>

Cc: Richard Larsen <rlarsen.lhnc@gmail.com>, PlanCheckNCLA news and comments <plancheckncla@gmail.com>

Case Number: ENV-2021-2643-EIR

Case Filed On: 03/31/2021

Staff Assigned: MICHAEL SIN

EIR Notice of Prep. Start Date: EIR

Notice of Prep. End Date: Scoping

Meeting Date:

Draft EIR Notice of Completion

Date:

Draft EIR Circulation Start Date:

Draft EIR Circulation End Date:

Final EIR Distribution Date:

Termination Date:

End of Appeal Period:

Appealed: No

Case on Hold?: No

Primary Address

Address	CNC	CD
157 N AVENUE 18 90031	Lincoln Heights	1

OR

[2021-04-08 CASP Update NOP_signed.pdf](#) ...Clare Kelley, City Planner Case Numbers: CPC-2021-2642-SP; ENV-2021-2643-EIR [200 N. Spring Street, Room 667, Los Angeles, CA 90012](#) ...

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT AND NOTICE OF SCOPING MEETING FOR UPDATES TO THE CORNFIELD ARROYO SECO SPECIFIC PLAN (CASP) Apr. 22, 2021

[2021-04-08 CASP Update NOP_signed.pdf \(lacity.org\)](#)

Who is in charge and for what???

Why the parcel # if for Spec.Plan?

I did review of the original CASP, ask Claire B.

Due to confusion created by these please continue the Scoping Comments til 042921.

Dr. Tom Williams, 323-528-9682 ctwilliams2012@yahoo.com LA-32 NC Director

Tom Williams <ctwilliams2012@yahoo.com>

Sun, Apr 11, 2021 at 3:06 PM

To: "clare.kelley@lacity.org" <clare.kelley@lacity.org>, "claire.bowin@lacity.org" <claire.bowin@lacity.org>

Cc: Richard Larsen <rlarsen.lhnc@gmail.com>, PlanCheckNCLA news and comments <plancheckncla@gmail.com>

Claire:

CPC-2021-2642-SP - Who is the applicant?? Sin had a bounce back...= not in [lacity.org](#) = applicant WHO Is the applicant - LACity Planning?? For specific Plan update??

Who is in charge and for what???

Why the parcel # if for Spec.Plan?

I did review of the original CASP, ask Claire Bowin. I was also Env.Controls Supervisor for Constr.Mgmt./PDCD of MTA-Red Line Phase 1.

SCs: Scoping must provide a complete list of ALL Goals/Purposes and Objectives/Needs of the Project in order for reviewers to submit Alternatives and Mitigation.

p.3/2 Among its numerous GOALS, a key priority of the CASP is to facilitate the production and continued provision of affordable housing for Extremely Low Income and Very Low Income households.

Provide a listing of all goals objectives, purposes, and needs for project, especially related to methane gas, railroads and contaminations, and LARiver.

Provide Memorandum of Agreement as to Lead Agency as DWP, BoE, DCP, DOT, LAFD/RyLAN, LACo-DPW, LACo-FD/HazMat, MTA, Cal-GEM and other state, county, and city agencies are involved.

Provide a Mitigation, Monitoring, AND REPORTING PLAN in the DEIR.

SC: Due to confusion created by earlier and these comments, please continue the Scoping Comments til 050321.

Dr. Tom Williams, 323-528-9682 ctwilliams2012@yahoo.com LA-32 NC Director

Tom

=====

Certified Neighborhood Council -- Lincoln Heights

Application Date Case Number Address CD# Community Plan Area Project Description Request Type Applicant Contact

03/31/2021 CPC-2021-2642-SP 157 N AVENUE 18 90031 1 Northeast Los Angeles

PLEASE UPDATE THE PROJECT SHORT DESCRIPTION SP-SPECIFIC PLAN (INCLUDING AMENDMENTS)

Applicant: MICHAEL SIN (213) 978-1345

03/31/2021 **ENV-2021-2643-EIR** 157 N AVENUE 18 90031 1 Northeast Los Angeles

PLEASE UPDATE THE PROJECT SHORT DESCRIPTION EIR-ENVIRONMENTAL IMPACT REPORT

Applicant: MICHAEL SIN (213)978-1345

[Quoted text hidden]

Tom Williams <ctwilliams2012@yahoo.com>

Sun, Apr 11, 2021 at 11:09 PM

To: "clare.kelley@lacity.org" <clare.kelley@lacity.org>

Cc: Richard Larsen <rlarsen.lhnc@gmail.com>, PlanCheckNCLA news and comments <plancheckncla@gmail.com>

On Sunday, April 11, 2021, 03:06:35 PM PDT, Tom Williams <ctwilliams2012@yahoo.com> wrote:

Claire:

CPC-2021-2642-SP - Who is the applicant?? Sin had a bounce back...= not in lacity.org = applicant WHO Is the applicant - LACity Planning?? For specific Plan update??

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I did review of the original CASP, ask Claire Bowin. I was also Env.Controls Supervisor for Constr.Mgmt./PDCD of MTA-Red Line Phase 1.

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p.3/2 Among its numerous GOALS, a key priority of the CASP is to facilitate the production and continued provision of affordable housing for Extremely Low Income and Very Low Income households.

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Provide a Mitigation, Monitoring, AND REPORTING PLAN in the DEIR.

SC: Due to confusion created by earlier and these comments, please continue the Scoping Comments til changed to 051721.

[Quoted text hidden]

[Quoted text hidden]

[Quoted text hidden]

Tom Williams <ctwilliams2012@yahoo.com>

Sun, Apr 11, 2021 at 11:17 PM

To: "clare.kelley@lacity.org" <clare.kelley@lacity.org>, "michael.sin@lacity.org" <michael.sin@lacity.org>, "valerie.watson@lacity.org" <valerie.watson@lacity.org>

Cc: Richard Larsen <rlarsen.lhnc@gmail.com>

Valerie Watson
Senior City Planner, Section Head
valerie.watson@lacity.org

Clare Kelley
City Planner, CASP Update Project Manager
clare.kelley@lacity.org
(213) 978-1207

Michael Sin
City Planning Associate
michael.sin@lacity.org
(213) 978-1345

On Sunday, April 11, 2021, 11:09:24 PM PDT, Tom Williams <ctwilliams2012@yahoo.com> wrote:

Clare:

CPC-2021-2642-SP - Who is the applicant?? Sin had a bounce back...= not in lacity.org = applicant WHO Is the applicant - LACity Planning?? For specific Plan update??

Who is in charge and for what???

Why the parcel address # if for Spec.Plan?

I did review of the original CASP, ask Claire Bowin. I was also Env.Controls Supervisor for Constr.Mgmt./PDCD of MTA-Red Line Phase 1.

SCs: Scoping must provide a complete list of ALL Goals/Purposes and Objectives/Needs of the Project in order for reviewers to submit Alternatives and Mitigation.

p.3/2 Among its numerous GOALS, a key priority of the CASP is to facilitate the production and continued provision of affordable housing for Extremely Low Income and Very Low Income households.

Provide a listing of all goals objectives, purposes, and needs for project, especially related to methane gas, railroads and contaminations, and LARiver.

Provide Memorandum of Agreement as to Lead Agency as DWP, BoE, DCP, DOT, LAFD/RyLAN, LACo-DPW, LACo-FD/HazMat, MTA, Cal-GEM and other state, county, and city agencies are involved.

Provide a Mitigation, Monitoring, AND REPORTING PLAN in the DEIR.

SC: Due to confusion created by earlier and these comments, please continue the Scoping Comments til provisions have been made and changed to

052421.

[Quoted text hidden]

[Quoted text hidden]

[Quoted text hidden]

Clare Kelley <clare.kelley@lacity.org>

To: Tom Williams <ctwilliams2012@yahoo.com>

Wed, Apr 14, 2021 at 3:07 PM

Cc: "michael.sin@lacity.org" <michael.sin@lacity.org>, "valerie.watson@lacity.org" <valerie.watson@lacity.org>

Dr. Williams,

We are in receipt of your comments on the Notice of Preparation (NOP) of the Draft EIR for the CASP Update.

To clarify, the CASP Update will apply to the entire geographic area located within the boundaries of the Cornfield Arroyo Seco Specific Plan, which encompasses approximately 660 acres. We have worked with our systems division to remove reference to any specific parcels that were previously shown on the Planning Document Information System (PDIS) for that case number.

The City of Los Angeles has initiated the CASP Update (Council File No. 13-0078-S2), not a private entity, and the City is the lead agency for the Project. Detailed information on the Project, including project location, objectives, and contact information, can be found in [the NOP](#) released April 8, 2021. Please refer to Page 4 of the NOP for a list of all Project Objectives and Figures 1 and 2 showing the boundaries of the Project Area.

You can also learn more about the CASP Update, including the staff members involved in the Project, on our website: Planning4LA.org/casp-update.

Regards,

[Quoted text hidden]

--



Clare Kelley
She, Her, Hers
City Planner

Los Angeles City Planning

200 N. Spring St., Room 667
Los Angeles, CA 90012

Planning4LA.org

T: (213) 978-1207



May 7, 2021

213.617.4284 direct
jpugh@sheppardmullin.com

File Number: 0010-308326

VIA ELECTRONIC MAIL ONLY

Clare Kelley
City Planner
Los Angeles Department of City Planning
200 N. Spring Street, Room 667
Los Angeles, CA 90012
E-Mail: clare.kelley@lacity.org

Re: Notice of Preparation for the Cornfield Arroyo Seco Specific Plan ("CASP") Update
(Case Numbers: CPC-2021-2642-SP; ENV-2021-2643-EIR)

Dear Ms. Kelley:

On behalf of our client, Goodwill Industries of Southern California ("Goodwill"), we respectfully submit this comment letter on the City's proposed update to the Cornfield Arroyo Seco Specific Plan ("CASP Update"). Goodwill owns property at 342 N. San Fernando Road in the City of Los Angeles ("City"). The Goodwill property is located within the CASP area and the Northeast Los Angeles Community Plan. Goodwill considers its property an ideal location for redevelopment, which could deliver new affordable housing and other mixed-uses to the area. This type of redevelopment would also complement Goodwill's existing commercial operations. As you know, however, the CASP constrains the site and prevents Goodwill from developing affordable housing. Therefore, Goodwill requests that the City modify the zoning on the site during the CASP Update.

Goodwill's redevelopment intentions and the CASP Update appear aligned. The CASP Update has the primary goal of incentivizing the development of more affordable and mixed-income housing in the CASP area. Currently, only six dwelling units in the CASP would be reserved as affordable units for Extremely Low Income households pursuant to the CASP's affordable housing incentives. The majority of land in the CASP has been zoned to not allow predominantly residential development. A limited number of parcels, comprising 25 percent of land in the CASP, are zoned Urban Village which allows for residential projects. Furthermore, the CASP Update can encourage affordable and mixed-income housing production more broadly by easing development restrictions on new residential projects. Specifically, Goodwill requests that the City apply the Urban Village zoning designation to the Goodwill site and study it accordingly in the forthcoming Environmental Impact Report ("EIR") for the CASP Update.

I. CASP Existing Zoning

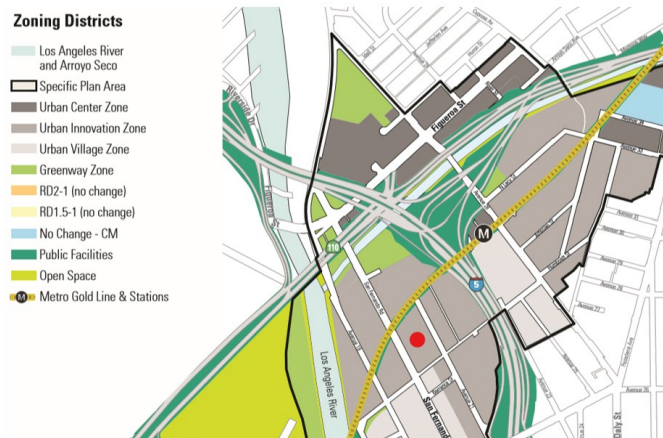
The CASP's existing zoning classification identifies the Goodwill site as Urban Innovation ("UI"). The Urban Innovation zoning designation includes as permitted uses, multi-family residential, public parking, corporate headquarters, commercial office, light manufacturing, and warehousing. The CASP also allows for certain permitted ancillary uses in the Urban Innovation zone. Permitted ancillary uses include restaurant, retail, entertainment and recreation facilities. Ancillary uses are limited to 10% of the Base Floor Area Ratio ("Base FAR") of the site.

Residential multi-family uses in the Urban Innovation zone are limited to a maximum of 15% of the applicable Floor Area Ratio ("FAR").¹ The Base FAR of the Goodwill site is 3:1. The 15% FAR cap required by the Urban Innovation zoning unreasonably hinders the ability to construct affordable and mixed-income developments. The CASP Update provides an opportunity to remedy this constraint.

II. CASP Update – Proposed Zoning

The CASP Update would accommodate additional housing in the CASP area by expanding the residential Urban Village ("UV") zoning to more parcels. Goodwill agrees that that UV zoning is more appropriate for the Goodwill site and would provide greater development potential for much needed affordable housing units. Parcels zoned as UV are located directly south and southwest of the site. Residential multi-family uses in the UV zone are only limited to a maximum of 90% of the applicable FAR. Figure 1 below indicates the areas that Goodwill is requesting be changed to UV zoning.

Figure 1 – Proposed CASP Zoning District Map



The UV zone, compared to the existing UI zone, would improve the possibility of developing affordable housing as a component of the redevelopment of the Goodwill site. Assuming a Base

¹ CASP Section 2.1 E.

FAR of 1.5:1, the Goodwill site (if zoned Urban Village) could produce approximately three times the residential square footage compared to the more limited Urban Innovation zone. Thus, Goodwill believes the City should change the zoning on the Goodwill site from UI to UV as part of the CASP Update.

In addition, Goodwill supports the CASP Update proposal to remove the existing 10% non-residential use requirement for projects in the UV zone. The removal of the 10% non-residential restriction will further incentivize the development of housing in the CASP. Also note, that Goodwill is currently analyzing other land use mechanisms (such as increasing base FAR, adjusting development regulations, and/or modifying land use designations) to facilitate robust redevelopment opportunities on the Goodwill site. Goodwill anticipates sharing these additional comments and suggestions with the City during the CASP Update process. As an example, the CASP Update proposes changes to various development standards including building form, urban design, open space, parking, conservation, performance, and sign standards to further support housing production. Goodwill looks forward to working with the City to craft development standards that facilitate streamlined development opportunities on the site to provide a mix of land uses and affordable housing units.

III. Conclusion

Thank you for the opportunity to comment on the Notice of Preparation for the CASP Update EIR. Goodwill plans to stay involved with the CASP Update process. Please consider the zone change request in this letter as the planning process proceeds.

Respectfully,



James E. Pugh
for SHEPPARD, MULLIN, RICHTER & HAMPTON LLP

SMRH:4816-0513-8920.3

cc: Valerie Watson, Senior Planner
Michael Sin, Planning Associate



Michael Sin <michael.sin@lacity.org>

FW: CASP Update Comment Letter

2 messages

Justin Mahramas <JMahramas@sheppardmullin.com>
To: "michael.sin@lacity.org" <michael.sin@lacity.org>
Cc: James Pugh <JPugh@sheppardmullin.com>

Fri, May 7, 2021 at 11:33 AM

Hi Michael,

I hope that you are doing well. I'm forward you this email as I know Clare is out of the office until Monday. Please let me know if you have any questions.

Best,

Justin

Justin Mahramas
SheppardMullin | Los Angeles
+1 213-617-4101 | ext. 14101

From: Justin Mahramas <JMahramas@sheppardmullin.com>
Sent: Friday, May 7, 2021 10:14 AM
To: clare.kelley@lacity.org
Cc: James Pugh <JPugh@sheppardmullin.com>
Subject: CASP Update Comment Letter

Good morning Clare,

On behalf of our client Goodwill Industries of Southern California, please find attached a comment letter to the NOP for the proposed CASP Update. Please do not hesitate to reach out should you have any questions.

Best,

Justin

Justin J. Mahramas
+1 213-617-4101 | direct
JMahramas@sheppardmullin.com | Bio

SheppardMullin
333 South Hope Street, 43rd Floor
Los Angeles, CA 90071-1422
+1 213-620-1780 | main

www.sheppardmullin.com | [LinkedIn](#) | [Twitter](#)

Attention: This message is sent by a law firm and may contain information that is privileged or confidential. If you received this transmission in error, please notify the sender by reply e-mail and delete the message and any attachments.

 **CASP Update Comment Letter.pdf**
275K

Michael Sin <michael.sin@lacity.org>
To: Justin Mahramas <JMahramas@sheppardmullin.com>
Cc: James Pugh <JPugh@sheppardmullin.com>

Fri, May 7, 2021 at 1:19 PM

Received, thank you.

[Quoted text hidden]

--



Michael Sin (he/him)
City Planning Associate
Los Angeles City Planning
200 N. Spring St., Room 621
Los Angeles, CA 90012
T: (213) 978-1345 | Planning4LA.org





May 7, 2021

Via Email (clare.kelley@lacity.org)

City of Los Angeles, Department of City Planning
ATTN: Clare Kelley, City Planner
N. Spring Street, Room 667
Los Angeles, CA 90012

Re: Southeast Asian Community Alliance Scoping Comments on the Cornfield Arroyo Seco Specific Plan Update (CPC-2021-2642-SP; ENV-2021-2643-EIR 200)

Dear Ms. Kelley,

On behalf of the Southeast Asian Community Alliance (SEACA), I respectfully submit comments on the Notice of Preparation (NOP) of the Environmental Impact Report (EIR) for the update of the Cornfield Arroyo Seco Specific Plan (CASP). These comments are also endorsed by Public Counsel, and Natural Resources Defense Council.

SEACA is a community organization representing low-income refugee and immigrant youth and families in Chinatown, and the surrounding areas. Historically, we were a key community stakeholder that helped shape the CASP and ensure that affordable housing incentives are built into the current zoning provisions. We look forward to working with the City to ensure that the CASP update results in solutions to the affordable housing shortage that prioritize the needs of the existing low-income refugee and immigrant community, prevent the displacement of long-term residents and businesses, and results in positive racial equity and health equity outcomes for our community.

Target Community Engagement

The CASP area (Project Area) encompasses a multilingual and diverse community. In addition, the community includes many low-income seniors and adults who have limited access and proficiency with technology. Despite the limitations to in-person interaction placed on us by the coronavirus pandemic, the plan update process must be an inclusive process that specifically reaches low-income community members and those that face language and technology barriers. We appreciate the City Planning Department's (CDP) willingness to be creative and inclusive, and look forward to supporting the process and finding ways to meaningfully engage our community in the

CASP update and specifically reach residents who face language, technology, and other barriers to participation.

Ensure Deep Affordability and Community Benefits

Los Angeles is undeniably in the midst of an affordable housing crisis, which has been exacerbated by the economic recession due to the coronavirus pandemic. However the crisis is more acute for Extremely Low Income (ELI) households (those earning below 30% of AMI), 74% of which are severely rent burdened - meaning they spend more than 50% of their income on housing costs.¹ Many of our families earn \$25,000 or less, putting them at risk for displacement and homelessness. Although we agree that additional affordable housing is badly needed, we want to ensure that any recalibration of affordable housing incentives in the plan results in maximization of ELI and Deeply Low Income (DLI) units that match the affordability needs of the community. In addition any new incentives should also include a community benefits program, similar to the model program in the DTLA 2040 Plan², that incentivizes the creation of public parks and community spaces.

The new plan must also include robust anti-displacement strategies that address both direct and indirect displacement as a result of new development. Low-income tenants and those with limited English must be protected from the threat of losing their homes.

Protect Community-serving Small Businesses

Since CASP's implementation in 2013, the pressures of gentrification have become all the more pronounced for small businesses. In the past year we have lost our last full-service grocery store as the long-time owners were refused a new lease and forced to move, leaving transit-dependent residents without a place to buy groceries³. The pandemic has also had a devastating effect on Asian-owned small businesses as racist associations with the virus persisted, and federal PPP loans were disproportionately funneled to more affluent communities⁴. Although the update's stated objectives prioritize housing, the plan must continue to protect and encourage community-serving small businesses which generate the local economic base, serve the needs of transit dependent residents, and generate employment for the immigrant labor force.

Improve Health Outcomes

Chinatown and the CASP area have some of the most unhealthy air quality in Los Angeles. According to CalEnviroScreen the area covered by CASP is in the 99th Pollution Burden Percentile⁵ for LA County. At the same time, the low-income residents, youth, and the elderly rely on public transit and walking, and have much lower rates of car ownership. Out of necessity, we are a model TOC community. However, as residents and businesses are displaced and higher income

¹ <https://1p08d91kd0c03rlxhmhtydpr-wpengine.netdna-ssl.com/wp-content/uploads/2020/07/2020-Los-Angeles-County-Affordable-Housing-Outcomes-Report.pdf>

² https://planning.lacity.org/odocument/2c541d44-8b58-478b-b2af-bedcc60271f7/Community_Benefits_Summary_PH_draft.pdf

³ <https://spectrumnews1.com/ca/la-east/news/2019/11/07/chinatown-loses-its-last-chinese-grocery-store>

⁴ <https://www.washingtonpost.com/business/2020/07/31/ethnic-enclaves-gentrification-coronavirus>

⁵ <https://oehha.ca.gov/calenviroscreen/maps-data>

people take their place, car ownership rates have gone up. By incorporating anti-gentrification and anti-displacement strategies that stabilize both low-income residents and small businesses, CASP can sustain and improve upon the multi-modal transportation systems that many residents rely on, improve air quality and lead to better health outcomes. Prioritizing the needs of low-income community members can reduce GHG emissions and result in better economic and health outcomes.

Focus on Racial Equity

The CASP update provides an opportunity for DCP to deliver on its statement of solidarity with AAPI communities⁶, and the recent call for anti-racist planning that addresses the structural discrimination that communities of color have faced in Los Angeles⁷. In addition to the stated project goals, we urge DCP to center racial equity in the update process and include an outcome-focused Racial Equity Analysis, which we are currently proposing in the DTLA2040 Community plan update, in the new CASP.

SEACA appreciates the opportunity to provide these comments on the CASP NOP. We are committed to make our community a thriving and safe environment for low-income residents of color. We urge you to address the concerns raised in our comments both throughout the plan update process, and in the substance of the new CASP. We look forward to any additional dialogue and opportunities for public engagement as part of the CEQA process.

Sincerely,



Sissy Nga Trinh
Executive Director

Comments Endorsed by:
Public Counsel
Natural Resources Defense Council

⁶ “Standing in Solidarity with Asian, Asian American, and Pacific Islander Communities of Los Angeles”. Posted: March 25, 2021. <https://planning.lacity.org/resources/message-city-planning>

⁷ “Charting Our Course for a more Fair, Just, and Equitable Los Angeles” Posted: June 5, 2020. <https://planning.lacity.org/resources/message-city-planning>



Michael Sin <michael.sin@lacity.org>

Fwd: CASP Update Scoping Comments

2 messages

Yelena Zeltser <yelena@seaca-la.org>
To: michael.sin@lacity.org

Fri, May 7, 2021 at 2:35 PM

Hello Mr. Sin,

I'm forwarding you this email submitting our scoping comments on the CASP update. I received a notification that Ms. Kelley will be out of the office and to forward communications regarding CASP to you. I want to ensure these are received into the record before the NOP deadline.

My best.

----- Forwarded message -----

From: **Yelena Zeltser** <yelena@seaca-la.org>
Date: Fri, May 7, 2021 at 2:31 PM
Subject: CASP Update Scoping Comments
To: <clare.kelley@lacity.org>

Dear Ms. Kelley,

On behalf of SEACA, and with support from Public Counsel and the Natural Resources Defense Council, I'm submitting the attached scoping comments regarding the CASP update (CPC-2021-2642-SP; ENV-2021-2643-EIR 200).

Thank you.

--

Yelena Zeltser (she/her)
Southeast Asian Community Alliance
840 N. Broadway, Suite 203E
Los Angeles, CA 90012
(310) 463-8714
www.seaca-la.org

--

Yelena Zeltser (she/her)
Southeast Asian Community Alliance
840 N. Broadway, Suite 203E
Los Angeles, CA 90012
(310) 463-8714
www.seaca-la.org

 **SEACA NOP Comments_5.7.21.pdf**
837K

Michael Sin <michael.sin@lacity.org>
To: Yelena Zeltser <yelena@seaca-la.org>

Fri, May 7, 2021 at 2:54 PM

Received, thank you!

[Quoted text hidden]

--

Michael Sin (he/him)
City Planning Associate
Los Angeles City Planning
200 N. Spring St., Room 621

5/10/2021

City of Los Angeles Mail - Fwd: CASP Update Scoping Comments



Los Angeles, CA 90012
T: (213) 978-1345 | Planning4LA.org





Clare Kelley <clare.kelley@lacity.org>

Notification Request - CASP Update (CPC-2021-2642-SP; ENV-2021-2643-EIR)

2 messages

Yelena Zeltser <yelena@seaca-la.org>

Tue, Apr 13, 2021 at 11:45 AM

To: clare.kelley@lacity.org, michael.sin@lacity.org

Dear Ms. Kelley and Mr. Sin

I request that you please add me to the list of interested parties for the CASP Update (CPC-2021-2642-SP; ENV-2021-2643-EIR) project to ensure notification of all actions, approvals, determinations, notices, hearings, and any other matters related to the Project's land use approvals and compliance with the California Environmental Quality Act, Pub. Res. Code § 21000 et seq.

Please send notices electronically to yelena@seaca-la.org. If you have any questions regarding this request, please contact me at (310) 463-8714.

Thank you

--

Yelena Zeltser (she/her)
Southeast Asian Community Alliance
[840 N. Broadway, Suite 203E](http://840.N.Broadway,Suite.203E)
[Los Angeles, CA 90012](http://Los.Angeles,CA.90012)
(310) 463-8714
www.seaca-la.org

Clare Kelley <clare.kelley@lacity.org>

Tue, Apr 13, 2021 at 1:03 PM

To: Yelena Zeltser <yelena@seaca-la.org>

Cc: Michael Sin <michael.sin@lacity.org>

Dear Ms. Zeltser,

Thank you for your interest in the CASP Update, you will be added to the interested parties list.

Best,

[Quoted text hidden]

--

**Clare Kelley**

She, Her, Hers

City Planner

Los Angeles City Planning

200 N. Spring St., Room 667

Los Angeles, CA 90012

Planning4LA.org

T: (213) 978-1207





Clare Kelley <clare.kelley@lacity.org>

CASP Update - 4 p.m. Scoping Meeting

2 messages

Phyllis Ling <pling.hcnnc@gmail.com>

Mon, Apr 12, 2021 at 1:26 PM

To: Clare Kelley <clare.kelley@lacity.org>, michael.sin@lacity.org, valerie.watson@lacity.org

Hi Ms. Kelley, Mr. Sin, Ms. Watson,

I'm writing in regard to a CASP Update EIR scoping meeting that is scheduled for April 22 at 4 p.m.

I am curious how 4 p.m. was selected as the time for this public meeting. This is during typical business hours, and many stakeholders will still be at work, and unable to participate.

The Historic Cultural North Neighborhood Council, which represents the CASP area, has its regular board meetings at 4 p.m., but this is something that occurred with a lot of controversy and outcry, and is also the subject of a grievance against the neighborhood council.

I am writing to make sure you are aware that 4 p.m. public meetings will exclude a large number of stakeholders from participating. I hope you will consider rescheduling the meeting or holding a second scoping meeting at a time that is reasonably accessible to the public, such as 5:30pm or 6pm.

The opinions expressed are my own, and do not represent any official position of the board of HCNNC.

Sincerely,

Phyllis Ling
Outreach Committee Chair, Historic Cultural North Neighborhood Council
Solano Canyon Resident Representative
Email: pling.hcnnc@gmail.com
Website: hcnnc.org
Subscribe: hcnnc.org/subscribe

Clare Kelley <clare.kelley@lacity.org>

Wed, Apr 14, 2021 at 3:18 PM

To: Phyllis Ling <pling.hcnnc@gmail.com>

Cc: Michael Sin <michael.sin@lacity.org>, Valerie Watson <valerie.watson@lacity.org>

Good afternoon Ms. Ling,

We are in receipt of your comments on the Scoping Meeting for the CASP Update. We understand and appreciate your concerns regarding meeting scheduling.

City Planning will record the Scoping Meeting and will post that recording, as well as other meeting materials, to the [project website](#) after the meeting. Additionally, we will be hosting open houses and other outreach events for this effort in the coming months, and anticipate offering these participation opportunities during a variety of times.

Best regards,

[Quoted text hidden]

--

Clare Kelley
She, Her, Hers



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APPENDIX B
Methodology

Appendix B

Methodology

APPENDIX B. METHODOLOGY

POPULATION, HOUSING AND EMPLOYMENT

This section describes the data sources and methodologies employed in the identification of the Draft EIR Existing Conditions and Future Projections, both of which are used to assess potential impacts of the Proposed Cornfield Arroyo Seco Specific Plan (Proposed Plan). This section also explains how reasonably expected population, housing, and employment under the Proposed Plan are derived and how the Proposed Plan addresses anticipated growth.¹

The Draft EIR evaluates the potential environmental impacts related to anticipated changes in population, housing and employment based upon information from a variety of sources including, the United States Census Bureau (U.S. Census), California Department of Finance (DOF), California Employment Development Department (EDD), the Southern California Association of Governments (SCAG), the City of Los Angeles Department of City Planning (DCP), the City of Los Angeles General Plan Framework Element (Framework) and associated documents. Since each of these sources may use different methods of data collection and analysis and/or different timeframes, the data do not always arrive at precisely the same results. Accordingly, the demographic data used in the analysis may vary somewhat, depending upon the source cited. Despite the variations, the data used in this Draft EIR represent the best available data sources during the Draft EIR preparation and provide a reasonable estimate of the population, housing, and employment characteristics of the Cornfield Arroyo Seco Specific Plan Area (Specific Plan Area).

EXISTING CONDITIONS

Existing Conditions or Baseline Conditions for the purposes of environmental analysis of a specific plan update, can be described in demographic terms (population, housing, and employment) or in terms of development characteristics (square feet of development, height of structures or number of housing units). The City has the discretion to determine the best data source for Existing Conditions. For Existing Conditions, DCP, as the City's professional planning agency and the department responsible for reviewing and preparing the Draft EIR, uses demographic data that is published and referenced public data used by multiple agencies in planning for the City and region. Obtaining accurate development characteristics at the parcel level for a Specific Plan Area has in recent decades become possible through geographic information systems (GIS); however the technology still presents practical difficulties in verifying precise, detailed data at the lot and parcel level for a city the size of Los Angeles. The size of the City at over 478 square miles (including 5 square miles of water area) results in duplicate, incomplete, and/or unverified data that is time and cost prohibitive to verify at present. Reasonable efforts are made to collect and use the most complete and current data at the time of the Draft EIR analysis recognizing the constraints, limitations and margins of error associated with data sources.

¹ Nothing in this document is intended to contradict or control the particular data or methodology used in the EIR. This methodology was developed by DCP in its review and preparation of Draft EIRs for the community plan and specific plan update programs and is provided in the appendices to supplement and support the Draft EIR.

The leading source of demographic data is the U.S. Census. While Census data is typically the most reliable representation of socioeconomic data, such as housing and population, for discrete geographic areas, it is only available on a decennial basis, i.e., 2000, 2010, and 2020. While it is preferable to utilize decennial census data for analysis, it is not always possible to align planning processes with the release of decennial census data. Consequently, other sources are consulted to employ the most current information as well as to provide a benchmark for the Existing Condition year. In the interim years, the U.S. Census Bureau gathers more detailed socioeconomic data through other surveys, such as the American Community Survey (ACS) program, which provides data on an annual basis for certain geographies. For example, the ACS provides annual estimates for incorporated cities but does not provide annual estimates for specific plan areas. There is a lag time between when the data is collected and when it is released for both Census products. Both the decennial Census and ACS data are subject to sampling variability.

SCAG, as the Regional Transportation Planning Agency (RTPA) and the Metropolitan Planning Organization (MPO), publishes demographic estimates and projections through the long-range Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which is updated by SCAG every four years. Census and ACS data are utilized by SCAG to prepare regional demographic estimates and forecasts. In addition to estimating existing demographics, the RTP/SCS provides a vision for future transportation investments throughout the region. Using demographic growth forecasts and economic trends that project out over a 20-year period or "horizon," typically, the RTP/SCS considers the role of transportation in regional planning in the broader context of economic, environmental, and quality-of-life goals for the region. Therefore, SCAG data are often utilized by planning agencies in the region for consistency with the goals and demographic data of the RTP/SCS.

■ **Baseline Existing Conditions (SCAG)**

SCAG is the regional demographer for a six-county region that includes Los Angeles County. In that capacity it has an established methodology for estimating population, housing, and employment for the region and for projecting future population, housing, and employment at a jurisdictional or citywide level. SCAG utilizes various sources to determine existing or baseline population, housing and employment. This method is used for deriving annual estimates of population, housing, and employment for years that are not a Census year.

SCAG's small area growth forecasting process is applied to develop baseline year estimates and future year socioeconomic data at the Transportation Analysis Zone (TAZ) level. The approach is utilized by SCAG to distribute jurisdictional level population, housing, and employment estimates and projections into TAZs. Population figures are estimates derived from households and are generally viewed to be a more accurate representation at a jurisdictional level where multiple data sources are consulted. It is generally less precise to estimate population numbers for smaller areas, and or for areas where boundaries do not precisely match census reporting divisions, such as at the Specific Plan Area level than at recognized jurisdictional boundary levels.

The following is the list of SCAG data sources excerpted from the most recent 2020 RTP/SCS Background Document Report:

- California Department of Finance (DOF) population and household estimates;

- California Employment Development Department (EDD) jobs report by industry;
- 2015 existing land use and General Plans from local jurisdictions;
- 2010 Census and the latest ACS data (2013-2017 5-year samples);
- County assessor parcel databases;
- 2011 and 2015 business establishment data from InfoGroup; and
- SCAG's 2016 RTP/SCS growth forecast.

See the following SCAG publication for the full methodology employed to determine estimates and forecasts of population, housing, and employment data:

https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_demographics-and-growth-forecast.pdf

■ How DCP Verifies Existing Conditions

DCP has regularly tracked growth and development activity in the City. As part of the regional planning process, local planning departments (including DCP) work together with SCAG to develop demographic estimates for the City of Los Angeles and the Southern California region approximately every four years. SCAG publishes regional transportation and sustainability plans (RTP/SCSs) every four years. However, the cycles of RTP preparation do not regularly coincide with the release of Census data. Because of the time involved in preparing the RTP/SCS, there is a lag between the time the Census data is released or demographic estimate is prepared and the time that SCAG makes demographic estimates available through the RTP/SCS. An additional lag occurs between the time the Planning Department receives SCAG's demographics estimates for the baseline and forecasts for the horizon year, and the time a draft specific plan and EIR are completed. Therefore, interpolations of data utilizing a previous point in time and future point may be necessary.

Furthermore, the DCP's planning process for community and specific plan updates is comprehensive; the updates are long-term projects that take several years to complete. The planning process focuses on addressing land use changes at the parcel level to both resolve inconsistencies in land use regulations as well as to fulfill City objectives. For the Proposed Plan, the Notice of Preparation (NOP) was released in April 8, 2021, and the latest available Decennial Census data was for the year 2010.² The 2010 Census data provides a snapshot in time and is used as a reference to benchmark data along with other sources. Given the number of years that have lapsed between the release of the 2010 Census and the present, the Census data no longer reflects the best available data for 2021, the NOP publication year. Growth has occurred in the years after the Great Recession and consequently, more recent data from the 2016-2040 RTP/SCS is utilized for Existing Conditions.³

² The Census Bureau released the initial 2020 Census Post-Enumeration Survey (PES) results, which provides estimates of population coverage overall and for important demographic groups, on March 10, 2022, after the NOP release.

³ As the 2016 RTP/SCS utilizes a baseline year of 2012, 2021 baseline year demographic estimates were interpolated (an annual average growth rate was applied) to estimate existing conditions. The interpolation method was corroborated by SCAG as a suitable methodology to estimate existing conditions.

SCAG’s two most recent RTP/SCSs, the 2016-2040 RTP/SCS and 2020-2045 RTP/SCS, were adopted in April 2016 and September 2020, respectively. As described in further detail below, the population, housing, and employment projections of these two regional plans are consistent with each other in the Specific Plan Area. Accordingly, the City has elected to use the socio-economic estimates and projections of the 2016-2040 RTP/SCS in this EIR in order to be consistent with the City of Los Angeles Travel Demand Forecasting (TDF) Model. The current TDF Model, which was developed in the last few years as part of the City’s effort to move to vehicle miles traveled (VMT) thresholds of significance, relies on the 2016-2040 RTP/SCS. The outputs of the TDF Model are used to inform transportation, air quality, and greenhouse gas emissions analysis in this EIR.

The City has begun the process of updating the TDF Model to use 2020-2045 RTP/SCS data. However, the update is not expected to be complete by the time this EIR is published. It would not be reasonable to complete an update to the TDF Model every time the City prepares a new EIR, as the update is a significant, multi-year work product costing approximately \$400,000. The current TDF Model is the best tool the City has available to estimate VMT and conduct the required analysis. As such, the socio-economic data for the Proposed Plan is derived from 2016-2040 RTP/SCS population, housing, and employment estimates, which as shown below in Table 1, is consistent with the data from the most recent 2020-2045 RTP/SCS.

TABLE 1 BASELINE YEAR (2021) SOCIO-ECONOMIC DATA ESTIMATES WITHIN THE PROJECT AREA		
	2016-2040 RTP/SCS (2021)	2020-2045 RTP/SCS (2021)
Population	6,027	6,202
Households	2,012	1,936
Employment	5,411	6,189
Source: SCAG 2016-2040 RTP/SCS and 2020-2045 RTP/SCS interpolated.		

Between the 2016-2040 RTP/SCS and 2020-2045 RTP/SCS, the population and households estimates for the baseline year (2021) differ by less than 3 percent and 4 percent, respectively. The 2016-2040 RTP/SCS estimates that baseline year employment within the Project Area is 5,411 jobs, compared to the 2020-2045 RTP/SCS’s estimate of 6,189 jobs, a difference of 14 percent. The use of the 2016-2040 RTP/SCS’s lower employment figure represents a more conservative analysis, as the EIR would be analyzing a greater employment delta over the course of the Proposed Plan compared to the 2020-2045 RTP/SCS’s higher baseline year employment figure.

Many municipalities and government agencies (including public service providers and other City departments) rely on the same source, i.e., 2016-2040 SCAG RTP/SCS data, for purposes of planning, both for estimates of current population, housing and employment, as well as for projections of future population, housing, and employment. Use of such data is a consistent and best practice for local governments. It is also the DCP’s practice to use SCAG RTP/SCS data as a benchmark or as a reference point for estimates and projections locally.

Although CEQA does not require a lead agency to change the baseline year for Draft EIR analysis every

time a government agency at the state, federal, or local level issues a projection for a future condition or issues an estimate for those years subsequent to the Draft EIR baseline year, the DCP does review new data or projections released subsequent to the publication of the NOP to verify that it would not substantively affect the analysis or conclusions for significant impacts that are correlated or reliant upon population, housing or employment data. For instance, the City used Los Angeles County Assessor data to benchmark and analyze the general distribution patterns and totals for housing estimates in the Specific Plan Area. This system of utilizing SCAG data and comparing or benchmarking it with other available data represents a best practice approach to obtaining and using complete and most current data. Other sources were also consulted (i.e., Longitudinal Employer-Household Dynamics (LEHD) and American Community Survey) to verify demographic totals for the Specific Plan Area. See Table 2. These sources are used as benchmarks or control totals whereas Assessor data is used for distribution because it is regularly updated and available at small geographic levels.

TABLE 2 COMPARISON OF DEMOGRAPHIC ESTIMATES FOR THE SPECIFIC PLAN AREA

Data Source	Households	Population	Employment
2016-2040 RTP/SCS (2021 interpolated)	2,000	6,000	5,400
ACS (2014-2018) ¹	1,700	6,200	n/a
LEHD (2017) ²	n/a	n/a	5,600 ³
Assessor Parcel Data (2021)	2,100	n/a	n/a

Note: A lag time for the public release of most of the data sources, such as ACS and LEHD, is typical. All numbers are rounded to the nearest one hundred.

1. U.S. Census Bureau, 2014-2018 American Community Survey
2. Longitudinal Employer-Household Dynamics (LEHD on the Map)
3. The estimated total does not include self-employed jobs but includes multiple jobs held by one person.

FUTURE PROJECTIONS

The Proposed Plan is intended to plan for anticipated growth by 2040 (the planning horizon year), and as explained above, uses the adopted 2016-2040 SCAG RTP/SCS (2016 RTP/SCS) as a resource for both the baseline (also called Existing Conditions) population, housing, and employment estimates and future projections for the 2040 horizon year.

The 2016 RTP/SCS projection for 2040 factors in recent and past trends, key demographic and economic assumptions, and local, regional, state or national policies. The Great Recession had a significant impact on household, population, and employment trends. Growth is still anticipated in SCAG's six-county region but at a slower pace. SCAG's projection assumes that regional growth will be approximately 0.7 percent per year on average for households and population, while employment is also forecast to grow at

0.7 percent per year.⁴

■ Projections (SCAG)

SCAG prepares regional and jurisdictional forecasts or projections. Regional employment forecasts are based on a set of national employment forecasts using a shift-share model. The population forecast uses the cohort-component model, which adds to the existing population conditions the projected number of persons living in group quarters, births, and persons moving into the region and subtracts the number of projected deaths and persons moving out of the region. Households are forecast by multiplying the projected residential population by projected headship rates, or the share of householders in population cohorts based on age-sex-racial/ethnic specific household formation levels. Regional demographic-economic assumptions were also considered in the forecasts and cover issues such as fertility rate, domestic migration, international immigration, and labor force participation rates.

For the jurisdictional forecast, also known as small area forecast, SCAG derives household growth rates and household sizes based on historical trends and the amount of potential development from jurisdictions' general plans and land uses. Population projections are based on household growth and size. Future employment numbers for jurisdictions are based on the share of the county's employment by sector. The major data sources used to develop the jurisdictional forecast include: California Department of Finance (DOF) population and household estimates; California Employment Development Department (EDD) jobs reported by industry; 2010 Census and the latest American Community Survey (ACS) data; Regional Housing Needs Assessment (RHNA) growth projections for 2014 through 2021; and 2014 Business Installment data from infoGroup. Local jurisdictions also provided input and comments to SCAG and adjustments were made.

For the City of Los Angeles, SCAG distributes the total citywide number among all of the city's Community Plan Areas by Transportation Analysis Zones (TAZs), again derived from past trends and building upon/compared to TAZ projections of previous adopted Regional Transportation Plans. DCP reviews the proposed SCAG projections based on knowledge of the applicable Community Plan and/or Specific Plan Area(s) and may give feedback based on local knowledge of development trends and development activity observed during the process of developing the RTP/SCS and its projections. An example of input could be advising SCAG to reflect growth in areas with existing or planned transit infrastructure, areas with flexible land use regulations that can allow higher levels of growth and away from hillsides or historic single-family neighborhoods. This local feedback can also include further input based on the effects of local policymaking, such as General Plan, Community Plan or Specific Plan updates, and the mandates of federal and state plans, which are also taken into consideration during the local review process.

See the following SCAG publications for the methodology employed to determine estimates of population, housing, and employment data for the region:

- https://scag.ca.gov/sites/main/files/file-attachments/f2016rtpscs_scsbackgrounddocumentation.pdf
- https://scag.ca.gov/sites/main/files/file-attachments/f2016rtpscs_demographicsgrowthforecast.pdf

⁴ 2016 RTP/SCS Demographics Growth Forecast Appendix, April 2016, accessed March 3, 2020, http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_DemographicsGrowthForecast.pdf

■ How Specific Plans Consider SCAG Projections

The City of Los Angeles uses SCAG's projections to plan for the future. The Department of City Planning considers SCAG projections for housing, population, and employment as targets in its long-range planning efforts for Specific Plan Areas when updating specific plans. SCAG provides the demographic expertise in developing regional and citywide projections and works with DCP planners and demographers to refine those projections and their distribution throughout the city, as described previously. At a minimum, Community Plan and Specific Plan updates meet SCAG projections for the City and each Plan Area but in some cases may exceed those projections for certain Plan Areas depending on circumstances such as market demand, development trends, new legislation, the introduction of transit or other infrastructure, etc. This may occur because the available data or information SCAG used during the time it prepared projections changed or because new information became available later. In this respect, the most recently adopted SCAG projections are viewed as targets, and DCP ultimately determines the distribution of citywide growth through adherence to the General Plan Framework and Community Plan goals, objectives, and policies while the citywide projections are being accommodated. This means growth projections within individual Community Plan or Specific Plan Areas by SCAG may be redistributed between Community Plan Areas and/or Specific Plan Areas to meet the SCAG Citywide growth projections.

The table on the next page compares the allocations of population estimates by seven geographic planning areas within the City of Los Angeles for 2021, and the population projections at the horizon year 2040. Using SCAG's 2016 RTP/SCS as the source, the City of Los Angeles as a whole is projected to grow by 13% in population during this time (4,609,000/4,091,000), which over the course of 19 years, is approximately 0.6% growth per year.

The Specific Plan Area is within the Central Los Angeles and East Los Angeles Geographic Planning Areas. Table 4 indicates that the Central Los Angeles Geographic Planning Area, which includes the Downtown, Westlake, Wilshire and Hollywood Community Plan Areas (CPAs), is currently home to approximately 18% of the citywide population, and it is projected that in 2040 the region will be home to approximately 20% of the citywide population. Table 4 also indicates that the East Los Angeles Geographic Planning Area, which includes the Northeast Los Angeles, Silver Lake-Echo Park-Elysian Valley, and Boyle Heights CPAs, is currently home to approximately 10% of the citywide population, and it is projected that the figure will remain approximately 10% by 2040.

It is generally assumed that CPAs would continue to grow consistent with SCAG assumptions of approximately 0.7% growth per year on average across the region and would still need to accommodate at least marginal levels of growth (i.e., it was not assumed that any CPAs would have less population than current existing conditions levels).

TABLE 3 PROJECTED POPULATION GROWTH FOR THE CITY			
Geographic Planning Area	2021 Estimated Population /a/	2040 Projected Population /a/	Projected Population Growth (2021 – 2040) /a/
City of Los Angeles	4,091,000	4,609,000	518,308
South Valley	780,493	875,559	95,066
South Los Angeles	779,803	874,467	94,664
North Valley	734,546	795,498	60,952
Central	738,605	903,743	165,138
West Los Angeles	441,950	497,159	55,209
East Los Angeles	412,614	448,846	36,232
Harbor	202,680	213,603	10,923

/a/ The 2021 estimated population and the 2040 projected population are based on SCAG's 2016-2040 RTP/SCS. Due to rounding, the percentages may not add up to 100 percent.

TABLE 4 PERCENTAGE OF CITYWIDE POPULATION AND PROJECTED GROWTH			
Geographic Planning Area	% of Citywide 2021 Population /a/	% of Citywide 2040 Projected Population /a/	% Change of Citywide Projected Population Growth (2021 – 2040) /a/
City of Los Angeles	100%	100%	
South Valley	19%	19%	-
South Los Angeles	19%	19%	-
North Valley	18%	17%	-1%
Central	18%	20%	2%
West Los Angeles	11%	11%	-
East Los Angeles	10%	10%	-
Harbor	5%	5%	-

/a/ The 2021 estimated population and the 2040 projected population are based on SCAG's 2016-2040 RTP/SCS. Due to rounding, percentages may not add up to 100 percent.

HOW GROWTH IS ADDRESSED THROUGH PLANNING AND ZONING

In preparing Community Plan and Specific Plan updates, land use and zoning changes are proposed that will allow for projected growth to be accommodated while meeting the policies of the Framework Element and the Sustainable Community Strategies. During the planning process, technical land use analysis including the study of development trends, and consideration of General Plan policies is conducted to identify appropriate locations and levels of future development. DCP evaluates the geographic distribution of land use designations

and zoning within a Community Plan or Specific Plan Area to see where development potential is warranted. Some areas are expected to remain largely unchanged over time, such as open space areas, and public facilities. In other areas, development could occur as infill development and re-development, such as in multi-family residential areas. There are also some areas where development is directed, such as near transit stations and major corridors with bus lines, in order to increase access to transit, reduce vehicle miles of travel and thereby reduce greenhouse gas emissions and advance the climate change goals of the city and the region. Land use designation and/or zoning are applied to implement the updated land use policies of the City, the Community Plan, and/or the Specific Plan.

Under the Proposed Plan, new developments would be subject to form and frontage regulations that are designed to achieve compatibility with the existing visual character of each of the neighborhoods within the Specific Plan Area. Specifically, Floor Area Ratio limitations and transition height requirements, where appropriate, would help to provide cohesive height and bulk transitions across future structures within the Specific Plan Area. A new project must meet the use and design regulations established in the updated Specific Plan and comply with applicable Environmental Protection Standards to receive approval. Some of the design requirements will result from the planning process and some will result from the environmental review process.

For example, regulations set through the zoning could include limitations on Floor Area Ratio or transition height requirements in certain specific areas of the Specific Plan Area. An environmental standard might require shielding of light source so as to direct light away from adjacent residential uses. These are examples that represent the types and range of regulations that can be applied to reduce potential impacts of new development. Planners will review most projects in the Specific Plan Area through a ministerial process. Where projects exceed the Project Compliance threshold, discretionary review will be applied.

PROPOSED PLAN'S REASONABLE ANTICIPATED DEVELOPMENT

After preparing the Specific Plan update, separate from the demographic projections is the determination of the Reasonable Anticipated Development of the Proposed Plan, or what is reasonably expected to be built out under the Proposed Plan during the planning horizon. On a citywide basis, DCP's goal is to align citywide Reasonable Expected Development for all of the Community and Specific Plans with the total SCAG projection for the City to be consistent with other departments and agencies who plan for and provide public services and infrastructure to the city.

Planners use their educational and professional experience and expertise of land use and zoning standards to make assumptions about where development is likely to occur and at what scale, and create assumptions about the amount of residential, commercial, and industrial development that will occur during the life of the plan to determine the Reasonable Anticipated Development.

These assumptions are established through extensive research and analysis of existing development trends, existing conditions on the ground, project entitlement and building permit data, geographic and historic constraints, age of existing buildings, and the development potential between the existing built conditions and what uses and development intensities the new regulations would allow. Factors such as existing and planned infrastructure improvements are also considered.

Although the Project Planners do significant research relying on a multitude of data sets and market trends are considered while establishing assumptions, determining the Reasonable Anticipated Development involves

making a lot of assumptions. Although the Planning Team are experts on the Specific Plan Area and on the City's land use and zoning plans and laws, the Proposed Plan, with its policies, zoning, and land use changes do not grant permits for or construct any developments. Future unforeseen market changes that either incentivize or inhibit development are unknown at this time, leaving uncertainty in the process of developing assumptions. The Planning Team, including City Planners, Senior City Planners, and a Principal City Planner, use their expertise and the data sets available at the time of EIR preparation to inform the assumptions used in this analysis. These data sets include, but are not limited to the following:

- Real world conditions through field surveys by the Project Planners of every block of the Plan Area to assess vacancy and existing uses
- Assessor data for the entire Plan Area to determine existing unit counts and existing uses
- Uses (residential, commercial, industrial) and development intensities (height, density, FAR) allowed by the existing General Plan land use designations, zoning, and any zoning overlays and Specific Plans.
- Planning entitlements and building permits to assess market trends
- Proposed General Plan land use designations and General Plan objectives and policies and Zoning regulations for the Proposed Plan and Draft EIR Alternatives
- Other applicable regulations or physical conditions that could constrain potential development (such as, historic preservation protections, topography, flood plains, sensitive habitats, institutional facilities, open space)
- Other State or local programs or regulatory schemes active in the Specific Plan Area that are intended to incentivize or facilitate potential development (such as, Community Benefits Programs, reductions in parking near transit infrastructure, tax incentive areas)

Utilizing these data sets and its collective expertise, the Community Planning team make and apply assumptions to the acreage within the Specific Plan Area, to determine the amount of Reasonable Anticipated Development from the Proposed Plan of residential units and non-residential square footage (commercial and industrial) that could be built during the life of the plan. For example, residential land area is multiplied by dwelling units per acre to generate an assumed dwelling unit count, and non-residential land area is multiplied by development potential, applying industry standards of employment density to calculate the total number of employees.

Ultimately, market factors dictate the level of development that occurs. Experience shows that only a percentage of the properties within a Specific Plan Area will be redeveloped within the horizon year, typically 20-25 years, and that even the sites that do redevelop are not always developed to maximum levels allowed by the by-right zoning and various incentive systems available. For this reason, 100 percent build out is a theoretical scenario and is not analyzed, but rather a more reasonable expected level of development is used both to guide proposed land use changes and analyze the potential environmental impacts of those changes. Community planners conduct the analysis of Reasonable Anticipated Development to analyze what level of development would reasonably occur during the life of the plan. While some jurisdictions may conduct a "full build out" analysis, the Specific Plan Area is a highly urbanized area where the most common form of development is infill development. Conducting a full build out analysis would require making the unreasonable assumption that each parcel that is not already fully built out to the Proposed Plan's density and intensity will be wholly redeveloped during the 20-year life of the plan. This is unrealistic due to development constraints including existing historic structures and recently completed developments that are unlikely to be redeveloped. Additionally, it does not reconcile with historic development patterns in the City. A number of factors serve to constrain development, including:

- Physical site constraints (topography, geology, etc.)
- Zoning regulations (requirements for open space, yards, setbacks and height that sometimes limit the maximum development on a site to levels below what the zoning would otherwise permit)
- Public review process
- Environmental factors and constraints (adjacent uses, sensitive uses, local, state and federal laws)
- Historic preservation goals and regulations
- Historical development patterns
- Land values
- Market factors, (economy, financial lending practices, etc.)

DCP considers these factors in using its best judgement, based on the education, experience and knowledge of its Planning Team, to determine the Reasonably Anticipated Development for the Proposed Plan. Revisions to the Reasonably Anticipated Development from the onset of the Specific Plan Update may occur considering the multi-year time frame that specific plans take to update.

SCAG's METHODOLOGY DOCUMENTATION REPORTS

SCAG Methodology for RTP/SCS 2016 is available online at

- https://scag.ca.gov/sites/main/files/file-attachments/f2016rtpscs_scsbackgrounddocumentation.pdf
- https://scag.ca.gov/sites/main/files/file-attachments/f2016rtpscs_demographicsgrowthforecast.pdf

Appendix C

Existing CASP



CASP

Cornfield Arroyo Seco Specific Plan

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LOS ANGELES DEPARTMENT OF CITY PLANNING

CASP

CORNFIELD **ARROYO SECO**
SPECIFIC PLAN



ACKNOWLEDGEMENTS

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Bureau of Street Lighting

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Bureau of Sanitation

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 Wing Tam, Senior Environmental Engineer
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Ron Lorenzen, Street Tree Superintendent I

Green Streets Committee

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 Jane Adrian- DPW/BOE
 Melinda Bartlett- DPW/Bureau of Sanitation (BOS)
 Michael Brown- DPW/BOE
 Tomas Carranza- DOT
 Johanna Chang- Los Angeles Department of Water and Power
 (LADWP)
 Steven Chen-DPW/BOE
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 Robert Gutierrez- DPW/Bureau of Street Services (BSS)
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 Steven Naikaido-DPW/BOSS
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 Ron Olive-DPW/BSS
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Jose L. S-Cronenbold, Fire Battalion Chief
Curt Klafuta, Fire Battalion Chief
Dean Ulrich, Fire Battalion Chief
Wade White, Fire Battalion Chief

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Helmi Hisserich, Assistant General Manager, Housing Development Bureau
Claudia Monterrosa, Director, Policy & Planning Unit
Helen Campbell, Management Analyst II, Policy & Planning Unit

DEPARTMENT OF WATER AND POWER

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Kelli Bernard, Director of Economic Development
David Pettijohn, Managing Water Utility Engineer
Natali Kassis, Civil Engineering Associate
Terrence McCarthy, Civil Engineering Associate
Imudiasse Aimuwu, Operations & Statistical Research Analyst

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Jeff Brown, Sr. Landscape Architect
Ron Schafer, Superintendent – (Retired) Los Angeles District
Sean Woods, Superintendent – Los Angeles Sector
Randy Novack, Project Manager
Stephanie Campbell, Associate Park & Recreation Specialist

NEIGHBORHOOD COUNCILS

- Arroyo Seco Neighborhood Council
Chinatown-Alpine Hill Neighborhood Association
Eagle Rock Neighborhood Council
Elysian Valley Riverside Neighborhood Council
Glassell Park Neighborhood Council
Greater Cypress Park Neighborhood Council
Historic Cultural Neighborhood Council
Lincoln Heights Neighborhood Council
Silver Lake Neighborhood Council
Solano Canyon Neighborhood Council

BUSINESSES AND ORGANIZATIONS

- Alpine Recreation Center
American Institute for Architects
Arroyo Seco Foundation
Audubon Society
California Endowment’s Center for Healthy Communities
Center for Sustainable Cities
Chinatown Advisory Committee

- Chinatown BID
Chinatown Redevelopment Commission
Chinatown Service Center
Chinese American Citizens Alliance
Chinese Chamber of Commerce
Citylife
Creative Environments
Cypress Park Recreation
Cypress Park Youth & Family Center
Downey Recreation Center
El Pueblo de Los Angeles
Farmlab
Friends of Los Angeles River (FoLAR)
Goodwill Industries
Homeboys Industries
Lincoln Heights Industrial BID
Lincoln Park Recreation Center
Los Angeles & San Gabriel Watershed Council
Natural Resources Defense Council
North East Trees
Puerta del Sol
San Antonio Winery
Santa Monica Mountains Conservancy
Southeast Asian Community Alliance (SEACA)
The City Project
The River Project
Tree People
William Mead Residents Association
Young Nak Church

SCHOOLS

- Albion Street Elementary
Ann Street Elementary School
Cal State University, Northridge
Cathedral High School
Cal Poly Pomona
Franklin High School
Occidental College- Urban Environmental Policy Institute
University of California, Los Angeles
University of Southern California
Woodbury University

NATIONAL PARK SERVICE

- Ann Cole Patrick Johnston
Ann Dove Barbara Rice

PHOTOGRAPHS AND IMAGES

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Los Angeles State Historic Park
Los Angeles Public Library
Los Angeles River Revitalization Master Plan
University of Southern California Digital Library

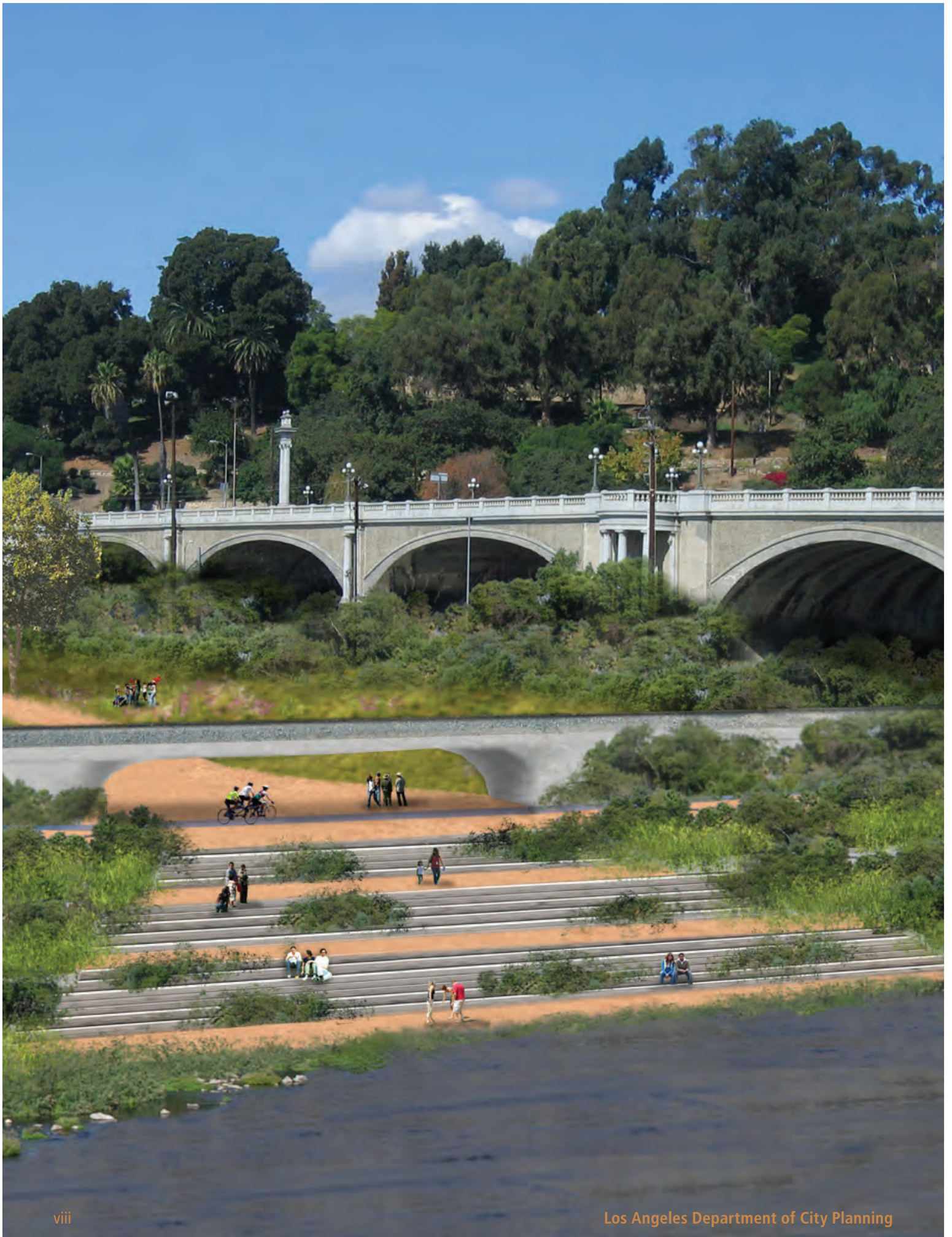


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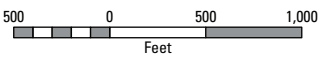
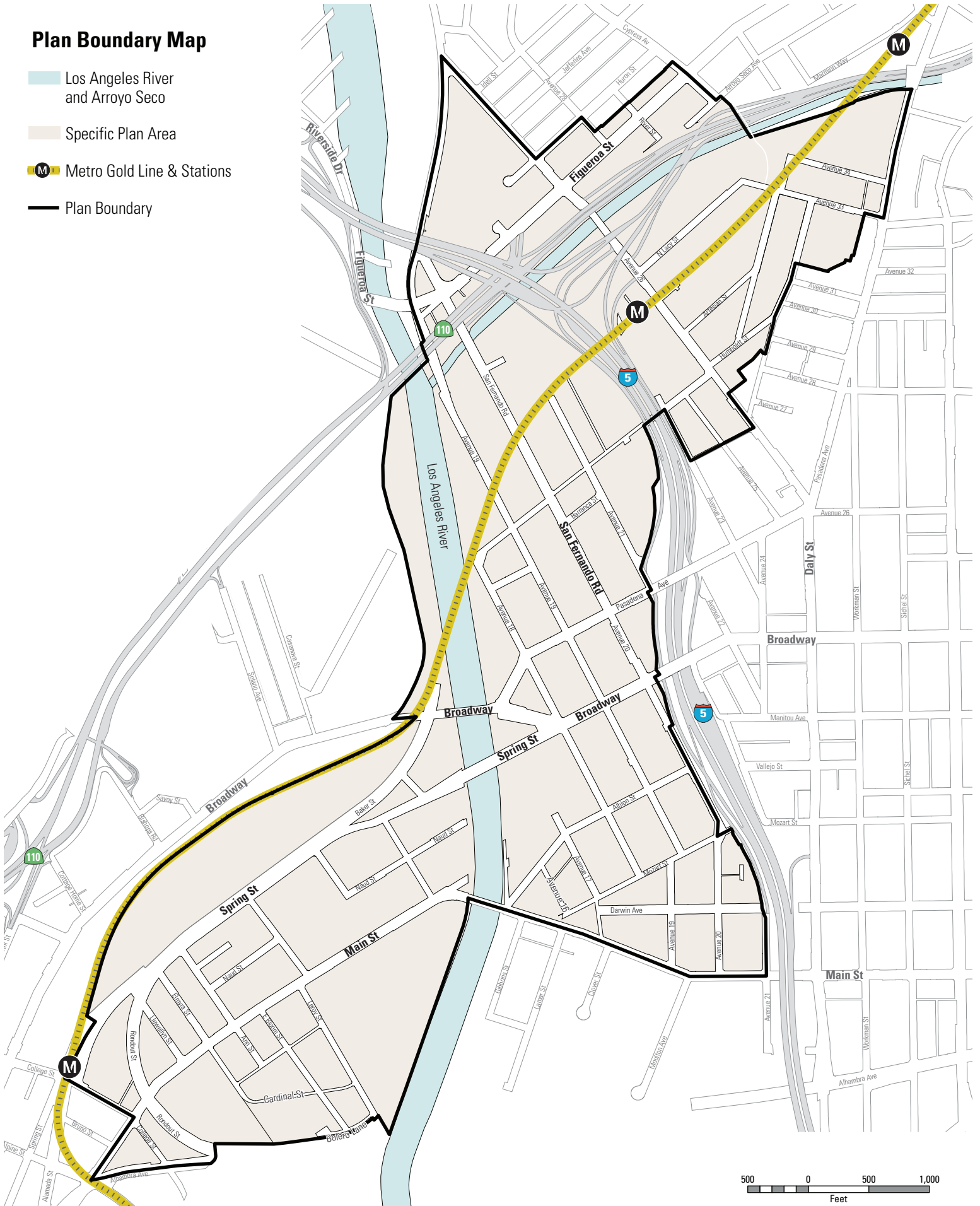
Process

Chapter 1



Plan Boundary Map

-  Los Angeles River and Arroyo Seco
-  Specific Plan Area
-  Metro Gold Line & Stations
-  Plan Boundary



Prepared by Los Angeles Department of City Planning
025_at: 05.2013

1.1 Administration

A. Establishment

The City Council establishes the Cornfield Arroyo Seco Specific Plan for the area within the lines on the Plan Boundary Map.

B. Purposes

This Specific Plan is intended to:

1. Implement the Central City North, Northeast LA and Silverlake/Echo Park/Elysian Valley Community Plans.
2. Transform an underserved and neglected vehicular-oriented industrial and public facility area into a cluster of mixed-use, pedestrian-oriented and aesthetically pleasing neighborhoods.
3. Increase access to open space.
4. Provide economic growth opportunities for emerging clean technologies.
5. Re-connect historical communities.
6. Maintain and enhance the concentration of jobs, in both the public and private sectors.
7. Provide a range of housing types and price levels that offer a full range of choices, including affordable housing opportunities, for people of diverse ages, ethnicities, household sizes and incomes.
8. Provide shops and services for everyday needs, including groceries, day care, cafes and restaurants, banks and drug stores, within an easy walk from home or work.
9. Facilitate pedestrian mobility, encourage bicycle use, provide shared and unbundled parking spaces, provide access to a variety of transit options including frequent light rail and bus connections, shared vehicles and bicycles, and taxis.
10. Lessen dependence on automobiles, and thereby reduce vehicle emissions, while enhancing the personal health of residents, employees and visitors.

11. Provide "eyes on the street" to create a safe and stable community and to encourage interaction and identity.
12. Respect historically significant buildings, including massing and scale, while at the same time encouraging innovative architectural design that expresses the identity of contemporary urban Los Angeles.
13. Reduce the use of energy and potable water, improve the ecology surrounding the Los Angeles River Watershed and Arroyo Seco, create connections from the community to the River and Arroyo Seco, and support the Los Angeles River Revitalization Master Plan (LARRMP).
14. Provide places for people to socialize, including parks, sidewalks, courtyards and plazas that are combined with shops and services.
15. Provide adequate public recreational open space within walking distance of residents and employees, integrate public art, and contribute to the civic and cultural life of the City.

c. Definitions.

Whenever the following terms are used in this Specific Plan, they shall be construed as defined in this section. Words and phrases not defined here shall be construed as defined in the Los Angeles Municipal Code (LAMC).

Project. The construction, erection, alteration, or addition to any building, sign or structure, on a lot located in whole or in part within the areas shown in Plan Boundary Map that requires the issuance of a demolition, grading, foundation, sign or building permit, use of land permit, or change of use permit.

Accessory Use. A use, which is customarily incidental to that of the main building or the main use of the land and which is located on the same lot with a main building or main use.

Active Street. A street where retail, cultural, office, and/or residential uses are required at the ground floor level where adjacent to street frontage.

Active Industrial Street. A street where retail, office, lobby, meeting rooms or sales areas are required at the ground floor level where adjacent to street frontage.

Affordable Housing. Rental Housing units restricted to households earning Extremely Low, Very Low or Low Incomes; Rental Housing units restricted by any LAHD or other regulatory or successor agency covenant or regulatory agreement; or For-Sale Housing units that are restricted to households earning Moderate Income or less.

Affordable Housing Floor Area Bonus. An increase in floor area greater than the otherwise maximum allowable floor area permitted that is awarded as a bonus for Projects that include a requisite number of affordable housing units per the Floor Area Bonus Option.

Allocation Plan. A plan that describes the amount of additional Floor Area that a Project is seeking through either the bonus or transfer FAR Program.

Ancillary Use. A permitted use that is limited to 10% of the Base FAR of the site. Ancillary uses may be located in a standalone building or structure separate from the principal use. More than one ancillary use is permitted on a single site.

Animal Clinic / Kennels. Uses where animals or pets are given medical or surgical treatment by an authorized licensed agent to treat injuries, illnesses and diseases of animals, including uses where small, domesticated animals and pets are cared for and boarded overnight for less than 30 days.



North Central Animal Services
Center on Lacy Street

Appraisal. An economic valuation of the Receiver Site prepared by a City appraiser, but paid for by the applicant, that sets forth the fair market value of the Receiver Site (i) as of the date the application was submitted and (ii) as if the Receiver Site were vacant and used for its highest and best use under all current zoning and planning restrictions and Agency policies affecting the Receiver Site.

Architectural Feature. Those purely aesthetic elements of a building, designed pursuant to the overall style of architecture that are not habitable or otherwise counted as floor area.

Area Median Income (AMI). The median income in Los Angeles County adjusted for household size, as determined annually by the California Department of Housing and Community Development (HCD) adjusted by household size. AMI for publically subsidized units may instead be based upon income figures published by the Housing and Urban Development Department (HUD) or any regulatory or successor agency.

Automobile Fueling Stations. Uses for fueling stations and car washes.

Auto-Oriented Uses. Automobile wrecking, salvage, and tow yards.

Average Building Height. The average building height is the average height of all building and building sections on a given parcel.

Base FAR. The base floor area ratio (FAR) established for each district within the Plan area.

Block. A block is a group of lots bounded on all sides by streets or by a combination of streets, public parks, railroad rights-of-way, pier head lines or airport boundaries.

Brownfield. Abandoned or under used industrial or commercial facilities (including older gas stations and auto repair yards located on smaller sites adjacent to residential neighborhoods) that may be contaminated by hazardous waste or pollution and that have the potential to be redeveloped into other uses once environmental remediation has been performed.

Central Parking. A parking structure or surface lot accessible and available for public use.

Commercial Hotels. Housing built to accommodate the general and traveling public for a typical fee, generally limited to stays of less than 31 days.



Auto-Oriented Use



Commercial Hotel



Commercial Office



Entertainment, Exhibits, and Multi-Purpose Cultural Facilities

Community Facilities. Any use whose primary purpose is to provide non-profit, or not-for-profit assistance to the general public in the specific plan area. Included are government offices and services or privately funded services or charities that are provided to the public at a free, subsidized, or reduced rate. Specific examples include child care centers, libraries, schools, adult day care, and related administrative office uses; health clinics, museums, cultural centers, telecommuting centers, gyms or recreation centers; restrooms open to the general public; rooms available to the general public for community meetings; and pedestrian amenities such as covered arcades, covered promenades, showers for bicyclists, sites for purchase of transit tokens, tickets, or passes, or at which transit information is displayed.

Conservation, Environmental, and Social Service Organizations, Religious Institutions and Public Facilities. Organizations and/or institutions engaged in conservation, environmental, social service, religious or public service or support activities.

Cornfield Arroyo Seco Specific Plan Floor Area Payment Trust Fund. Means the certain interest-bearing Trust Account administered by the Director of Planning designated as Cornfield Arroyo Seco Specific Plan Floor Area Payment Fund, from which funds may be distributed as set forth in Sub-Section 6.E.4 of this Plan.

Corporate Headquarters. The main administrative center or centers for one or more enterprises.

Designated Historical Resource. A building, structure, landscape element or natural feature listed in or formally determined to be eligible for the National Register of Historic Places, California Register of Historical Resources, or the City's list of Historic-Cultural Monuments, or a Contributing Element located in a City Historic Preservation Overlay Zone.

Dual Pipe. A system of plumbing installations used to supply both potable and reclaimed water to a home or business through two separate pipes.

Donor Site. A site from which Floor Area Rights are transferred pursuant to the provisions of this Plan.

Drive-thru establishments. Uses, other than automobile fueling and service stations, that permit a customer to order and/or obtain a purchase without leaving the confines of his or her car.

Eligible Historical Resource. A building, structure, landscape element, or natural feature identified in a completed historic survey or assessment as eligible for recognition as historically or architecturally significant either individually or as part of a district at the local, State or national level.

Entertainment, Exhibits and Multi-Purpose Cultural Facilities. Uses designed to host public or private gatherings for an audience.

Floor Area Payment. The dollar sum established by the application of the formula set forth in Section 2 of this Plan.

Floor Area Rights. The right to construct additional floor area within a Project, pursuant to an approved Transfer Plan, in excess of the amount of floor area such Project would be allowed to construct based on its lot area.

Free-Standing Fast Food Establishment. A single or multiple tenant free-standing structure designed solely for restaurant use that dispenses prepared food over a counter or by way of drive through service for consumption on or off the premises. This definition does not include cafeterias.

Greenway. A new zoning district established by this Plan that provides for open space.

Heavy Manufacturing. The manufacture or compounding process of raw materials. These activities or processes necessitate the storage of large volumes of highly flammable, toxic matter or explosive materials needed for the manufacturing process. These activities may involve outdoor operations as part of their manufacturing process.

Hospitals, Nursing and Residential Care Facilities. Uses involved in providing medical, surgical, or assisted living care to patients and offering short and long-term overnight care.

Holiday Lighting. Seasonal displays of 60 days or less within one calendar year, using multiple low wattage bulbs (approximately 15 lumens or less) provided they do not constitute a fire hazard and are maintained in a safe condition.

Income Extremely Low (30% AMI), Very Low (50% AMI), Low (80% AMI) Moderate (120% AMI). Extremely Low Income (30% AMI) as defined by Health and Safety Code Section 50106; Very Low Income (50% AMI) as defined by Health and Safety Code Section 50105; Low Income (80% AMI) as defined by Health and Safety Code Section 50079.5; Moderate Income (120% AMI) as defined by Health and Safety Code Section 50093.



Heavy Manufacturing



Hospitals, Nursing, and Residential Care Facilities



Light Manufacturing and Assembly



Live-Work Unit. Residential and work quarters combined within a single unit provided that the “work” use is permitted in the underlying zone and that the work area does not exceed more than 40% of the floor area allocated to the unit.

Light Industrial Uses. Uses in the Classification Table defined as Manufacturing and Assembly, Repair and Maintenance Facilities, Research and Development, Publishing, Motion Picture, Broadcasting, Trucking and Transportation Terminals, Urban Agriculture, Utilities, or Warehousing, Distribution and Storage.

Light Manufacturing and Assembly. Uses that process, fabricate, assemble, treat, or package finished parts or products and/or whose noise, odor, dust, hazardous materials or other pollutants/nuisances can be contained on site.

Light Trespass. Light from any outdoor lighting that shines directly onto neighboring property.

Los Angeles River Revitalization Master Plan (LARRMP).

The plan approved in 2007, which describes a vision for the revitalization of the 32 miles of the Los Angeles River that are within the City of Los Angeles’s boundaries.

Lot Area. Means the total horizontal area within the lot lines of a lot, prior to any required public dedication.

Lot Coverage. The portion of a lot occupied by the footprint of a building(s).

Maximum FAR. The maximum floor area ratio (FAR) established for each district within the Plan area.

Modified River Buffer Area. Portions of the River Buffer Area whereby a public-right-of-way extends between the parcels and the River, as set forth in the Zoning Map.

North Facade. North facades are defined as these facades between -22.5 and +22.5° N.

Paseo or Pedestrian Walkway. A walkway that is open to the sky and that provides pedestrian passage between structures, or through landscaping, or parking lots, and that is distinguished by ground surface treatments that provide for pedestrian safety and ease of movement.

Pedestrian Amenities. Uses, services, or features typically available within, or adjacent to, a public right-of-way that assist and enhance the pedestrian experience. Amenities may include but are not limited to street furniture, wayfinding signage, kiosks, street lighting, street trees, coffee shops, and bookstores.

Pedestrian Lighting. Freestanding lighting fixtures that illuminate the sidewalk or other pedestrian travel path.

Personal Services. Uses involved in personal service-oriented sales to the general public.

Publishing, Motion Picture, and Broadcasting. Uses engaged in film, video, audio, and other media production, but excluding movie houses and theatres.

Public Benefit. Something that serves a public purpose benefitting the Plan area, such as: providing infrastructure or amenities available for public use including, but not limited to, open space, pedestrian walkways, historic preservation, recreational, cultural, community and public facilities, new infrastructure, maintenance and improvement of existing infrastructure, job training and outreach programs, affordable housing, affordable child care, streetscape improvements, public arts programs, homeless services programs, or public transportation improvements.

Publicly Accessible Open Space. Open space that is accessible to the public for a minimum of 10 hours per day or during all daylight hours, whichever is greater.

Public Service Facilities. Uses that provide government services to the public (except health-related services such as Hospitals, Nursing and Residential Care Facilities).

Receiver Site. A site that receives additional Floor Area Rights from a Donor Site pursuant to the Plan's provisions.

Repair and Maintenance Facilities. Facilities used for the repair or servicing of industrial, business or consumer machinery, equipment, products or by-products. The repair and service of consumer goods falls into the Personal Services category.

Research and Development. Uses related to scientific and technical research leading to the development of new products and processes, including development/testing activities and prototype fabrication.



Paseo or Pedestrian Walkway



Personal Service Facilities



Publishing, Motion Picture, and Broadcasting



Repair and Maintenance Facilities



Residential-Multi-Family



Residential-Single Family



Recreation Facilities

Restricted Affordable Units. A residential unit for which rental or sale prices are restricted so as to be affordable to, and occupied by, Extremely Low, Very Low, Low, or Moderate Income households, as determined by the Family Median Income (FMI).

Retail Street. A street where a percentage of retail and community serving uses are required at the ground floor level where adjacent to street frontage.

Recreation Facilities. Facilities used for indoor and/or outdoor recreational activities.

Residential-Multi-Family. A structure or structures that provide multiple dwelling units that may have separate sleeping areas and some combination of shared bath or toilet facilities. Single Room Occupancy (SRO) residential structures, live-work units, dormitory-style apartment hotels, homeless shelters, rooming houses, small lot subdivisions, and Senior Independent Housing are also included in this category.

Residential-Single Family. A residential Project that includes no more than one dwelling unit on a lot, but which may contain an accessory unit ("granny flat") or servant's quarters. Small lot subdivisions do not fall within the Residential-Single Family category.

Restaurants and Bars. Uses involving food and beverage sales to the general public. Adult entertainment is not included in this category.

Retail. Uses involving the sale and/or lease of new or used products to the general public.

River Buffer Area. An approximately 300 foot buffer area adjacent to the Los Angeles River and Arroyo Seco, as set forth in the Zoning Map.

River Public Benefits. Amenities provided to the public such as affordable housing, public open space, historic preservation, recreational, cultural, community and public facilities, storm water management, watershed protection and preservation, habitat restoration, flood control, streetscape improvements, public arts programs, or public transportation improvements with a demonstrable connection to improvements to the Los Angeles River and its environs.

Schools, Colleges, Tutoring, and Vocational/Technical Schools or Programs. Uses that include public and private schools as well as institutions offering courses of general or specialized study leading to a degree or certificate.

Server Farms. Centers established for the exclusive purpose of providing operational facilities for, but not limited to, the storage of phone equipment, computers, and internet data.

Streetwall (or street edge). The vertical face of one or more buildings within the setback area and parallel to the public right-of-way.

Transfer. The conveyance of unused allowable Floor Area of a lot from a Donor Site to a Receiver Site, that is approved in accordance with the requirements of this Plan.

Transfer Plan. A plan that identifies and describes the Donor Site(s), Receiver Site(s), amount of Floor Area Rights to be transferred and the River Public Benefit Payment.

Transportation Amenities. Bus shelters, bus benches, bicycle lockers, showers, public restrooms, cafe, restaurant, or community serving retail uses located adjacent to, or within 150 feet of a bus and/or rail station.

Trucking and Transportation Terminals. Uses related to the dispatching, maintenance and long-term or short-term storage of large vehicles such as tractor-trailers, catering trucks, shipping vessels, helicopters, locomotives, and airplanes.

Unused FAR. FAR that a Donor Site does not need and has elected to transfer to a Receiver Site.

Urban Agriculture. The production, processing, and/or marketing of beverages and/or food.



Schools, Colleges, or Tutoring



Server Farms



Trucking, and Transportation Terminals



Utilities



Warehouse Distribution and Storage



Waste Management and Remediation



Wholesale

Utilities. Uses that provide the transfer or delivery of power, water, natural gas, sewage, stormwater runoff, or telephone and related communication services.

Vocational/Technical School or Program. Uses related to the provision of vocational and/or technical training to students entering into a vocation or technical field without first obtaining higher education.

Warehousing, Distribution and Storage. Uses that package, provide, hold, and/or distribute goods in large quantities, especially to retail sales establishments. Long-term and short-term storage of commercial goods and personal items are included.

Waste Management and Remediation Services. Uses that receive solid or liquid wastes (including hazardous wastes) for on-site disposal, recycling, or transfer to another location, including uses that manufacture or produce goods or energy from the biological decomposition of organic material.

Wholesale. Uses engaged in the sale, lease, or rental of products primarily intended for industrial, institutional, or commercial businesses. The uses may include on-site sales or order taking and may include display areas.

D. Uses and Buildings Made Non-Conforming by this Plan

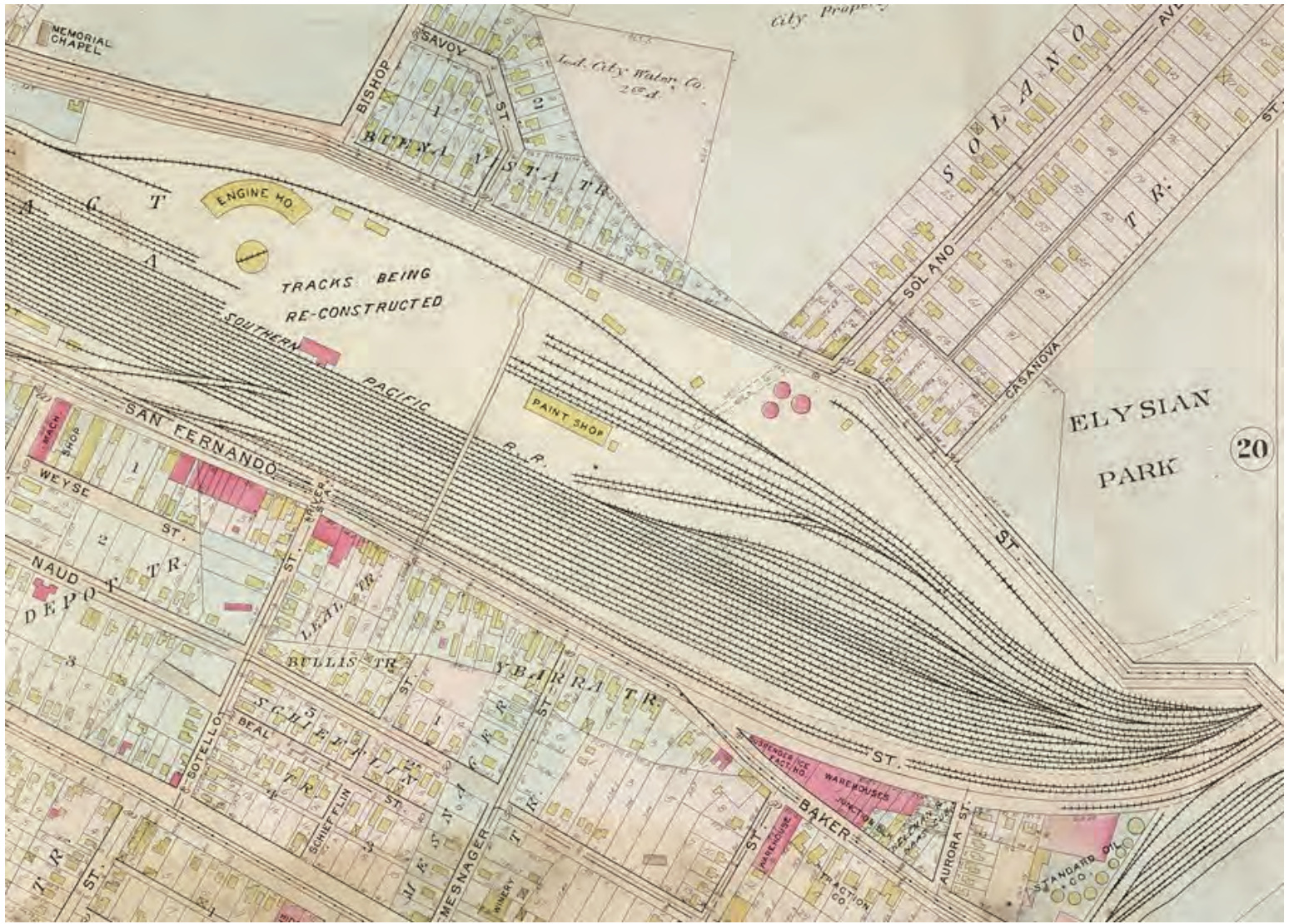
Any legally existing uses, buildings or structures that are made nonconforming by establishment of this Specific Plan shall be deemed to be legal, non-conforming uses and may continue to exist without termination. Legal, nonconforming uses may not expand beyond their existing floor area.

E. Interpretation

Whenever any ambiguity or uncertainty exists related to this Specific Plan or the application of this Specific Plan so that it is difficult to determine the precise application of these provisions, the Director shall, upon application by an owner, operator or lessee, issue written interpretations on the requirements of the Specific Plan consistent with the purpose and intent of this Specific Plan.

F. Severability

If any provision of this Specific Plan or its application to any person or circumstance is held to be unconstitutional or otherwise invalid by any court of competent jurisdiction, the invalidity shall not affect other Specific Plan provisions, clauses or applications which can be implemented without the invalid provision, clause or application, and to this end the provisions and clauses of this Specific Plan are declared to be severable.



1.2 Application Process

A. Relationship to the Los Angeles Municipal Code

1. The regulations of this Specific Plan are in addition to those set forth in the planning and zoning provisions of Chapter 1 of the LAMC as amended, and any other relevant ordinance, and do not convey any rights not otherwise granted under the provisions and procedures contained in the LAMC or other ordinances, except as specifically provided for here.
2. Wherever this Specific Plan contains provisions that establish regulations (including, but not limited to, standards such as densities, heights, uses, parking, signage, open space, and landscape requirements), that are different from, more restrictive or more permissive than would be allowed or required pursuant to the provisions contained in the LAMC, this Specific Plan shall prevail and supersede the applicable provisions of the LAMC and those relevant ordinances.
3. **Site Plan Review Ordinance.** Approvals pursuant to LAMC Sections 16.05 are not required for Projects within this Specific Plan area.
4. **Commercial Corner and Mini-Shopping Centers Ordinance.** Approvals pursuant to LAMC Sections 12.22 A 23, and 12.24 W 27 are not required for Projects within this Specific Plan.
5. **Development Combining Residential and Commercial Uses.** Approvals pursuant to LAMC Sections 12.22 A 18 and 12.24 V are not required for Projects within this Specific Plan area.
6. **Hotels.** Approvals pursuant to LAMC Section 12.24 W 24 are not required for Projects within this Specific Plan area.
7. **Landscape Ordinance.** Compliance with the provisions of this Specific Plan shall be considered compliance with the requirements of LAMC Sections 12.40, 12.41, 12.42 and 12.43.
8. **Major Projects.** Approvals pursuant to 12.24U.14 are not required for Projects within this Specific Plan area
9. If there is any conflict between the written provisions of this Plan and the charts, graphs, or figures provided herein, the written language shall control.

B. Prohibitions

1. No demolition permit, grading permit, foundation permit, building permit, or use of land permit shall be issued for any Project on any lot located in whole or in part within this Specific Plan area and no work shall be conducted in the public right of way, unless the Project complies with all applicable provisions of this Specific Plan, as determined by the Director.
2. The provisions of this Specific Plan shall not apply to:
 - a. Any Project that has obtained a still-valid discretionary land use approval from the City prior to the operative date of this Specific Plan;
 - b. Underground tank removal/remediation, and/or seismic reinforcement/retrofitting;
 - c. Projects with vested rights pursuant to LAMC Section 12.26 A 3;
 - d. Any Project complying with an order issued by the Department of Building and Safety for the repair of an unsafe or substandard condition; or
 - e. Any Project that has an application that is deemed complete by the Department of City Planning prior to the adoption of this Specific Plan.
3. Land area subject to easements granted pursuant to this Specific Plan shall be counted as buildable area for the purposes of determining the maximum floor area ratio.

C. Development Review Procedures

1. Application.
 - a. All Projects proposed within the Plan area, except Projects eligible for an Administrative Clearance, shall file an application with the Department of City Planning on a form provided by the Department, and include all information required by the instructions on the application and the guidelines adopted by the Director of Planning. Prior to deeming the application complete, the Director shall determine, and if necessary, advise the applicant of the processes to be followed, materials to be submitted, and fees to be paid.
 - b. This Plan's regulations shall apply to Projects only as set forth in the Project Table on the following page.
2. **Administrative Clearance.** A permit for a Project may be issued with an Administrative Clearance from the Director if the Project's FAR does not exceed 4.0:1, and if the Project complies with all of this Specific Plan's requirements.
3. **Director's Determination of Alternative Design.** If a proposed Project fails to meet the urban design regulations contained in either Section 2.2 and/or Section 2.3 of this Plan, the applicant may apply to the Director of Planning for a Director's Determination of Alternative Design. Such application shall be processed in accordance with the procedures specified in LAMC 11.5.7 C and E.1. The limitations specified in LAMC 11.5.7 E.2 shall not apply. The Director shall only approve a Project upon making all of the following written findings in the affirmative:
 - a. The Project's location, size, height, operations and other significant features shall be compatible with and shall not adversely affect or further degrade adjacent properties, the surrounding neighborhood, or the public health, welfare, and safety;
 - b. The Project provides for an arrangement of uses, buildings, structures, open spaces and other improvements that are compatible with the scale and character of the adjacent properties and surrounding neighborhood; and
 - c. The Project shall not create an adverse impact on street access or circulation in the surrounding neighborhood.

The Director's Determination shall only address the requested deviations from the building form and urban design standards set forth in Sections 2.2 and 2.3 herein. The remainder of the Project shall be reviewed through the Administrative Clearance Process.

PROJECT TABLE

Section No.	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3
Standards	Zoning	Building Mass	Urban Design	Open Space	Parking	Conservation	Performance	Sign	MMP	Streets
Project Type										
Building										
Change of Use	x			x	x ¹		x	x		
Use of Land	x			x			x	x	x	x
New Construction	x	x	x	x	x	x	x	x	x	x
Addition >50% building value	x	x	x		x	x ⁵	x	x	x	
Exterior Alteration >50% building value									x	
• Street Facing Facade			x ²			x ⁵				
• River-Arroyo Facing Facade			x ²			x ⁵				
• Plaza or park facing Facade			x ²			x ⁵				
Interior Alteration >50% building value						x ⁵				
Eligible or Designated Historic Resource	x			x ⁴	x	x ³	x	x	x ⁶	x
Demolition*									x	
Pool/Spa										
Signs- New/Alterations								x		

PROJECT TABLE

Section No.	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3
Standards	Zoning	Building Mass	Urban Design	Open Space	Parking	Conservation	Performance	Sign	MMP	Streets
Site Grading									X	
Fences and Block Walls										
Underground Tank Removal/ Remediation										
Seismic Reinforcement/ Retrofit										
Division of Land										
Parcel Map	X	X	X	X	X	X	X	X		X
Tract Map	X	X	X	X	X	X	X	X		X
Lot Line Adjustment	X									
Public Works Permit										
A Permit						X		X		X
B Permit								X		X

Footnotes:

1. Existing parking located along a street frontage is not required to be relocated, but the design of the parking area shall be modified to conform to the applicable design and parking standards.
 2. Existing ground floor space is not required to be redesigned to accommodate the active uses described in Section 2.3 C.1a-c; however, the entrance location and transparency standards shall still apply.
 3. Projects identified as potential historic resources shall comply with Section 2.6.C of this Plan.
 4. Applied to extent feasible as determined by the Office of Historic Resources.
 5. Applicable only to the area being altered and to applicable construction activities.
 6. Subject to only Historic Resource Mitigations.
- * Eligible or Designated Historic Resources seeking a demolition permit shall contact the Office of Historic Resources. See Section 1.2.C.2.b.

4. Allocation of Floor Area Rights for Transfer of FAR.
 - a. **Application for Transfer of FAR.** An Applicant seeking an Allocation of Floor Area Rights for a Transfer FAR shall file an application with the Department on a form prescribed by the Director. The application shall be accompanied by a proposed Allocation Plan. For Projects with a FAR less than 4.0:1, the Director shall approve the Transfer ministerially, provided that the Allocation Plan complies with the requirements of this Specific Plan.
 - b. **Action by Director.** For applications requesting a Project with a FAR in excess of a 4.0:1, the Director may approve, approve with conditions or disapprove the request for Allocation, including the Floor Area Payment to be provided, based upon the following findings:
 - i. Will the Project's location, size, height, operations and other significant features be compatible with and not adversely affect or further degrade adjacent properties, the surrounding neighborhood, or the public health, welfare and safety, and
 - ii. Does the Project substantially conform with the purpose, intent and provisions of the General Plan, the applicable community plan, and this Specific Plan?
 - c. **Floor Area Payment.** A Floor Area Payment shall be provided as part of an Allocation Plan when a Project receives density from a site owned by the City of Los Angeles. Prior to approving an Allocation Plan, the Director shall determine that the Floor Area Payment proposed in the Allocation Plan will result in public benefits or improvements with an economic value equal to the sum of the Floor Area Payment set forth in Subsection (1.2.C.5.c.ii) below.
 - i. A Floor Area Payment may be provided by any combination of the payment of monies to the Cornfield Arroyo Seco Floor Area Payment Trust Fund (a Public Benefit Trust Fund) or by the direct provision of Public Benefits by the Applicant; provided, at least 50% of the Floor Area Payment must consist of a cash payment made by the Applicant to the Cornfield Arroyo Seco Floor Area Payment Trust Fund.
 - ii. The Payment under any Allocation Plan when a Project receives density from a site owned by the City of Los Angeles shall equal (a) the sale price of the Receiver Site, if it has been purchased through an unrelated third-party transaction within 18 months of the date of submission of the request for approval of the Transfer, or the value of an Appraisal, if it has not, (b) divided by the Lot Area (prior to any dedications) of

the Receiver Site, (c) further divided by the Base Floor Area Ratio, (d) multiplied by 40%, and (e) further multiplied by the number of square feet of Floor Area Rights to be transferred to the Receiver Site.

- iii. Example: If a Receiver Site with a Lot Area of 50,000 square feet (before any dedications) was purchased for \$2,500,000 (through an unrelated third-party transaction within 18 months of the date of submission of the request for approval of the Transfer), the Floor Area Payment under an Allocation Plan transferring 25,000 square feet of Floor Area Rights would equal: (a) \$2,500,000 (the purchase price), (b) divided by 50,000 (the Lot Area of the Receiver Site), (c) divided by the base FAR, for example, 3 (the Floor Area Ratio Factor), (d) multiplied by 40%, and (e) multiplied by 25,000 (the number of square feet of Floor Area Rights to be transferred) = \$166,666.67 (or \$6.66 for each square foot of transferred Floor Area Rights).
 - iv. The non-cash portion of the Payment, which shall not exceed 50% of the overall Payment, shall be provided as set forth in the Allocation Plan to the satisfaction of the Director.
- d. **Payments and Vesting.** Any Floor Area Payment (when applicable) shall be provided as set forth in the Allocation Plan and as set forth below in this subsection:
- i. If the Project specifies a single-phase Project on the Receiver Site, then the owner of the Receiver Site shall pay the Floor Area Payment (when applicable) on or before the issuance of the building permit for the Project.
 - ii. If the Project is a multi-phased Project on the Receiver Site, then the owner of the Receiver Site may elect to pay the the Floor Area Payment (when applicable) in any one of the three manners set forth below,
 - a) In total for all phases of the Project, on or before the earlier of (i) the issuance of the building permit for the first phase of the Project or (ii) 24 months after the final approval of the Allocation, the expiration of any appeals or appeals period for all phases of the Project and recordation of the document running with the land described below in Paragraph A.2 of subsection 1.6.7 of this Plan; or
 - b) Incrementally by each phase of the Project, proportionate to the Floor Area Rights utilized in each such phase, on or before the issuance of the building permit for each such phase, with the amount of each payment being recalculated as of the date that the building permit for each phase is issued in accordance with an Appraisal establishing the fair market value of the Receiver Site within six months prior to the issuance of the building permit for that phase.

- c) Upon the Applicant's payment to the City of all of the Floor Area Payment (when applicable) required under an approved Allocation, all Floor Area Rights allocated to the Receiver Site pursuant to the Allocation Plan shall vest in the Receiver Site and thereafter run with the land.

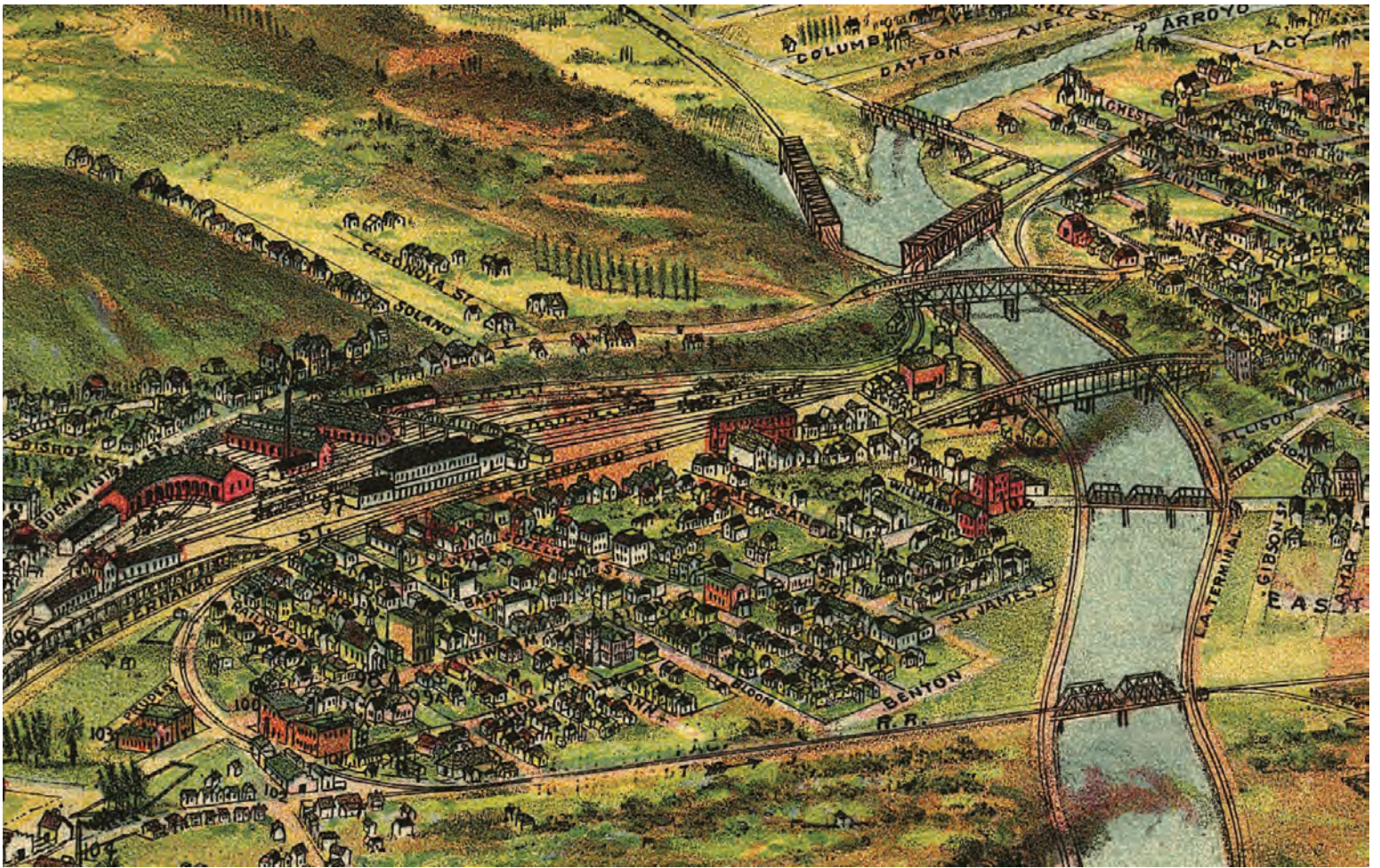
D. Administrative Procedures for Allocation of Floor Area Rights

1. **General Requirement.** Any Allocation of Floor Area Rights approved pursuant to this Specific Plan shall be recorded by covenant, or similar instrument, to the satisfaction of the Director of Planning. This document shall clearly set forth the amount of Floor Area Rights allocated to the Receiver Site from the Donor Site.
2. **Cornfield Arroyo Seco Specific Plan Floor Area Payment Trust Fund.** Funds held in the Cornfield Arroyo Seco Specific Plan Floor Area Payment Trust Fund shall be disbursed in accordance with the provisions of Los Angeles Administrative Code Division 5, Chapter 160; and
 - a. As determined by a committee comprised of one representative from each of the following: the City Council Office for the City Council District in which the Receiver Site is located, the Chair of the Ad Hoc Committee on the Los Angeles River (unless they are the same), the City Engineer, the Mayor's Office, the Chief Administrative Officer and the Chief Legislative Analyst, the Department of City Planning, the Los Angeles Housing Department and the Los Angeles River Revitalization Corporation in accordance with the procedure previously established for the Public Benefit Trust Fund, and
 - b. For the purposes of providing community benefits including, but not limited to, improving river access, overall river enhancements, non-vehicular transportation improvements, removing visual blight, improving public safety and affordable housing.

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Zoning and Standards

Chapter 2





2.1 Zoning

A. Purposes

These zoning regulations are intended to:

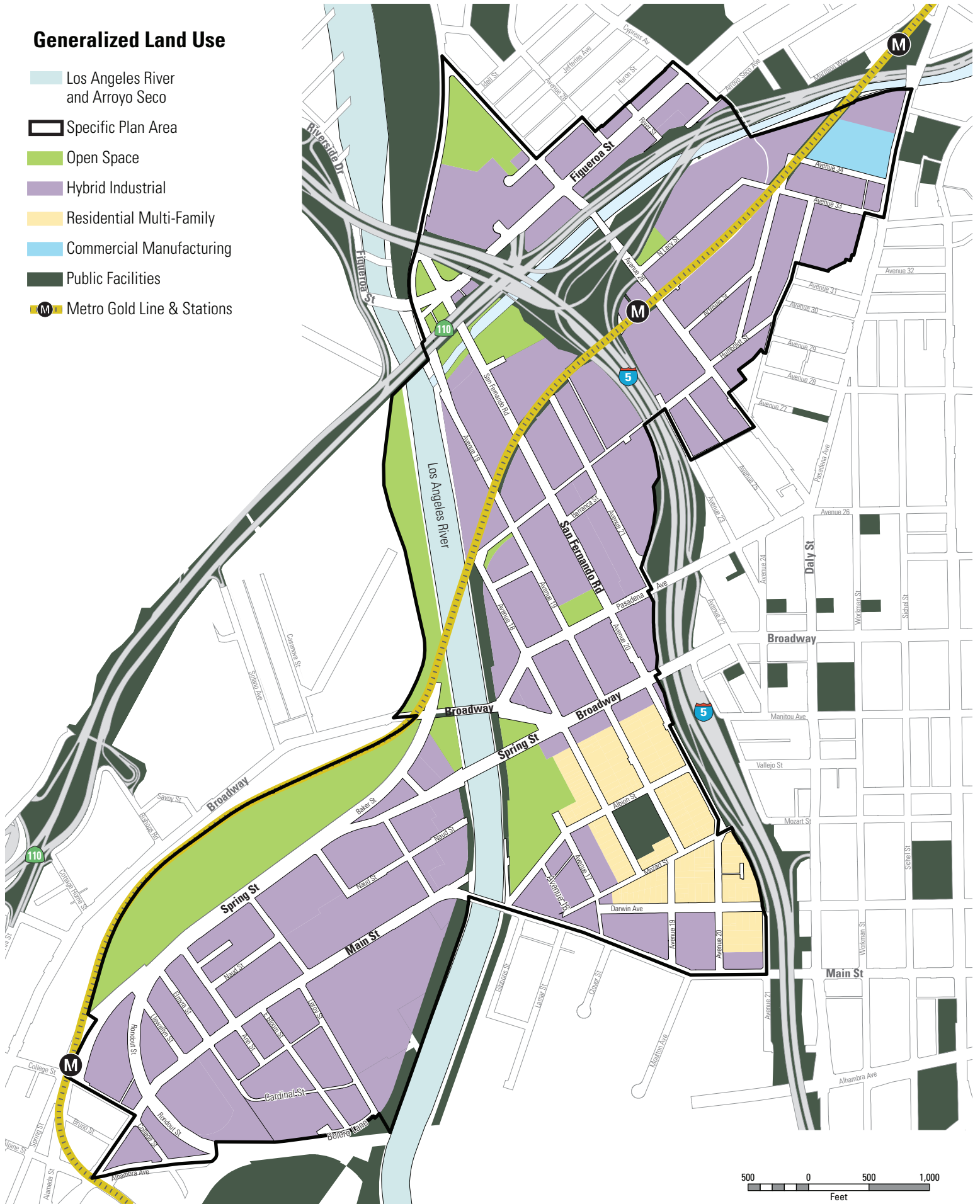
1. Protect existing light industrial areas from residential encroachment.
2. Provide areas where residential, commercial, and light industrial uses can co-locate horizontally and/or vertically.
3. Facilitate the development of mixed-use and affordable housing projects.
4. Ensure the continued provision of housing for extremely low and very low income populations.
5. Encourage the inclusion of affordable housing in the future redevelopment of city owned properties, especially those located within the Urban Village zone.

B. Land Use

1. The Plan is divided into the following four land use categories:
 - a. Public Facility
 - b. Open Space
 - c. Residential Multi-Family
 - d. Hybrid Industrial
2. The boundaries of each land use category are illustrated on the Generalized Land Use Map.

Generalized Land Use

-  Los Angeles River and Arroyo Seco
-  Specific Plan Area
-  Open Space
-  Hybrid Industrial
-  Residential Multi-Family
-  Commercial Manufacturing
-  Public Facilities
-  Metro Gold Line & Stations



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C. Zoning Districts

1. The Plan is divided into the following zones:
 - a. Greenway (CASP)
 - b. Urban Village (CASP)
 - c. Urban Innovation (CASP)
 - d. Urban Center (CASP)
2. The boundaries of each zone are indicated on the Zoning District Map.



Greenway



Urban Village















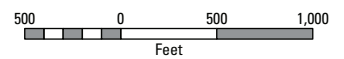
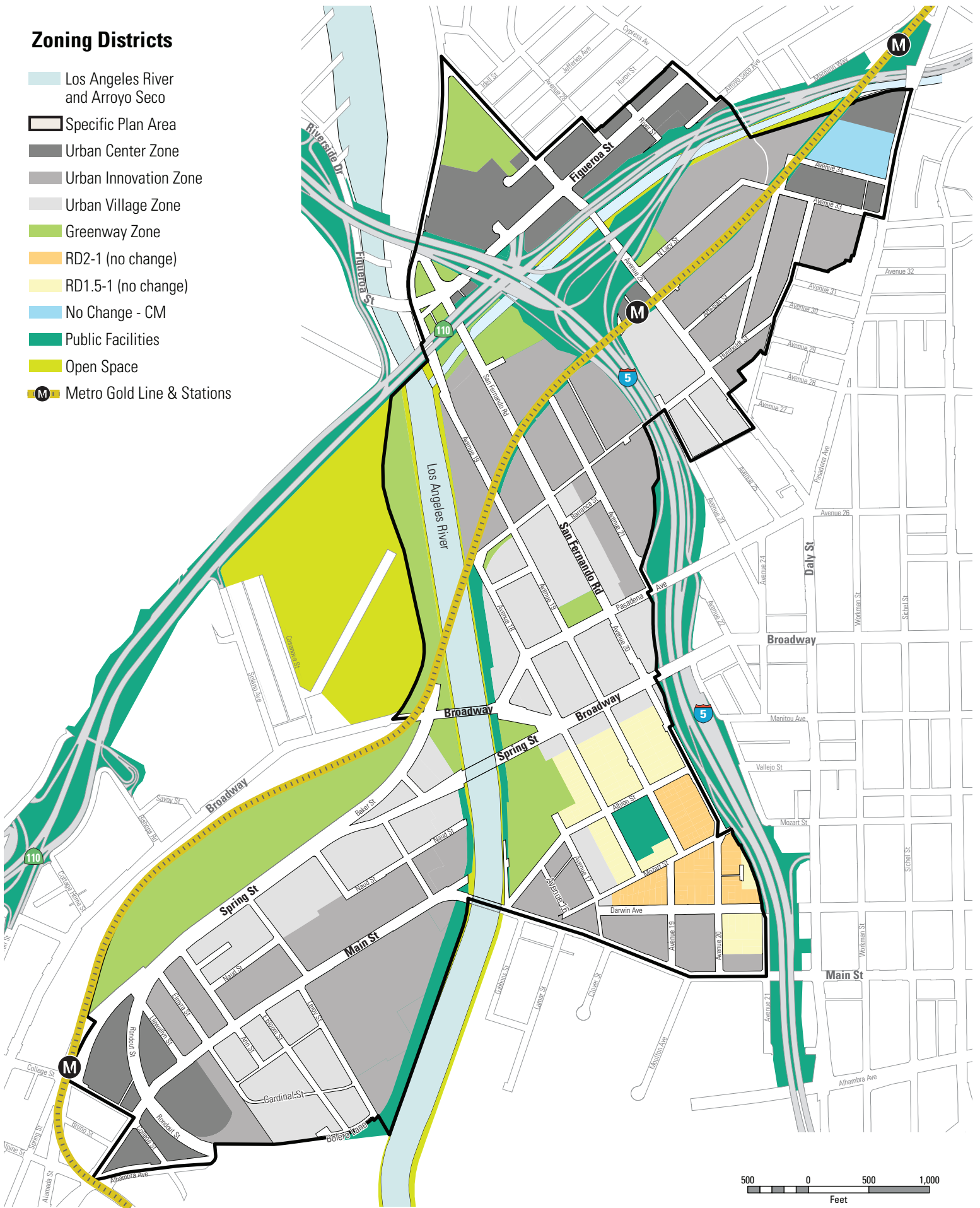
Urban Innovation



Urban Center

Zoning Districts

-  Los Angeles River and Arroyo Seco
-  Specific Plan Area
-  Urban Center Zone
-  Urban Innovation Zone
-  Urban Village Zone
-  Greenway Zone
-  RD2-1 (no change)
-  RD1.5-1 (no change)
-  No Change - CM
-  Public Facilities
-  Open Space
-  Metro Gold Line & Stations



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D. Permitted Uses

The permitted uses for each zone are set forth in the following Use Classification Table. All other uses are prohibited, except as follows:

1. Accessory Uses that are customarily incidental to the main building or use of land and that are located on the same lot are permitted, even if not listed in the Use Classification Table. There is no maximum lot area that may be occupied by an Accessory Use.
2. Outdoor Eating Areas. Outdoor eating areas are permitted on all building floors, sidewalk easements and public sidewalk areas, when in compliance with all other applicable local, state and federal requirements. Outdoor eating areas shall be designed in accordance with the applicable urban design standards.

USE CLASSIFICATION TABLE

Use Classifications	Greenway	Urban Village	Urban Innovation	Urban Center
Heavy Manufacturing	No	No	No	No
Corporate Headquarters	No	Yes	Yes	Yes
Light Manufacturing and Assembly	No	Yes	Yes	Yes
Repair and Maintenance Facilities	No	Yes ²	Yes	Yes
Research and Development	No	Yes	Yes	Yes
Publishing, Motion Picture, Broadcasting	No	Yes	Yes	Yes
Trucking and Transportation Terminals	No	No	No	CUP
Urban Agriculture	No	Yes	Yes	Yes
Utilities	Yes	Yes	Yes	Yes
Warehousing, Distribution, and Storage	No	Ancillary ⁴	Yes ⁴	Yes ⁴
Waste Management and Remediation Services	No	CUP	CUP	CUP
Wholesale (including showrooms)	No	Yes	Yes	Yes
Automobile Fueling Stations	No	CUP	CUP	CUP
Commercial Office	No	Yes ¹	Ancillary	Yes ¹

USE CLASSIFICATION TABLE

Use Classifications	Greenway	Urban Village	Urban Innovation	Urban Center
Commercial Hotels	No	Yes ¹	Yes ¹	Yes ¹
Public Parking	Yes ⁶	Yes ⁶	Yes ⁶	Yes ⁶
Restaurants and Bars	Yes ^{1,3}	Ancillary ^{3,9}	Ancillary ^{3,9}	Ancillary ^{3,9}
Retail and Personal Services	Ancillary	Ancillary ¹	Ancillary ¹	Ancillary ¹
Server Farms	No	Ancillary	No	Ancillary
Residential-Multi-Family, Small Lot Subdivisions and Senior Independent Housing	No	Yes ¹	Yes ¹	Yes ¹
Residential-Single Family	No	No	No	No
Hospitals, Nursing and Residential Care Facilities	No	CUP	No	No
Entertainment, Exhibit & Cultural Facilities	Yes	Yes	Ancillary ⁸	Yes
Recreation Facilities and Spectator Sports	Yes	Yes	Ancillary	Yes
Conservation, Environmental and Social Service Organizations, Religious Institutions, and Public Facilities	Yes ⁷	Yes	Yes	Yes
Schools, Colleges, Tutoring, and Vocational Technical Training Programs	No	Yes	Yes ⁵	Yes

Footnotes for Use Classification Table

1. See Limits Table for area, FAR, and square footage limits.
2. Truck repair uses are not permitted in the Urban Village zone.
3. Free Standing Fast Food establishments are permitted with a Conditional Use Permit pursuant to Section 12.24.W.17., except that the finding set forth in Section 12.24.W.17 (a) shall not apply.
4. Self storage uses are limited to 50% of the Base FAR.
5. Schools, Colleges, Tutoring, and Technical Training Programs in the Urban Innovation zone are limited to Vocational Technical Training Schools or Programs.
6. Parking uses must be combined with the development of other uses, and such other uses must equal no less than a 1:1 FAR for the project site.
7. Conservation, Environmental, and Social Services uses are limited to Block 70 in the Block Numbers Map on page 3-23.
8. These uses are limited to Block 52 in the Block Numbers Map on page 3-23.
9. If the parcel is 30,000 square feet in area or less, then the Ancillary Use is permitted up to a 1:1 FAR.

E. Use Limitations

1. The following uses shall be prohibited within the Plan area:
 - a. Auto wrecking, salvage and tow yards, except as Accessory Uses.
 - b. Drive-through establishments.
2. As set forth below, the following uses are further limited as to a percentage of the applicable FAR, maximum square footage, or maximum number of rooms.
3. **Density.** There is no limit on the number of dwelling units or guest rooms permitted on any lot located within the Plan area.

LIMITS TABLE

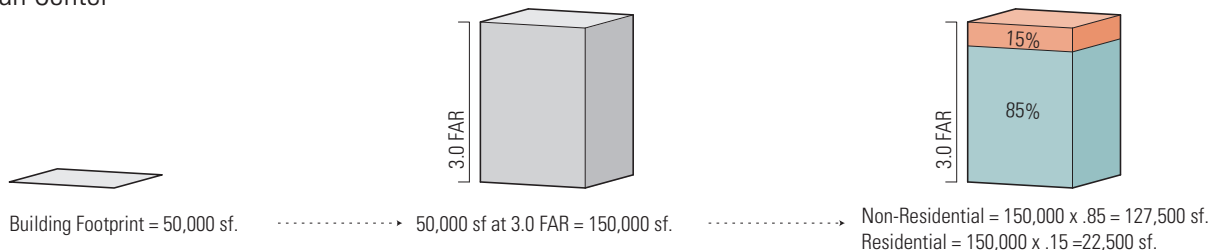
Use Classifications	Greenway	Urban Village	Urban Innovation	Urban Center
Commercial Office	N/A	65% ^a	Ancillary-(10%) ^a	65% ^a
Retail square footage limit	1,200 sf ^b	15,000 sf ^b	5,000 sf ^b	50,000 sf ^b
Retail and/or Personal Services	Only Retail uses are permitted, and they are subject to a 10% FAR limitation. ^a	20% ^a	20% ^a	20% ^a
Residential Multi-Family	N/A	90% ^{c,d}	15% ^{c,d}	15% ^{c,d}
Commercial Hotels	N/A	150 rooms	100 rooms	200 rooms

Footnote for Limits Table

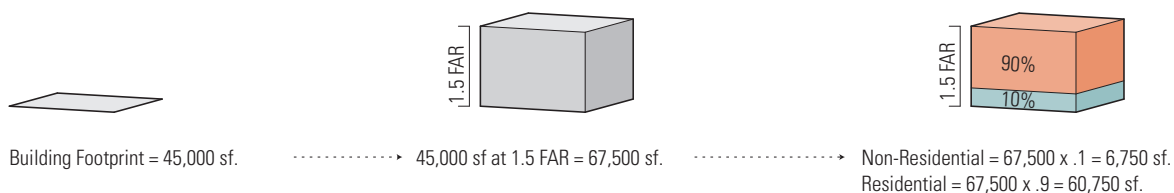
- a. The floor area for the use shall not exceed the allowable percentage of the site’s Base FAR set forth in the Limits Table. For example, a 100,000 square foot site with a permitted 3:1 Base FAR may not be developed with a Commercial Office project that exceeds 195,000 square feet (i.e., 65% of 300,000 sf) of commercial use. The same project could include other permitted uses to maximize the permitted total floor area if desired. If a Project applicant obtains a FAR in excess of their Base FAR as a result of a Bonus Option or TFAR, then the floor area for the use shall not exceed the allowable percentage of the site’s total FAR.
- b. The square footage provided is the maximum square footage permitted for each Retail establishment on the lot.
- c. The maximum floor area of Residential Multi-Family uses shall not exceed the stated percentage of the total gross floor area of all principal and Ancillary Uses combined.
- d. Only the “living” portion of a joint living and work quarter that is designed for residential purposes shall count towards the residential square footage limitation.

**Figure 2.1
Residential Use Limits**

Urban Center



Urban Village



Residential Use
Non-Residential Use

F. Floor Area Limitations

1. A Base FAR and a Maximum FAR is established for each parcel as set forth in the FAR Table below and further illustrated in the FAR Map.
2. Where applicable, the Base FAR can be increased up to the Maximum FAR, through the Bonus FAR and/or Transfer of Floor Area (TFAR) Programs described in Section 2.1.1 of this Plan.
3. Residential projects with more than 15 units must utilize the Bonus FAR Program to be eligible for the TFAR Program, except for projects purchasing Unused FAR from a Donor Site that participated in the Bonus FAR Program (See 2.1.1.4).

FAR TABLE

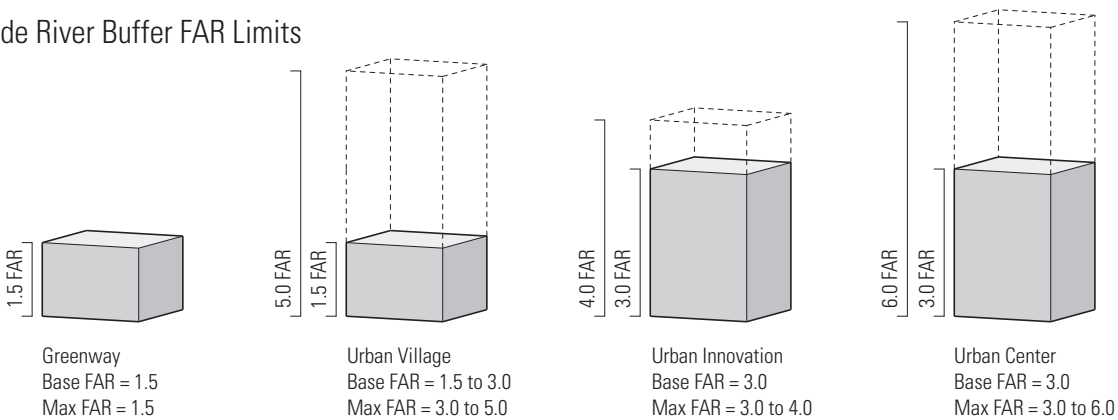
	Greenway	Urban Village	Urban Innovation	Urban Center
Base FAR	1.5:1	1.5:1 or 3:1 ^a	3.0:1	3.0:1
Base FAR within River Buffer Areas	1.5:1	1.5:1	1.5:1	1.5:1
Max FAR	1.5:1	3:1 to 5:1 ^b	3:1 to 4:1 ^b	3:1 to 6:1 ^b
Max FAR within River Buffer Areas	1.5:1	1.5:1 ^c	1.5:1 ^c	1.5:1
Max FAR within River Buffer Areas with Affordable Housing Bonus Option	NA	2:1	1.8:1	1.8:1

FAR Table Footnotes

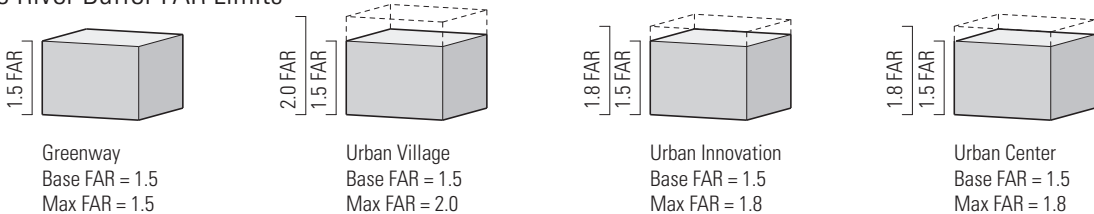
- a. Projects with more than 15 residential units are limited to a 1.5:1 Base FAR unless the residential portion of the project is equal to or less than 75% of the FAR or the Project pursues the Affordable Housing Bonus Option in Section 2.1 G 1. All other Projects are limited to a 3.0:1 Base FAR. As set forth in the Limits Table, the residential component of a Project is limited to 90% of the Project's FAR.
- b. The Maximum FAR for each parcel varies depending on its location, as set forth in the FAR Map.
- c. Parcels located entirely within the River Buffer Area are limited to a Maximum 1.5:1 FAR. If a Parcel is located both inside and outside of the River Buffer Area, then the Maximum 1.5:1 FAR shall only apply to the portion of the parcel inside the River Buffer Area, unless restricted elsewhere in the FAR Table. The Base FAR for projects that straddle the River Buffer Area shall be calculated by multiplying the lot square footage within the River Buffer Area by 1.5 and multiplying the lot square footage outside the River Buffer Area by the Base FAR. The sum of these two totals represents the total Base FAR of the project. Example: (10,000 sf x 1.5) + (10,000 sf x 3.0) = 45,000 sf. Any portion of a project can be built within the River Buffer Area as long as the project does not exceed the average maximum height and maximum lot coverage established for the area within the River Buffer Area.

**Figure 2.2
FAR Limits**

Outside River Buffer FAR Limits



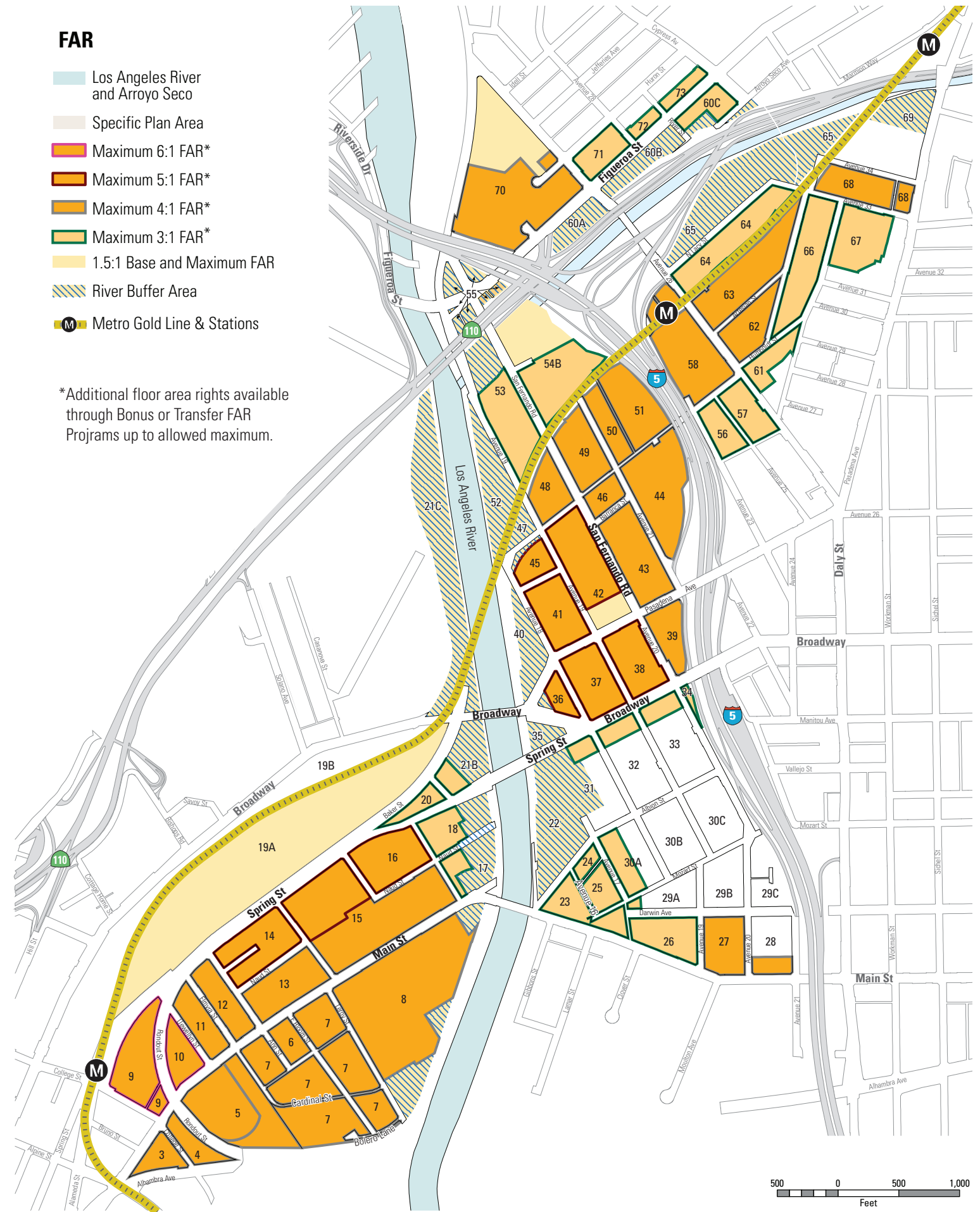
Inside River Buffer FAR Limits



FAR

- Los Angeles River and Arroyo Seco
- Specific Plan Area
- Maximum 6:1 FAR*
- Maximum 5:1 FAR*
- Maximum 4:1 FAR*
- Maximum 3:1 FAR*
- 1.5:1 Base and Maximum FAR
- River Buffer Area
- M Metro Gold Line & Stations

*Additional floor area rights available through Bonus or Transfer FAR Programs up to allowed maximum.



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G. Floor Area Bonus

Project applicants may obtain additional floor area rights by complying with the Affordable Housing Bonus Option and/or the Community Benefit Bonus Options as described below.

1. **Affordable Housing Bonus Option.** Projects in the Urban Village, Urban Innovation, or Urban Center Zones that include Residential uses may participate in the Affordable Housing Bonus Option. Projects may pursue, as appropriate, either of the two Affordable Housing Bonus Strategies- Strategy A or Strategy B.
 - a. **Certificate of Occupancy.** If an applicant elects to pursue the Affordable Housing Bonus Option, then no certificate of occupancy may be issued for the Project unless a certificate of occupancy is concurrently issued for, or has already been issued for, the restricted affordable residential units.
 - b. **Strategy A.** If an applicant agrees to set aside a portion of the Residential units in a Project for affordable housing, then the Project shall be granted a Floor Area Bonus as set forth in the following table.

FLOOR AREA BONUS TABLE- STRATEGY A*

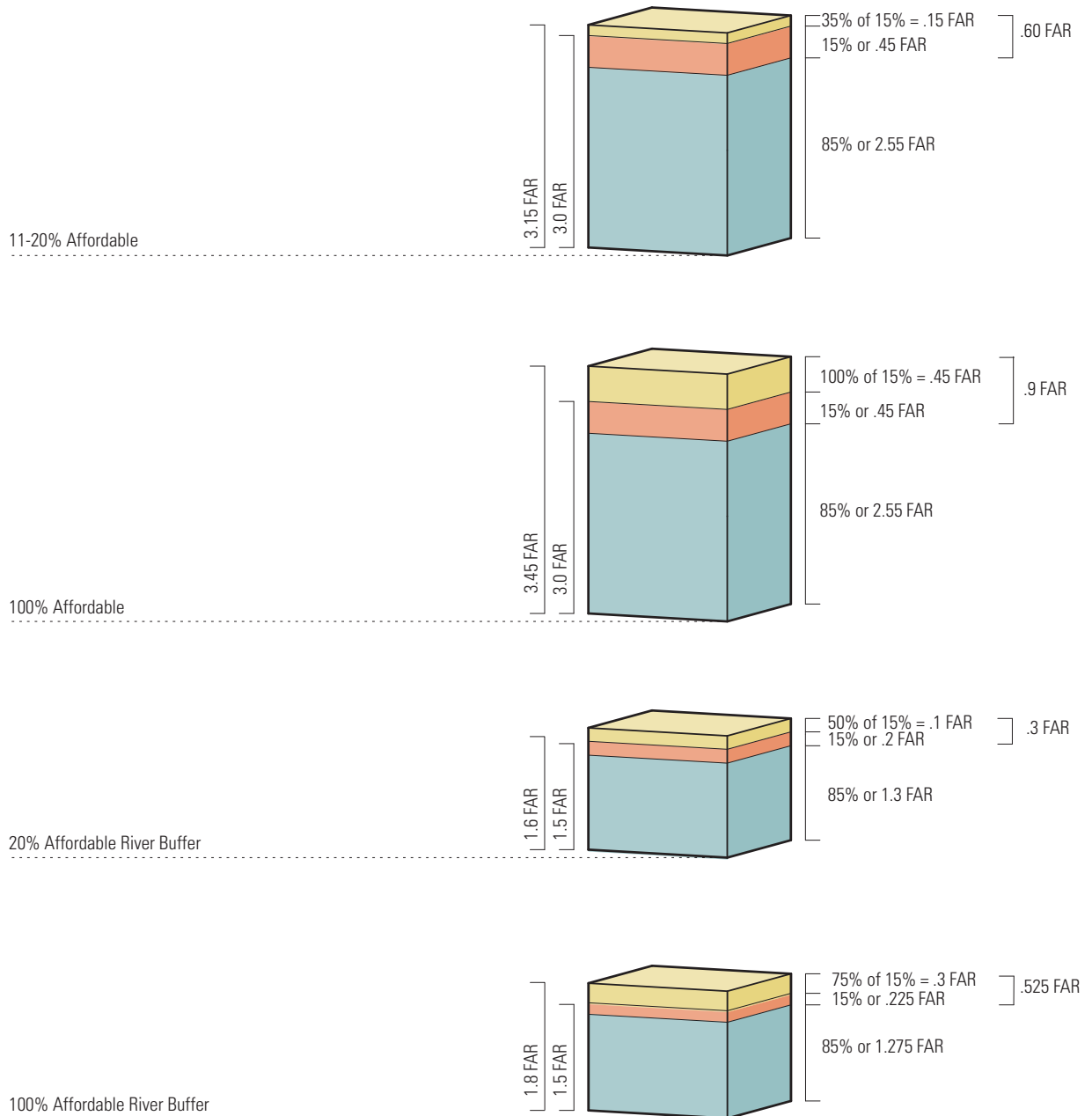
Affordability Level/Location	Greenway	Urban Village	Urban Innovation	Urban Center
11% of units set aside for households earning 50% of AMI or less, or 20% of units set aside for households earning 80% of AMI or less	NA	3:1	3.15:1 (The Residential portion of the Project is subject to a .6:1 FAR)	3.15:1 (The Residential portion of the Project is subject to a .6:1 FAR)
100% of units set aside for households earning 80% of AMI or less	NA	4:1	3.45:1 (The Residential portion of the Project is subject to a .9:1 FAR)	3.45:1 (The Residential portion of the Project is subject to a .9:1 FAR)
11% of units located in the River Buffer set aside for households earning 50% of AMI or less, or 20% of units located in the River Buffer set aside for households earning 80% of AMI or less	NA	2:1	1.6:1 (The residential portion of the Project is subject to a .3:1 FAR)	1.6:1 (The residential portion of the Project is subject to a .3:1 FAR)
100% of units located in the River Buffer set aside for households earning 80% of AMI or less	NA	2:1	1.8:1 (The residential portion of the Project is subject to a .525:1 FAR)	1.8:1 (The residential portion of the Project is subject to a .525:1 FAR)

Floor Area Bonus Strategy A Footnote

*Projects located in an area with a Maximum FAR of 3:1, as shown on the FAR Map, shall be limited to a 3.375:1 FAR.

Figure 2.3
Affordable Housing Bonus Option; Strategy A

Urban Innovation/Center



- Residential Use
- Non-Residential Use
- Affordable Housing Bonus Option

- c. **Strategy B.** As an alternative to Strategy A, if an applicant agrees to set aside a portion of the Residential units in a Project for affordable housing, then for each square foot of affordable housing constructed, the applicant shall be granted the right to construct additional floor area above the Base FAR for the Project, as set forth in the Bonus Square Footage Table below. One additional square foot shall be added to the bonus numbers set forth below for square footage that is used to construct affordable units containing three or more bedrooms.

BONUS SQUARE FOOTAGE TABLE- UNTIL FIVE YEARS FOLLOWING PLAN ADOPTION*

Affordability	Affordable SF	Market SF	Total Bonus SF
Extremely-Low - Units set aside for households earning 30% of AMI or less	1	18	19
Very Low - Units set aside for households earning 50% of AMI or less	1	13	14
Low - Units set aside for households earning 80% of AMI or less	1	5	6

Bonus Square Footage Table Footnote

*Five Years After Plan Adoption the market square value footage is reduced by half unless the City Council legislatively acts to modify the current market square footage. The revised numbers shall not apply to Projects for which the application is deemed complete by the Department of City Planning prior to the termination of the five year period following Plan adoption.

- d. **Floor Area Bonus.** The Floor Area Bonus in Strategy B is limited to the Maximum FAR set forth in the following table.

FLOOR AREA BONUS LIMITS- STRATEGY B TABLE*

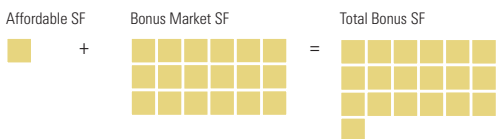
Location	Greenway	Urban Village	Urban Innovation	Urban Center
Outside of the River Buffer Area	NA	4:1	3.45:1 (The Residential portion of the Project is subject to a .9:1 FAR)	3.45:1 (The Residential portion of the Project is subject to a .9:1 FAR)
Within the River Buffer Area	NA	2:1	1.8:1 (The Residential portion of the Project is subject to a .525:1 FAR)	1.8:1 (The Residential portion of the Project is subject to a .525:1 FAR)

Floor Area Bonus- Strategy B Footnote

*Projects located in an area with a Maximum FAR of 3:1, as shown on the FAR Map, shall be limited to a 3.375:1 FAR.

Figure 2.4
Affordable Housing Bonus Option; Strategy B

Extremely Low



Affordable Unit SF at 30% AMI + 18 Bonus Market SF = 19 Total Bonus SF
Ex. 1,000 + 18,000 = 19,000

Very Low



Affordable Unit SF at 50% AMI + 13 Bonus Market SF = 14 Total Bonus SF
Ex. 2,000 + 26,000 = 28,000

Low



Affordable Unit SF at 80% AMI + 5 Bonus Market SF = 6 Total Bonus SF
Ex. 1,000 + 5,000 = 6,000

- e. **Incentives.** Applicants who participate in the Affordable Housing Bonus Option (either Strategy A or B) are eligible for up to three on or off-menu incentives either based upon the requirements set forth in Government Code Section 65915 (d)(2) (or any successor mandatory state statute), or as set forth below, whichever results in the greater number of incentives.
 - i. **Strategy A.** A Strategy A Project:
 - a) With at least 11% very-low income or 20% low-income affordable units is eligible for two incentives.
 - b) With 100% units set aside for households earning 80% of AMI or less is eligible for three incentives.
 - ii. **Strategy B.** A Strategy B Project that achieves:
 - a) A 3.0:1 FAR, or greater, shall be eligible for one incentive
 - b) A 3.5:1 FAR, or greater, shall be eligible for two incentives
 - c) A 4.0:1 FAR, or greater, shall be eligible for three incentives.

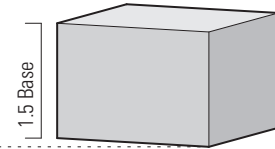
Figure 2.5
Affordable Housing Bonus Option; Strategy B

Urban Village

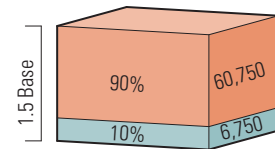
Building Footprint = 45,000 sf



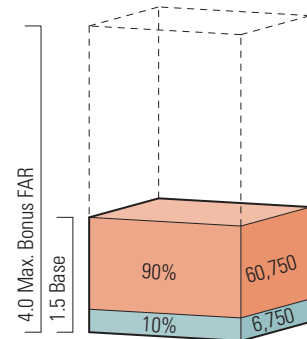
Total SF = 45,000 sf at 1.5 FAR = 67,500 sf



Residential SF = 67,000 x .9 = 60,750 sf
Non-Residential SF = 67,500 x .1 = 6,750 sf



Density Bonus FAR Limit = 4.0 FAR



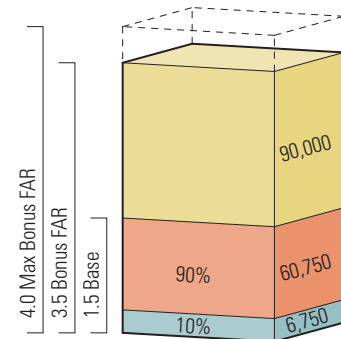
Bonus FAR

Affordable SF at 30% AMI + 18 Bonus Market SF = 19 Total SF at 30% AMI
Ex. 2,000 + 36,000 = 38,000

Affordable SF at 50% AMI + 13 Bonus Market SF = 14 Total SF at 50% AMI
Ex. 2,000 + 26,000 = 28,000

Affordable SF at 80% AMI + 5 Bonus Market SF = 6 Total SF at 80% AMI
Ex. 3,667 + 18,333 = 22,000

Total Bonus SF = Total at 35% AMI + Total at 50% AMI + Total at 80% AMI
Ex. 28,000 + 22,000 + 38,000 = 90,000 SF



- Residential Use
- Non-Residential Use
- Affordable Housing Bonus Option

iii. On-Menu Incentives.

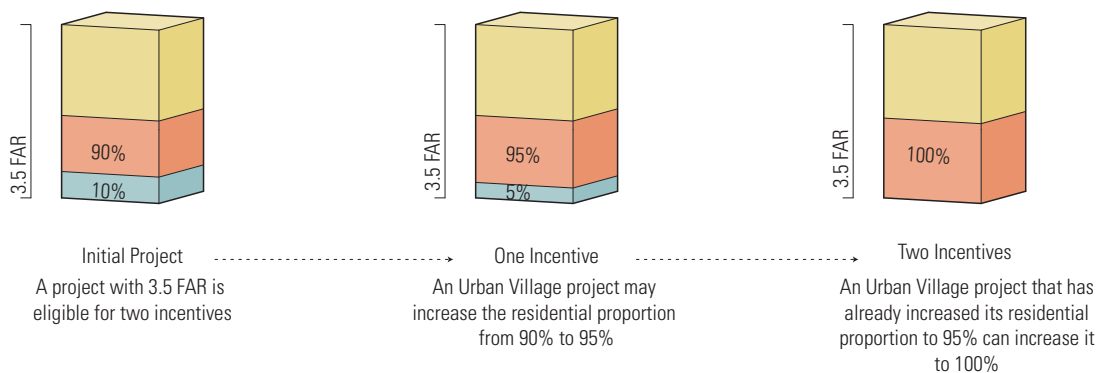
- a) For Projects in the Urban Village Zone, the portion of square footage developed for residential uses may be increased from 90% to 95% of the maximum permitted floor area.
- b) For Projects in the Urban Village Zone utilizing incentive a) above, the portion of square footage developed for residential uses may be increased from 95% to 100% of the maximum permitted floor area.
- c) The maximum height for Projects may be increased by 15 feet.
- d) Public areas, accessible to all residents, including public common areas that serve both residential and commercial uses, and any unenclosed architectural features and building areas, such as a decks, patios, porticos, trellises, or port-cheres may be excluded from the total floor area calculation.

iv. Off-Menu Incentives And Waivers of Development Standards.

- a) A Project applicant seeking an off-menu incentive or waiver of development standards shall follow the procedures for conditional uses set forth in Section 12.24 D of the LAMC. A public hearing shall be held by the City Planning Commission or its designee. The decision of the City Planning Commission shall be final.
- b) The City Planning Commission shall grant an off-menu incentive if it finds, based upon substantial evidence in the record, that the off-menu incentive is necessary in order to make the Restricted Affordable Units economically feasible. As part of the application materials, the applicant shall provide a pro forma or other documentation to show that the off-menu incentive is necessary in order to make the Restricted Affordable Units economically feasible.
- c) A Project applicant may apply for the waiver of any development standard contained in this Plan, or to any applicable development standard set forth in the Chapter 1 of the Municipal Code. The City Planning Commission shall grant a waiver if it finds, based upon substantial evidence in the record, that the development standard in question will have the effect of physically precluding the construction of the affordable housing Project with the incentives granted above. As part of the application materials, the applicant shall provide documentation demonstrating the need for the waiver.

- v. **Covenant.** Applicants who receive a Floor Area Bonus under the Affordable Housing Option shall comply with the following conditions prior to obtaining a building permit for the Project:
 - a) **Rental Units.** Applicants shall sign and record a covenant acceptable to the Los Angeles Housing Department (LAHD) guaranteeing that the occupancy restriction will be observed for at least 30 years from the issuance of the Certificate of Occupancy or a longer period of time if required by the construction or mortgage financing assistance program, mortgage assistance program, or rental subsidy program.
 - b) **For-Sale Units.** Applicants shall sign and record a covenant acceptable to the Los Angeles Housing Department and consistent with the for-sale requirements of California Government Code Section 65915(c)(2) guaranteeing that the affordability criteria will be observed for at least ten years from the issuance of the Certificate of Occupancy.
 - c) If the duration of affordability covenants set forth in this section conflicts with the duration of any other government requirement, the longest duration shall control.
 - d) The covenants described in this section must provide for a private right of enforcement by the City, any tenant, or owner of any building to which a covenant and agreement applies.

**Figure 2.6
Incentives**



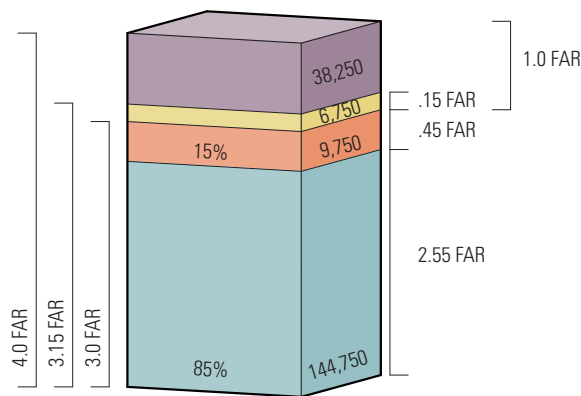
■ Residential Use
■ Non-Residential Use
■ Affordable Housing Bonus Option

- e) Restricted affordable units shall be provided in accordance with the City's most recently approved Affordable Housing Incentives Guidelines.
- f) Rent for the restricted affordable units are established pursuant to California Health and Safety Code Section 50053, except that rent for publicly subsidized restricted affordable units may be established pursuant to HUD's maximum allowable rent levels that are published on the LAHD website each year.

2. Community Benefit Option.
 - a. Increased Floor Area Rights. Subject to the limitations set forth below, Project applicants may obtain additional Floor Area Rights by providing the following Community Benefits.
 - i. Open Space. A Project applicant may add 3 square feet of Floor Area for each square foot of publicly accessible open space provided.
 - ii. Community Facility. A Project applicant may add 6 square feet of Floor Area for each square foot of area provided for a Community Facility.
 - iii. Passageway. A Project applicant may add 3 square feet of Floor Area for each square foot of a public passageway that extends from an adjacent street to another public right-of-way.

Figure 2.7
Community Benefit Option

Example of a Non-Residential Project



Ex. Open Space SF x 3 = Bonus Floor Area SF
 EX: 3,250 sf x 3 = 9,750 sf

Community Facility SF x 6 = Bonus Floor Area SF
 EX: 2,000 sf x 6 = 18,000 sf

Passageway SF x 3 = Bonus Floor Area SF
 EX: 3,500 sf x 3 = 10,500 sf

Total Community Benefit Option = 38,250 sf



- a) The owner or owners of the lot on which the passageway is to be provided shall record an agreement in the Office of the County Recorder of Los Angeles County, California, as a covenant running with the land for the benefit of the City of Los Angeles, providing that such owner or owners shall continue to provide the passageway as a publicly accessible pedestrian passageway so long as the building or use the passage is intended to serve is maintained.
 - b) Such a passageway shall permit unlimited 24 hour public access to pedestrians, bicyclists, and emergency vehicles.
 - c) Passageways shall be designed in conformance with Section 2.4 L 3.
- b. Limitations and Administration.
- i. Residential and/or Mixed-Use Projects with a Base FAR of 2.5:1 that have obtained a 3.375:1 FAR by utilizing the Affordable Housing Option may obtain up to an additional .625 FAR in locations where the Maximum FAR is 4:1 or greater.
 - ii. Projects that include more than 15 residential units must comply with the Affordable Housing Density Option to be eligible for the Community Benefit Option set forth in this section, or to be eligible for the TFAR Program in Section 2.1 I. below.
 - iii. A Non-Residential Project and/or a Mixed-Use Project with less than 15 Residential units, or a Mixed-Use Project that has a Base FAR of 3:1 and that has Residential uses comprising less than 75% of the total uses on the site may obtain up to an additional 1:1 FAR (where permitted - see FAR Map) through the Community Benefits Option. Project applicants must apply for Project Permit Compliance Review, and submit with their application an Allocation Plan as described in Section 6.G of this plan.
 - iv. Public benefits may be provided on the same site as the Project or on a site within the Specific Plan Area.
 - v. The owner or owners of the property that is the recipient of the Community Benefit Bonus shall record an agreement in the Office of the County Recorder of Los Angeles County, California, as a covenant running with the land for the benefit of the City of Los Angeles, providing that such owner or owners shall continue to provide the public benefit (or a substitute benefit approved by the director) so long as the building or use the public benefit is intended to serve is maintained. If the public benefit is to be maintained off-site, then the owner or owners of such off-site property shall also record a covenant for the benefit of the City.

H. Transfer of FAR (TFAR) Program

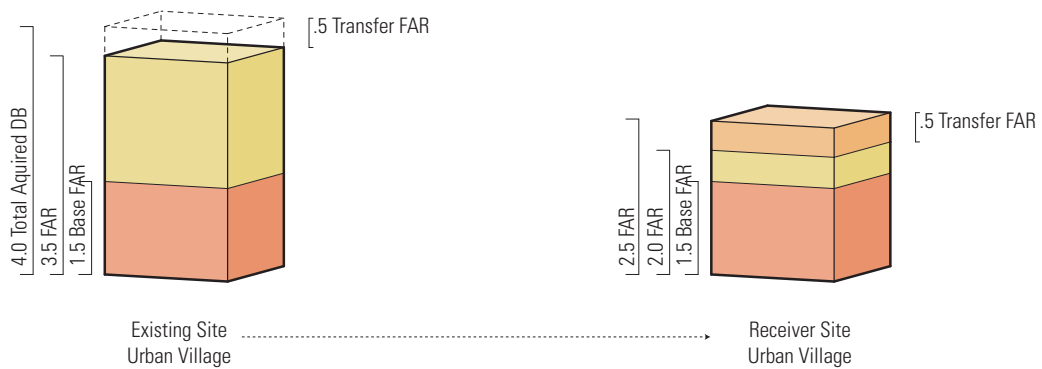
1. Where applicable, non-residential Projects may pursue either the Bonus FAR and/or TFAR Programs up to the allowable Maximum FAR. An existing parcel that has an existing FAR that is less than the Base FAR assigned by this Plan may transfer its Unused FAR to a Receiver Site that is located within the same Zoning District.
2. An existing parcel within the Urban Village District that is eligible, as a result of participation in the Floor Area Bonus Strategy A Option, may transfer any of its Unused FAR to a Receiver Site that is located within the Specific Plan.
3. An existing parcel within the Greenway District that has an existing FAR that is less than the Base FAR assigned by this Plan may transfer its Unused FAR to a Receiver Site that is located within the Specific Plan.
4. Properties within the River Buffer Area may transfer any portion of their Unused FAR to another property within the same district but may not be a Receiver Site.
5. The value of the transferred FAR shall be determined between the participants of the Transfer unless the Donor Site is owned by either the City of Los Angeles or the Los Angeles River Revitalization (Corporation) in which case the Floor Area Payment described in Section 1.2 D will be used to establish the value and payment method.

Figure 2.8
Affordable Housing Bonus Transfer FAR

Base Transfer FAR



DB Transfer FAR



Greenway Transfer FAR



- Residential Use
- Non-Residential Use
- Affordable Housing Bonus Option
- Community Benefits Option
- Transfer FAR



2.2 Building Form

A. Purposes

These zoning regulations are intended to:

1. Provide spatial and proportional standards that reinforce the street as a large public outdoor room.
2. Emphasize the public realm (streets and public open spaces) more than individual buildings.
3. Ensure that development is designed with a pedestrian orientation.
4. Reinforce the street wall with well-scaled elements or structures that are sensitive to the neighborhood context.
5. Respect the smaller scale of adjacent low-density buildings

B. Yard and Setback Regulations

The Project applicant shall provide a site plan that indicates the distance between the Project’s property line(s) that abut public rights of way and the front of buildings.

1. **Yard Requirements.** No yard requirements shall apply except as required by the applicable urban design standards. Project applicants shall provide a Sidewalk Easement where required by the Street Standards established in Section 3 of this Plan.
2. **Setbacks.**
 - a. The building setbacks shall be as defined in the Building Setback Table below. The Streetwall Table, which is also set forth below, defines the percentage of the Streetwall that must observe the required building setbacks.
 - b. The ground floor Streetwall (including entries and display windows) may be set back farther than the specified range, provided that structural columns and building walls above the ground floor are located within the specified range.

SETBACK TABLE

Setback	Greenways	Urban Village	Urban Innovation	Urban Center
Street Façade				
- Retail Ground Floor Uses	N/A	0'-5' max	0'-10' max	0'-3' max
- Professional Office/ Live Work	N/A	0'-10' max	0'-15' max	0'-5' max
- Industrial Ground Floor Uses	N/A	0'-10' max	0'-15' max	0'-10' max
- Residential Ground Floor Uses	N/A	0'-15' max	N/A	0'-10' max
Alley, Abutting Property Line	0' min	0' min	0' min	0' min
Public Parks	30' min	30' min	30' min	30' min
River or Arroyo Seco	50' min	50' min	50' min	50' min
Rail Tracks	30' min	30' min	30' min	30' min

Figure 2.9
Ground Floor Streetwall

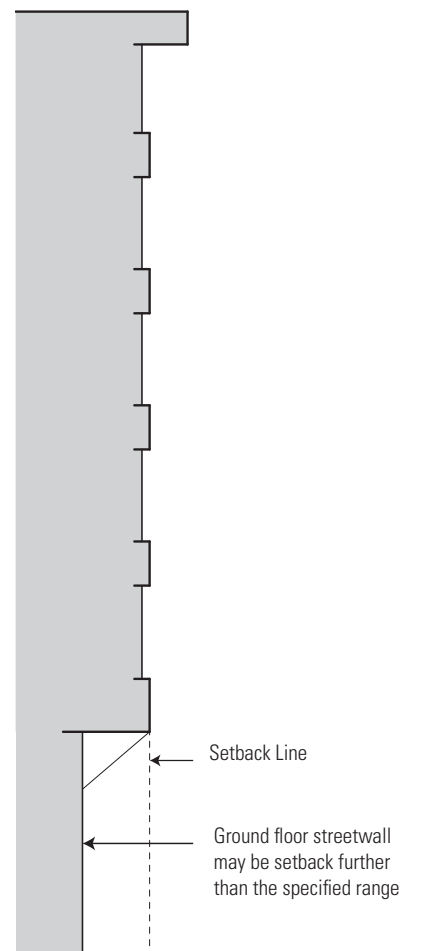
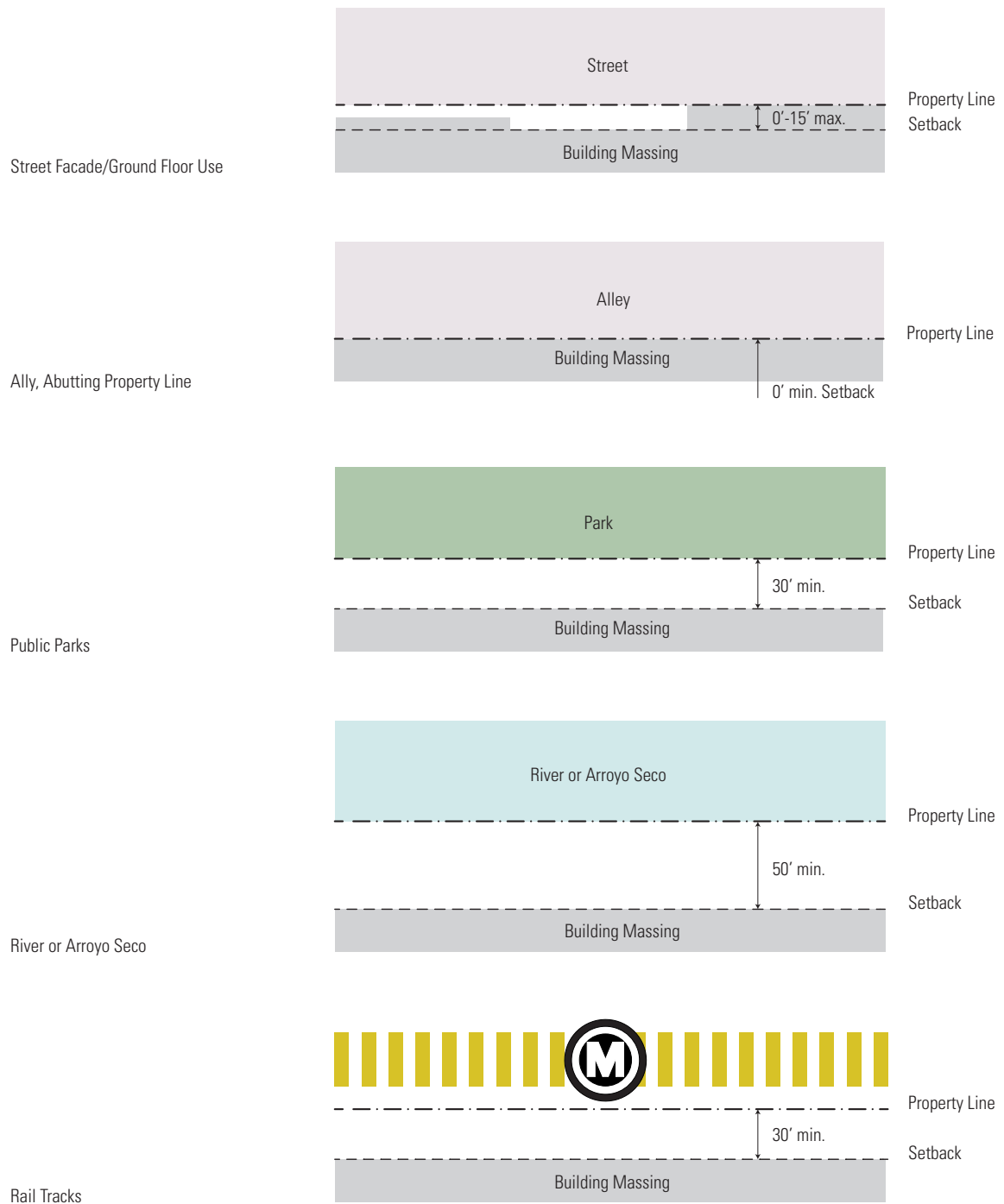


Figure 2.10
Setbacks



C. Streetwall & Massing

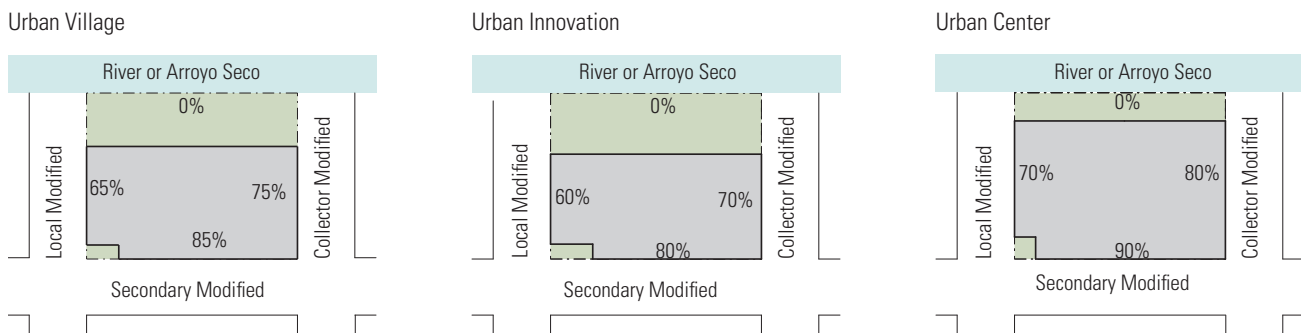
The Project applicant shall provide a site plan that indicates both the overall length of the building and the percent of the facade that is located within the setback area. Indicate what District the Project is located within.

1. **Streetwall.** A minimum percentage of the Streetwall shall observe the required Setbacks as set forth below.

STREETWALL TABLE

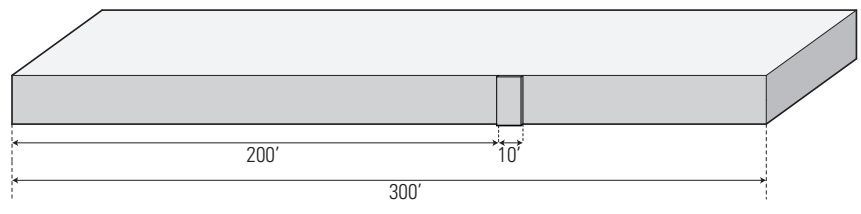
Minimum Percent of Building Streetwall at Setback	Greenways	Urban Village	Urban Innovation	Urban Center
Project Facing River or Arroyo Seco	NA	0%	0%	0%
Project Facing Secondary Modified	NA	85%	80%	90%
Project Facing Collector Modified	NA	75%	70%	80%
Project Facing Local Modified	NA	65%	60%	70%

Figure 2.11
Streetwall



2. Projects that include publicly accessible open space and/or stormwater retention/detention features between the building face and the property line shall be exempt from meeting the Streetwall percentage requirements.
3. **Massing.** Buildings more than 300 feet in length shall include a design element that provides visual relief every 200 feet. The design feature shall either setback from or step forward from the primary face of the building by at least a depth of 12 inches and shall be of a width no less than 5% of the building face (ex: 5% of 200' = 10') and shall extend up the face of the building at least the full height of the building's first story.

Figure 2.12
Massing



D. Maximum Lot Coverage

The Project applicant shall provide a site plan that indicates the square footage of the site, the square footage of the building footprint, and the percentage of the site that is covered with building. The site plan shall also indicate the District and maximum buildable lot coverage permitted for the site.

The percentage of a Project’s building footprint relative to the overall site area shall be limited as set forth in the following table.

MAXIMUM LOT COVERAGE TABLE

Max Lot Coverage	Greenway	Urban Village	Urban Innovation	Urban Center
Maximum Buildable Lot Coverage*	25%	85%	85%	85%
Maximum Buildable Lot Coverage for Projects Within The River Buffer Area*	25%	50%	50%	50%

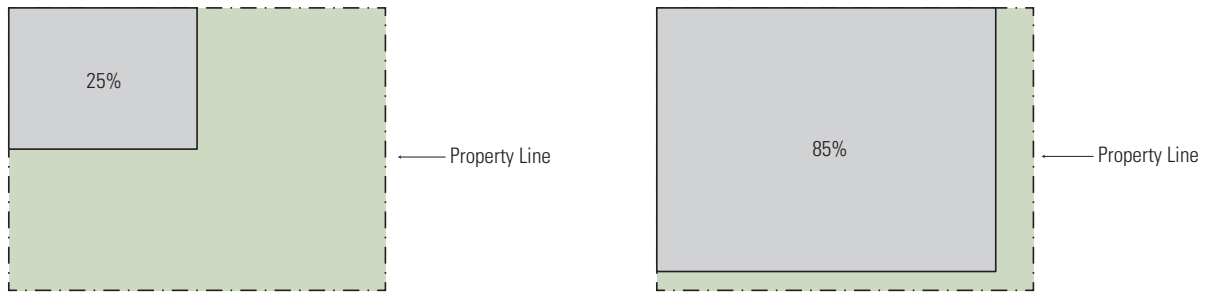
Maximum Lot Coverage Table Footnotes

*Existing buildings are exempt from this limitation. Projects within the Modified River Buffer Area are not subject to the lot coverage limitations established for the Maximum Building Lot Coverage For Projects Within The River Buffer Area category set forth in the Maximum Lot Coverage Table. Those Projects are instead subject to the standard Maximum Buildable Lot Coverage category.

**Figure 2.13
Max Lot Coverage**

Greenway

Urban Village, Innovation, and Center



Total Lot Size (sf.) x Max Lot Coverage (.25) = Max Buildable Lot Coverage (sf.)

Ex: 7,500 x .25 = 1,875

Total Lot Size (sf.) x Max Lot Coverage (.85) = Max Buildable Lot Coverage (sf.)

Ex: 7,500 x .85 = 6,375

E. Height

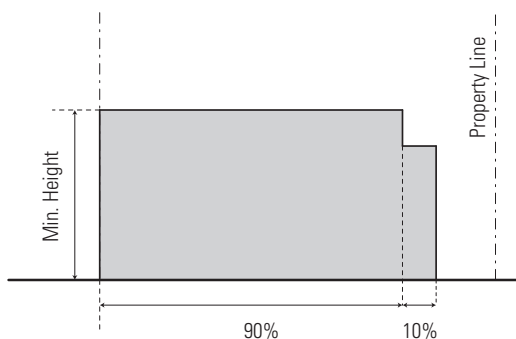
The Project applicant shall provide an elevation that indicates the building’s overall height and the height(s) at the street wall(s).

1. 90% of a Streetwall shall comply with the minimum height requirements set forth in the Building Heights Map.
2. The average height of the Project shall not exceed the average maximum height limitations established in the Building Heights Map as measured from the lowest ground level point located within five feet from the building.
3. Parapet walls and other guard rails utilized to enclose roof terraces, gardens or green roofs may exceed the maximum allowable height by up to 42 inches.
4. Buildings shall be designed to cast no more than 1.5 hours of a shadow projection on any park, open space, and/or rooftop area of abutting properties between 10:00 a.m. and 2:00 p.m. on December 21.

The Project applicant shall provide a site plan that includes adjacent properties and indicate the shadow line that will be formed by the building on abutting parks, open spaces, and/or roof top areas, between 10am and 2pm on the Winter Solstice. The site plan shall also indicate the duration of the shadow during these hours.

Figure 2.14

Street Wall Height



Parapet Walls

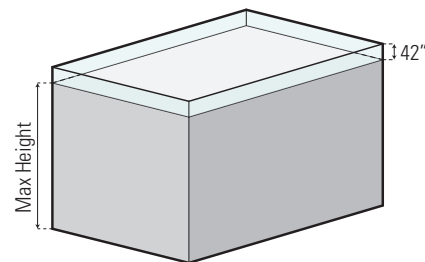
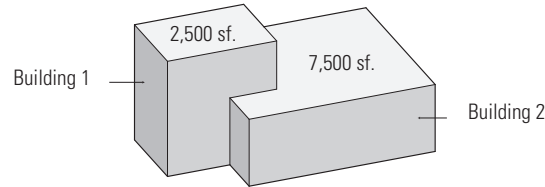


Figure 2.15
Average Height

Step One



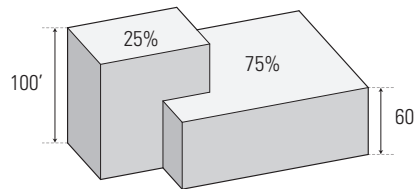
$$\frac{\text{Building 1 Roof Area (sf.)}}{(\text{Building 1 Roof Area (sf.)} + \text{Building 2 Roof Area (sf.)})} = \text{Building 1 Percentage (\%)}$$

Ex: $\frac{2,500}{(2,500 + 7,500)} = 25 \%$

$$\frac{\text{Building 2 Roof Area (sf.)}}{(\text{Building 1 Roof Area (sf.)} + \text{Building 2 Roof Area (sf.)})} = \text{Building 2 Percentage (\%)}$$

Ex: $\frac{7,500}{(2,500 + 7,500)} = 75 \%$












Step Two

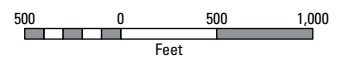
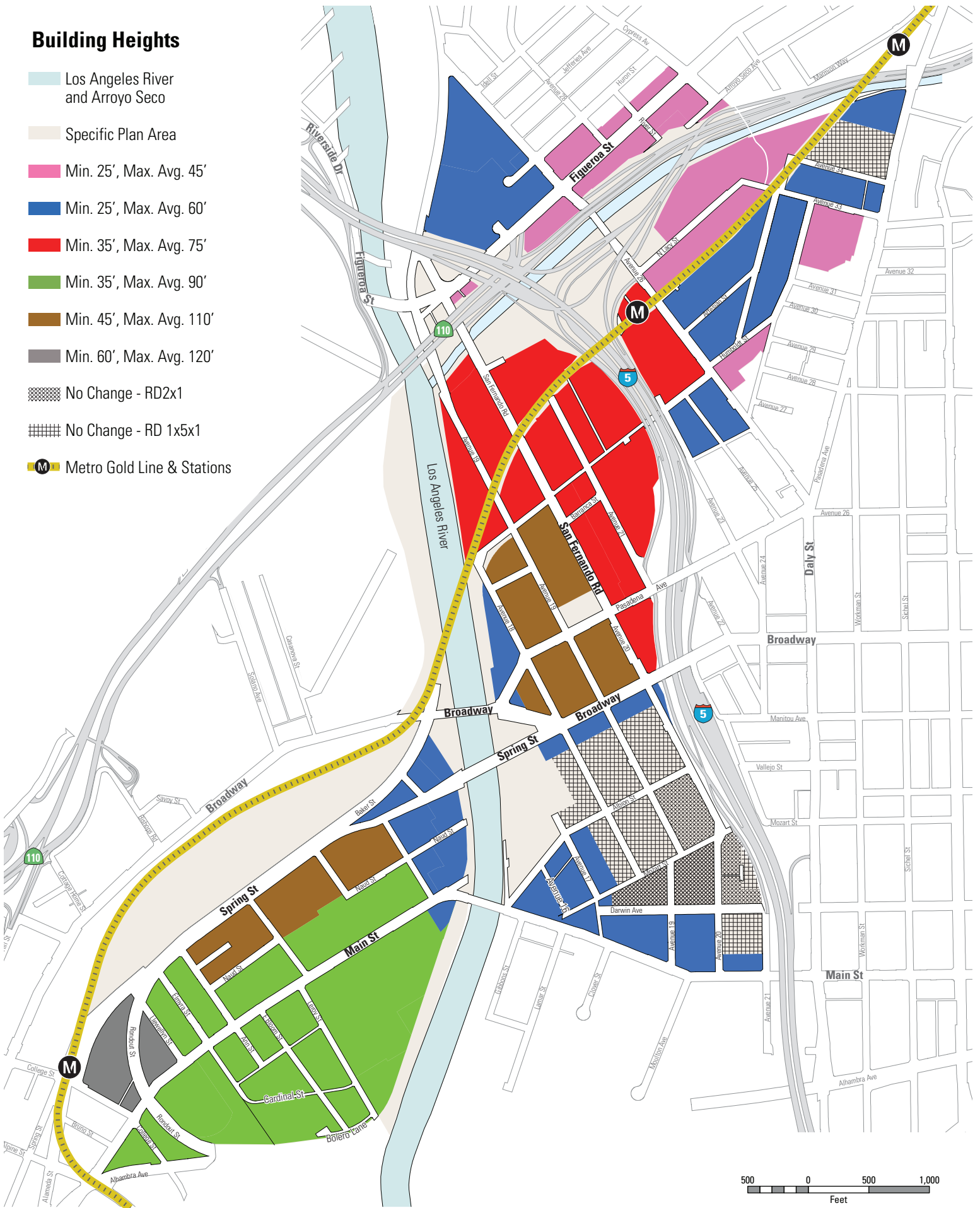


$$(\text{Building 1 Height (ft)} \times \text{Building 1 Percentage (\%)}) + (\text{Building 2 Height (ft)} \times \text{Building 2 Percentage (\%)}) = \text{Average Height}$$

Ex: $(100' \times .25) + (60' \times .75) = 70'$

Building Heights

-  Los Angeles River and Arroyo Seco
-  Specific Plan Area
-  Min. 25', Max. Avg. 45'
-  Min. 25', Max. Avg. 60'
-  Min. 35', Max. Avg. 75'
-  Min. 35', Max. Avg. 90'
-  Min. 45', Max. Avg. 110'
-  Min. 60', Max. Avg. 120'
-  No Change - RD2x1
-  No Change - RD 1x5x1
-  Metro Gold Line & Stations



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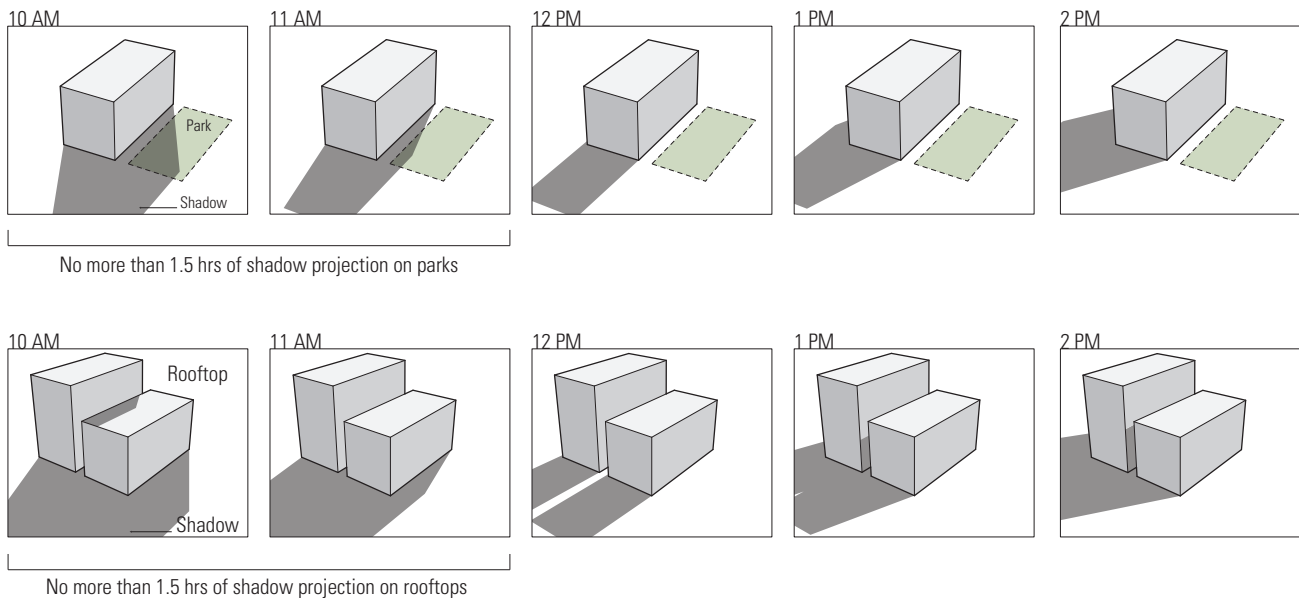
F. Buffers

The Project applicant shall provide a site plan and exterior section that indicates the distance from the building to the adjoining low-density residential property, the standard applicable side or rear yard setback of the adjoining property, and the height of the building at the location where it is closest to the adjoining building. The Project applicant shall also demonstrate that the building's height does not exceed 125% of the combined setback distance.

Projects immediately abutting the RD3 zone or a lower density residential zone, and Projects separated only by an alleyway from such zones shall comply with the following standards:

1. Projects shall observe a setback buffer of no less than 30 feet between the edge of the building and the property line of the low density residentially zoned property.
2. At the buffer line and for a distance of 20 feet back from the buffer line, no building shall exceed a height of 125% of the buffer distance plus the side or rear yard setback required by the zoning of the abutting property. (See Figure 2.17)

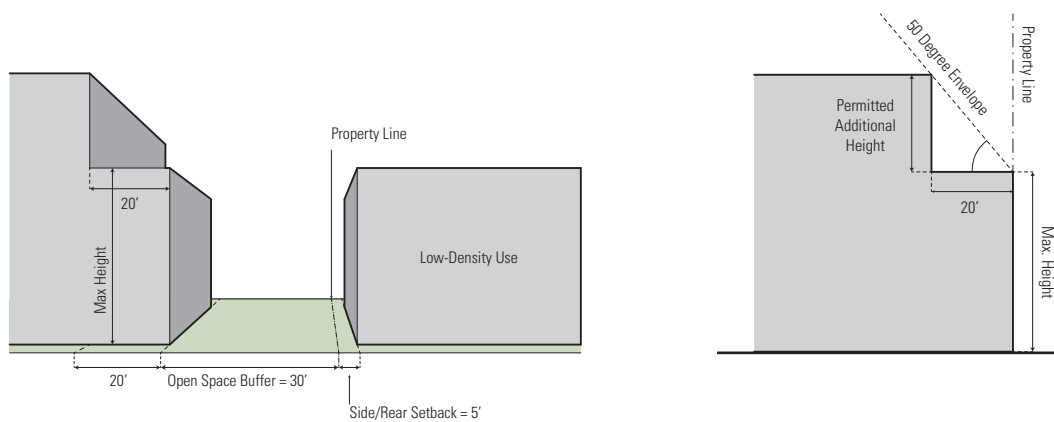
Figure 2.16
Shadow Projection



- Additional height is permitted, up to the limits set forth in the Building Heights map, within a 50 degree envelope. (See Figure 2.17)

The Project applicant shall provide an exterior section that illustrates the building's height at the street wall and that demonstrates that the height above the allowable street wall height does not exceed the 50 degree envelope.

Figure 2.17
Buffers



$$(Open\ Space\ Buffer + Side/Rear\ Setback) \times 1.25 = Max.\ Height$$

$$Ex. (30 + 5) \times 1.25 = 50$$



2.3 Urban Design

A. Purposes

These zoning regulations are intended to:

1. Maximize the advantage of the area's moderate climate by emphasizing the public realm and public spaces more than individual buildings.
2. Promote pedestrian-scaled architecture along the street.
3. Promote fine-grained and well articulated development while enabling permissible development intensities to be achieved.
4. Orient buildings to the street to promote sidewalk activity and reinforce the pedestrian environment along the sidewalk.
5. Vary the horizontal plane of a building to provide visual interest and enrich the pedestrian experience, while contributing to the quality and definition of the Streetwall.
6. Incorporate glazing that contributes to a warm, inviting environment while also reducing bird collisions by minimizing the reflection of the surrounding habitat or sky.
7. Provide well-designed, energy efficient, architectural and landscape lighting that contributes to a safe and inviting atmosphere without casting light into the night sky, adjacent properties, or sensitive habitat areas.
8. Integrate all exterior lighting (building, landscape, and security) with the building design, and require such design to be of a character and scale that relates to the pedestrian and accentuates major architectural and special landscape features.
9. Respect neighboring properties, and design major mechanical systems, trash and recycling, antennas, glare lighting, and reflective materials to limit adverse impacts.
10. Balance the need for security doors and windows with the need to create an attractive, inviting environment.

B. Entrance

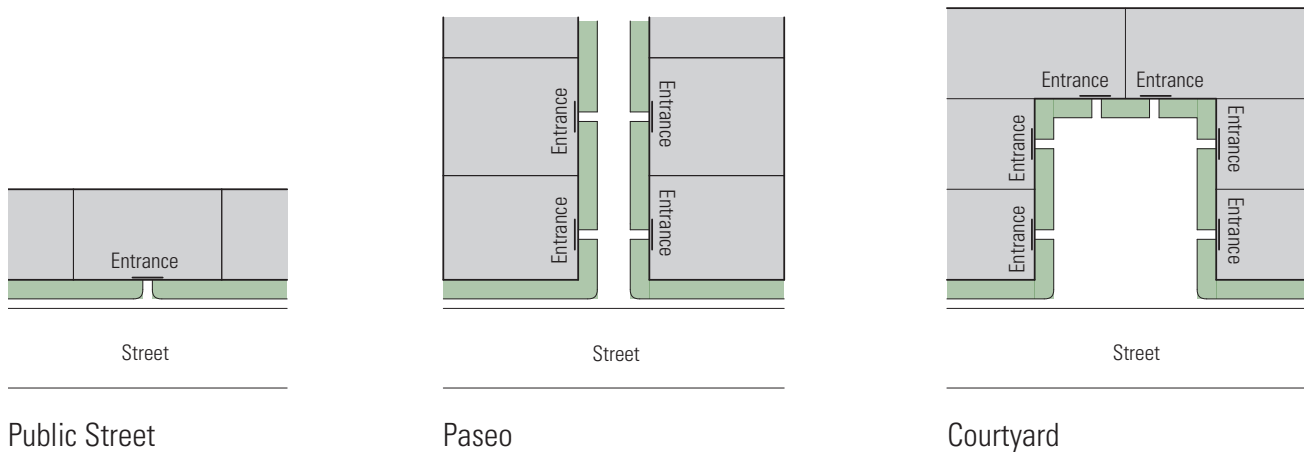
The Project applicant shall provide a site plan that indicates the location of the primary entrances of the building and the location of the entrances in relation to the public street and vehicle parking areas.

1. Primary entrances shall be connected to and visible from a public street such that a pedestrian entering the building need not walk through a vehicle parking area in order to arrive at the entrance.
2. Ground floor (non-residential) tenant spaces located on the public street or sidewalk shall have their primary entrance located adjacent to the public street or sidewalk.
3. Ground floor (non-residential) tenant spaces not located on the street or sidewalk shall have their primary entrance located adjacent to a pedestrian paseo, courtyard or plaza that is connected to a public street.
4. Ground floor residential units with individual entries shall include windows on the ground floor that look out onto the street.









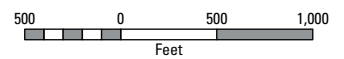
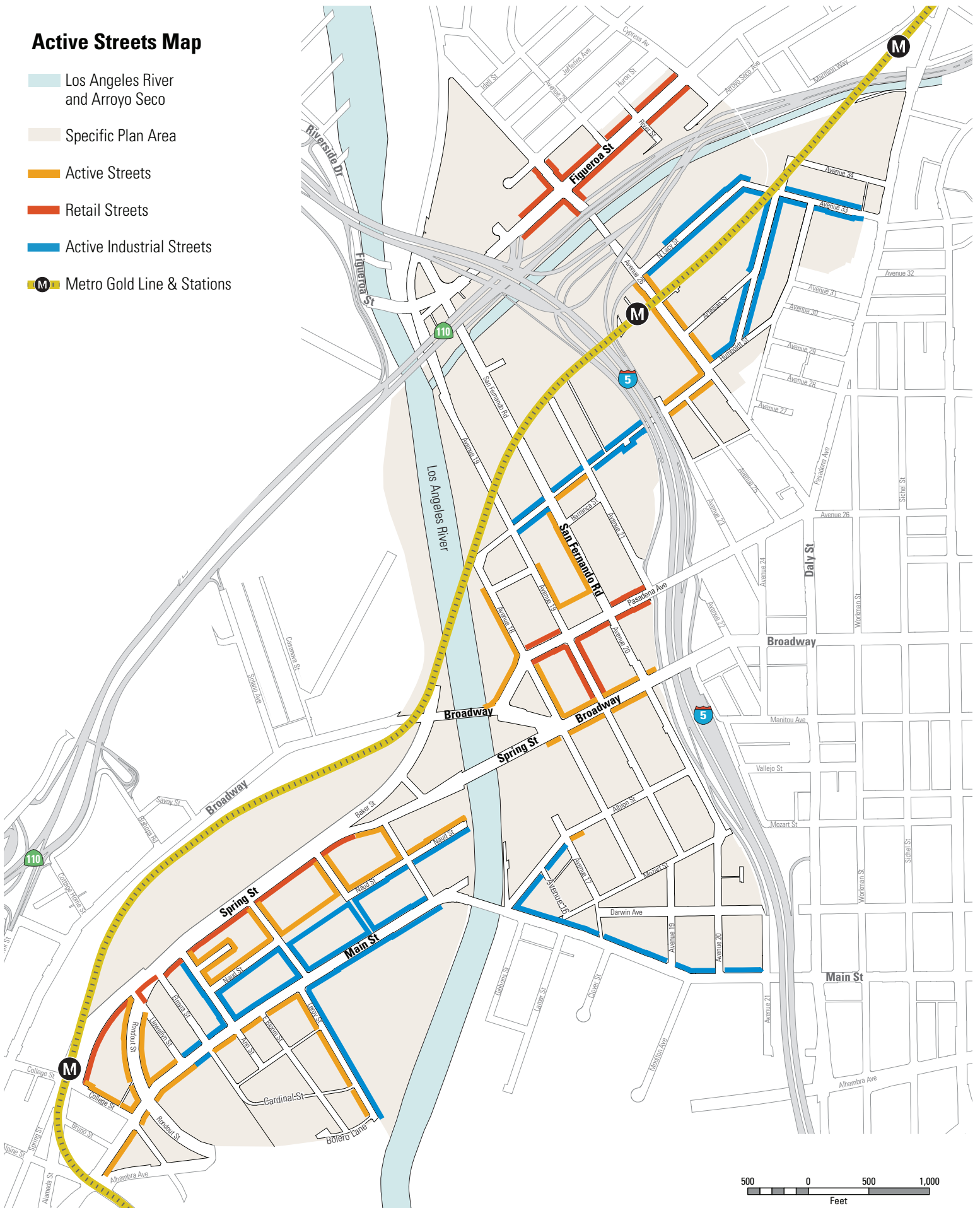
Primary Entrances

Figure 2.18
Examples of Ground Floor Tenant Entrances



Active Streets Map

-  Los Angeles River and Arroyo Seco
-  Specific Plan Area
-  Active Streets
-  Retail Streets
-  Active Industrial Streets
-  Metro Gold Line & Stations



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025_d: 05.2013

C. Ground Floor

The Project applicant shall provide a site plan and/or elevations that indicates the percentage of the building’s ground floor frontage intended for retail, community serving, cultural, professional, live/work, residential, and other active space uses.

1. Frontage Uses

- a. At least 75% of the ground floor frontage of a building, or 50% of the ground floor frontage of a building intended for Light Industrial uses, located on a Retail Street identified on the Active Streets Map shall be designed to accommodate the following active uses: retail, community serving uses, cultural, professional office, live/work units, residential units with individual entries along the street, and/or other active space such as recreation and meeting rooms, lobbies, sales areas, or common rooms.

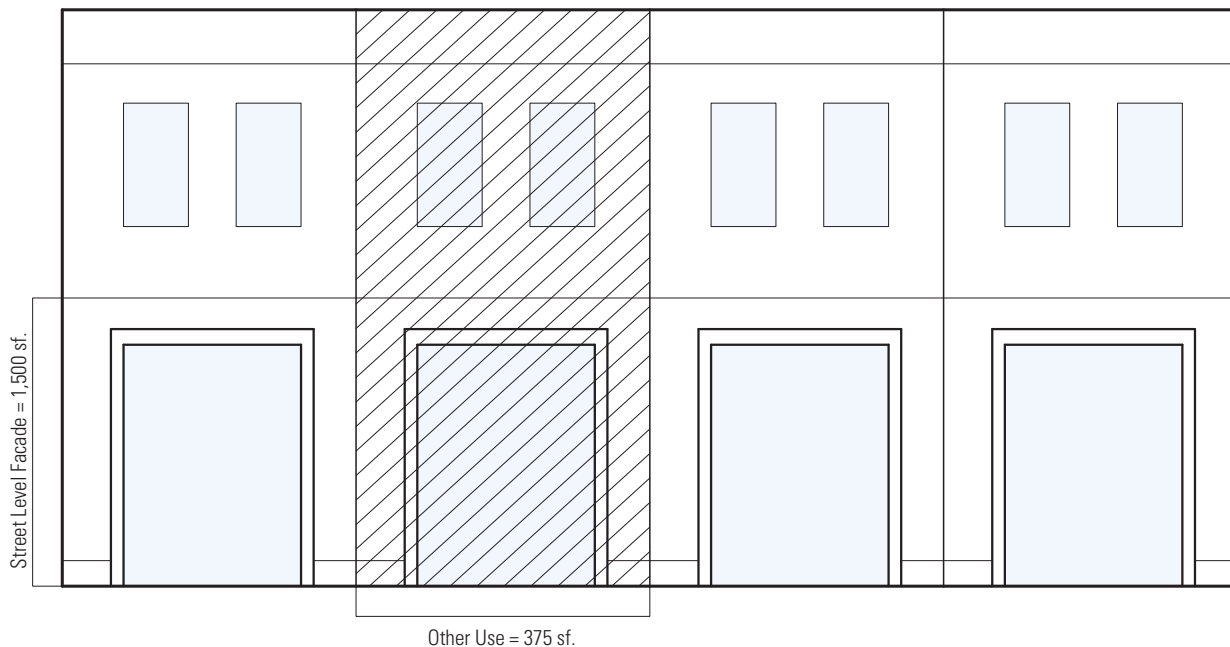


Active Ground Floor



Transparent Facade

Figure 2.19
Frontage Uses



Other Use (sf.) ÷ Street Level Facade = Percent of Other Use
 Ex. 375 sf. ÷ 1,500 = .25 or 25%

- b. At least 50% of the ground floor frontage of a building, or 35% of the ground floor frontage of a building intended for Light Industrial uses, located on an Active Street identified on the Active Streets Map shall be designed to accommodate the following active uses: retail, cultural, professional office, live/work units, residential units with individual entries along the street, and/or other active spaces such as recreation and meeting rooms, lobbies or sales areas, or common rooms.
 - c. At least 25% of the ground floor frontage of a building, or 20% of the ground floor frontage of a building intended for Light Industrial uses, located on an Active Industrial Street identified on the Active Streets Map shall be designed to accommodate the following active uses: lobbies, sales areas, retail, professional office, and/or other active spaces such as meeting rooms.
2. Transit Information. All Projects shall provide information concerning local transit services at a primary entry point to the site or building. The information shall be prominently displayed, updated quarterly, and shall include phone numbers, web-information, and a Quick Response (QR) code for transit, paratransit, and taxis as well as brochures and maps for local bus and rail service.

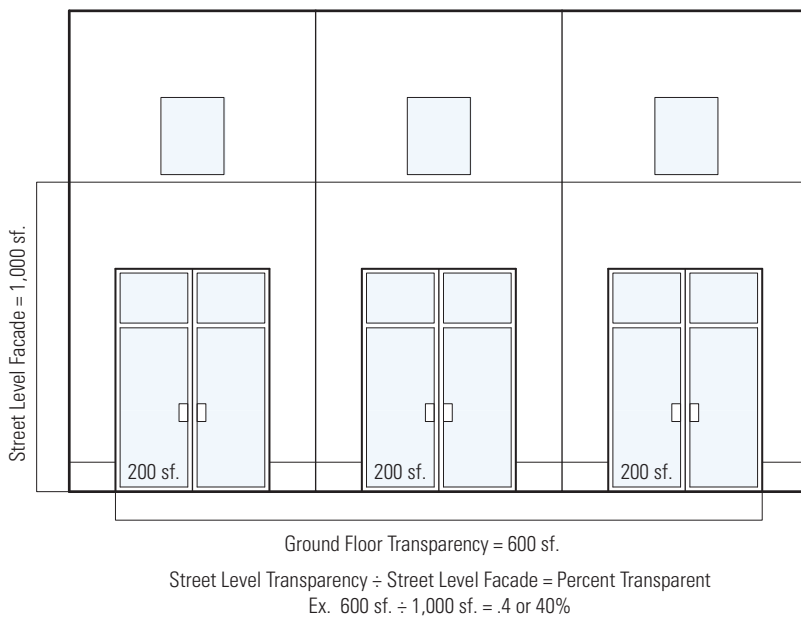
The Project applicant shall provide a ground floor plan that indicates the location and information that will be included for the transit information board.

3. Ground Floor Transparency.

The Project applicant shall provide an elevation that indicates the square footage of the building’s street level facade(s), the square footage of the transparent wall openings, and the percentage of the building that is covered in transparency.

- a. Along Retail Streets (as designated in the Active Streets Map), transparent wall openings, such as storefront windows and doors, shall comprise at least 50% of a building’s street level façade(s). Such openings shall be located between 2 feet and 8 feet from the finished floor level of the ground floor. An exception shall be made for buildings intended for Light Industrial Uses, in which case the transparent wall openings need comprise only 35% of the building’s street level façade(s).
- b. Along Active Streets and Paseos, transparent wall openings, such as storefront windows and doors shall comprise at least 35% of a building’s street level façade(s). Such openings shall be located between 2 feet and 8 feet from the finished floor level of the ground floor. An exception shall be made for buildings intended for Light Industrial Uses, in which case the transparent wall openings need comprise only 25% of the building’s street level façade(s).

Figure 2.20
Ground Floor Transparency

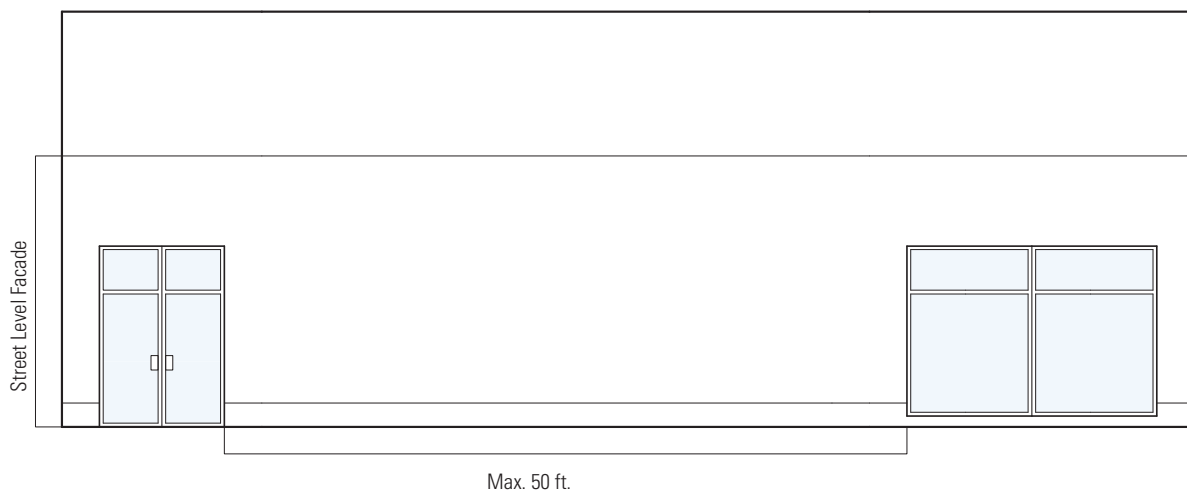


- c. Along Active Industrial Streets, transparent wall openings, such as storefront windows and doors, shall comprise at least 25% of a building's street level façade(s). Such openings shall be located between 2 feet and 8 feet from the finished floor level of the ground floor. An exception shall be made for buildings intended for Light Industrial Uses, in which case the transparent wall openings need comprise only 18% of the building's street level façade(s).
- d. An exception shall be made for older structures that are being renovated if the transparency requirement would render the building structurally infeasible or would compromise the historical integrity or original character of the building.

4. Ground Floor Facade. To avoid blank walls that would detract from the experience and appearance of an active streetscape there shall be no blank walls (without doors or windows) longer than 50 feet along sidewalks on Active or Retail Streets. Walls with public art installations such as murals shall be exempt, provided such public art or murals are permitted pursuant to the LAMC or other applicable City regulations.

The Project applicant shall provide elevation(s) that indicate the dimension of any blank facades or walls. For blank façade or wall sections 50 feet or greater in length, the applicant shall provide an illustration of the artwork or landscaping that will be installed on or in front of the façade or wall.

Figure 2.21
Ground Floor Facade





Ground Floor Retail



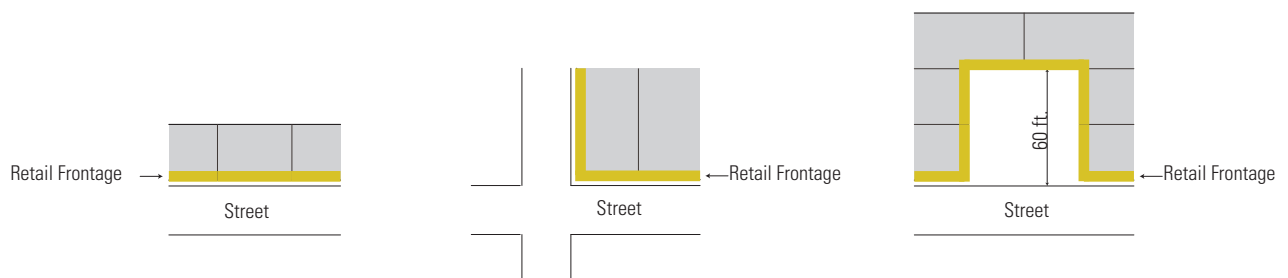
Ground Floor Corner Retail

5. Ground Floor Retail.

The Project applicant shall provide a site plan that indicates the location of the ground floor retail space and the distance of the retail frontage from the sidewalk.

- a. All ground floor retail space shall be located either along the streetwall or along a courtyard or plaza, provided the retail frontage is not set back more than 60 feet from the sidewalk and is visible from the sidewalk.
- b. Where ground floor retail spaces are located along Retail streets that intersect other streets, the ground floor transparency requirements for the Retail street shall apply around the corner for a minimum of 20 feet, even if such street is not also a Retail street.

Figure 2.22
Examples of Ground Floor Retail Locations

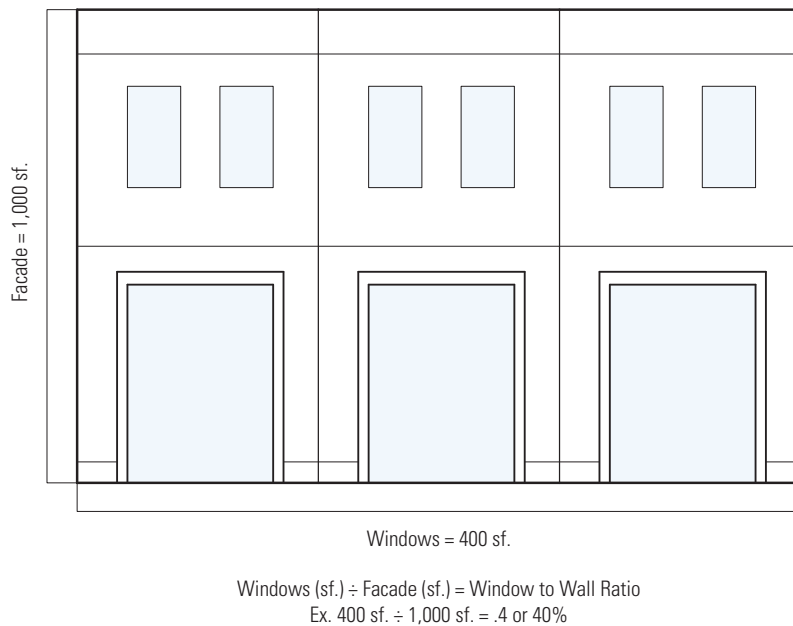


D. Windows and Glazing.

The Project applicant shall provide an elevation that indicates the direction of the facade(s), the square footage of the building facades, the square footage of the windows, and the percentage of the building that is covered in windows.

1. **Windows.** To reduce interior heat gain and improve energy performance, the window to wall ratio (exclusive of the ground floor) shall not exceed 40% on the east, west, southwest, northwest, southeast and northeast facades, unless an applicant can demonstrate with calculations provided by a licensed mechanical engineer that an alternative facade design will provide the same or greater reduction in the building’s cooling loads.

Figure 2.23
E, W, SW, NW, SE, and NE Facades

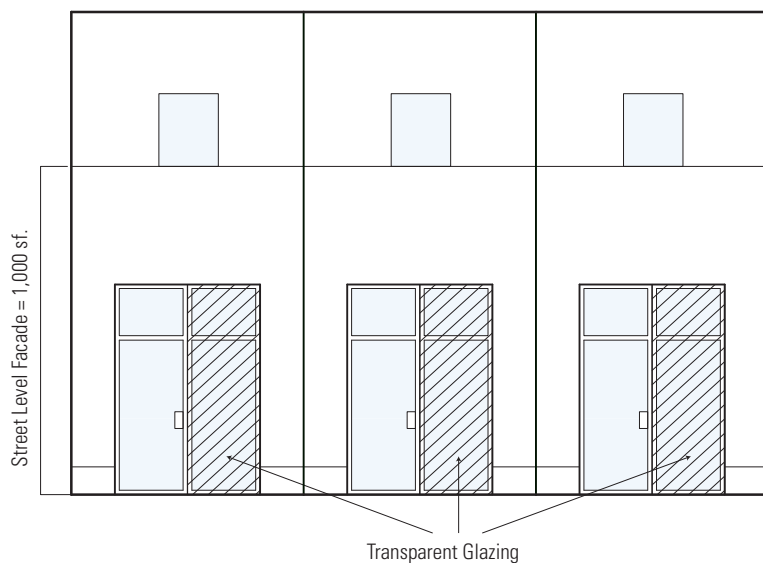


2. Glazing.

The Project applicant shall provide an elevation that indicates the window and door glazing and the shading devices used to reduce birds' access to glass.

- a. At least 50% of ground-floor window and door glazing shall be transparent and have a 0-10% reflectivity rating, and/or include shading devices, screens or other barriers to reduce birds' access to glass. In addition, or alternatively, the glass may be installed between 20-40 degrees from vertical.
- b. Glazing on the upper floors shall include one or more of the following: 0-10% reflectivity, etching, sandblasted patterns, fretting, low-e patterning, shading devices, screen, other barriers to reduce birds' access to glass, and/or angle the glass between 20-40 degrees from vertical.

Figure 2.24
Glazing



Transparent Glazing ÷ Total Glazing = Percent Transparent

Ex. 100 sf. ÷ 200 sf. = .5 or 50%

E. Exterior Lighting

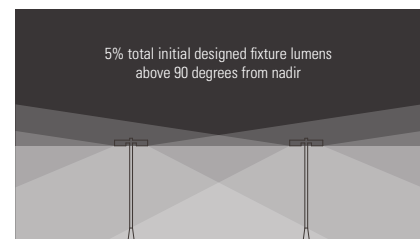
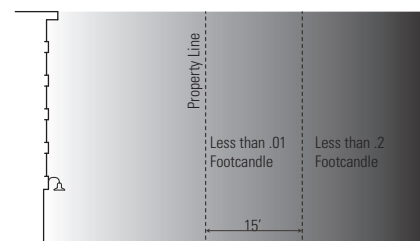
The Project applicant shall provide a site plan and/or elevation that indicates the location of all exterior lighting fixtures, the maximum initial illuminance value, and the total initial lumens emitted at an angle of 90 degrees and higher.

1. General Requirements

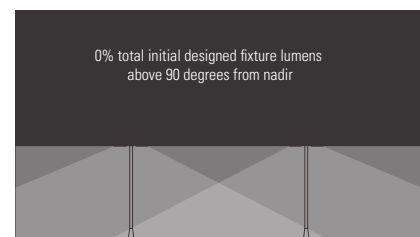
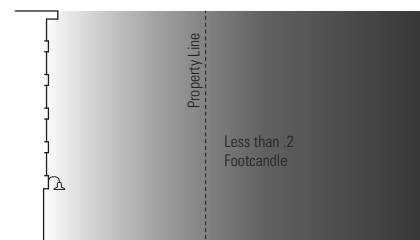
- a. Light levels shall be measured with a photoelectric photometer, following the standard spectral luminous efficiency curve adopted by the International Commission on Illumination.
 - b. The outdoor lighting for all projects in the Urban Center, Innovation, and Village Districts shall be designed such that it produces a maximum initial illuminance value no greater than 0.20 horizontal and vertical foot candles when measured at the site boundary and no greater than 0.01 horizontal foot candles when measured 15 feet from the site. No more than 5.0% of the total initial lumens shall be emitted at an angle of 90 degrees or higher from nadir (straight down).
 - c. The outdoor lighting for all projects in the Greenway District shall be designed such that it produces a maximum initial illuminance value no greater than 0.01 horizontal and vertical foot candles when measured at the site boundary. None of the total initial lumens shall be emitted at an angle of 90 degrees or higher from nadir (straight down).
 - d. Lighting shall be provided along all vehicular access ways and pedestrian walkways.
 - e. All low pressure sodium, high pressure sodium, metal halide, fluorescent, quartz, 60 watts or greater incandescent, mercury vapor, and halogen fixtures shall be fully shielded in such a manner as to preclude light pollution or light trespass on any of the following: an abutting residential use district; a lot zoned for residential use; the public right of way, a park, or open space.
 - f. Lighting (exterior building and landscape) shall be directed away from properties and roadways, and shielded as necessary. In particular, no lighting shall be directed at the window of a residential unit located either within or adjacent to a project.
2. **Exemptions.** The following outdoor lighting fixtures and activities are exempt from the requirements of this section:
- a. Fixtures producing light directly by the combustion of fossil fuels, such as kerosene lanterns or gas lamps.



Figure 2.25
Urban Village, Innovation, and C



Greenway



- b. All neon, argon or krypton outdoor lighting fixtures.
- c. Emergency lighting operated by a public utility or agency during the course of repairing or replacing damaged facilities.
- d. Emergency lighting and fixtures necessary to conduct rescue operations, provide emergency medical treatment or address any other emergency situation.
- e. Lighting fixtures within five feet of an entrance or exit door and/or alcove of a dwelling unit, not exceeding a height of eight feet and a wattage not exceeding 75 watts provided there is no light pollution, or light trespass, or provided the lighting fixtures are regulated by a motion detector.
- f. Internally illuminated signs.
- g. Holiday lighting fixtures or displays.
- h. Architectural lighting whether it is freestanding or attached to a building, provided the lighting does not exceed an intensity of 60 watts.
- i. Pedestrian lighting that does not have an intensity greater than 60 watts.
- j. Vertical lighting for the display of flags that does not exceed an intensity of 140 watts.

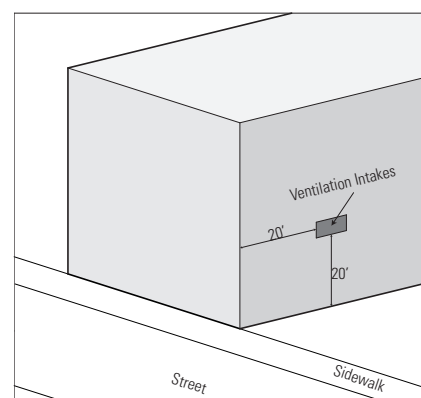
F. Minimizing Impacts on Neighbors

The Project applicant shall provide a site plan and/or elevation that indicates the location of any electrical transformers, mechanical equipment, water meters or other equipment and how they are screened from public view.

1. Mechanical Systems and Trash Enclosures
 - a. Mechanical units shall be either screened from public view or the equipment itself shall be integrated into the architectural design of the building.
 - b. Ventilation intakes/exhausts shall be located at least 20 feet vertically and horizontally from a sidewalk and air flow shall be directed away from the public area.
 - c. Recycling and trash facilities shall be screened from public view.
 - d. Exterior trash enclosures shall:
 - i. Be designed to complement the primary building with a wall height that exceeds, by at least 18 inches, the disposal unit it is designed to contain;
 - ii. Have a solid roof to deter birds and to block views from adjacent properties;
 - iii. Be comprised of solid metal doors that accommodate a lock and that remain closed when not in use; and
 - iv. Not be constructed of chain links or wood.

The Project applicant shall provide a site plan and/or site plan sections showing any exterior trash enclosures, the wall height of the structure, the height of the disposal unit, and the materials to be used in the construction of the structure.

Figure 2.26
Ventilation Intakes

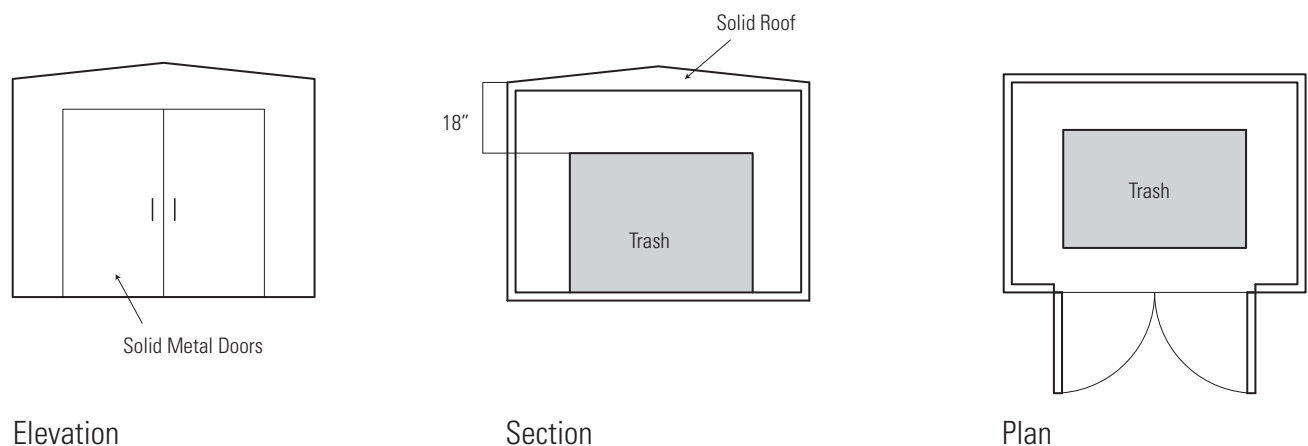




Security Features

2. Ground Floor Utilitarian Uses.
 - a. Electrical transformers, mechanical equipment, water meters and other equipment shall not be located along the ground floor streetwall unless screened from public view.
 - b. Electrical transformers, mechanical equipment, other equipment, enclosed stairs, storage spaces, and blank walls shall not be located within 100 feet of a corner.
3. Security Grills and Roll-Down Doors and Windows.
 - a. Exterior roll-down doors and security grills are not permitted unless they are designed to be 75% transparent (open) or retractable and fully screened from view during business hours.
 - b. Windows with security features shall not block more than 30% of the natural light to the interior, and shall be designed as an architectural feature compatible with the building's style.

Figure 2.27
Example of Exterior Trash Enclosure





2.4 Open Space

A. Purposes

These zoning regulations are intended to:

1. Provide inviting, safe and accessible public open space.
2. Increase recreational opportunities for residents, employees, and visitors.
3. Provide pedestrian linkages throughout the Plan area.
4. Provide parks and open space that minimizes demand for potable water resources.
5. Encourage community-based and local food production.
6. Provide open space areas that provide for native habitat and facilitate the migration of local species.
7. Provide adequate lighting to create a park environment where residents feel safe.
8. Generate visual interest by creating focal points and meeting places to enhance the area's image.
9. Support an easy transition between indoors and outdoors.
10. Include permanent and temporary seating that is placed with consideration to sun and shade, and other factors contributing to human comfort.
11. Support the goals of the Los Angeles River Revitalization Master Plan.
12. Contribute to the environmental and ecological health of the City's watersheds.
13. Establish a positive interface between river-adjacent property and river parks and/or greenways.
14. Promote the river identity of river-adjacent communities.

B. Open Space Typologies

Adjacent. Properties that abut a river and/or abut a river frontage road.



Alleys. Alleys provide access to service activities and while not typically the most visible of public spaces they can facilitate physical connections between traditional open spaces.

Balconies. Balconies are typically private open space areas generally available exclusively to a unit's occupants and their visitors.

California -Friendly Plants. Plants defined as drought tolerant and suitable to Southern California by the Metropolitan Water District. A full list of plants is available at: <http://www.thegarden.org/siteDocs/resources/CAFriendlyList-botanical.pdf>.



Community Gardens.

Community Gardens provide community members with local opportunities to tend individual plots and grow their own food.



Courtyards. Courtyards are common open space areas of a scale and enclosure that is conducive to social interaction at a smaller scale. A courtyard is typically contained on three sides by building and/or architectural features.



Entry forecourts. Entry forecourts announce the function and importance of primary building entrances. They should provide a clear comfortable transition between exterior and interior space. An entry forecourt is typically contained on two sides by building and/or architectural features.

Invasive Plants. Plants identified by the California Invasive Plant Council (CAL-IPC) and included on the California Invasive Plant Inventory at: <http://www.cal-ipc.org/ip/inventory/pdf/Inventory2006.pdf>.

Los Angeles County’s River Master Plan’s Landscaping Guidelines and Plant Palettes.

A plant palette comprised primarily of native plants suitable for a riparian habitat. The Guidelines can be found at: <http://ladpw.org/wmd/watershed/LA/LARPlantingguidelineswebversion.pdf>.

Native Plants. A native plant is one that occurs naturally in a given geographic area. Examples are trees, flowers, grasses and any other plants included in the California Native Plant Library at: http://www.theodorepayne.org/mediawiki/index.php?title+Main_Page

Parks. Parks provide a wide range of recreational opportunities for multiple users.



Paseos. Paseos are extensions of the street grid located on private property. As outdoor

passages devoted exclusively to pedestrians, they establish clear connections between streets, plazas and courtyards, building entrances, parking and transit facilities. A paseo is typically contained on two sides by building and/or architectural features.

Patios. Similar to Balconies, Patios are typically private open space areas generally available exclusively to a unit’s occupants and their visitors.



Plazas. Plazas are common open space areas typically amenable to larger public gatherings. They are readily accessible from the street, as well as active building uses. A plaza is typically contained on only one side by building and/or architectural features.

Promenade. A public area set aside as a pedestrian walkway.

Public-Right-of-Way (ROW). A parcel of land over which the public can legally traverse. It usually consists of a street, road, sidewalk, or footpath.



Residential Setbacks. Building setbacks adjacent to residential buildings provide a transition between the public and private realm, allowing residents to have private spaces with visual access to the public realm.

River. A general term for a body of flowing water. A river may be classified as follows in relation to time: perennial (flows continuously) or, intermittent (flows seasonally).

Riverfront Door. An exterior door of a Project that faces and is directly accessible from the adjacent river corridor or river frontage road.



Roof Terrace. Roof terraces and gardens can augment open space and are especially encouraged in conjunction with hotels or residential uses.



Streets. Streets are the most public of all open spaces. Streets communicate the quality of the public environment and the care a city has for its residents.



Trails. Trails provide opportunities for walking and hiking without the interruption of vehicular traffic.

Watershed Friendly Plants. Plants included in the Watershed Friendly Plant List published by the Council for Watershed Health.

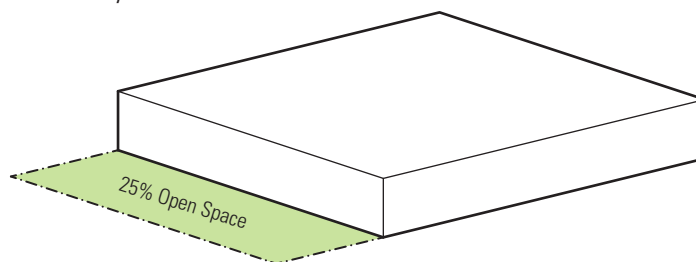
C. Area Requirements

The Project applicant shall provide a site plan that indicates the location and size of the open space area, the total site area, and the representative percentage of the open space area. If the open space area is not located on the same site as the Project, the applicant shall provide an area site plan that indicates the location of the Project relative to the open space, whether the open space area satisfies the open space requirement of more than one lot, and whether the square footage of the new alleyways, paseos, or new streets is included in the open space contribution. The applicant shall also indicate the location of all railway right of ways.

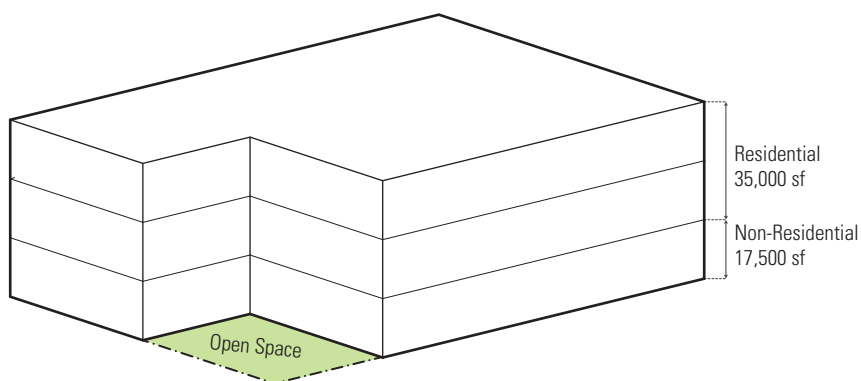
1. All Projects in the Greenway District shall maintain 25% of the lot area as open space, and if the property is owned by the City the area shall be publicly accessible.

Figure 2.28
Area Requirements

Greenway



Urban Village, Innovation, Center



Ex. $35,000 \text{ sf.} \div 16 = 2,188 \text{ sf.}$
 $17,500 \text{ sf.} \div 48 = 365 \text{ sf.}$
 $2,188 + 365 = 2,553 \text{ sf of Open Space}$

2. All Projects in the Urban Village, Urban Center and Urban Innovation Districts shall provide:
 - a. One square foot of open space area for building users per every 16 square feet of residential space; and
 - b. One square foot of open space area for building users for every 48 square feet of non-residential space.
3. At least 50% of the required open space shall be provided as common open space and shall comply with LAMC Section 12.21 G 2(a).
4. Projects may provide up to 25% less common open space if the common open space is publicly accessible and is maintained at no public expense.
5. Private open space shall comply with Section 12.21 G 2 (b).
6. Any common area or publicly accessible open spaces shall be located within 900 feet of the Project.
7. Multiple Projects may combine the open space requirement of each Project into a single open space equal to no less than the sum of the requirement of each parcel as long as the combined spaces remain accessible to all of the residents, employees or visitors of the respective Projects.
8. In the case of a Transfer of Floor Area Rights, a Project may comply with the provisions of this Section by providing the required open space on either the Receiver or the Donor Site.
9. All parking areas, including access aisles, and driveways qualify as usable common or publicly accessible open space provided that the area complies with the following design standards:
 - a. Traffic design speed is 5 mph or less; and
 - b. Parking Lot Design Standards in Section 2.5 D 3. of this Plan are met.
10. Public alleyways, paseos, or new streets that are added to a Project site shall qualify as publicly accessible open space and may be used to satisfy the open space requirement.



Bikeshare



Transit Shelter



Soccer Field



Newsstand

F. Permitted Uses

The Project applicant shall provide a landscape that indicates the location and specifications of the functional uses.

Publicly Accessible Open Spaces shall be designed to serve at least one function including but not limited to:

Basketball Courts	Mobility Hub Amenities	Tennis Courts
Bicycle Rental Center	Off-leash Dog Park	Trails, Alleys, Streets, Paseos for walking and bicycling
Community amenities	Open air cafe	
Community garden space	Picnic Area or other seating	Transit Hub Amenities
Farmers' Market	Soccer Field	Exercise Areas, Yoga, Pilates, and Tai Chi
Information or newsstand kiosk	Softball Field	

G. Access

The Project applicant shall provide a site and/or landscape plan that indicates the location and specifications of the paths of travel, public access points, height of access point above or below the adjacent grade, and intended hours of access.

1. All paths of travel shall conform to the standards of the Americans with Disabilities Act (ADA).
2. Publicly accessible open spaces shall:
 - a. Be at the same level as the public sidewalk for at least 50% of its frontage and for a depth of 10 feet. The remainder may not be more than three feet above or below the street curb level.
 - b. Be visible from an adjoining street(s) or adjacent parks.

H. Dimensions and Boundaries

The Project applicant shall provide a landscape plan that indicates the dimensions of the open space area. If the open space is greater than one acre, the plan shall also indicate the ratio between the length and width of the open space area.

All publicly accessible open space shall have a minimum area of 650 square feet with no horizontal dimension less than 15 feet when measured perpendicular from any point on each of the boundaries.

I. Seating

The Project applicant shall provide a site or landscape plan that indicates the location of all seating areas and the quantity of seating relative to the amount of open space.

One linear foot of seating shall be provided for every 500 square feet of common or publicly accessible open space area. The flat top of walls and ledges may count as seating as long as they are no less than 15 inches in depth, between 15 inches and 20 inches in height, and have smooth surfaces to ensure comfort.

J. Landscape

The Project applicant shall provide a site or landscape plan that indicates the Open Space Type of each open space area, identifies the location and size of the requisite planting area, and the percentage of landscaped area relative to the overall open space area.

The Project applicant shall provide a landscape demolition plan that identifies the location of all existing weedy plants and describes the removal plan.

1. Landscaping shall conform to the following regulations:
 - a. **Plant Species.** 75 percent of a Project's newly landscaped area shall be planted with either indigenous native trees, plants and/or shrubs and/or species as defined by the Los Angeles County's River Master Plan's Landscaping Guidelines and Plant Palettes and/or Watershed Friendly Plants.
 - b. **Invasive Plants.** All existing invasive plants shall be removed from the Project area, and any plants identified by the CAL-IPC shall not be permitted.

2. Trees.

The Project applicant shall provide a landscape plan that indicates the location, caliper at planting, radial distance at maturity of each tree, and the material and porosity of the surface area under the tree.

- a. Deciduous trees shall be installed at a minimum of one tree per 600 square feet of common or publicly accessible open space area.
- b. Trees in common and/or publicly accessible open space areas must have a minimum caliper size of 4 inches at planting and have a canopy of at least 10 feet at maturity.
- c. A 32 square foot permeable surface shall be maintained below each tree.

3. Irrigation

The Project applicant shall provide a landscape irrigation plan that indicates the location and size of each drip outlet, the specification for the Weather Based Irrigation Controller, and the location and specification of the purple pipe that will service the system.

- a. Irrigation systems shall be equipped with a Weather Based Irrigation Controller such that the system does not turn on during a storm event or when the soil has a moisture level sufficient to support the plant species.
- b. Irrigation systems shall be designed to meet the water needs of different parts of the landscape. This is referred to as Zoned Irrigation.
- c. Any irrigation system shall be plumbed with a purple pipe to enable a connection to a recycled or gray water system once it is available.
- d. All irrigation systems shall be either drip, microspray, or subsurface depending upon the type and number of plants the irrigation is servicing.

4. Hardscape and Materials

The Project applicant shall provide a site and/or landscape plan that indicates the location and Solar Reflectance Index of all hardscape materials.

The Project applicant shall provide elevations of all fence or vertical border sections.

- a. Hardscape materials shall have a Solar Reflectance Index (SRI) of at least 29.
- b. No spikes, pointed railings, or other sharp objects are permitted.

K. Operations and Maintenance

The owner or owners of the lot on which the publicly accessible open space is to be provided and maintained shall record an agreement in the Office of the County Recorder of Los Angeles County, California, as a covenant running with the land for the benefit of the City of Los Angeles, providing that such owner or owners shall continue to provide and maintain the publicly accessible open space as described in Sections 5 of the Plan so long as the building or use the open space is intended to serve is maintained.

L. Specialty Design Requirements

The Project applicant shall provide a landscape plan that indicates the additional amenities that will be provided.

1. Community Gardens

The Project applicant shall provide a landscape plan that indicates the location of the fencing, watering system, and secure storage space and that includes a list of the parties who will be responsible for maintaining the garden's operation.

- a. Community gardens shall provide fencing, a watering system and a secure storage space.
 - b. Community gardens must have solar access to at least 4 hours of summer sun between the hours of 10am and 2pm.
 - c. The Project applicant shall identify the parties responsible for maintaining the garden's operation.
2. Park Recreational Areas. Park/Recreational areas shall be designed to the specifications of the Department of Recreation and Parks.

The Project applicant shall provide a landscape plan that indicates how the area is consistent with the specifications of the Department of Recreation and Parks.

3. Paseos. Paseos shall be designed to:

The Project applicant shall provide a landscape plan that indicates the width, length, site lines, and percentage of frontage devoted to active uses.

- a. Be at least 20 feet wide;

- b. Have a clear line of sight from the street to the end of the passageway, gathering place, or focal element; and
 - c. Be at least 50% open to the sky or covered with a transparent material.
4. Off-Leash Dog Park. Off-leash dog parks shall use softscaping to capture and “scrub” animal fecal matter.



Off-Leash Dog Park

The Project applicant shall provide a landscape plan that indicates the ground material to be used in the dog park, describes the maintenance plan, and identifies the parties responsible for its maintenance.

M. River Design Standards

1. For all Projects that face a street that crosses the River or terminates at the River or a River frontage road, if a fence located within the front and/or side yards of the Project is visible from the street, then the fence shall be designed to be consistent with the Los Angeles County Master Landscape Guidelines. This requirement shall not apply to single family homes.
2. All Projects located adjacent to the River or Arroyo Seco shall:
 - a. **Landscape Buffers.** Provide a 10 foot landscape buffer as measured from the Project’s property line that is adjacent to the river. New building structures and/or parking shall not be permitted within the 10 foot landscape buffer.
 - b. **Fence.** All fences located within 10 feet of the river corridor shall be consistent with the fence designs identified in the Los Angeles County River Master Plans Landscape Guidelines.
 - c. **Fence Height.** All fences located within less than 10 feet of the river shall be no higher than 6 feet in height; and all fences located at the 10 foot landscape buffer setback line, shall not exceed 10 feet in height. A fence located within a landscape buffer that also serves a Project’s front yard shall be limited in height to 3 feet 6 inches.
 - d. **Gates.** All fences located within 10 feet of the river shall be consistent with the gate designs identified in the Los Angeles County River Master Plans Landscape Guidelines. The gate height shall be consistent with the adjacent fence height and shall be designed to not encroach into either the river and/or public right-of-way when opened.
 - e. **Noise.** All Projects subject to a conditional use permit for the sale or dispensing of alcoholic beverages, including beer and wine, shall incorporate noise-attenuating features (physical as well as operational) designed by

a licensed acoustical sound engineer to assure that operational sounds shall not exceed 5 dba above the existing measured or presumed ambient levels at the property line(s) of properties on the opposite bank.

- f. **River Access.** All river adjacent Projects that partially or wholly abut the river shall have access gates to the River that are compliant with the Americans with Disabilities Act. The gates shall also be designed to be accessible to bicyclists. Access may be controlled and limited to any or none of the following: residents, employees and/or visitors of the Project.
- g. **Riverfront Door.** All Projects located either adjacent to the river corridor or frontage road shall include a Riverfront Door visible to, and accessible from the river corridor or frontage road.

Exceptions

An exception to the California Friendly, Native and/or Los Angeles County River Master Plans Landscape Guidelines requirement can be made on a 1:1 replacement ratio for horticulture such as herbs, fruit, or vegetables for up to 100% of the landscaped area.



2.5 Parking and Access

A. Purposes

These zoning regulations are intended to:

1. Manage and control the parking supply and demand.
2. Avoid an oversupply of parking.
3. Increase pedestrian, bicycle, and transit use, and reduce vehicular trips to, through, and within the area.
4. Minimize the area's parking footprint and preserve land for other productive uses.
5. Reduce the cost of parking typically associated with new construction.
6. Provide vehicular access from side streets or alleyways to minimize driveways along Active Streets, to maintain building continuity and to avoid vehicle and pedestrian conflicts.
7. Create active ground floors around the base of parking structures that are adjacent to Active Streets.
8. Screen parking to provide a safe, aesthetically pleasing and secure environment for pedestrians.
9. Provide adequate signage to public parking structures to aid visitors in finding the structures upon arrival and in becoming oriented to their surroundings.
10. Encourage the use of alternate modes of transportation by reducing the availability of off-street parking.
11. Limit the number and width of curb cuts and vehicular entries to promote streetwall continuity and reduce conflicts with pedestrians.
12. Encourage the provision of shared parking agreements and/or public parking facilities.

B. Parking Regulations.

1. **No Minimum Parking Requirements.** Projects located in this Plan area need not provide on-site or off-site automobile parking.
2. All Projects that elect to provide any parking shall provide:
 - a. Vehicle charging stations for a minimum of 1% of the vehicle parking spaces.
 - b. Designated stalls for scooters, mopeds and motorcycles at a ratio of one space for every 25 units and/or 25,000 square feet.
 - c. Clear directional signage indicating the location of vehicle charging stations, shared vehicle parking spaces, and scooter, moped, and motorcycle stalls shall be provided at all parking area entrances.
3. All Project applicants who elect to provide parking are encouraged to provide one shared vehicle parking space for every 25 units and/or 25,000 square feet of construction.
4. **Bicycle Parking.**
 - a. **Residential Bicycle Parking standards.** Notwithstanding the provisions of LAMC Section 12.21 of the Code and regardless of the underlying zone, Residential Projects or those residential portions of Mixed-Use Projects within the Specific Plan area, shall provide both short and long-term bicycle parking as described in LAMC Section 12.21 A 16 (a)(1).
 - b. **Non-Residential Bicycle Parking standards.** Notwithstanding the provisions of Section 12.21 of the Code and regardless of the underlying zone, Non-Residential Projects or those non-residential portions of Mixed-Use Projects within the Specific Plan area shall provide both short and long-term bicycle parking as provided per LAMC Table 12.21 A 16 (a)(2) and Sections 12.21 A 16 (a)(2)(ii) and 12.21 A 16 (a)(3).
 - c. **Open Space and Public Park Bicycle Parking Standards.** Notwithstanding the provisions of Section 12.21 of the Code and regardless of the underlying zone, Open Space areas and Public Parks within the Specific Plan area shall provide a minimum of two bicycle parking spaces for every 15,000 square feet of open space or park area.
 - d. **Additional Requirements and Allowances.** Short-term bicycle parking shall be eligible to participate in the Bicycle Parking in the Public Right-of-Way and Bicycle Corrals programs as described in LAMC Sections 12.21 A 16 (f).



Charging Stations



Bicycle Parking



Bicycle Parking

5. **Unbundled Parking.** Project landlords shall unbundle automobile parking charges from the rents or other fees charged for occupying living, employment, commercial, or industrial space. If a Project includes a subdivision, provisions shall be made in the subdivision process such that any automobile parking spaces shall be separately sold, leased, or rented from the living, employment, commercial or industrial space. The owner or owners of the lot on which the parking is to be provided shall record an agreement in the Office of the County Recorder of Los Angeles County, California, as a covenant running with the land for the benefit of the City of Los Angeles, providing that such owner or owners shall continue to segregate parking fees from rents or other fees charged for occupying Project space so long as the building or use the parking is intended to serve is maintained. This Plan does not prohibit landlords from leasing or licensing parking spaces to third parties who do not lease living, employment, commercial, or industrial spaces within the Project.

Exceptions. Restricted Affordable Units are exempt from this regulation.

C. Parking Design Requirements

1. **Bicycle Parking Design.** All bicycle parking shall be designed to comply with the Bicycle Parking Requirements, and Design Standards, as described in LAMC Sections 12.21 A 16 (d), and (e) respectively.
2. **Parking Structure Design.** Good parking structure design can elevate the building's stature and contribute to the overall quality of the built landscape. In order to achieve good parking structure design, all Projects shall comply with the following standards:
 - a. Parking structures shall have an external skin designed to improve the building's appearance and to conceal ramps, walls and columns. This can include heavy-gage metal screens, pre-cast concrete panels, laminated glass or photovoltaic panels.

The Project applicant shall provide elevations that indicate the external skin design. Elevations shall identify the materials used for the skin.

- b. Parking structures that include parking at the ground level shall either line the perimeter with active uses and/or provide a low screen to block parked vehicle bumpers and headlights from pedestrian views.

The Project applicant shall provide a ground floor plan that indicate the location of any ground level parking, the circulation systems (elevators and stairs), and either the active uses or low screening element lining the parking. The applicant shall also provide a scaled illustration of the screening element when applicable.

- c. Vertical circulation cores (elevators and stairs) shall be highlighted architecturally so visitors can easily find and access these entry points.
 - d. Parking levels above the ground floor shall be screened to block parked automobiles from the public view.

The Project applicant shall provide an elevation that illustrates how parking on levels above the ground floor shall be screened from public view.

- e. Parking structures that are within 200 feet of any residential use shall:

The Project applicant shall provide a site plan that includes the Project site and the existing uses on all of the abutting properties. When the existing use is residential plans, elevations and specifications shall also be provided that indicate:

a. The elevation and the materials on parking structure facades adjacent to the residential uses; and, b. Information to indicate that a textured surface shall be used on the floors and ramps; and, c. The location and specifications of interior garage lighting.

- i. Contain solid decorative walls and/or baffles to block light and deflect noise along those sides closest to the residential use;
- ii. Contain solid spandrel panels at a minimum of 3 feet 6 inches in height, installed at the ramps of the structure, to minimize headlight glare;
- iii. Construct garage floors and ramps using textured surfaces to minimize tire squeal;
- iv. Locate exhaust vents away from residential uses; and
- v. Eliminate light source glare falling on the adjacent residential units.

3. Parking Lot Design

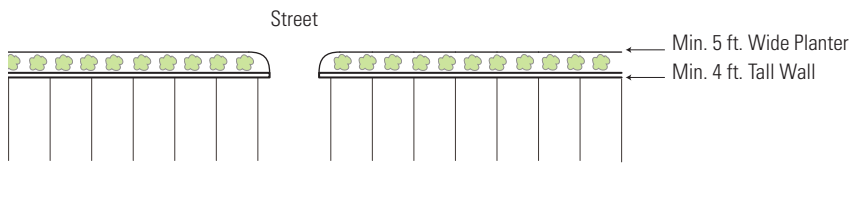
The Project applicant shall provide a site plan that indicates the location of the surface parking lot, the parking capacity of the lot, the location, dimensions, and design of any screening, the location, dimensions, and description of any stormwater Best Management Practices, and the location and design strategy employed to achieve the 50% shade requirement.

The applicant shall also provide a landscape plan that indicates the location, dimensions, and percentage of the planting areas relative to the surface parking lot, the selected planting species, and the species, quantity, and location of trees, the design, and dimensions of the protective tree barriers, and the location and design standards of the pedestrian paths.

- a. Parking lot area may contribute towards open space requirements as long as parking is limited to the hours of 7pm to 7am, the parking lot area has a traffic design of five mph or less, and the parking lot area is designed to accommodate a functional use(s) such as described in Section 2.4 D.
- b. The parking capacity of a surface parking lot shall be limited to no more than 10% of the total parking provided for the specific Project unless the parking lot area has a traffic design of 5 mph or less.

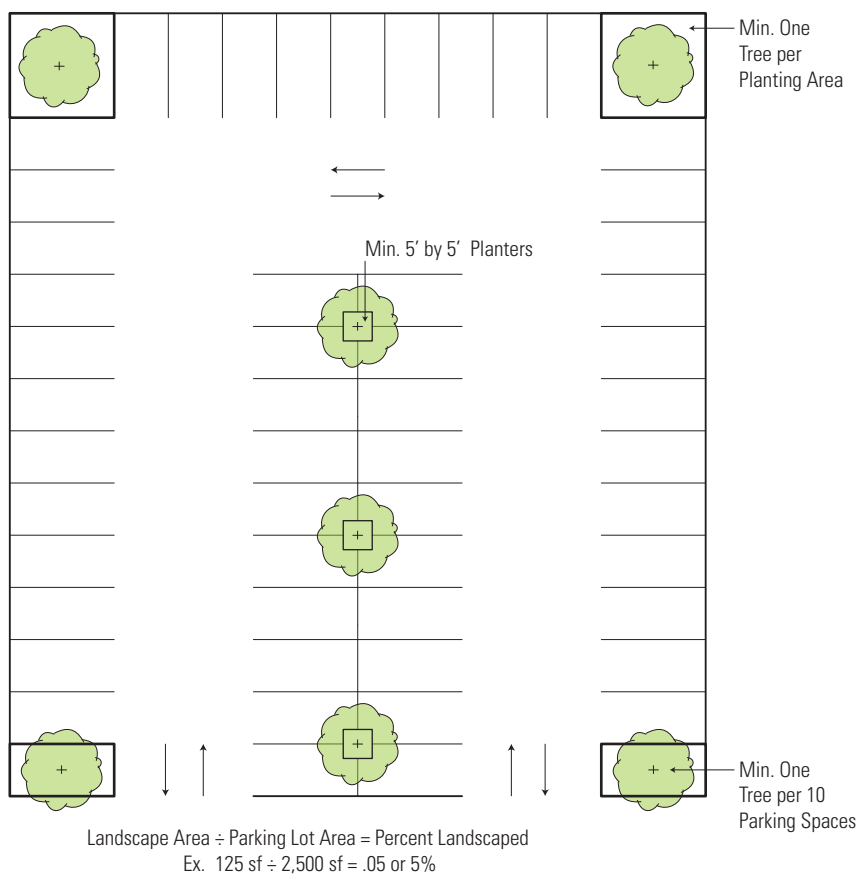
- c. No at-grade parking space shall be located within the front yard.
- d. Loading areas and off-street parking facilities containing three or more spaces and not located in a structure shall be effectively screened from abutting streets and lots. However, such screening shall not obstruct the view of the driver entering or leaving the loading area or parking facility, or the view from the street of entrances and exits to a loading area or parking facility. The screening shall consist of one or a combination of the following:
 - i. A strip at least five feet in width of densely planted shrubs or trees that are at least two feet high at the time of planting and are of a type that may be expected to form, within three years after time of planting, a continuous, unbroken, year round visual screen; or
 - ii. A wall, barrier, or fence of uniform appearance. Such wall, barrier, or fence may be opaque or perforated provided that not more than 50% of the face is open. The wall, barrier or fence shall be between four and six feet in height.

Figure 2.9
Off-Street Parking Facility



- e. Parking lots shall be designed to provide any combination of the following strategies for at least 50% of the surface parking lot and driveways:
 - i. The applicable parking area shall be shaded within five years of occupancy,
 - ii. Utilize paving materials with a Solar Reflectance Index (SRI) of at least 29, or
 - iii. Consist of an open grid pavement system.

Figure 2.30
On Grade, Open Parking Facilities



- f. On grade, open parking facilities that contain five or more parking spaces shall be landscaped in accordance with the design regulations set forth in Sections 2.4 H 1, 3, and 4 and the following requirements:
 - i. At least 5% of the interior area of the parking facility shall be landscaped with native trees, plants and shrubs as defined by the Los Angeles River Master Plan’s Landscape Guidelines and Plant Palettes and/or the Watershed Friendly Shade Tree List. This requirement is in addition to the perimeter planting and screening requirements.
 - ii. Each planting shall be at least twenty five square feet in area and have no dimension less than five feet.
 - iii. Each planting area shall contain at least one tree and the facility as a whole shall contain at least one tree for every ten parking spaces.

- iv. Trees used to satisfy parking lot landscaping requirements shall be a minimum of three inch caliper at planting and shall be suitable for location in parking lots.
 - v. Existing trees shall be preserved wherever possible.
 - vi. Existing and new trees shall be protected by bollards, high curbs or other barriers sufficient to minimize damage.
 - vii. Parking lots shall be designed to provide clear and designated paths of travel for pedestrians.
 - viii. Paths shall conform to the standards of the Americans with Disabilities Act.
4. **Parking Signage.** Parking that is available to the public shall include signage that helps visitors locate the parking.

D. Vehicular Access

The Project applicant shall provide a site plan that indicates the location, dimension of, and distance between, all existing and proposed curb cuts. The plan shall indicate the name, location, and designation of all abutting streets.

1. No curb cuts are permitted from Secondary Modified and Collector Modified Streets except when no other street type is adjacent to the Project.
2. The primary point of vehicular access for parking facilities and services such as unloading or refuse pick-up shall be located along Local Modified Streets, Local Modified Industrial Streets or Alleyways, if the Project has access to such streets or Alleyways.
3. Not more than two driveways shall be permitted per building, and there shall be a minimum 20 foot span between them.
4. Driveways shall not exceed the minimum width required by LADOT.



Curb Cuts

5. A vehicular exit from a parking structure within five feet of a sidewalk area, paseo, or trail shall feature a visual/audible alarm to warn pedestrians and cyclists of exiting vehicles.

The Project applicant shall provide a site plan that indicates the location of and distance to all primary building entrances, pedestrian paseos, or any public outdoor gathering area from the parking and loading areas. The plan shall include the location, and specification of a visual and audible alarm for any vehicular exit that is located within 5' of a sidewalk area, paseo, or trail.

E. Drop-Off Zones. Drop-off Zones, when provided, shall either be located:

1. Within, or along the driveway access to the off-street parking facilities, or
2. Alongside the required curb line where there is a full-time curbside parking lane with no sidewalk narrowing.



2.6 Conservation

A. Purposes

These zoning regulations are intended to:

1. Reduce energy demand.
2. Recycle water and decrease demand for potable water.
3. Reduce waste and use of new materials.
4. Reduce demand on natural resources.

B. Plumbing and Plumbing Fixtures. For all projects installing or replacing plumbing or plumbing fixtures:

The Project applicant shall provide a plumbing plan that indicates the location of all male public restrooms that require a urinal. Indicate the model and type of urinal specified.

1. All faucets not governed by City Ordinance 180822 shall be limited to 1.5 gallons per minute.

The Project applicant shall provide a plumbing plan that indicates the location and flow rate of all faucets no governed by City Ordinance 180822.

2. Residential shower stalls shall not have more than one shower head per stall. Shower head flow shall be no greater than 2.0 gallons/minute.

The Project applicant shall provide a plumbing plan that indicates the location of all residential showers and their shower head.

3. All residential units shall be either individually metered or sub-metered such that each unit is billed individually for its water use.

The Project applicant shall provide a plumbing plan that indicates the location and quantity of all water meters and sub-meters. The plan shall indicate the number of owners or tenants that will utilize each meter or sub meter

4. All Projects, that involve the installation of a new internal rough plumbing system shall install a dual plumbing system such that toilets and industrial uses can be served by recycled water, if authorized by applicable law.

The Project applicant shall provide a plumbing plan that indicates the location and design of the dual plumbing system.

5. Tankless and on-demand Water Heaters shall be installed in lieu of standard water heaters.
6. Conductivity Controllers or pH Conductivity Controllers shall be used when installing Cooling Towers.

C. Interior Lighting Design and Operations. For all projects installing or replacing interior lighting system:

1. All non-residential buildings or portions thereof shall install lighting controls to extinguish all unnecessary exterior and interior lights from 11pm to sunrise.

The Project applicant shall provide a lighting plan that indicates the location, and performance measures of lighting controls for all of exterior and interior lights that are not required to be on between the hours from 11pm and sunrise.

2. All buildings shall schedule nightly maintenance activities to conclude before 11p.m.
3. All non-residential buildings or portions thereof shall use gradual, "staggered switching" to turn on building lights at sunrise rather than instant light-up of the entire building.

The Project applicant shall provide a lighting plan that indicates the performance measures of the "staggered switching" plan.

4. All non-residential buildings or portions thereof shall install devices such as photo-sensors, infrared and/or motion detectors to turn off lights when no occupants are present.

The Project applicant shall provide a lighting plan that indicates the location and performance measures of all photo sensors, infrared, and motion detectors.

5. All commercial and industrial buildings or portions thereof shall design lighting layouts in smaller zones and avoid wholesale area illumination.

The Project applicant shall provide a lighting plan that indicates the location of the lighting areas.

6. All non-residential perimeter space with a continuous depth of 20 feet shall have 20% dimming ballasts and day lighting control.

The Project applicant shall provide a lighting plan that indicates the location of dimming ballasts and day lighting controls within the first 20' of all non-residential perimeter spaces.

7. All buildings shall include dimmers in lobbies, atria and perimeter corridors for nighttime use.

The Project applicant shall provide a lighting plan that indicates the location of all dimmers in lobbies, atria and perimeter corridors.

D. Energy Generation

The Project applicant shall provide a plan that indicates the location of the on site renewable energy system and the percent of electrical needs it provides.

1. All New Construction Projects shall install and maintain an onsite renewable energy generation system to provide a minimum of 20% of the Project's non-residential electrical needs and 10% of the Project's residential demand.

E. Heat Island Reduction

The Project applicant shall provide a roof plan that indicates the percentage of the roof covered by EPA approved Energy Star roofing or green (vegetated) roofing.

All Project applicants who are installing or replacing a roof shall install an EPA approved Energy Star roof for a minimum of 75% of the roof surface or install a green (vegetated) roof for at least 50% of the roof area of all buildings within the Project. A combination of Energy Star compliant and vegetated roofs may be installed provided that they collectively cover 75% of the roof area of all buildings.

F. Windows/Glazing

All project applicants who are installing or replacing windows shall comply with Section 2.3 D 1's Urban Design Regulations to reduce internal heat gain.

G. Pools and Jacuzzis

1. All pools shall be installed with a water-saving pool filter.

The Project applicant shall provide a landscape plan that indicates the location and specifications of the water-saving pool filter.

2. A leak detection system shall be installed on all swimming pools and Jacuzzis.

The Project applicant shall provide a landscape plan that indicates the location and specification of the leak detection system for all swimming pools and Jacuzzis.



2.7 Performance

A. Purposes

These zoning regulations are intended to:

1. Provide for a safe, clean, and healthy environment.
2. Minimize the effects of noise and vibrations on the surrounding environment.
3. Reduce the visual impact of utility facilities.

B. Compliance

Prior to the issuance of a building permit or land use permit, the owner of the lot or lots shall execute and record a covenant and agreement, acknowledging that the owner shall implement each of the applicable regulations set forth in this Section. The covenant and agreement shall run with the land and be binding upon the owners, and any assignees, lessees, heirs, and successors of the owners. The City's right to enforce the covenant and agreement is in addition to any other remedy provided by law.

C. Maintenance and Delivery Standards

1. All Projects shall be maintained in a clean, safe and sanitary condition.
2. All Projects shall be kept clear of weeds, rubbish, and all types of litter and combustible materials at all times.
3. Loitering, camping, use of illegal narcotics, and any other criminal activity shall be prohibited on any premises within the Project.
4. Standing water shall be prevented from accumulating anywhere within the Project.
5. Loading and unloading of vehicles shall occur either on site, within an alley, or on a local modified, or local industrial modified street. Loading and unloading of vehicles from a Secondary street shall be permitted only when no other public right of way is adjacent to the Project site.
6. Site cleaning, sweeping, trash collection, deliveries, and loading and unloading are limited to the hours set forth in the table below.

MAINTENANCE AND DELIVERY SCHEDULE TABLE

Hours	Greenway	Urban Village	Urban Innovation	Urban Center
Mon-Friday	6am-10pm	7am-7pm	24 Hours	6am-10pm
Sat., Sun., & Legal Holidays	8am-5pm	8am-5pm	24 Hours	8am-8pm

D. Recycled Materials

All Project applicants shall provide a plan (site or floor) that indicates the location of the recycling area and includes information on the Project’s recycling program.

1. A recycling area that is clearly labeled, and easily accessible shall be provided at all Projects.
2. A recycling program and a contract for recycling pick-up if all recycled refuse is not re-used on site shall be established for all Projects.
3. All recycled goods shall be placed or stored in Recycling Receptacles by the end of the business day and not be left in plain view on the site.
4. All recycling receptacles shall be kept covered, and made of durable, waterproof, rustproof, of incombustible construction materials, and shall be of sufficient capacity to accommodate the materials collected.
5. The recycling area shall be kept free of litter, debris, spillage, bugs, rodents, odors, and other similar undesirable hazards.
6. Paper products and other lightweight materials shall be immediately placed into covered recycling receptacles.
7. All recycling receptacles and containers shall be kept in a secure location to prevent unauthorized entry and scavenging and theft of recyclable materials.
8. Recyclable materials, other than recyclable materials contained in reverse vending machine commodity storage bins, shall be emptied from recycling receptacles when full or every week, whichever comes first.

E. Storage

All Project applicants shall provide a site plan that indicates the location, size, and height of outdoor storage areas. The Plan shall include information on the type of materials or equipment that shall be stored in the storage area, provide an elevation that illustrates the height of, and construction materials that will be used to construct the storage area and trash areas and their gates, and include specifications of the gate/door self-closure that will be installed.

1. No materials or equipment shall be stored out of doors to a height greater than the height of the enclosing wall or fence.
2. Open air storage of merchandise or materials must be confined to a storage area completely enclosed by a solid, non-combustible wall with self-closing gates.

F. Utilities and Equipment

The Project applicant shall provide a utility plan that indicates either the location of the new underground utility lines or describe the alternative provisions that have been determined.

1. All new utility lines, which directly service the lot or lots, shall be installed underground. If underground service is not available at the time the application is submitted and fees paid for plan check, then provisions shall be made for future underground service to the satisfaction of the Bureau of Engineering, if determined necessary by the Department of Water and Power.
2. Electrical transformers, mechanical equipment, water meters and other equipment shall be screened from public view. The screening may be opaque or perforated provided that not more than fifty percent of the face is open. The screen shall be at least six inches taller than the equipment and not more than two feet taller than the equipment.

The Project applicant shall provide plans (electrical, mechanical, water, or plumbing) or an elevation that shows the location of the equipment and illustrates the screening



2.8 Signs

A. Purposes

These zoning regulations are intended to:

1. Create strong building identity that is well integrated with the design of the architecture.
2. Provide clear and attractive business identity.
3. Attract visitors to publicly accessible open space areas.

B. Prohibitions

All Project applicants shall provide a site plan and elevations that indicate the location, size, and style of each exterior sign, and the number of non-residential tenants or owners that will occupy the building.

1. The exposed unfinished backs and sides of all signs shall not be visible from a public right-of-way or greenway.
2. The following signs are prohibited: animated, blinking and scrolling signs; inflatable devices; and off-site, supergraphics, pole signs, roof, and window signs.
3. Signs shall not obscure the architecture, windows, window trim, or molding.
4. Neither the variance procedure nor the specific plan exception procedure may be used to permit any sign prohibited by this Plan or the LAMC.



2.9 Mitigation Measures

A. Purposes

These Mitigation Measures are intended to:

1. Reduce the transportation impacts of the Proposed Plan to the extent feasible.
2. Reduce the Plan's potential impacts on earth resources to a level of less-than-significant.
3. Reduce the Plan's potential impacts on hydrology and water quality to a level of less-than-significant.
4. Reduce the Plan's potential impacts on biological resources to a level of less-than-significant.
5. Reduce the Plan's potential impacts on cultural resources to a level less-than-significant.
6. Reduce the Plan's potential impacts on hazardous materials to a level of less-than-significant.
7. Mitigate significant impacts on regional and local air quality to the extent feasible.
8. Mitigate roadway and construction noise impacts associated with implementation of the Proposed Plan to the extent feasible.
9. Reduce the Plan's potential impacts on utilities to a level of less-than-significant.
10. Reduce the Plan's potential impacts on greenhouse gas emissions to a level of less-than-significant.

B. Mitigation Standards

The Mitigation Measures set forth in Appendix 1 are incorporated in to this Plan by references as if fully stated herein. Applicants shall comply with all mitigation measures set forth in Appendix 1 that are applicable to the Project.

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Streets

Chapter 3





3.1 Streets

A. Purposes

These zoning regulations are intended to:

1. Connect the area to its neighboring communities, the City of Los Angeles, and the greater Los Angeles region through a safe, efficient and accessible circulation network that embraces pedestrians, bicyclists, transit, truck traffic, and automobiles.
2. Recognize the shared use of streets not only for moving traffic, but also as the front door to businesses, which are the economic and fiscal foundation of the City, and as public outdoor space for residents and workers.
3. Develop an efficient yet balanced circulation system that defines different types of streets based on their transportation function and community role.
4. Provide residents, employees, and visitors with a variety of transportation alternatives that result in a more efficient use of transportation resources.
5. Encourage a vibrant pedestrian-oriented environment with activity centered along property edges at the interface between buildings and streets.
6. Design streets and sidewalks so that pedestrians, bicyclists, transit riders, transit vehicles, trucks and automobile traffic can coexist safely.
7. Build linkages to the neighboring Chinatown, Lincoln Heights, Cypress Park, Elysian and Heritage Square neighborhoods to nearby regional park amenities such as Elysian Park, Debs Park, El Rio de Los Angeles State Park, and to the Arroyo Seco and to Los Angeles River Greenways.
8. Promote a multi-modal street network.
9. Establish recommended standards for modified cross sections.
10. Illustrate modified street standards.
11. Establish street assumptions and criteria.

B. Street Definitions

Stormwater Best Management Practices (BMPs).

A type of water pollution control that includes both structural or engineered control devices and systems (e.g. retention ponds) to treat polluted stormwater, as well as operational or procedural practices (e.g. minimizing use of chemical fertilizers and pesticides).

Collector Modified Streets. Collector Modified Streets emphasize multi-modal neighborhood travel and serve as a “Main Street” for Urban Villages and Urban Centers. Collector Modified Streets contain one vehicle lane for each traffic direction. Typical features include wide sidewalks, exclusive bicycle lanes, on-street parking, and street trees.

Local Modified Streets. Local Modified Streets emphasize access to individual properties and serve living or work spaces. Local Modified Streets allow for one lane in each direction and are not designed to accommodate regular bus or truck traffic. Typical features include relatively narrow cross sections, on-street parking, sidewalks, and street trees.

Local Industrial Modified Streets. Local Industrial Modified Streets emphasize truck access to industrial properties. Local Industrial Modified Streets allow for one lane in each direction and include a bicycle lane. Typical features include limited on-street parking, sidewalks, and street trees.

Modified Alleys. Modified Alleys emphasize access to individual properties, and accommodate parking access and service functions as an alternative to other streets and provide the opportunity to incorporate stormwater Best Management Practices (BMPs).

Pedestrian Street Lights. Provide ornamentation to supplement the required illumination level. Pedestrian street lights contribute to the pedestrian scale of the area by adding a soft flow of light on the sidewalk and by

enhancing pedestrian safety.

Roadway Lights. Provide roadway illumination.

Secondary Modified Streets. Secondary Modified Streets emphasize intra-city, multi-modal travel and connect urban activity centers. Secondary Modified Streets have two lanes in each direction and carry a mix of local and regional traffic. Typical features include on-street parking, exclusive bicycle lanes, wide sidewalks, and street trees.

Sidewalks. A sidewalk is that portion of the public-right-of-way that is typically raised above the street surface and is physically defined as the area between the property line and the curb. A sidewalk can be divided into three separate zones: parkway, pedestrian, and furniture zone.

Stormwater Greenway. A non-motorized public access road that mimics a dry creek or arroyo ecosystem and supports a biological community that filters and further cleans stormwater runoff.

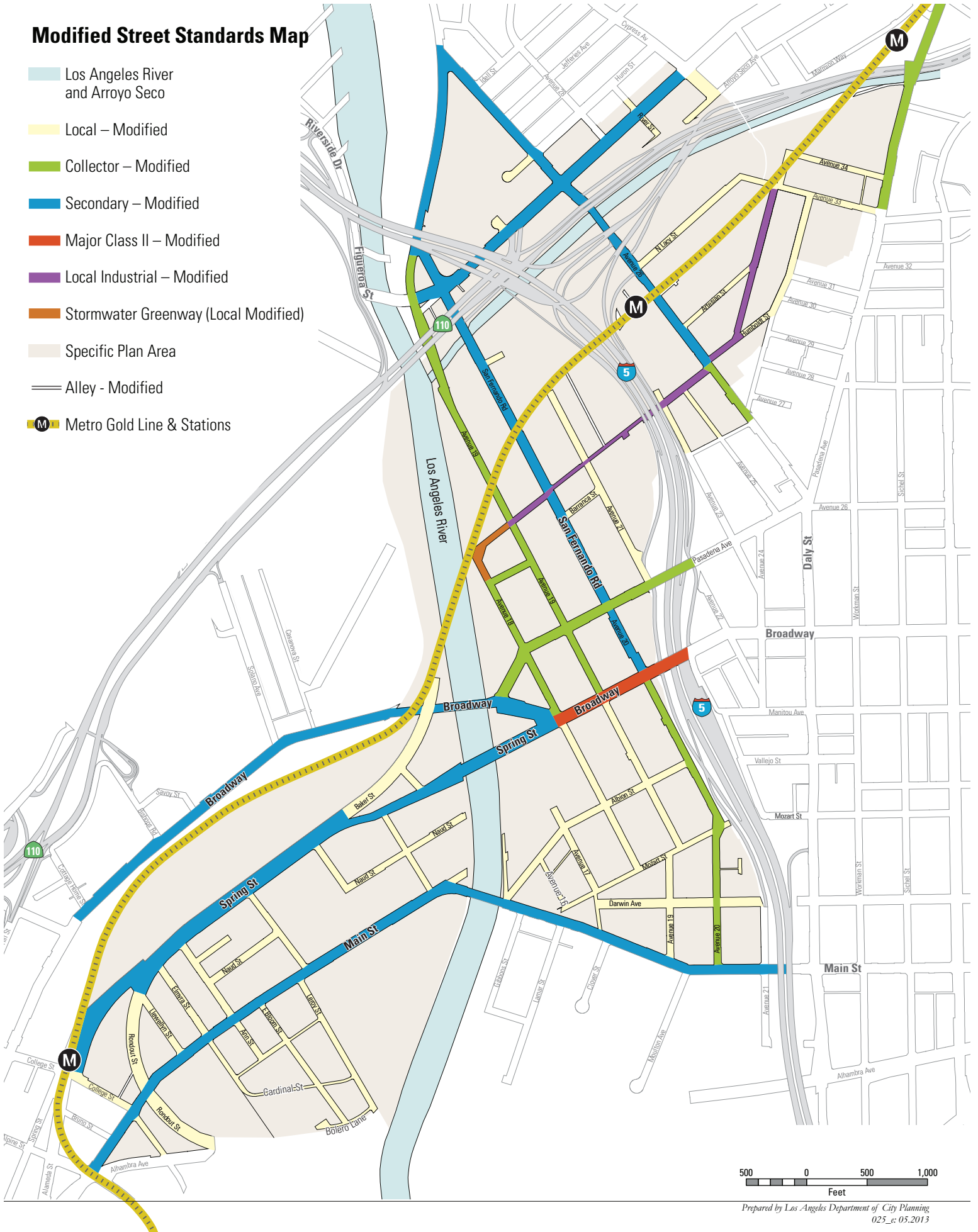
Parkway Zone. The sidewalk area adjacent to the curb is typically referred to as the Parkway zone and depending upon the level of activity may include landscaping, trees, transit infrastructure, signage, lighting, benches, fire hydrants, and vending machines.

Pedestrian Zone. The Pedestrian Zone is the portion of the sidewalk that shall be maintained clear of obstructions for the safe and accessible passage of pedestrians.

Furniture Zone. The sidewalk area immediately abutting the property line is typically referred to as the Furniture Zone. The width of the Furniture Zone will vary throughout the Plan area depending upon the overall width of the sidewalk area.

Modified Street Standards Map

- Los Angeles River and Arroyo Seco
- Local – Modified
- Collector – Modified
- Secondary – Modified
- Major Class II – Modified
- Local Industrial – Modified
- Stormwater Greenway (Local Modified)
- Specific Plan Area
- Alley - Modified
- M Metro Gold Line & Stations



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Feet

Prepared by Los Angeles Department of City Planning
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C. Street Modification Summary

For the purposes of this Subsection, the regulations and procedures contained in Section 12.37 of the LAMC shall be followed. Notwithstanding Section 12.37 H, the modified highway and street improvement standards illustrated in Appendix 4 of this Plan, and summarized in the Street Modification Table, the Modified Street Standards Map, and the other street maps located in this section shall be utilized, to the extent physically feasible, for any street improvements required in the Specific Plan area.

STREET MODIFICATION TABLE

Street	Current Designation	New Designation
Albion	Local Street	Local - Modified
Ann (Spring to Main)	Collector Street	Local – Modified
Ann (South of Main)	Local Street	Local – Modified
Artesian	Local Street	Local – Modified Industrial
Artesian Place	Local Street	Local-Modified
Aurora	Local Street	Local – Modified
Ave 16	Local Street	Local – Modified
Ave 17	Local Street	Local – Modified
Ave 18	Local Street	Local/Collector – Modified
Ave 19	Local Street	Local/Collector- Modified
Ave 20 (South of Broadway)	Collector Street	Collector- Modified
Ave 20 (North of Broadway)	Secondary Hwy	Secondary- Modified
Ave 21	Local Street	Local- Modified
Ave 22	Local Street	Local- Modified
Ave 23	Local Street	Local - Modified
Ave 25	Local Street	Local - Modified
Ave 26	Secondary Hwy	Collector- Modified
Ave 33	Local Street	Local - Modified
Baker – to Aurora	Local Street	Local - Modified
Barranca	Local Street	Local - Modified

STREET MODIFICATION TABLE

Street	Current Designation	New Designation
Bloom	Local Street	Local - Modified
Bolero	Local Street	Local - Modified
Broadway	Major Hwy Class II	Secondary - Modified
Cardinal	Local Street	Local - Modified
College	Local Street	Local – Modified
Darwin	Local Street	Local – Modified
Elmyra (North of Main)	Collector Street	Local – Modified
Elmyra (South of Main)	Local Street	Local – Modified
Figueroa	Major Hwy Class II	Secondary- Modified
Humboldt	Local Street	Local – Modified Industrial/ Local – Modified (Stormwater Greenway)
Lacy	Local Street	Local – Modified
Leroy	Local Street	Local – Modified
Llewellyn	Local Street	Local - Modified
Magdalena	Local Street	Local – Modified
Main	Secondary Hwy	Collector – Modified
Mesnager	Collector Street	Local – Modified
Mozart	Local Street	Local – Modified
Naud	Collector Street	Local – Modified
Pasadena	Secondary Hwy	Collector- Modified
Rondout	Local Street	Local – Modified
San Fernando	Secondary Hwy	Secondary – Modified
Sotello	Collector Street	Local – Modified
Spring	Major Hwy Class II	Secondary – Modified
Weyse	Collector Street	Local – Modified
Wilhardt	Collector Street	Local – Modified

D. Sidewalk Regulations

The Project applicant shall provide a site plan that includes all abutting public rights of way and indicate the location and design specifications of all curb and gutter, parkway, crosswalk, sidewalk, pedestrian, bicycle, and transit improvements.

1. Sidewalks.
 - a. Required minimum sidewalk widths for all streets in the plan area are included in Appendix 4.
 - b. Street furniture, trees and similar amenities shall be located outside of the Pedestrian Zone.
 - c. A minimum 6 foot wide barrier-free continuous path of travel shall be provided in all Pedestrian Zones.
 - d. Project applicants installing a paving pattern or using non-standard materials shall obtain prior approvals from the Department of Public Works.
 - e. Sidewalks shall be maintained by the adjacent property owner.
 2. Street Lighting.
-

The Project applicant shall provide a site plan that indicates the location of street lighting and the distance between each light pole.

- a. Roadway lights shall be spaced 90 to 110 feet apart and designed to illuminate both the roadways and sidewalks to the levels required by the Bureau of Street Lighting for safety and security.
- b. Trees shall be spaced from other elements, as specified by the Urban Forestry Division, except that trees may be positioned within 10 feet of pedestrian lights. The adjacent property owner shall maintain any tree planted within 10 feet of a pedestrian light so that the lights are accessible for maintenance purposes.
- c. Energy-efficient Pedestrian Style Lighting Fixtures shall be installed midway between two street lights and no less than every 100 feet or as determined by the Bureau of Street Lighting.
- d. Once the Bureau of Street Lighting selects a Pedestrian Style Lighting Fixture for a particular block the entirety of that block shall be designated with that lighting fixture type.

Subarea 1 Street Map

- Los Angeles River and Arroyo Seco
- Specific Plan Area
- Continental Striping for Existing Crosswalks
- Continental Striping for Proposed Crosswalks
- Proposed Traffic Signal
- Existing Traffic Signal
- Existing Stop Sign
- Proposed Street Extension
- Sidewalk Extension
- M Metro Gold Line & Stations





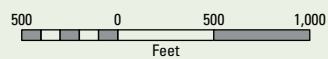
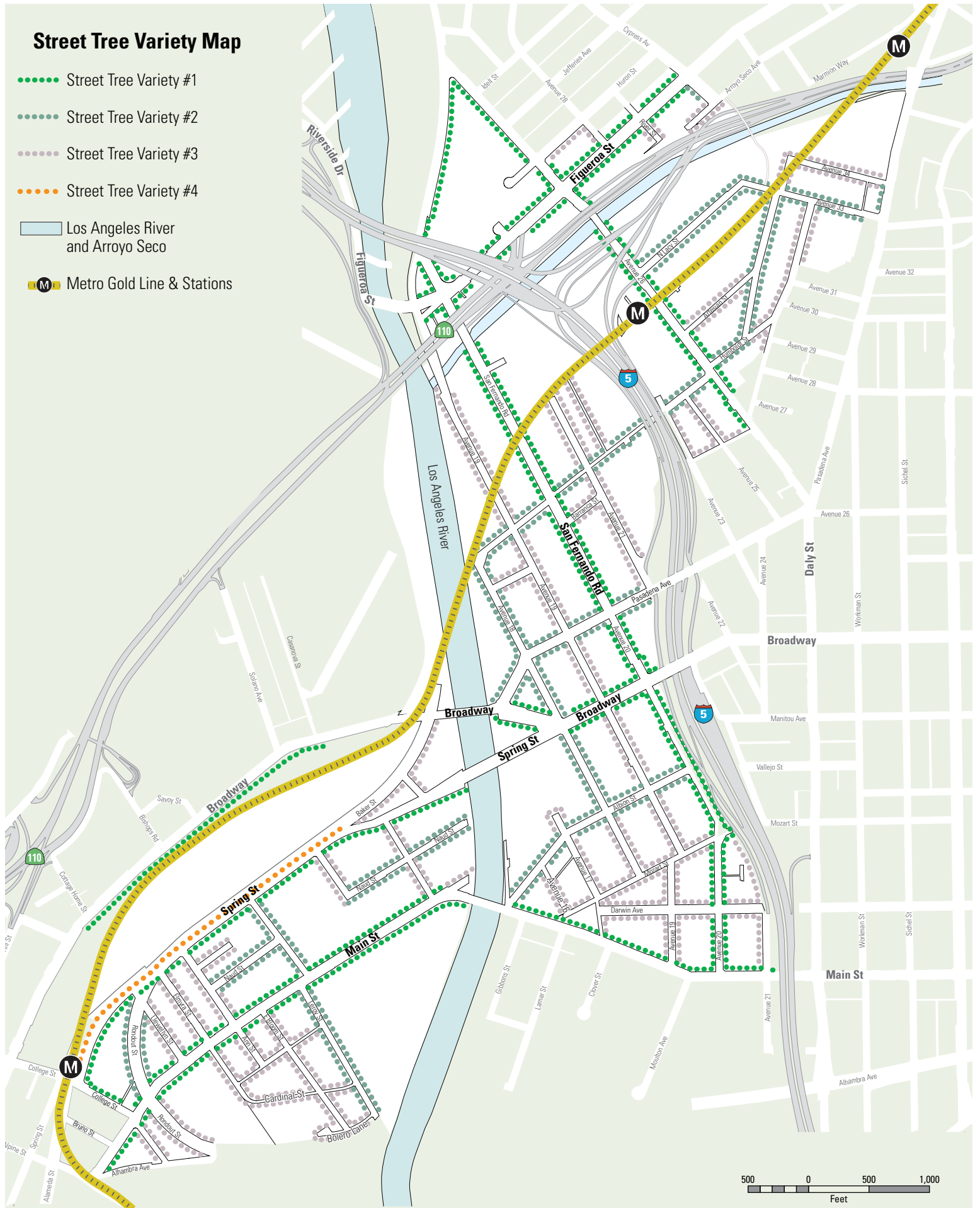
- e. All light poles shall be located adjacent to the curb as required by the Bureau of Street Lighting.
 - f. If the streets are widened or narrowed, the existing street lights shall be moved along with the new curb line to maintain the existing street light and tree spacing pattern.
 - g. Maintenance of street lighting shall be provided by the Bureau of Street Lighting, and shall be funded through the assessment district process. Any additions or changes to the assessment rates must be approved by all affected property owners pursuant to California law.
3. **Special Lighting.** Special lighting that adds to the Area's sense of place is permitted within the public right-of-way, provided that it does not interfere with pedestrian movement, vehicular safety, the approved street light/street tree spacing pattern, or other required streetscape elements.
- a. Examples of special lighting include accent lighting of landscape and architectural features, and seasonal light displays celebrating holidays or special events.
 - b. Special lighting may be installed with a revocable permit. The infrastructure for this lighting shall be maintained by the permit holder and not the Bureau of Street Lighting.
4. Street Trees.

The Project applicant shall provide a landscape plan that indicates the location, caliper at planting, and radial distance at maturity of each tree, the size of tree wells and the material and porosity of the surface area under the tree.

- a. The Parkway Zone shall be planted with a tree selected from the Street Tree Table at the designated spacing for the selected tree. Street trees shall be spaced from 20 to 40 feet on center. If there are no existing trees within the block, the applicant may select the tree species from the list, with the approval of the Urban Forestry Division. Once a tree is selected and planted for a particular block that same tree species shall be planted for subsequent Projects that develop within the same block.
- b. Where existing street trees must be removed as a result of required street widening, or other improvements, they shall be relocated or replaced, as approved by the Urban Forestry Division.
- c. Trees shall be planted using minimum 24 inch box trees.

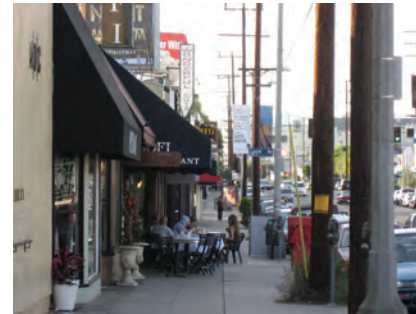
Street Tree Variety Map

- Street Tree Variety #1
- Street Tree Variety #2
- Street Tree Variety #3
- Street Tree Variety #4
-  Los Angeles River and Arroyo Seco
-  Metro Gold Line & Stations



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- d. Trees shall be planted with 4 x 8 foot tree wells with a 3 inch decomposed granite on the tree well surface, compacted to no more than 80%.
- e. Structural soil to a depth of three feet shall be installed under the entire width of a sidewalk within 25 feet of all new or relocated street trees.
- f. Street trees shall not be planted without first obtaining approval from the Department of Public Works-Urban Forestry Division.
- g. The adjacent property owner shall be responsible for regular pruning, staking, and supplemental irrigation of trees for the first three years as needed.



Sidewalk Dining

STREET TREE TABLE

STREET TREE VARIETY 1	STREET TREE VARIETY 2	STREET TREE VARIETY 3	MEDIAN TREATMENT
African Sumac	African Sumac	Brazilian Rosewood	American Sweetgum
American Sweetgum	American Sweetgum	California Sycamore	Brazilian Rosewood
Brazilian Rosewood	Australian Willow	California White Oak	California Black Walnut
California Sycamore	Brazilian Rosewood	Chinese Pistachio	California White Oak
California White Oak	California Sycamore	Coast Live Oak	Jacaranda
Chinese Elm	California White Oak	Honey Locust	Los Angeles Beautiful Floss Silk Tree
Chinese Pistachio	Chinese Elm	Purple Orchid Tree	
Coast Live Oak	Chinese Pistachio	Los Angeles Beautiful Floss Silk Tree	
Honey Locust	Coast Live Oak		
	Honey Locust		
	Rainbow Bark		

5. **Sidewalk Dining Facilities.** Just as sidewalk dining contributes to street life, the physical facilities associated with it should contribute to the quality of the street environment and the Project. While sidewalk dining is not required, Projects that elect to include sidewalk dining shall comply with the following regulations:

- a. All dining facilities located on the sidewalk shall be freestanding, shall not be attached to the sidewalk, and shall be removed when the dining facilities are closed for business.

Subarea 2 Street Map

- Los Angeles River and Arroyo Seco
- Specific Plan Area
- Continental Striping for Existing Crosswalks
- Continental Striping for Proposed Crosswalks
- Proposed Traffic Signal
- Existing Traffic Signal
- Existing Stop Sign
- M Metro Gold Line & Stations



- b. Enclosures are required only where alcohol is served, but may be provided elsewhere to create a sense of security. Enclosures shall not exceed 42 inches in height and shall be constructed of durable materials that are in the same family as, or compatible with, the Project's architectural materials.
- c. A revocable permit, from the Department of Public Works (DPW) is required for outdoor dining facilities.

E. Street Intersection Design Regulations

1. Crosswalks.
 - a. Continental crosswalks shall be installed at all intersections that include either a Major Class II, Modified Secondary and/or Collector street as indicated on the five Subarea Street Maps included in this Section.
 - b. The Bureau of Engineering (BOE) shall identify intersections that require crosswalks on Navigate LA.

Project applicants shall provide a site plan that indicates any bicycle friendly streets or bicycle lanes, and that indicates any on-street parking spaces. The Plan shall also indicate whether the space is a car share, bicycle share, or bicycle corral space.

2. Signalized Intersections.
 - a. Traffic signals shall be added to the intersections indicated below and illustrated on the five Subarea Street Maps included in this Section:

Main Street and W. College

Ann Street and N. Spring Street

Sotello Street and N. Spring Street

Messenger and N. Spring Street







Wilhardt Street and N. Main Street

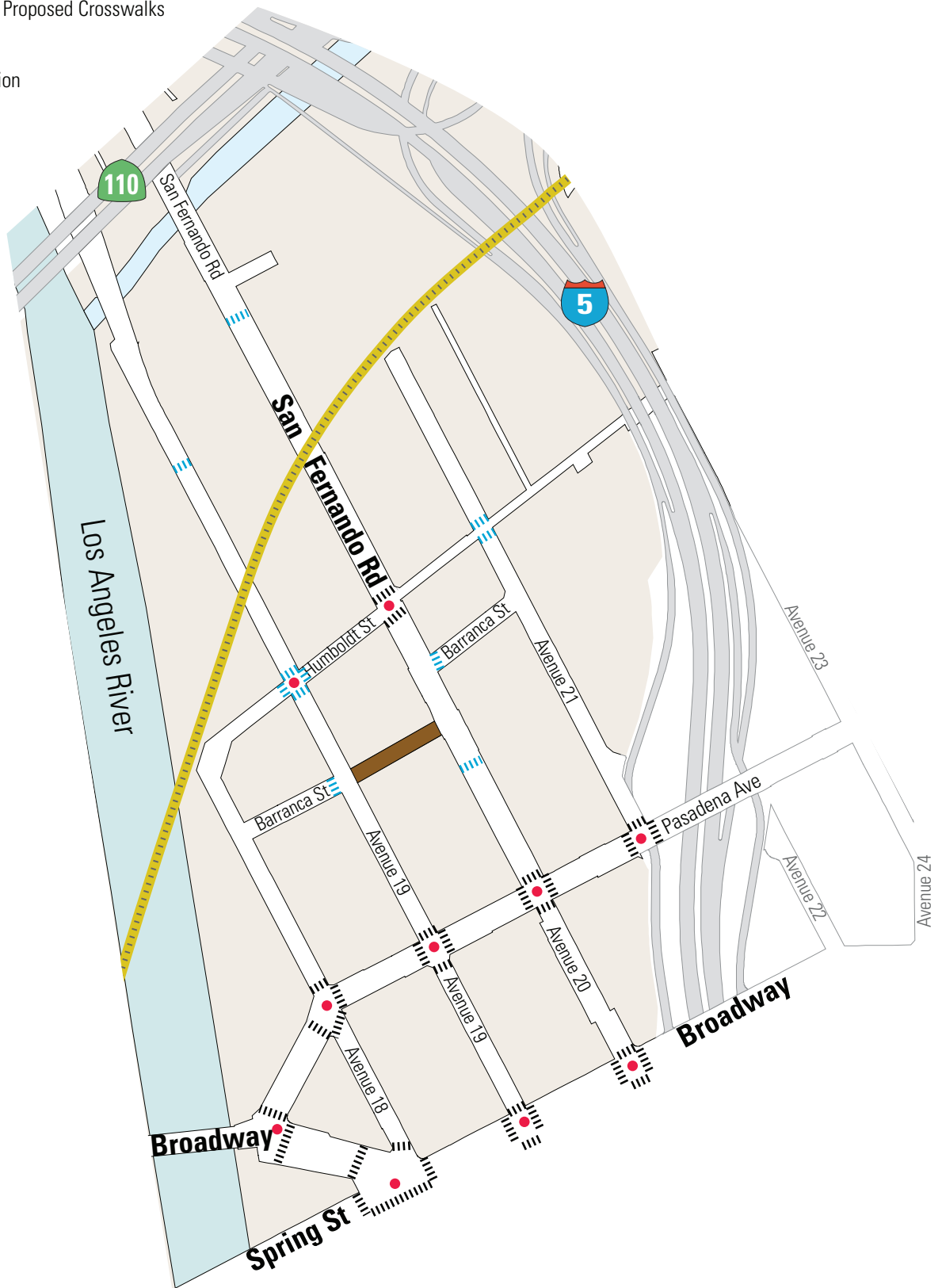
Avenue 21 and N. Main Street

Humboldt and Avenue 26

- b. The Bureau of Engineering (BOE) shall identify intersections that require signals on Navigate LA.

Subarea 3 Street Map

-  Los Angeles River and Arroyo Seco
-  Specific Plan Area
-  Continental Striping for Existing Crosswalks
-  Continental Striping for Proposed Crosswalks
-  Existing Traffic Signal
-  Proposed Street Extension
-  Metro Gold Line










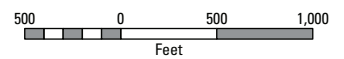
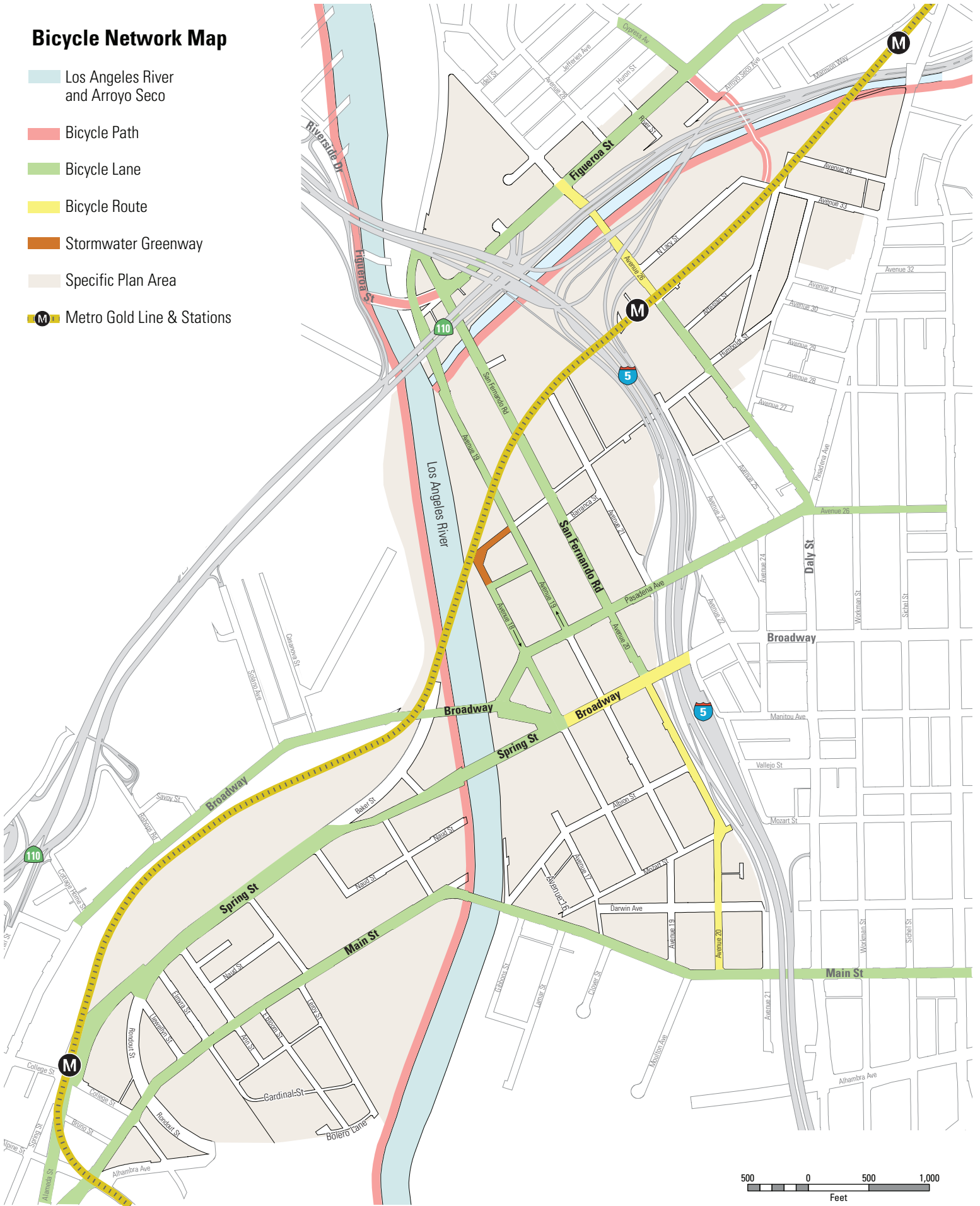
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3. Bicycle, Vehicle, and Parking Lanes

- a. Traffic Lanes. Roadbeds shall be marked with the number of traffic lanes that coincide with the standard plans on Navigate LA.
- b. Bikeways.
 - i. All Bicycle Friendly Streets identified in the 2010 Bicycle Plan shall be improved to include Bicycle Friendly Street improvements as described in the 2010 Bicycle Plan and highlighted in the 2010 Bicycle Plan's Technical Design Handbook.
 - ii. Any landscaped portions of a bicycle friendly feature shall be planted with drought tolerant trees and/or low-maintenance, drought tolerant shrubs and groundcover.
 - iii. Bicycle lanes shall be included on N. Spring, N. Main, Pasadena Avenue, San Fernando Boulevard, Figueroa Street, and a portion of Avenue 26 as illustrated on the cross-section standard plans on Navigate LA, the Bicycle Network Map on the following page and Appendix 4.
 - iv. Bicycle sharrows shall be included on Avenue 26 between the Arroyo Seco (Pasadena) Freeway and the Gold Line Bridge since severe roadway width constraints (i.e. the existence of freeway on and off-ramps) prohibit the addition of bicycle lanes at this location.
 - v. A bicycle lane shall be installed on Avenue 20 between Broadway and Main Street as illustrated in the cross-section standard plans on Navigate LA, the Bicycle Network Map on the following page and Appendix 4.
 - vi. Temporary sharrows shall be installed on Broadway between Avenue 18 and the Golden State Freeway to indicate the presence of bicyclists until such time as a bicycle lane is installed at the location, as described in the 2010 Bicycle Plan.
- c. Parking Lanes.
 - i. Car Share, Bicycle share or bicycle corrals shall be given priority access to on-street parking spaces.
 - ii. Approval for any enhancement or unique design treatments in the parking lane shall be obtained from the Department of Transportation.

Bicycle Network Map

-  Los Angeles River and Arroyo Seco
-  Bicycle Path
-  Bicycle Lane
-  Bicycle Route
-  Stormwater Greenway
-  Specific Plan Area
-  Metro Gold Line & Stations



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iii. If a parking space is reserved for a bicycle corral, the adjacent property owner shall assume maintenance responsibilities beyond normal re-striping and repair, which will continue to be performed by the Department of Transportation.

d. Landscaped Median.

- i. A landscaped median shall be installed along Spring Street between College and Baker Streets. The median improvements shall be interrupted to accommodate left-turn pockets at Ann Street, Sotello and Mesnager Streets.
- ii. The landscaped median shall be approximately 10 feet in width and shall be planted with mature, drought-tolerant, shade canopy trees and low-maintenance, drought-tolerant ground cover and shrubs.
- iii. Approval for the design, plant selection, and irrigation plans for the landscaped median shall be obtained from the Department of Transportation and the Department of Public Works.
- iv. The Bureau of Street Services shall be responsible for regular pruning, weed control, tree and/or plant replacement, and irrigation repair and replacement.

F. Street Standards

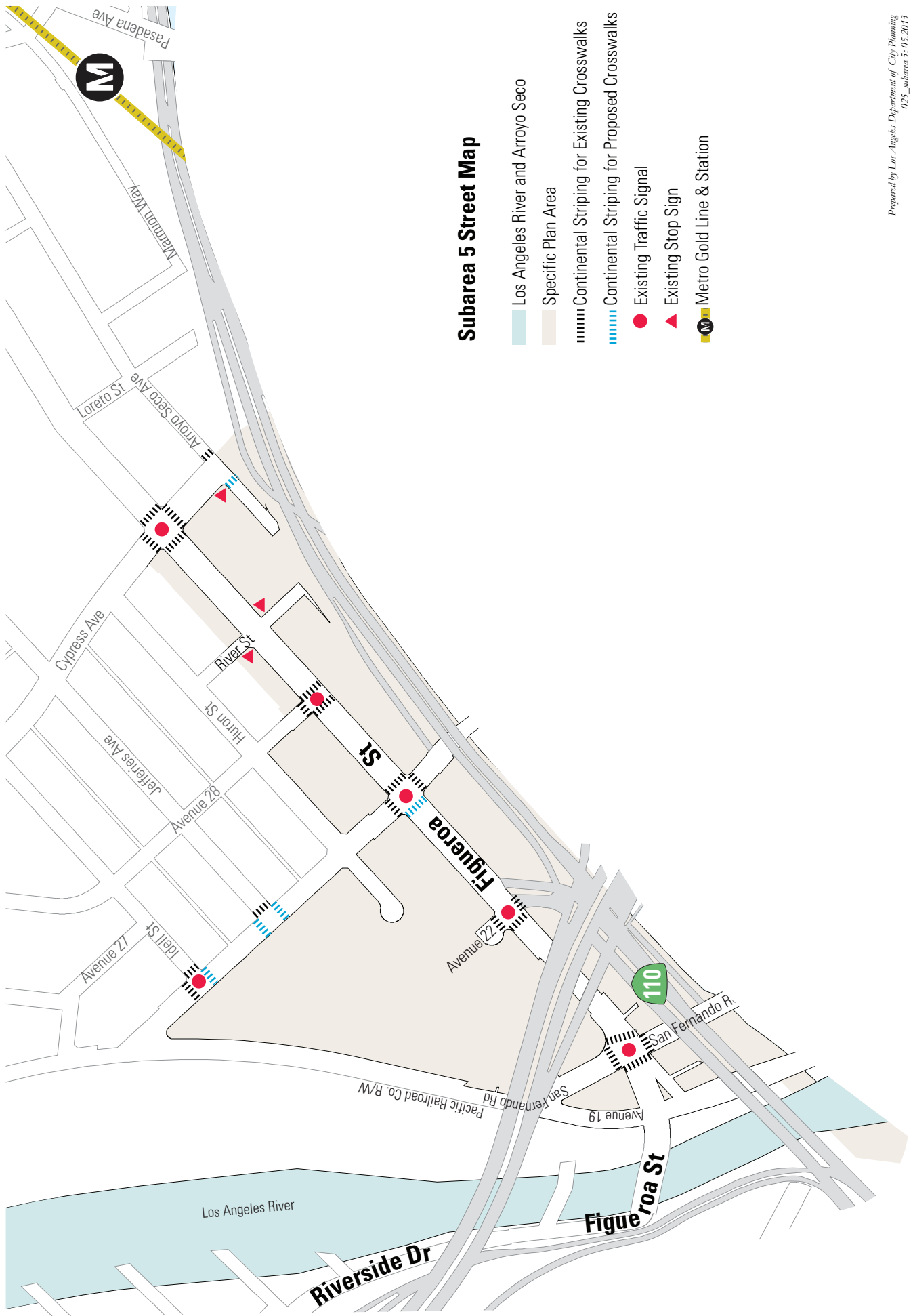
1. This Plan's Street Standards are modifications of the existing street designations and apply to the Plan's street segments illustrated in the Cross-Sections in Appendix 4 Modified Streets. The cross-sections show the typical midblock conditions. Intersections are not shown. For each street, the existing street designation and existing cross sections by segment are shown in the left column. The proposed cross-sections for those same segments are shown in the right column.
2. The proposed Plan Street Standard illustrated in Appendix 4 for each street segment includes:
 - a. **Right-of-way width** (ROW).
 - b. **Roadway width** (curb to curb).
 - c. **Sidewalk width within the ROW.** The designated sidewalk width cannot be reduced. In other words, the roadway width cannot be widened at the expense of the sidewalk.
3. Upon final approval of these standards the Bureau of Engineering shall add a layer to its Navigate LA website to inform all developers of the future block-by-block requirements for streets and sidewalk widths.

Subarea 4 Street Map

-  Los Angeles River and Arroyo Seco
-  Specific Plan Area
-  Continental Striping for Existing Crosswalks
-  Continental Striping for Proposed Crosswalks
-  Proposed Traffic Signal
-  Existing Traffic Signal
-  Metro Gold Line & Stations

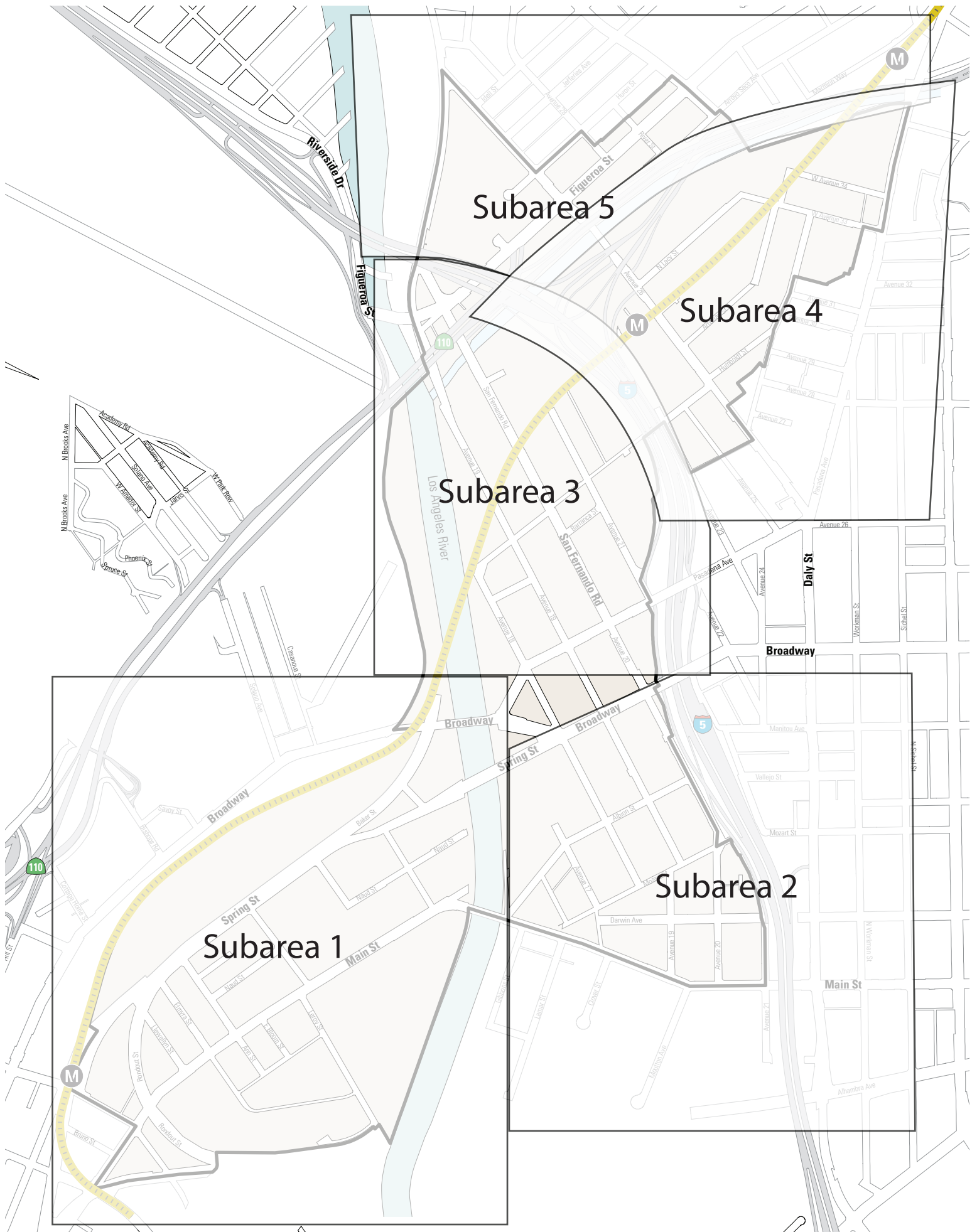


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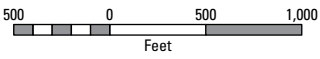
Subarea 5 Street Map

- Los Angeles River and Arroyo Seco
- Specific Plan Area
- Continental Striping for Existing Crosswalks
- Continental Striping for Proposed Crosswalks
- Existing Traffic Signal
- Existing Stop Sign
- Metro Gold Line & Station






Street Label Map

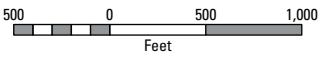
- Los Angeles River and Arroyo Seco
- Specific Plan Area



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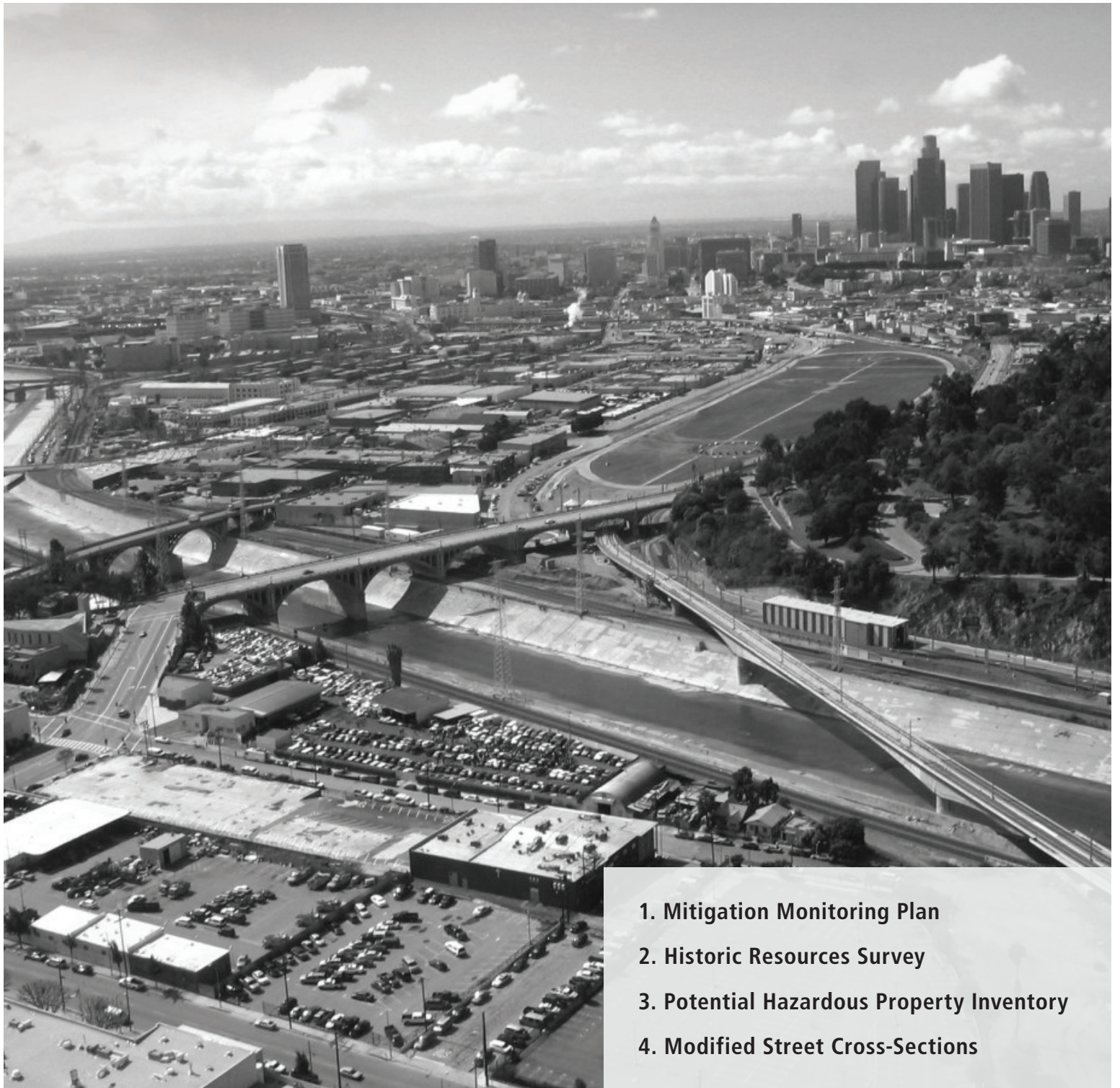
Block Numbers Map

-  Los Angeles River and Arroyo Seco
-  Specific Plan Area
-  Metro Gold Line & Stations



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1. Mitigation Monitoring Plan
2. Historic Resources Survey
3. Potential Hazardous Property Inventory
4. Modified Street Cross-Sections

CASP APPENDICES

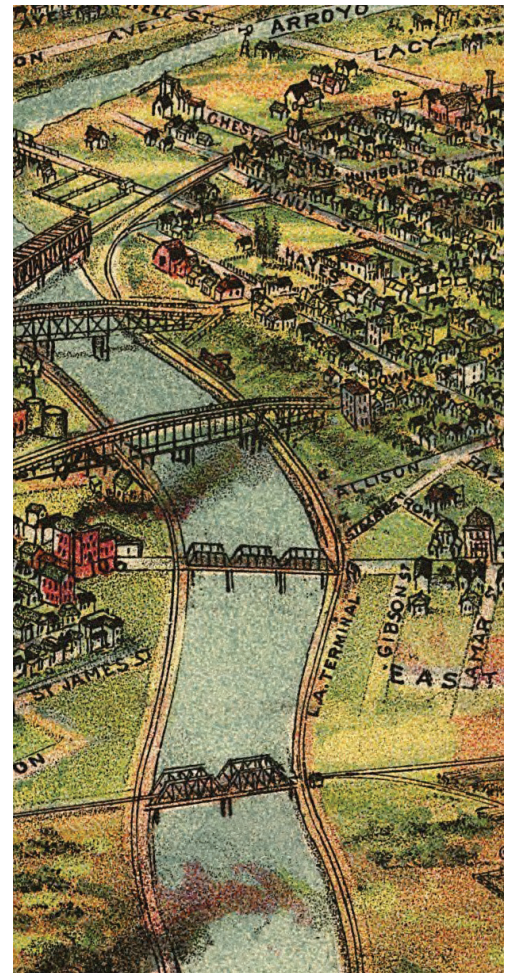
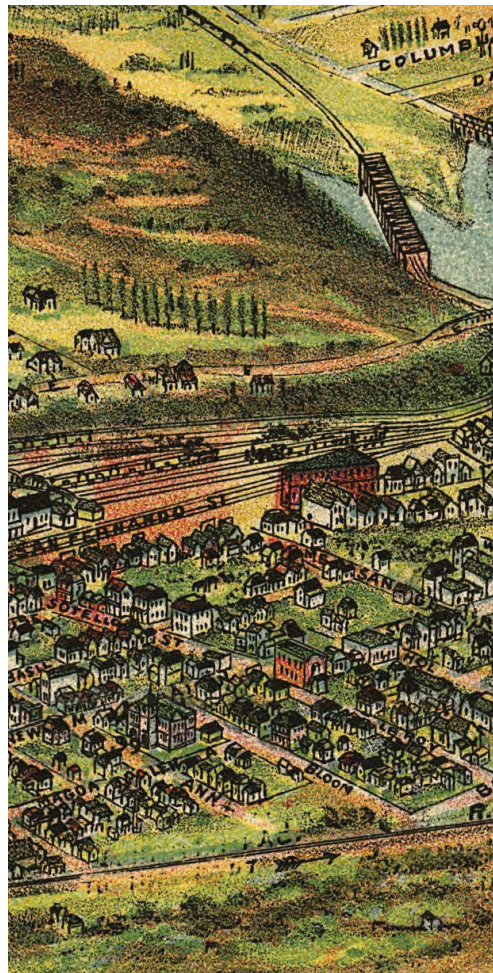
Cornfield Arroyo Seco Specific Plan



Los Angeles Department of City Planning

Mitigation Monitoring Plan

Appendix 1



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MITIGATION MONITORING PLAN

Section 21081.6 of the Public Resources Code and Section 15097 of the CEQA Guidelines require adoption of a Mitigation Monitoring or Reporting Plan (MMP) for all projects for which an Environmental Impact Report (EIR) or Mitigated Negative Declaration (MND) has been prepared. This requirement was originally mandated by Assembly Bill (AB) 3180 which was enacted on January 1, 1989 to ensure the implementation of all mitigation measures adopted through the California Environmental Quality Act (CEQA) process. Specifically, Section 21081.6 of the Public Resources Code states that "...the agency shall adopt a reporting or monitoring Plan for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment...[and that the Plan]...shall be designed to ensure compliance during project implementation."

AB 3180 provided general guidelines for implementing monitoring and reporting Plans, which are enumerated in more detail in Section 15097 of the CEQA Guidelines. Specific reporting and/or monitoring requirements to be enforced during project implementation are defined prior to final approval of the project. The proposed monitoring Plan will be considered by the City of Los Angeles (the lead agency) prior to certification of the EIR. Although the lead agency may delegate reporting or monitoring responsibilities to other agencies or entities, it "...remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the Plan."

The Mitigation Monitoring Plan describes the procedures for the implementation of the mitigation measures to be adopted for the proposed project as identified in the Draft and Final EIR. The MMP for the proposed project will be in place through the planning horizon of the Plan (2035) or until the Plan and EIR are updated again. While the Proposed Project is a planning document, it is anticipated that development that occurs pursuant to the plan will include the following phases: design (pre-construction), construction, and operation (post-construction both prior to and post-occupancy), and therefore some mitigation measures are tied to these phases. The City is responsible for administering the MMP activities. The City may choose to delegate parts of the Plan (particularly enforcement and monitoring) to staff, other City departments (e.g., Department of Building and Safety, Department of Public Works, etc.), consultants, or contractors. The City may choose to designate one or more environmental monitor(s) (e.g. City building inspector, project contractor, certified professionals, etc., depending on the provision specified below).

Each mitigation measure is categorized by impact area, with an accompanying identification of:

Performance Criteria/Monitoring Actions – this is the criteria that would determine when the measure has been accomplished and/or the monitoring actions to be undertaken to ensure the measure is implemented.

The implementing agency – this is the agency or agencies that will actually undertake the measure.

The enforcement agency and monitoring agency -- this is the agency or agencies that will monitor the measure and ensure that it is implemented in accordance with this MMP.

Cornfield Arroyo Seco Specific Plan Mitigation Monitoring Plan

Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
4. Transportation		
<p>Mitigation Measure Transportation 4.1:</p> <p><i>Transportation Demand Management Strategies (TDM).</i></p> <p>All projects shall include the following:</p> <p><u>Unbundled Parking.</u> All projects shall unbundle the cost of parking from the cost of living and employment areas, either by charging a rent or lease fee, or selling the parking space separately. (See Section 2.5.B.2)</p> <p><u>Bicycle Facilities.</u> Residential projects or those portions of mixed-use projects that are residential shall provide a minimum of one bicycle parking space for every two units. Nonresidential projects, or those portions of mixed-use projects that are nonresidential shall provide a minimum of one bicycle parking space or locker for every 2,000 square feet. Open Space and public parks shall provide a minimum of two bicycle parking space for every 15,000 square feet. (See Section 2.5.B.5a, 6a, and 7b.)</p> <p><u>Transportation Information Center.</u> All projects shall provide a centrally located Transportation Information Center (TIC) where residents, employees, and visitors can obtain information regarding a variety of local transportation Plans and services. A TIC typically provides information about transit schedules, commute planning, ridesharing, telecommuting, bicycle and pedestrian routes and facilities, taxis, para-transit, onsite services, and local businesses. (See Section 2.3.C.2)</p> <p><u>Rideshare or Carshare Parking.</u> Residential projects or those portions of mixed-use projects that are residential and provide parking shall provide, in a publicly accessible area, one shared vehicle parking space for every 25 units. Nonresidential projects, and those portions of mixed-use projects that are nonresidential shall provide a minimum of one share or carpool space for every 25,000 square feet. (See Section 2.5.B.4.b)</p> <p><u>Scooters, Mopeds and Motorcycles.</u> Residential projects or those portions of mixed-use projects that are residential shall provide a designated stall for scooters, mopeds, and motorcycles at a ratio of one space for every 25 units. Nonresidential projects or those portions of mixed-use projects that are nonresidential shall provide a designated stall for scooters, mopeds, and motorcycles at a ratio of one space for every 25,000 square feet. (See Section 2.5.B.4.c)</p>	DCP/DOT	DBS/DCP/DOT

DCP = Department of City Planning, DBS = Department of Building and Safety, LAFCD = Los Angeles County Fire Department, LAFD = Los Angeles Fire Department, LAPD = Los Angeles Police Department, LADOT= Los Angeles Department of Transportation, RAP = Department of Recreation and Parks, LAUSD = Los Angeles Unified School District, DWP = Department of Water and Power, BOS = Bureau of Sanitation, SCAQMD = South Coast Air Quality Management District, DOGGR = Department of Conservation’s Division of Oil, Gas, and Geothermal Resources, BOE = Bureau of Engineering, DF&G = Department of Fish and Game

Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p>Projects seeking to add either 50 units and/or 50,000 square feet, or otherwise requiring additional environmental analysis are required to include the following additional TDM strategies:</p> <p><u>Transit Pass Subsidy Plan.</u> Provide a subsidized transit pass to new residents for a period of one year; and, provide a subsidized transit pass, or equivalent cash-out to employees who walk, bicycle, or take transit to work.</p> <p><u>Parking Cash Out.</u> Employers that offer subsidized or no cost parking shall offer the cash equivalent to employees who forgo their parking space and use alternative travel modes such as biking, walking, or taking the bus to work.</p> <p><u>Guaranteed Ride Home.</u> All employers shall implement a Guaranteed Ride Home (GRH) Plan for employees who do not drive to work. The GRH Plan provides emergency rides to participating employees who may need to leave work during the day due to a family emergency or are asked to work late into the evening after their bus/ride-share/shuttle service no longer operates.</p> <p><u>Flexible Work Hours.</u> Establish Flexible Work Hours, or flextime, to spread out the arrival and departure of employees and shifts trips (especially vehicle trips) to non-peak hours.</p> <p><u>Commuter Club.</u> Develop a Commuter Club to offer incentives to employees for choosing alternative modes of transportation to and from work. Employees who agree to use alternative modes of travel (including walk, bike, transit, carpool or vanpool) to travel to work for a minimum number of days per week (e.g. at least three days per week) may participate in the Club. As a member, employees are entitled to various discounts at local businesses, special offers, and monthly raffle prizes. These benefits shall be determined and negotiated for each development project.</p> <p><u>Ridesharing Services Plan.</u> Develop a Ridesharing Services Plan to reduce the number of employees that drive alone to work. The Plan will identify the home location of participating employees and implement strategies to ensure that at least 25% of the employees who do not walk, bicycle, or take transit to work are enrolled in either a carpool/vanpool and/or employer or area sponsored shuttle service.</p> <p><u>Flex Work Trips.</u> Provide transportation options for work-related trips (exclusive of home to work trips). Options may include access to a flex/shared car and/or bicycle share Plan and/or transit passes.</p>		

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
6. Earth Resources		
<p>Mitigation Measure Transportation Earth Resources 6.1:</p> <p><i>Seismic Standards</i></p> <p>All projects shall conform to the California Building Code seismic standards as approved by the Department of Building and Safety.</p>	DBS	DBS
<p>Mitigation Measure Earth Resources 6.2:</p> <p><i>Geotechnical Report.</i></p> <p>Prior to the issuance of grading or building permits, the applicant shall submit a geotechnical report, prepared by a registered civil engineer or certified engineering geologist, to the Department of Building and Safety, for review and approval. The geotechnical report shall assess potential consequences of any soil strength loss, estimation of settlement, lateral movement or reduction in foundation soil-bearing capacity, and discuss mitigation measures that may include building design consideration. Building design considerations shall include, but are not limited to: ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems to accommodate anticipated displacements or any combination of these measures.</p> <p>The aforementioned project shall comply with the conditions contained within the Department of Building and Safety’s Geology and Soils Report Approval Letter for the proposed project, and as it may be subsequently amended or modified.</p>	DBS	DBS
<p>Mitigation Measure Earth Resources 6.3:</p> <p><i>Liquefaction.</i></p> <p>Prior to the issuance of grading or building permits, the applicant shall submit a geotechnical report, prepared by a registered civil engineer or certified engineering geologist, to the Department of Building and Safety, for review and approval. The project shall comply with the Uniform Building Code Chapter 18. Division1 Section1804.5 Liquefaction Potential and Soil Strength Loss. The geotechnical report shall assess potential consequences of any liquefaction and soil strength loss, estimation of settlement, lateral movement or reduction in foundation soil-bearing capacity, and discuss mitigation measures that may include building design consideration. Building design considerations shall include, but are not limited to: ground stabilization, selection of appropriate foundation type and depths, selection</p>	DBS	DBS

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p>of appropriate structural systems to accommodate anticipated displacements or any combination of these measures.</p> <p>The aforementioned project shall comply with the conditions contained within the Department of Building and Safety's Geology and Soils Report Approval Letter for the proposed project, and as it may be subsequently amended or modified.</p>		
<p>Mitigation Measure Earth Resources 6.4:</p> <p><i>Hillside Grading Areas.</i></p> <p>All projects that require a grading permit and are located in a designated hillside area shall conform to the City's Landform Grading Manual guidelines, subject to approval by the Advisory Agency and the Department of Building and Safety's Grading Division.</p> <p>Appropriate erosion control and drainage devices for the aforementioned projects shall be provided to the satisfaction of the Building and Safety Department. These measures include interceptor terraces, berms, vee-channels, and inlet and outlet structures, as specified by Section 91.7013 of the Building Code, including planting fast-growing annual and perennial grasses in areas where construction is not immediately planned.</p>	DBS	DBS
<p>Mitigation Measure Earth Resources 6.5:</p> <p><i>Grading Activities. (20,000 Cubic Yards, or 60,000 SF of Surface Area or Greater.)</i></p> <p>All projects that require grading permits for 20,000 Cubic Yards, or 60,000 square feet of surface area or greater shall include the following best management practices (bmps):</p> <ul style="list-style-type: none"> • A deputy grading inspector shall be on-site during grading operations, at the owner's expense, to verify compliance with the conditions described below. The deputy inspector shall report weekly to the Department of Building and Safety (LADBS); however, they shall immediately notify LADBS if any conditions are violated. • "Silt fencing" supported by hay bales and/or sand bags shall be installed based upon the final evaluation and approval of the deputy inspector to minimize water and/or soil from going through the chain link fencing potentially resulting in silt washing off-site and creating mud accumulation 	DBS	DBS

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p>impacts.</p> <ul style="list-style-type: none"> • “Orange fencing” shall not be permitted as a protective barrier from the secondary impacts normally associated with grading activities. • Movement and removal of approved fencing shall not occur without prior approval by LADBS. <p>The applicant shall provide a staked signage at the site with a minimum of 3-inch lettering containing contact information for the Senior Street Use Inspector (Department of Public Works), the Senior Grading Inspector (LADBS) and the hauling or general contractor.</p>		
7. Hydrology and Water Quality		
<p>Mitigation Measure Hydrology and Water Quality 7.1:</p> <p><i>Floodplain.</i></p> <p>Projects located within the 100 year floodplain shall comply with the requirements of the Flood Hazard Management Specific Plan, and shall obtain any required concurrence from FEMA that the new development complies with the requirements of that agency.</p>	BOS	BOS
<p>Mitigation Measure Hydrology and Water Quality 7.2:</p> <p><i>Stormwater Infiltration.</i></p> <p>Shallow, perched conditions, or seepage may be encountered in the project area and therefore all projects shall, as part of their compliance with the City’s new Low-Impact Development Ordinance, demonstrate as part of their LID application that the infiltration of stormwater on the site will not raise groundwater conditions to such a level that they would adversely affect existing facilities or structures.</p>	BOS	BOS
<p>Mitigation Measure Hydrology and Water Quality 7.3:</p> <p><i>Dewatering System.</i></p> <p>Projects that impact groundwater quantity as a result of direct additions or withdrawals, or through interception of an aquifer by cuts or excavations, or through substantial loss of groundwater recharge capacity shall modify the structural design of a building so as not to need a permanent dewatering system. When a permanent dewatering system is necessary, and unavoidable, the Department of Building and Safety requires the following measures:</p>	DBS/BOS	DBS/BOS

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<ul style="list-style-type: none"> • Prior to the issuance of any permit for excavation, the applicant shall, in consultation with the Department of Building and Safety, submit a Dewatering Plan to the decision-maker for review and approval. Such plan shall indicate estimates for how much water is anticipated to be pumped and how the extracted water will be utilized and/or disposed of. • Extracted groundwater shall be pumped to a beneficial on-site use such as, but not limited to: 1) landscape irrigation; 2) decorative fountains or lakes; 3) toilet flushing; or 4) cooling towers. • Return water to the groundwater basin by an injection well. 		
<p>Mitigation Measure Hydrology and Water Quality 7.4:</p> <p><i>Stormwater Pollution Prevention. (Demolition, Grading, and Construction Activities)</i></p> <p>During construction all projects shall comply with the following requirements:</p> <ul style="list-style-type: none"> • Leaks, drips and spills shall be cleaned up immediately to prevent contaminated soil on paved surfaces that can be washed away into the drains. • All vehicles/equipment maintenance, repair, and washing shall be conducted away from storm drains. All major repairs shall be conducted off-site. Drip pans or drop cloths shall be used to catch drips and spills. • Pavement shall not be hosed down at material spills. Dry cleanup methods shall be used whenever possible. • Dumpsters shall be covered and maintained. Uncovered dumpsters shall be placed under a roof or be covered with tarps or plastic sheeting. 	DBS/BOS	DBS/BOS
<p>Mitigation Measure Hydrology and Water Quality 7.5:</p> <p><i>Standard Stormwater Mitigation Plan. (SUSMP)</i></p> <p>All projects must meet the requirements of the Standard Urban</p>	BOS	BOS

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
Stormwater Mitigation Plan (SUSMP) approved by Los Angeles Regional Water Quality Control Board, including the following (a copy of the SUSMP can be downloaded at: http://www.swrcb.ca.gov/rwqcb4/)		
8. Biological Resources		
<p>Mitigation Measure Biological Resources 8.1:</p> <p><i>Habitat Modification. (Nesting Native Birds)</i></p> <p>Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibits the taking of any birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). Therefore, all projects that require a grading and/or building permit are subject to the following:</p> <ul style="list-style-type: none"> • Proposed project activities (including disturbances to native and non-native vegetation, structures and substrates) should take place outside of the breeding bird season which generally runs from March 1- August 31 (as early as February 1 for raptors) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). Take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture of kill (Fish and Game Code Section 86). • If project activities cannot feasibly avoid the breeding bird season, beginning thirty days prior to the disturbance of suitable nesting habitat, the applicant shall: <ol style="list-style-type: none"> 1. Arrange for weekly bird surveys to detect any protected native birds in the habitat to be removed and any other such habitat within properties adjacent to the project site, as access to adjacent areas allows. The surveys shall be conducted by a qualified biologist with experience in conducting breeding bird surveys. The surveys shall continue on a weekly basis with the last survey being conducted no more than 3 days prior to the initiation of clearance/construction work. 2. If a protected native bird is found, the applicant shall delay all clearance/construction disturbance activities until August 31; or, 	DCP	DBS/DCP/ DF&G

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p>3. Alternatively, the qualified biologist could continue the surveys in order to locate any nests. If an active nest is located the qualified biological monitor shall develop a mitigation plan that includes a buffer appropriate to the specific species of bird as well as the type and degree of disturbance expected at the construction site. The mitigation plan and identified buffer shall remain in place until the nest is vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting. The buffer zone from the nest shall be established in the field with flagging and stakes. Construction personnel shall be instructed on the sensitivity of the area.</p> <p>4. The applicant shall record the results of the recommended protective measures described above to document compliance with applicable State and Federal laws pertaining to the protection of native birds. Such record shall be submitted and received into the case file for the associated discretionary action permitting the project.</p>		
<p>Mitigation Measure Biological Resources 8.2:</p> <p><i>Oak Trees.</i></p> <p>A person shall not cut, destroy, remove, relocate, inflict damage, or encroach into the protected zone of any tree of the oak tree genus, which is 8 inches or more in diameter, four and one-half feet above mean natural grade, or in the case of oaks with multiple trunks, combined diameter of twelve inches or more of the two largest trunks, without first obtaining approval from the Board of Public Works. Contact Urban Forestry Division at: 213.847.3077 and complying with the following:</p> <ul style="list-style-type: none"> • Prior to the issuance of a grading or building permit, the applicant shall prepare and submit a Tree Report, prepared by a Tree Expert as defined in Section 17.02, indicating the location, size, and condition of all oak trees on the site, to the Urban Forestry Division of the Bureau of Street Services, Department of Public Works, for review and approval (213-847-3077), prior to implementation of the Report's recommended measures. Such report shall also contain a recommendation of measures to ensure the protection, relocation, or replacement of affected trees during grading and construction activities. 	<p>DPW-BOE/Urban Forestry Division</p>	<p>DPW-BOE//Urban Forestry Division</p>

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<ul style="list-style-type: none"> A minimum of two trees (a minimum of 48-inch box in size if available) shall be planted for each protected tree that is removed. The canopy of the replacement trees, at the time they are planted, shall be in proportion to the canopies of the protected tree(s) removed and shall be to the satisfaction of the Urban Forestry Division. The location of trees planted for the purposes of replacing a removed protected tree shall be clearly indicated on the required landscape plan, which shall also indicate the replacement tree species and further contain the phrase "Replacement Tree" in its description. <p><u>Bonding (Tree Survival):</u></p> <ul style="list-style-type: none"> The applicant shall post a cash bond or other assurances acceptable to the Bureau of Engineering in consultation with the Urban Forestry Division and the decision maker guaranteeing the survival of trees required to be maintained, replaced or relocated in such a fashion as to assure the existence of continuously living trees for a minimum of three years from the date that the bond is posted or from the date such trees are replaced or relocated, whichever is longer. Any change of ownership shall require that the new owner post a new oak tree bond to the satisfaction of the Bureau of Engineering. Subsequently, the original owner's oak tree bond may be exonerated. The City Engineer shall use the provisions of Section 17.08 as its procedural guide in satisfaction of said bond requirements and processing. Prior to exoneration of the bond, the owner of the property shall provide evidence satisfactory to the City Engineer and Urban Forestry Division that the oak trees were properly replaced, the date of the replacement and the survival of the replacement trees for a period of three years. 		
9. Cultural Resources		
<p>Mitigation Measure Cultural Resources 9.1a:</p> <p><i>Archeological Resources.</i></p> <p>If any archaeological materials are encountered during the course of project development, all further development activity shall halt and:</p>	DBS	DBS/DCP

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<ul style="list-style-type: none"> The services of an archaeologist shall then be secured by contacting the South Central Coastal Information Center (657-278-5395) located at California State University Fullerton, or a member of the Society of Professional Archaeologist (SOPA) or a SOPA-qualified archaeologist, who shall assess the discovered material(s) and prepare a survey, study or report evaluating the impact. The archaeologist's survey, study or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the resource. The applicant shall comply with the recommendations of the evaluating archaeologist, as contained in the survey, study or report. Project development activities may resume once copies of the archaeological survey, study or report are submitted to: <p style="text-align: center;"> SCCIC Department of Anthropology McCarthy Hall 477 CSU Fullerton 800 North State College Boulevard Fullerton, CA 92834 </p> Prior to the issuance of any building permit, the applicant shall submit a letter to the case file indicating what, if any, archaeological reports have been submitted, or a statement indicating that no material was discovered. A covenant and agreement binding the applicant to this condition shall be recorded prior to issuance of a grading permit. 		
<p>Mitigation Measure Cultural Resources 9.1.b:</p> <p><i>Paleontological Resources.</i></p> <p>If any paleontological materials are encountered during the course of project development, all further development activities shall halt and:</p> <ul style="list-style-type: none"> The services of a paleontologist shall then be secured by contacting the Center for Public Paleontology - USC, UCLA, California State University Los Angeles, California State 	DBS	DBS/DCP

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p>University Long Beach, or the Los Angeles County Natural History Museum - who shall assess the discovered material(s) and prepare a survey, study or report evaluating the impact.</p> <ul style="list-style-type: none"> • The paleontologist's survey, study or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the resource. • The applicant shall comply with the recommendations of the evaluating paleontologist, as contained in the survey, study or report. • Project development activities may resume once copies of the paleontological survey, study or report are submitted to the Los Angeles County Natural History Museum. • Prior to the issuance of any building permit, the applicant shall submit a letter to the case file indicating what, if any, paleontological reports have been submitted, or a statement indicating that no material was discovered. • A covenant and agreement binding the applicant to this condition shall be recorded prior to issuance of a grading permit. 		
<p>Mitigation Measure Cultural Resources 9.1.c:</p> <p><i>Human Remains.</i></p> <p>In the event that human remains are discovered during excavation activities, the following procedure shall be observed:</p> <ul style="list-style-type: none"> • Stop immediately and contact the County Coroner: <ul style="list-style-type: none"> 1104 N. Mission Road Los Angeles, CA 90033 323-343-0512 (8 a.m. to 5 p.m. Monday through Friday); or, 323-343-0714 (After Hours, Saturday, Sunday, and Holidays) • The coroner has two working days to examine human remains after being notified by the responsible person. If the remains are Native American, the Coroner has 24 hours to notify the Native American Heritage Commission. 	<p>County Coroner/ Native American Heritage Commission (NAHC)</p>	<p>DBS/DCP/Native American Heritage Commission (NAHC)</p>

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<ul style="list-style-type: none"> • The Native American Heritage Commission will immediately notify the person it believes to be the most likely descendent of the deceased Native American. • The most likely descendent has 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods. • If the descendent does not make recommendations within 48 hours the owner shall reinter the remains in an area of the property secure from further disturbance, or; • If the owner does not accept the descendant's recommendations, the owner or the descendent may request mediation by the Native American Heritage Commission. • <i>Discuss and confer</i> means the meaningful and timely discussion careful consideration of the views of each party. 		
<p>Mitigation Measure Cultural Resources 9.2:</p> <p><i>Historic Resources.</i></p> <p>Projects that could potentially impact either an identified or eligible historic structure or resource* shall demonstrate compliance with the Secretary of the Interior's Standards for Historic Resources by the following measures:</p> <p>*Please see Appendix 2. Historic Resources Survey for a list of eligible resources or structures but note that the inventory of designated or eligible historic resources or structures is continually updated and therefore no one list of historic resources or structures shall be considered the definitive or exhaustive list.</p> <ul style="list-style-type: none"> • Prior to the issuance of any permit, the project shall obtain clearance from the Office of Historic Resources for the proposed work. • A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment. • The historic character of a property shall be retained and preserved. The removal of historic material or alteration of features and spaces shall be avoided. 	DBS	DCP's Office of Historic Resources (OHR)

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<ul style="list-style-type: none"> • Each property shall be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other buildings, shall not be undertaken. • Most properties change over time; those changes that have acquired significance in their own right shall be retained and preserved. • Distinctive features, finishes and construction techniques or examples of skilled craftsmanship which characterize an historic property shall be preserved. • Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive historic feature, the new feature shall match the old in design, color, texture, and other visual qualities, and where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence. • Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible. • Significant archaeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken. See below. • New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment. • New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired. 		
<p>Mitigation Measure Cultural Resources 9.3:</p> <p><i>Native American Gabrielino Ground Disturbance Monitor.</i></p>	DBS	DBS/ Native American of Gabrielino descent

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p>All projects that require a grading permit which will include ground disturbances 15' or more below the surface shall retain a Native American of Gabrielino descent to observe and monitor sub-surface activities. Prior to issuance of a grading or building permit that involves sub-surface activities 15' or more below the surface, evidence shall be provided for placement in the Project file that a Native American monitor has been retained.</p>		
10. Hazardous Materials		
<p>Mitigation Measure Hazardous Materials. 10.1 and 2:</p> <p><i>Hazardous Substances.</i></p> <p>Prior to the issuance of a use of land or building permit for any new industrial uses, or a change in the existing occupancy/use permit to an industrial use, the applicant shall provide a letter from the Fire Department stating that it has permitted the facility's use, storage, transport, creation, and disposal of hazardous substances. Approved plans for the transport, creation, use, containment, treatment and disposal of the hazardous materials shall be retained in the project's case file.</p>	DBS	LAFD
<p>Mitigation Measure Hazardous Materials 10.3:</p> <p><i>Hazardous Materials near Schools.</i></p> <p>Prior to the issuance of a use of land or building permit for any new commercial or industrial uses within ¼ mile of an existing school, the applicant shall provide a letter from the Fire Department stating that it has permitted the facility's use, storage, transport, creation, and disposal of hazardous substances as well as provided adequate provisions with respect to emergency response and evacuation procedures.</p>	DBS	DBS/LAFD
<p>Mitigation Measure Hazardous Materials 10.4:</p> <p><i>Contaminated Soil or Groundwater.</i> (including Cortese List Sites)</p> <p><u>Phase I and II Environmental Site Assessment</u></p> <p>Prior to the issuance of a grading permit all projects, including properties listed and ranked 1 through 3 in Table 1 of the Hazardous Property Inventory in the Mitigation Plan (Appendix 3 of the Specific Plan), shall conduct a Phase I Environmental Site Assessment (ESA) to determine the potential for contaminated soil or groundwater on site. If the Phase I ESA determines that potential exist for contaminated soil or groundwater exists on site, than the project applicant shall conduct a Phase II ESA and shall follow its recommendations. A Phase I ESA shall not be required if it is already determined through previous monitoring activities that</p>	DBS	DBS/ LAFCD, LAFD, RWQB, DTSC

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p>contamination exists and a Phase II ESA shall not be required if a remedial plan is already underway to address on site contaminants. On site contaminants must be addressed to the satisfaction of either the Cal/EPA or Los Angeles County Fire Department (LACFD) Site Mitigation Unit (SMU) with their approval of completion of activities/ Remediation Action Plans (RAP) submitted to the Department of Building and Safety prior to the issuance of a building permit.</p> <p><u>Los Angeles Regional Water Quality Board</u></p> <p>The project applicant and the responsible parties for any open case, including the properties listed in Table 1 of the Hazardous Property Inventory in the Mitigation Plan (Appendix 3. of the Specific Plan), with the Los Angeles Regional Water Quality Control Board (LARWQCB), or where a subsequent Phase II ESA confirms groundwater contamination above the Maximum Concentration Level (MCL) for the proposed use(s) shall submit to the LARWQCB a dewatering plan and treatment plan/soil RAP for the handling and disposal of contaminated groundwater/soil that may be encountered during excavation of the project for review and approval. The dewatering plan/ RAP shall include but not be limited to monitoring of excavation activities by a certified environmental consultant to identify/sample groundwater and soil that may be contaminated; and exaction, treatment and disposal of contaminated groundwater/soil in accordance with applicable regulatory requirements. Written verification from the LARWQCB of approval of dewatering plan/management plan completion (ie “no futher action” letter) shall be submitted to the Department of Building and Safety prior to issuance of building permit.</p> <p><u>Department of Toxic Substance and Control (DTSC)</u></p> <p>The project applicant and the responsible parties for any open case, including properties listed in Table 1 of the Hazardous Property Inventory in the Mitigation Plan (Appendix 3 of the Specific Plan), with the Department of Toxic Substance and Control or where a subsequent Phase II ESA confirms soil contamination above the MCL for the proposed use(s) shall submit to the Los Angeles County Fire Department (LACFD) Site Mitigation Unit (SMU) a soil RAP for the handling and disposal of contaminated soil that may be encountered during excavation of the project for review and approval. The RAP shall include but not be limited to monitoring of excavation activities by a certified environmental consultant to identify/sample soil that may be contaminated; and exaction, treatment and disposal of contaminated soil in accordance with applicable regulatory requirements. Written verification from the LACFD SMU of approval of RAP completion (ie “no futher action” letter) shall be submitted to the Department of Building and Safety prior to issuance of building permit.</p> <p><u>Bortz Oil Company and Kennington Ltd.</u></p>		

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p>The future uses of the Bortz Oil Company, and the Kennington Ltd. site will have to be compatible with the level of remediation completed at those sites or will have to incorporate additional measures to ensure that the future uses of these sites do not result in hazards to people or the environment and meet the stipulated land restriction requirements pursuant to the governing agency over the remediation efforts. Therefore, future uses at these sites shall comply with the State requirements related to listing on the Cortese List. Elder care, day care uses are prohibited at the Kennington Ltd. site located at 3209 Humboldt Street. Elder care, day care, public and private school and residential uses are prohibited for the Bortz Oil Company site located at 1746 Spring Street.</p>		
<p>Mitigation Measure Hazardous Materials 10.5:</p> <p><i>Existing Toxic/Hazardous Construction Materials</i></p> <p><u>Asbestos.</u> Prior to the issuance of any permit for the demolition or alteration of existing structure(s), the applicant shall provide a letter to the Department of Building and Safety from a qualified asbestos abatement consultant indicating that no Asbestos-Containing Materials (ACM) are present in the building. If ACMs are found to be present, it will need to be abated in compliance with the South Coast Air Quality Management District's Rule 1403 as well as all other applicable State and Federal rules and regulations.</p> <p><u>Lead Paint.</u> Prior to issuance of any permit for the demolition or alteration of the existing structure(s), a lead-based paint survey shall be performed to the written satisfaction of the Department of Building and Safety. Should lead-based paint materials be identified, standard handling and disposal practices shall be implemented pursuant to OSHA regulations.</p> <p><u>Polychlorinated Biphenyl.</u> (Commercial and Industrial Buildings) Prior to issuance of a demolition permit, a polychlorinated biphenyl (PCB) abatement contractor shall conduct a survey of the project site to identify and assist with compliance with applicable state and federal rules and regulation governing PCB removal and disposal.</p>	DBS	DBS/SCAQMD
<p>Mitigation Measure Hazardous Materials 10.6:</p> <p><i>Human Health Hazard.</i></p> <p>All projects are subject to the following:</p> <ul style="list-style-type: none"> The property shall be maintained in a neat, attractive, and 	BOS	DBS

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p>safe condition at all times.</p> <ul style="list-style-type: none"> On-site activities shall be conducted so as not to create noise, dust, odor, or other nuisances to surrounding properties. Garbage bins shall be maintained with a lid in working condition; such lid shall be kept closed at all times. Trash and garbage collection bins shall be maintained in good condition and repair such that there are no holes or points of entry through which a rodent could enter. Trash and garbage collection containers shall be emptied a minimum of once per week. Trash and garbage bin collection areas shall be maintained free from trash, litter, garbage, and debris. 		
<p>Mitigation Measure Hazardous Materials 10.7:</p> <p><i>None Required.</i></p>		
<p>Mitigation Measure Hazardous Materials 10.8:</p> <p><i>Methane Zone.</i></p> <p>Projects located in a Methane Zone or a Methane Buffer Zone in the City's Zoning Information Map Access System (ZIMAS) shall do the following:</p> <ul style="list-style-type: none"> All commercial, industrial, and institutional buildings shall be provided with an approved Methane Control System, which shall include these minimum requirements; a vent system and gas-detection system which shall be installed in the basements or the lowest floor level on grade, and within underfloor space of buildings with raised foundations. The gas-detection system shall be designed to automatically activate the vent system when an action level equal to 25% of the Lower Explosive Limit (LEL) methane concentration is detected within those areas. All commercial, industrial, institutional and multiple residential buildings covering over 50,000 square feet of lot area or with more than one level of basement shall be independently analyzed by a qualified engineer, as defined in Section 91.7102 of the Municipal Code, hired by the building owner. The engineer shall investigate and 	DBS	DBS

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p>recommend mitigation measures which will prevent or retard potential methane gas seepage into the building. In addition to the other items listed in this section, the owner shall implement the engineer's design recommendations subject to Department of Building and Safety and Fire Department approval.</p> <ul style="list-style-type: none"> All multiple residential buildings shall have adequate ventilation as defined in Section 91.7102 of the Municipal Code of a gas-detection system installed in the basement or on the lowest floor level on grade, and within the underfloor space in buildings with raised foundations. 		
<p>Mitigation Measure Hazardous Materials 10.9:</p> <p><i>Abandoned Wells.</i></p> <p>Prior to the issuance of grading permits for the three properties identified in Table 1 of the Hazardous Property Inventory in the Mitigation Plan (Appendix A1.B. of the Specific Plan), that include abandoned wells, an investigation of the abandoned wells shall be carried out to determine if further testing and/or re-abandonment, plugging or re-plugging is necessary. Well abandonment, plug or re-plug shall be conducted under the supervision of Department of Conservation's Division of Oil, Gas, and Geothermal Resources (DOGGR) pursuant to Section 3106 and 3208.1 of the Public Resource Code (PRC). An adequate gas venting system shall be provided in the event that construction over an abandoned well is unavoidable. The applicants should obtain a copy of the "Construction Project Site Review and Well Abandonment Procedures" published by DOGGR that outlines the information required for DOGGR review. The applicants shall obtain a determination letter from DOGGR prior to issuance of building permit.</p> <p>Remedial action plans shall be required if any plugged, abandoned, and/or unrecorded wells are damaged or uncovered during site excavation or grading. DOGGR office shall be contacted to obtain information on the requirements for and approval to perform remedial operations. If contaminated soils are identified then a suitable remediation plan shall be developed to the satisfaction of the County of Los Angeles Fire Department Site Mitigation Unit (SMU), and a "no further action" letter shall be submitted to the Department of Building and Safety prior to the issuance of a building permit.</p>	DBS	DBS/DOGGR
<p>Mitigation Measure Hazardous Materials 10.10:</p>	DBS	DBS/LAFD

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p><i>Underground Storage Tanks.</i> Underground Storage Tanks shall be decommissioned or removed as determined by the Los Angeles City Fire Department Underground Storage Tank Division. If any contamination is found, further remediation measures shall be developed with the assistance of the Los Angeles City Fire Department and other appropriate State agencies.</p>		
<p>Mitigation Measure Hazardous Materials 10.11: <i>Emergency Evacuation Plan.</i> Prior to the issuance of a building permit, the applicant shall develop an emergency response plan in consultation with the Fire Department. The emergency response plan shall include but not be limited to the following: mapping of emergency exits, evacuation routes for vehicles and pedestrians, location of nearest hospitals, and fire departments.</p>	DBS	DBS/LAFD
11. Air Quality		
<p>Mitigation Measure Air Quality 11.1: <i>Sustainable Community Development.</i> Prior to approving future developments the City shall ensure that the proposed project includes feasible measures for reducing automobile dependence and potential vehicle emissions as part of the basic project design. These measures include providing for a mix of uses, local and regional transit, and peak-hour shuttle services, bicycle and pedestrian measures such as sidewalks and bicycle lanes, and local-serving retail.</p>	DCP	DCP
<p>Mitigation Measure Air Quality 11.2: <i>Sensitive Land uses near Freeways.</i> Based on the recommended buffer distances of the California Air Resources Board (CARB), for all projects that proposes sensitive land uses, which may include residential uses, daycare centers, medical facilities, and other sensitive receptors within at least 500 feet from either the I-5 or SR-110 freeways, the Project Applicant shall submit a health risk assessment (HRA) prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment (OEHHA) and the South Coast Air Quality Management District (SCAQMD) to the Director of Planning or their designee, prior to issuance of building permit. If the HRA shows that</p>	DCP/ DBS	DBS/DCP/SCAQ MD

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p>the incremental cancer risk exceeds ‘an acceptable level’ here defined as either one in one hundred thousand (1.0E-05), or the appropriate non-cancer hazard index of 1.0, the applicant shall be required to identify and demonstrate that Best Available Control Technologies for Toxics (T-BACTs) are capable of reducing potential cancer and non-cancer risks to an acceptable level, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to installation of Minimum Efficiency Reporting Value (MERV) filters rated at 13 or better at all residential units.</p>		
<p>Mitigation Measure Air Quality 11.3:</p> <p><i>Sensitive Land Uses near Freeways and/or Heavy Railway and/or, Distribution Centers.</i></p> <p>As described in the proposed zoning for the Specific Plan applicants for new developments that proposes sensitive land uses, which may include residential uses, daycare centers, medical facilities, and other sensitive receptors in the Project Area within 500 feet of either the SR-110 or I-5 freeways; or within 1,000 feet of a heavy railway (ie LATC railyard), distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU operations exceed 300 hours per week), or other industrial facility which emits toxic air contaminants; or within 300 feet of dry cleaners; or within 50 feet of a fuel dispensing facility shall be required to install and maintain air filters meeting or exceeding the ASHRAE Standard 52.2 Minimum Efficiency Reporting Value (MERV) filters of MERV 13 in the intake of ventilation systems, to the satisfaction of the Department of Building and Safety.</p> <p>Developer, sale, and/or rental representative shall provide notification to all affected tenants/residents of the potential health risk from SR-110 or I-5 freewqys, or other TAC sources for all affected units.</p>	DCP	DBS/DCP/CAQ MD
<p>Mitigation Measure Air Quality 11.4:</p> <p><i>Sensitive Land uses within 1500’ feet of a Freeway, TAC and other sources of DPM.</i></p> <p>For any project that proposes sensitive land uses, which may include residential uses, daycare centers, medical facilities, and other sensitive</p>	DCP	DBS/ DCP /SCAQMD

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p>receptors located at or within 1,500 feet of a freeway or TAC sources including heavy railways (ie LATC railyard) and other sources of DPM and other known carcinogens shall be required to install and maintain air filters meeting or exceeding the ASHRAE Standard 52.2 Minimum Efficiency Reporting Value (MERV) of 12 in the intake of ventilation systems, to the satisfaction of the Department of Building and Safety.</p> <p>Developer, sale, and/or rental representative shall provide notification to all affected tenants/residents of the potential health risk from TAC sources for all affected units.</p>		
<p>Mitigation Measure Air Quality 11.5:</p> <p><i>Sensitive Land uses beyond 1500' feet of a Freeway or TAC Sources.</i></p> <p>For any project that proposes sensitive land uses, which may include residential uses, daycare centers, medical facilities, and other sensitive receptors located beyond 1,500 feet of a freeway or other industrial TAC sources shall be required to install and maintain air filters meeting or exceeding the ASHRAE Standard 52.2 Minimum Efficiency Reporting Value (MERV) of 11 in the intake of ventilation systems, to the satisfaction of the Department of Building and Safety.</p>	DCP	DBS/DCP/SCAQ MD
<p>Mitigation Measure Air Quality 11.6:</p> <p><i>Added Measures for Air Filtration Systems.</i></p> <ul style="list-style-type: none"> • If the installation of an air filtration system is determined to be necessary to reduce exposure of on-site occupants to TACs, the following additional measures shall occur to guarantee long-term maintenance and replacement of the air filters in the individual units: • For rental units the owner/property manager shall maintain the air filtration system and replace air filters in accordance with the manufacture's recommendations. The property owner shall inform renters of increased risk of exposure to TACs when windows are open. • For residential owned units the Homeowner's Association (HOA) shall incorporate requirements for long-term 	DBS	DBS/DCP/SCAQ MD

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p>maintenance in the Covenant Conditions and Restrictions and inform homeowners of their responsibility to maintain the air filtration system in accordance with the manufacturer's recommendations. The HOA shall inform homeowner's of increased risk of exposure to TACs when windows are open.</p> <ul style="list-style-type: none"> Air filtration system may create more resistance to airflow because the filter media becomes denser as efficiency increases. Heating, air conditioning and ventilation (HVAC) systems shall be installed with a fan unit designed with sufficient power to force air through the air filters. 		
<p>Mitigation Measure Air Quality 11.7: <i>Sensitive Land uses within 1,000 feet of Heavy Railway or other DPM Sources.</i></p> <p>For any project that proposes a sensitive land use within 500 feet of freeways, or within 1,000 feet of heavy railways (ie LATC railyard) and other sources of DPM or known carcinogens shall plant appropriate vegetation to screen the receptor from the DPM source to reduce exposure unless it is determined by an HRA to not be necessary to reduce health impacts. The vegetation shall be selected (such as certain types of coniferous trees) on the demonstrated effectiveness in filtering air pollution. A Covenants and Agreement shall be recorded on the property to maintain the vegetation in good condition.</p>	DCP	DBS/DCP/SCAQ MD
<p>Mitigation Measure Air Quality 11.8: <i>Sensitive Land Uses-Site and Building Orientation.</i></p> <p>Sensitive land uses shall be oriented to reduce exposure from the main entry and exit points of distribution centers (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU operations exceed 300 hours per week), unless an HRA shows that the incremental cancer risk is less than one in one hundred thousand (1.0E-05), or the appropriate non-cancer hazard index is less than 1.0.</p>	DCP	DBS/DCP/SCAQ MD

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p>Mitigation Measure Air Quality 11.9:</p> <p><i>Active Use Recreational Areas</i></p> <p>All outdoor active-use public recreational areas associated with Proposed Alternatives shall be located more than 500 feet from the nearest lane of traffic on the SR-110 or I-5 freeways, unless an HRA shows that the incremental cancer risk is less than one in one hundred thousand (1.0E-05), or the appropriate non-cancer hazard index is less than 1.0.</p>	DRP/DCP	DBS/DCP/SCAQMD
<p>Mitigation Measure Air Quality 11.10:</p> <p><i>Permission to Install an Alternative Design Feature.</i></p> <p>The applicant/developer may be permitted to install an alternative design feature or mitigation than those measures that are prescribed by the City if the developer carries out a health risk assessment (HRA) that demonstrates the air quality impacts to on site occupants would be less than significant after inclusion of specific site design features. The HRA shall include a dispersion model acceptable to SCAQMD, meteorological data and estimation of both cancer and non-cancer risks. If the HRA shows that the incremental cancer risk exceeds 'an acceptable level' here defined as either one in one hundred thousand (1.0E-05), or the appropriate non-cancer hazard index that exceeds of 1.0, the applicant shall be required to identify and demonstrate that Best Available Control Technologies for Toxics capable of reducing potential cancer and non-cancer risks to an acceptable level, including appropriate enforcement mechanisms.</p>	Applicant/DCP	DBS/DCP/SCAQMD
<p>Mitigation Measure Air Quality 11.11:</p> <p><i>Construction Emission Control Measures.</i></p> <p><u>Basic.</u> The following controls should be implemented at all construction sites:</p> <ul style="list-style-type: none"> • Water all active construction areas at least twice daily. • Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard. • Pave, apply water three times daily, or apply (non-toxic) 	DBS	DBS

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p>soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.</p> <ul style="list-style-type: none"> • Sweep daily (with water sweepers) all paved roads, parking areas, and staging areas at construction sites. • Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets. • Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 miles per hour. • Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site. <p><u>Construction Equipment.</u> The following control measures are required of all construction equipment:</p> <ul style="list-style-type: none"> • Maintain properly tuned engines. • Minimize the idling time of diesel-powered construction equipment to two minutes. • Use alternative powered construction equipment (e.g., compressed natural gas, biodiesel, electric) whenever possible. • Use add-on control devices such as diesel oxidation catalysts or particulate filters, as appropriate. • Limit the operating hours of heavy-duty equipment. <p><u>Enhanced.</u> The following measures shall be implemented at construction sites greater than four acres in area:</p> <ul style="list-style-type: none"> • All “Basic” control measures listed above. • Hydroseed or apply (nontoxic) soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more). • Enclose, cover, water twice daily, or apply (nontoxic) soil binders to exposed stockpiles (dirt, sand, etc.) • Limit traffic speeds on unpaved roads to 15 miles per hour. • Install sandbags or other erosion control measures to prevent silt runoff to public roadways. • Replant vegetation in disturbed areas as quickly as 		

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
possible.		
<p>Mitigation Measure Air Quality 11.12:</p> <p><i>Construction Equipment Standards.</i></p> <p>Project construction contractor shall incorporate the following construction measures unless it is determined they are not required to mitigate construction air quality impacts through the completion of a LST air quality analysis conducted in accordance with the SCAQMD LST Methodology at the discretion of the Department of City Planning.</p> <ul style="list-style-type: none"> • Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) and if the lead agency determines that 2010 model year or newer diesel trucks cannot be obtained the lead agency shall use trucks that meet EPA 2007 model year NOx emissions requirements, • During project construction, all internal combustion engines/construction, equipment operating on the project site shall meet EPA-Certified Tier 2 emissions standards, or higher according to the following: <ul style="list-style-type: none"> ▪ Project Start, to December 31, 2011: All offroad diesel-powered construction equipment greater than 50 hp shall meet Tier 2 offroad emissions standards. In addition, all construction equipment shall be outfitted with the BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 2 or Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. ▪ January 1, 2012, to December 31, 2014: All offroad diesel-powered construction equipment greater than 50 hp shall meet Tier 3 offroad emissions standards. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a 	DBS	DBS

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<p>similarly sized engine as defined by CARB regulations.</p> <ul style="list-style-type: none"> ▪ Post-January 1, 2015: All offroad diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. ▪ A copy of each unit’s certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment. ▪ Encourage construction contractors to apply for AQMD “SOON” funds. Incentives could be provided for those construction contractors who apply for AQMD “SOON” funds. The “SOON” program provides funds to accelerate clean up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at the following website: http://www.aqmd.gov/tao/Implementation/SOONProgram.htm 		
12. Noise and Vibration		
<p>Mitigation Measure Noise and Vibration 12.1.a:</p> <p><i>Residences, Hospitals, or Nursing Homes Adjacent to Spring Street, North Broadway, Main Street, San Fernando Road, I-5, or SR 110.</i></p> <p>Projects that include residential uses, daycare centers, medical facilities, or other sensitive receptors that are located on parcels of land adjacent to Spring Street, North Broadway, Main Street, San Fernando Road, I-5, or R 110 shall either:</p> <ul style="list-style-type: none"> • Construct all exterior windows, having a line of sight of any of the aforementioned highways, with double-pane glass and use exterior wall construction which provides a Sound Transmission 	DBS	DBS

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<p>Coefficient (STC) value of 50, as determined in accordance with ASTM E90 and ASTM E413, or any amendment thereto.</p> <ul style="list-style-type: none"> Or, as an alternative, the applicant may retain an acoustical engineer to submit evidence, along with the application for a building permit, of any alternative means of sound insulation sufficient to mitigate interior noise levels below a CNEL of 45 dBA in any habitable room. 		
<p>Mitigation Measure Noise and Vibration 12.1.b:</p> <p><i>Commercial Uses Adjacent to North Broadway and Main Street.</i></p> <p>Projects that include commercial uses located on parcels of land adjacent North Broadway and Main Street shall retain an acoustical engineer to submit evidence, along with the application for a building permit, of any alternative means of sound insulation sufficient to mitigate interior noise levels below a CNEL of 45 dBA in any habitable room.</p>	DBS	DBS
<p>Mitigation Measure Noise and Vibration 12.1.c:</p> <p><i>Public parks.</i></p> <p>Any public parks shall retain an acoustical engineer to submit evidence (acoustical analysis), along with the application for a grading permit, that grading, barrier walls, or setbacks have been employed in the design of the park to mitigate traffic noise from adjacent roads.</p>	RAP, DBS	DBS
<p>Mitigation Measure Noise and Vibration 12.1.d:</p> <p><i>School, Library, and/or Church Facilities.</i></p> <p>Any project that includes school, library, and/or church facilities shall:</p> <ul style="list-style-type: none"> Retain an acoustical engineer to submit evidence, along with the application for a building permit, of any alternative means of sound insulation sufficient to mitigate interior noise levels below a CNEL of 45 dBA in any habitable room. Use grading, barrier walls, or setback distance to mitigate traffic noise from adjacent roads to an STC value of at least 50, as determined in accordance with ASTM E90 and ASTM E413. 	DBS	DBS
<p>Mitigation Measure Noise and Vibration 12.2:</p>	DBS	DBS

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p><i>Construction Noise.</i></p> <p>All projects requiring a development permit shall adhere to the following conditions of approval:</p> <ul style="list-style-type: none"> • Construction and demolition shall be restricted to the hours of 7:00 am to 6:00 pm Monday through Friday, and 8:00 am to 6:00 pm on Saturday. • Demolition and construction activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels. • The project contractor shall use power construction equipment with state-of-the-art noise shielding and muffling devices. • Whenever construction occurs adjacent to occupied residences (on- or offsite), temporary barriers shall be constructed around the construction sites to shield the ground floor of the noise-sensitive uses. These barriers shall be of ¾-inch medium density plywood sheeting, or equivalent, and shall achieve an STC of 30 or greater, based on certified sound transmission loss data taken according to American Society for Testing and Materials Test Method E90 or as approved by the City of Los Angeles Building Department. • Construction equipment staging areas shall be located as far as feasible from residential areas while still serving the needs of construction contractors. • Quieter “sonic” pile drivers shall be used, unless engineering studies are submitted to the City of Los Angeles showing this is not feasible and cost effective, based on geotechnical considerations. • Groundborne vibration impacts from construction activities shall be considered in the construction Plans to minimize the disturbance to noise-sensitive receptors. • Routes for heavy construction site vehicles shall be identified to minimize noise and vibration impacts to residences and noise-sensitive receptors. • Activities that generate high noise levels — such as pile driving and the use of jackhammers, drills, and impact wrenches — shall be restricted to the hours of 7:00 am to 		

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
6:00 pm Monday through Friday.		
<p>Mitigation Measure Noise and Vibration 12.3:</p> <p><i>Operational Noise Attenuation.</i></p> <p>All projects shall submit engineering and acoustical specifications for project mechanical HVAC and utility transformers (including generators) to the Department of Building and Safety, prior to obtaining a building permit, demonstrating that the equipment design (types, location, enclosure, specifications) can control noise to meet the requirements of the City's noise ordinance at nearby residential and other noise-sensitive land uses.</p>	DBS	DBS
<p>Mitigation Measure Noise and Vibration 12.4:</p> <p><i>Groundborne Vibration.</i></p> <p>Projects located within the FTA's Screening Distances for Vibration Assessment of an existing rail line, shall be required to conduct vibration measurements and analysis demonstrating that the FTA Groundborne Vibration Impact Criteria for the proposed land use are not exceeded. If the criteria cannot be met then the project will need to specify the modifications that will be made to ensure criteria compliance.</p>	DBS	DBS
14. Public Services and Recreation Facilities		
<p>Mitigation Measure Public Service and Recreation Facilities 14.1:</p> <p><i>Fire.</i></p> <p>Any project requiring a Change of Use or Building permit shall comply with the following Firefighting Personnel and Firefighting Apparatus Access Standards: Firefighting Personell Access Standards:</p> <ul style="list-style-type: none"> • No building or portion of a building shall be constructed more than 150 feet from the edge of a roadway or an improved street, access road, or designated fire lane. • No building or portion of a building shall be constructed more than 300 feet from an approved fire hydrant. Distance shall be computed along path of travel. • Entrance to the main lobby shall be located off of the address side of the building. • Any required Fire Annunciator panel or Fire Control Room 	DBS	DBS/LAFD

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<p>shall be located within a 50' visual line of site of the main entrance stairwell or to the satisfaction of the Fire Department</p> <p><u>Firefighting Apparatus Access Standards:</u></p> <ul style="list-style-type: none"> • All access roads, including fire lanes, shall be maintained in an obstructed manner, removal of obstructions shall be at the owner's expense. The entrance to all required fire lanes or required private driveways shall be posted with a sign no less than three square feet in area in accordance with Section 57.09.05 of the Los Angeles Municipal Code. • Fire lane width shall not be less than 20 feet. When a fire lane must accommodate the operation of Fire Department aerial ladder apparatus or where fire hydrants are installed, those portions shall not be less than 28' in width. • Private roadways for general access use shall have a minimum width of 20' feet. • Access for Fire Department apparatus and personnel to and into all structures shall be required. • Private streets shall be recorded as Private Streets, AND Fire Lane. All private street plans shall show the words "Private Street and Fire Lane" within the private street easement. • All parking restrictions for fire lanes shall be posted and/or painted prior to any Temporary Certificate of Occupancy being posted. 		
15. Utilities		
<p>Mitigation Measure Utilities 15.1:</p> <p><i>Water.</i></p> <p>All projects shall:</p> <ul style="list-style-type: none"> • Install a separate water meter (or submeter), flow sensor, and master valve shutoff shall be installed for existing and expanded irrigated landscape areas totaling 5,000 sf and greater. • Install restroom faucets with a self-closing design. • Be prohibited from installing single-pass cooling equipment. Prohibition of such equipment shall be indicated on the building plans and incorporated into tenant lease agreements. (Single-pass cooling refers to the use of potable water to 	DBS	DBS/DWP

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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
<p>extract heat from process equipment, e.g. vacuum pump, ice machines, by passing the water through equipment and discharging the heated water to the sanitary wastewater system).</p> <ul style="list-style-type: none"> • Install and utilize only high-efficiency clothes washers (as determined by DWP). If such appliance is to be furnished by a tenant, this requirement shall be incorporated into the lease agreement, and the applicant shall be responsible for ensuring compliance. • Install and utilize only high-efficiency Energy Star-rated dishwashers.). If such appliance is to be furnished by a tenant, this requirement shall be incorporated into the lease agreement, and the applicant shall be responsible for ensuring compliance. • Any application that includes a car wash shall incorporate a water recycling system to the satisfaction of the Department of Building and Safety. 		
<p>Mitigation Measure Utilities 15.2:</p> <p>Wastewater.</p> <p>All projects shall:</p> <ul style="list-style-type: none"> • Include a holding tank large enough to hold three times the project’s daily wastewater flow so that the tank could hold all project wastewater during peak wastewater flow periods for discharge into the wastewater collection system during off-peak hours. • Install a grey water system to reuse wastewater from the project. 	BOS	BOS
<p>Mitigation Measure Utilities 15.3:</p> <p>Electricity.</p> <p>Projects shall obtain confirmation from LADWP that the existing electrical supply infrastructure can meet the project’s potential energy demand.</p>	DWP	DWP
<p>Mitigation Measure Utilities 15.4:</p> <p>Natural Gas.</p>	Southern California Gas Company	DBS

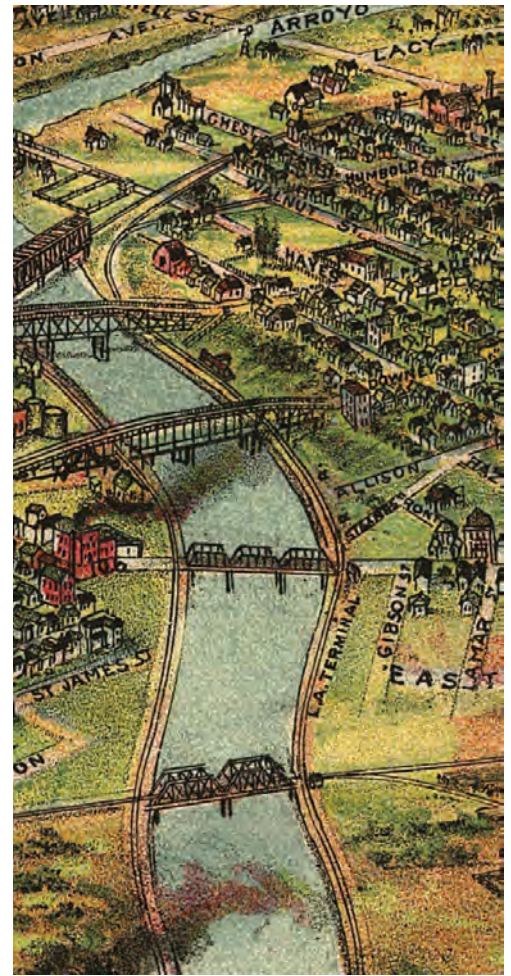
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Mitigation Measure	Implementing Agency	Enforcement and Monitoring Agency
Projects shall obtain confirmation from the Southern California Gas Company that the existing gas supply infrastructure can meet the project's potential natural gas demand.		
<p>Mitigation Measure Utilities 15.5:</p> <p><i>IT/COMM.</i></p> <p>Projects shall obtain confirmation from the local IT/COMM provider that the existing infrastructure can meet the project's potential needed services and facilities.</p>	IT/COMM Provider	DBS
16. Energy and Greenhouse Gases		
<p>Mitigation Measure Energy and Greenhouse Gases 16.1:</p> <p><i>Energy Generation.</i></p> <p>Projects shall supply 20 percent of non-residential and 10 percent of residential energy demand with renewable energy generation.</p>	DWP	DWP
<p>Mitigation Measure Energy and Greenhouse Gases 16.2:</p> <p><i>Climate Action Plan.</i></p> <p>The City shall implement the Climate Action Plan.</p>	Mayor's Office	Mayor's Office

DCP = Department of City Planning, DBS = Department of Building and Safety, LAFCD = Los Angeles County Fire Department, LAFD = Los Angeles Fire Department, LAPD = Los Angeles Police Department, LADOT= Los Angeles Department of Transportation, RAP = Department of Recreation and Parks, LAUSD = Los Angeles Unified School District, DWP = Department of Water and Power, BOS = Bureau of Sanitation, SCAQMD = South Coast Air Quality Management District, DOGGR = Department of Conservation's Division of Oil, Gas, and Geothermal Resources, BOE = Bureau of Engineering, DF&G = Department of Fish and Game

Historic Resources Survey

Appendix 2



HISTORIC RESOURCES SURVEY

CORNFIELD ARROYO SECO SPECIFIC PLAN AREA

CITY OF LOS ANGELES

LOS ANGELES COUNTY, CALIFORNIA

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LSA Project No. ARU1001

LSA

June 3, 2011

EXECUTIVE SUMMARY

LSA Associates, Inc. (LSA) is under contract to Arup, who is the prime consultant under contract to the City of Los Angeles Department of City Planning (DCP), to conduct a historic resources survey of the Cornfield Arroyo Seco Specific Plan (CASP) Area. The CASP survey area comprises 660 acres and roughly 1,600 assessor's parcels in an area northeast of downtown just east of Chinatown and comprising portions of Lincoln Heights.

The purpose of the survey, completed in cooperation with the City Office of Historic Resources (OHR), was to identify, document, and evaluate, at the intensive level, selected properties for eligibility for the National Register of Historic Places (National Register), California Register of Historical Resources (California Register), and/or for designation as a City of Los Angeles Historic Cultural Monument (HCM) to facilitate future planning considerations. The survey largely followed methodology currently in use for SurveyLA, the City's first-ever comprehensive historic resources survey.

In February 2011, the survey team conducted windshield surveys and limited archival research to identify potentially significant properties, using the contexts, themes, and property types developed for SurveyLA. In March 2011, the survey team conducted an intensive-level survey of the potentially significant properties, using the Field Guide Survey System (FiGSS) developed for SurveyLA as well as the Historic Architecture Inventory (HAI) developed by LSA for field data collection. The FiGSS enabled the survey team to use SurveyLA's contexts, themes, and property types in the field, while HAI provided the team with the ability to create architectural descriptions and to print Department of Parks and Recreation (DPR 523) forms.

The initial windshield surveys resulted in the identification of 50 properties to survey using the FiGSS, including two potential "conservation areas" containing both eligible and ineligible properties related by an overarching theme. Of the 50 properties, 23 met one or more eligibility standards in the FiGSS and were documented on DPR 523 forms and attached to the report. The remaining 27 properties did not ultimately meet any eligibility standards and/or did not retain sufficient integrity. These properties were assigned a 6Z status code and are included in a table in the Results section of this report. The two 6LQ planning areas include the "River Station Historic Landscape" and the "Albion Street Community Planning Area." Although neither constitutes an eligible historic district, there is distinctive character in each area that warrants consideration in future design and planning processes.

All properties assigned a status code of 1-5 are considered to be "historical resources" for CEQA compliance purposes and City's Cultural Heritage Ordinance. Those properties assigned a status code of 6DQ, 6Z, or 6L do not constitute "historic properties" (Section 106) or "historical resources" (CEQA) and require no further cultural resources considerations. Properties that were not identified for intensive-level survey were assigned a "7RQ" meaning they were identified in a SurveyLA survey, but not evaluated. These properties did not appear to warrant intensive level survey for the CASP planning and review process, but may need to be evaluated in connection with future projects.

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- A: SUMMARY OF FiGGS
- B: SURVEY MAPS (to be provided by OHR per scope)
- C: DEPARTMENT OF PARKS AND RECREATION (DPR 523) FORMS

INTRODUCTION

LSA Associates, Inc. (LSA) is under contract to Arup, who is the prime consultant under contract to the City of Los Angeles Department of City Planning (DCP), to conduct an historic resources survey of the Cornfield Arroyo Seco Specific Plan (CASP) Area.

PROJECT TEAM

The Historic Resources Survey was completed by Tanya Sorrell, M.A. of LSA, Kathryn McGee of Chattel Architecture, Planning & Preservation, Inc. (Chattel), and Shane Swerdlow of Chattel. Ms. Sorrell acted as project manager, leading the reconnaissance survey of the CASP area, preparing the Survey Report, and coordinating with the City Office of Historic Resources (OHR) to identify and apply the relevant contexts developed by SurveyLA. Ms. McGee acted as lead surveyor for the team, participating in reconnaissance surveys, conducting intensive-level surveys on properties identified in the reconnaissance survey, and entering data into the FiGSS and HAI. Mr. Swerdlow acted as survey and research assistant, participating in intensive-level surveys and conducting property-specific research. Ms. Sorrell and Ms. McGee both meet the Secretary of the Interior's Professional Qualifications Standards in History and Architectural History.

DESCRIPTION OF THE SURVEY AREA

The CASP survey area comprises 660 acres and roughly 1,600 assessor's parcels in an area northeast of downtown just east of Chinatown and comprising portions of Lincoln Heights. Spring Street/Broadway, Main Street, San Fernando Road, Avenue 26, and Figueroa Street are arterial streets that traverse the area (Figure 1). The survey area is divided into four sections by Interstate 5 (I-5), Arroyo Seco Parkway (which follows Arroyo Seco Wash), and the Los Angeles River.

Western Section

The section west of the Los Angeles River is characterized by blocks of industrial buildings constructed throughout the 20th century. The section along Spring Street historically surrounded the Southern Pacific River Station (HCM #82), which is now Los Angeles State Historic Park. In 2005, the State Park was the site of an art project by Lauren Bon called "Not a Cornfield," which is where the Cornfield Arroyo Seco Specific Plan gets part of its name. One of the more notable industrial buildings in the section is the Raphael Junction Block/NY Suspenders Factory (HCM #872), a flatiron-shaped building adjacent to the State Park. The western section also includes Los Angeles Department of Water and Power (LADWP) generating and maintenance facilities and William Mead Homes Public Housing. A rare extant section of the Zanja Madre, the main irrigation ditch that fed the early Pueblo de Los Angeles, is located just north of the State Park along the Metro Gold Line alignment.

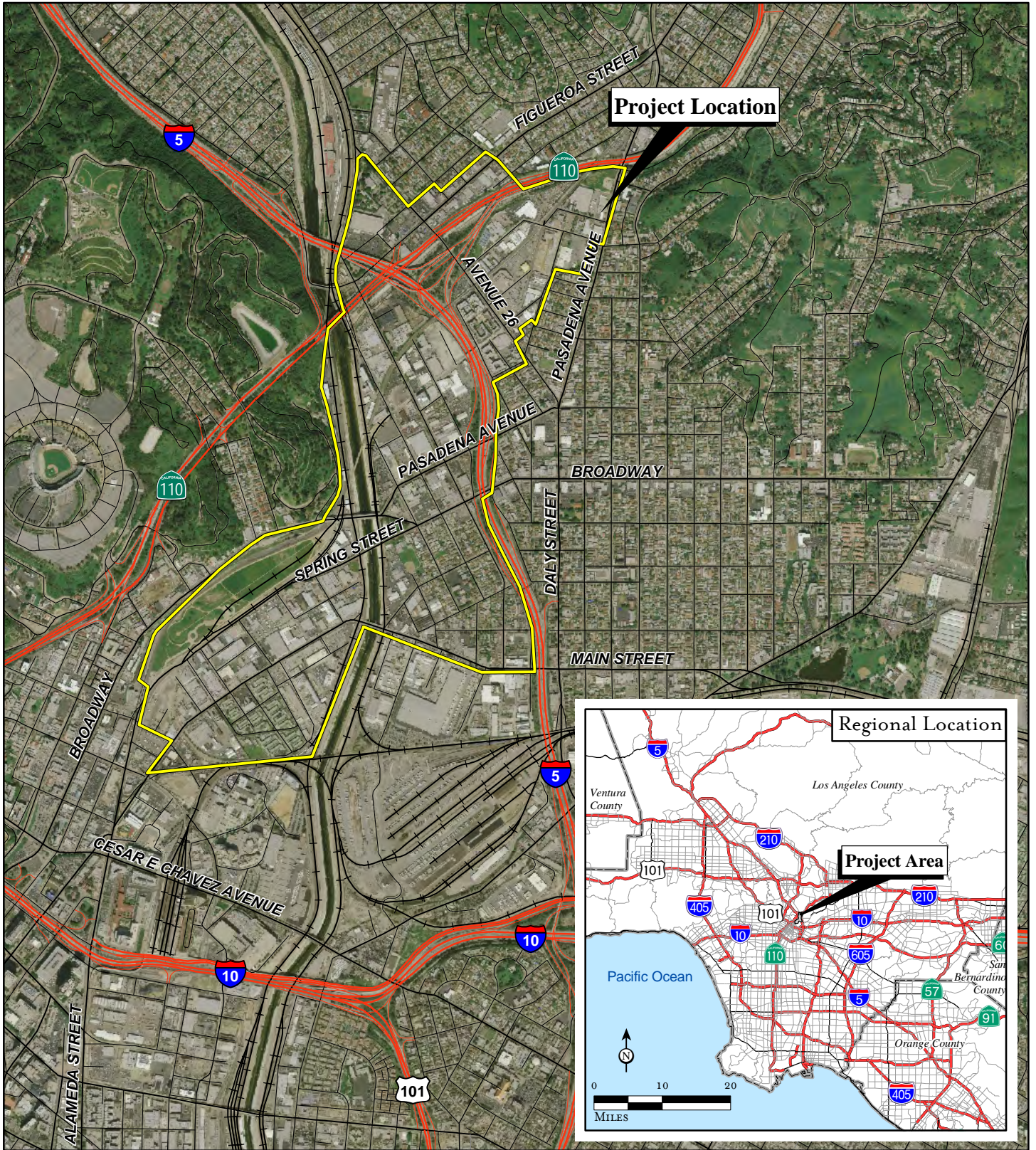
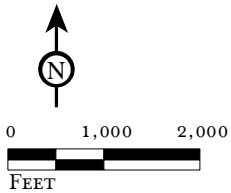


FIGURE 1

LSA



SOURCE: AirPhotoUSA, 2008; Thomas Bros., 2009

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*The Cornfield Arroyo Seco Specific Plan Area
Historic Resources Survey*

Regional and Project Location

Central Section

The section between the Los Angeles River and I-5, south of Arroyo Seco is mixed in character, containing residential, commercial, and industrial uses, often adjacent to each other. Five or six blocks on the south side of Broadway contain a concentration of late 19th and early 20th century residences, as well as the Albion Elementary School. Albion Cottages and Milagro Market (HCM #442) are located in this small residential area. Broadway and Pasadena Avenue act as commercial corridors through the area. Industrial properties are interspersed throughout the section, but the north half of the section is particularly industrial in character. The Lincoln Heights Jail (HCM #587) is located in this section, as is the old Fuller Paint Company (remodeled into loft housing), and Goodwill Industries. The Brewery Art Colony, housed in the old Pabst Brewery and Edison Steam Power Plant (HCM #388), is just outside the CASP boundaries on the south side of Main Street.

Eastern Section

Located east of I-5 and south of Arroyo Seco, this section is largely industrial, with the exception of a few old homes left over from the original residential tract that existed before industry expanded into it. The Lincoln Heights Gold Line stop is located in this section, which has spurred apartment and condominium development in recent years. Lacy Street is defined by a mix of historic and new buildings, including the old Columbia Mills (now Lacy Street Studios), Lacy Street Neighborhood Park, the North Central Animal Care Center, and former offices of the Cannon Electric Development Company. Other industries in the area were historically involved in metal work, from the manufacture of brass to general fabrication of metal objects and building materials.

Northern Section

The section north of Arroyo Seco comprises mainly the properties facing Figueroa Street and Avenue 26, which are largely commercial in character. Properties along Figueroa Street have seen extensive redevelopment and remodeling over the last half of the 20th century, leading to a mix of older one-story commercial buildings, a neighborhood movie theater (converted to a store), gas stations, and a Googie-style IHOP restaurant. The former Los Angeles Railway Huron Substation is located in this section (HCM #404), as is the former Lawry's California Center (now the Los Angeles River Center and Gardens).

PROJECT METHODOLOGY

The purpose of the survey, completed in cooperation with the OHR, was to identify, document, and evaluate, at the intensive level, selected properties for eligibility for the National Register of Historic Places (National Register), California Register of Historical Resources (California Register), and/or for designation as a City of Los Angeles Historic Cultural Monument (HCM) to facilitate future planning considerations. The survey largely followed methodology currently in use for SurveyLA, the City's first-ever comprehensive historic resources survey.

The CASP survey area is the home of several designated HCMs and, because the historic importance of these resources has already been recognized by the City, these properties were not resurveyed. Properties that were previously surveyed and determined eligible were included in the survey, but

research and documentation were limited to providing updates on the current conditions of the resources.

To streamline survey activities and eliminate redundant efforts with the OHR, the survey team adapted SurveyLA methodology to the extent feasible for compliance with the California Environmental Quality Act (CEQA). The methodology involved the review of contexts and eligibility standards prepared for SurveyLA, developing eligibility standards for the industrial development context (which had not yet been prepared for SurveyLA, but is in preparation by LSA under a separate contract with the City), and application of these eligibility standards in the field using reconnaissance surveys and property-specific research. Properties identified as potentially eligible through review of SurveyLA contexts and themes were then surveyed at the intensive level, with data entered into the OHR's Field Guide Survey System (FiGSS) and LSA's custom-designed Historic Architecture Inventory (HAI). Department of Parks and Recreation (DPR 523) forms were generated using HAI for eligible properties. Survey results were summarized in this Survey Report, with recommendations for the treatment of identified properties and future surveys. Specific tasks within the overall project methodology are described in more detail below.

Field Surveys

The LSA survey team conducted several reconnaissance-level surveys of the CASP to identify properties that could potentially meet eligibility standards created for SurveyLA. Reconnaissance surveys were conducted on foot and driving. In addition to physically surveying the area, the survey team inspected current aerial photographs overlaid with historic Sanborn Fire Insurance Maps to identify historic uses and determine whether properties possessed a basic level of historic integrity. This pre-survey investigation helped the survey team to focus its efforts on properties that had the greatest likelihood of meeting SurveyLA eligibility standards.

Following the reconnaissance surveys, LSA prepared a list of properties for intensive survey. The intensive surveys were conducted by the lead surveyor and survey assistant from Chattel, and involved the preparation of a detailed physical description of each property and making an evaluation using SurveyLA eligibility standards.

Field Guide Survey System¹

The Historic Context Statement (HCS) framework has been used as the basis for developing the FiGSS, a custom mobile application designed for use in the field on tablet PCs. The FiGSS uses Geographic Information System (GIS) mapping software and is preloaded with maps and aerial photographs of survey areas, context statement eligibility standards, and information relating to designated, previously surveyed and potentially significant historic resources.

The FiGSS is unique in that it “translates” the components of the Historic Context Statement into data fields so that surveyors can readily place a property within the appropriate context and theme by selecting from drop-down lists. For example, when surveying a neighborhood school (such as the Albion Street School in the survey area), a field surveyor may select the context “Institutional

¹ This summary of FiGSS is adapted from a description developed by the OHR for a cover letter that explains SurveyLA methodology. The entire cover letter is attached to this report as Appendix A.

Development” and then the theme “Education” and the sub-theme “Education and Ethnic-Cultural Associations.” A set of eligibility standards associated with this context/theme selection is then presented as a list of check boxes that the surveyors will select from as appropriate to determine if the property retains the physical and associative qualities needed to be an important example of its type. The FiGSS also allows surveyors to “flag” properties that require additional research or follow up.

The overall concept behind the FiGSS is to provide surveyors with the information they need in the field to identify and evaluate resources according to defined contexts and themes and in an efficient and consistent manner. The FiGSS is garnering attention from local, state, and federal agencies and organizations for its potential to change the way historic resources surveys are completed.

Historic Architecture Inventory

LSA developed the HAI in 2008 to increase staff’s efficiency in conducting large scale historic resources surveys. The HAI is a Microsoft Visual Basic field application and Access/ArcReader database that organizes records using the Assessor’s Parcel Number (APN). The HAI enables surveyors to select each parcel in the field, create a physical description using pre-programmed descriptors, incorporate property-specific research/evaluation criteria, and link photographs. The survey data entered into the HAI allow the survey team to create DPR Primary and BSO records efficiently and to use the data gathered for secondary analysis.

Property-Specific Research

The survey team researched properties that were included in the intensive-level survey in order to develop a complete understanding of their historic associations and development history. In some cases, research was done prior to the intensive-level survey, and in others, research was done as a follow-up to the survey. Some of the sources consulted as part of the property-specific research are listed below. A complete list of references is provided in footnotes and at the end of this report.

- Historic maps, including Sanborn Fire Insurance Maps and United States Geological Survey (USGS) maps;
- Aerial photographs of the survey area 1948–2010;
- Original subdivision and survey maps 1849–2008;
- Newspaper articles (primarily the *Los Angeles Times* via Proquest);
- Electronic and physical databases of the Los Angeles Public Library (including the Photographic Collection and the California Index); and
- Los Angeles City Directories

SIGNIFICANCE CRITERIA

CEQA (PRC Chapter 2.6, Section 21083.2 and CCR Title 145, Chapter 3, Article 5, Section 15064.5) calls for the evaluation and recordation of historic and archaeological resources. The criteria for determining the significance of impacts to cultural resources are based on Section 15064.5 of the *CEQA Guidelines* and Guidelines for the Nomination of Properties to the California Register. Properties eligible for listing in the California Register and subject to review under CEQA are those meeting the criteria for listing in the California Register, National Register, or designation under a local ordinance.

NATIONAL REGISTER OF HISTORIC PLACES

The National Register of Historic Places is the Nation's official list of cultural resources worthy of preservation. According to National Register Bulletin 15, in order to qualify for the National Register, a resource must meet the criteria for evaluation. Properties are significant under the following criteria:

- a) They are associated with events that have made a significant contribution to the broad patterns of our history; or
- b) They are associated with the lives of persons significant in our past; or
- c) They embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d) They have yielded, or may be likely to yield, information important in prehistory or history.

Criteria Considerations

Ordinarily, cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- a) A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- b) A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- c) A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his or her productive life; or

- d) A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- e) A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- f) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
- g) A property achieving significance within the past 50 years if it is of exceptional importance.

Integrity

Integrity is the ability of a property to convey its significance. To be listed in the National Register, a property must not only be shown to be significant under the National Register criteria, but it also must have integrity. The evaluation of integrity is sometimes a subjective judgment, but it must always be grounded in an understanding of a property's physical features and how they relate to its significance. Historic properties either retain integrity (this is, convey their significance) or they do not. Within the concept of integrity, the National Register criteria recognize seven aspects or qualities that, in various combinations, define integrity. To retain historic integrity, a property will always possess several, and usually most, of the aspects. The retention of specific aspects of integrity is paramount for a property to convey its significance. Determining which of these aspects is most important to a particular property requires knowing why, where, and when the property is significant. The seven aspects of integrity are locations, design, setting, materials, workmanship, feeling, and association, defined as follows:

- a) Location is the place where the historic property was constructed or the place where the historic event occurred.
- b) Design is the combination of elements that create the form, plan, space, structure, and style of a property.
- c) Setting is the physical environment of a historic property.
- d) Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
- e) Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- f) Feeling is a property's expression of the aesthetic or historic sense of a particular period of time.
- g) Association is the direct link between an important historic event or person and a historic property.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES

The California Register program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance, identifies historical resources for

State and local planning purposes, determines eligibility for State Historic Preservation grant funding, and affords certain protections under CEQA. According to Technical Assistance Bulletin #3, to become a historic resource, a site must be significant at the local, state, or national level under one or more of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
2. It is associated with the lives of persons important to local, California, or national history; or
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition to having significance, resources must have integrity for the period of significance. The period of significance is the date or span of time within which significant events transpired, or significant individuals made their important contributions. Integrity is the authenticity of a historical resource's physical identity as evidenced by the survival of characteristics or historic fabric that existed during the resource's period of significance. Alterations to a resource or changes in its use over time may have historical, cultural, or architectural significance. Simply, resources must retain enough of their historic character or appearance to be recognizable as historical resources, and to convey the reasons for their significance.

CITY OF LOS ANGELES HISTORIC CULTURAL MONUMENT (HCM)

Section 22.171.8: Monument Designation Criteria

A proposed Monument may be designated by the City Council upon the recommendation of the Commission if it:

A) Meets at least one of the following criteria:

- 1) Is identified with important events in the main currents of national, State, or local history, or exemplifies significant contributions to the broad cultural, political, economic or social history of the nation, state, city, or community; or
- 2) Is associated with the lives of historic personages important to national, State, City, or local history; or
- 3) Embodies the distinctive characteristics of a style, type, period, or method of construction; or represents a notable work of a master designer, builder or architect whose genius influenced his or her age; or possesses high artistic values; or
- 4) Has yielded, or has the potential to yield, information important to the pre-history or history of the nation, State, City, or community; or
- 5) Reflects or exemplifies the diversity of Los Angeles, including, but not limited to, the significant contributions of people of color, women, and workers; or stimulates and promotes a greater understanding of diversity, democracy, and freedom; and

- B) Retains Integrity from its Period of Significance. Proposed Monuments do not need to retain all aspects of Integrity, but should retain a sufficient degree of those aspects of Integrity that relate to why it is significant. Flexibility shall be used in assessing Integrity, particularly when a proposed Monument is significant under designation criteria 1 or 2 above. A proposed Monument's deferred maintenance, dilapidated condition, or illegal alterations shall not, on their own, be construed to equate to a loss of integrity.

CITY OF LOS ANGELES HISTORIC PRESERVATION OVERLAY ZONE

A Historic Preservation Overlay Zone (HPOZ) is a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. According to Section 12.20.3 of the City of Los Angeles Municipal Code, the criteria for the designation of an HPOZ are:

- 1) Adds to the historic architectural qualities or historic associations for which a property is significant because it was present during the period of significance, and possesses historic integrity reflecting its character at that time; or
- 2) Owing to its unique location or singular physical characteristics, represents an established feature of the neighborhood, community or city; or
- 3) Retaining the building, structure, landscaping, or natural feature, would contribute to the preservation and protection of a historic place or area of historic interest in the City.

CALIFORNIA HISTORICAL RESOURCE (CHR) STATUS CODES

To be significant, a resource must meet at least one of the above-listed criteria and also retain enough integrity to convey its period of significance and association with an important historic context. Once a significance evaluation has been made, the resource is assigned a CHR status code. The CHR status codes are a standardized, shorthand method for identifying the significance level of a resource and include the following general categories:

1. Properties listed in the National Register or the California Register.
2. Properties determined eligible for listing in the National Register or California Register.
3. Properties that appear eligible for National Register or California Register through survey evaluation.
4. Properties that appear eligible for National Register or California Register through other evaluation.
5. Properties recognized as historically significant by local government.
6. Properties not eligible for listing or designation as specified.
7. Properties not evaluated for National Register or California Register or that need re-evaluation.

It should be noted that there are several subcategories within each of these that allow for various nuances, such as whether or not a resource is a contributor to a Historic District. Relevant codes for the CASP historic resources survey are described further in the Results section.

SUMMARY OF FINDINGS

HISTORICAL OVERVIEW²

The CASP Survey area contains some of the oldest developed areas of Los Angeles. The site where Gaspar de Portola's 1769 expedition camped in Los Angeles is believed to be along the Los Angeles River just south of where it is joined by the Arroyo Seco Wash. In 1781, settlers from Spain and Mexico founded the Pueblo de Los Angeles about a mile south of the survey area along the river. Agriculture provided the main source of industry for the nascent Pueblo, which grew slowly along the river during most of the 19th century. By 1820, the Pueblo was home to 650 Californio residents. In 1847, the U.S. gained possession of the Pueblo during the Mexican-American War. Under U.S. control, the riverfront began to industrialize. The Southern Pacific Railroad/River Station was completed in the 1870s and triggered a large wave of European and Chinese immigrants. The River Station became a major industrial and commercial center, connecting Los Angeles to major U.S. cities and the East. Much of the early growth of Los Angeles can be attributed to the development of the riverfront industrial center.

In the early 20th century, Los Angeles expanded across the river east into Lincoln Heights. In 1910, Henry G. Parker and Hugo Eckardt constructed the first monumental bridge across the Los Angeles River. The classically-styled North Main Street Bridge connected East Los Angeles to Downtown. One year later, in 1911, the Buena Vista Viaduct (now called the North Broadway-Buena Vista Bridge) was completed. At the time, this bridge was the longest and widest concrete arch bridge in California. Designers Homer Hamlin and Alfred P. Rosenheim incorporated Ionic arches and balustrades to complement the North Main Street Bridge. Eighteen years later, the North Spring Street Viaduct was completed. John C. Shaw designed the North Spring Street Viaduct to relieve traffic on the North Broadway Bridge. Shaw's design continued the classical style of the two earlier bridges, linking the three bridges as a thematic sub-group that connects Lincoln Heights to Downtown. All three bridges were designated as City Historic Cultural Monuments in 2008.

Some of the original industrial and commercial buildings still exist along the riverfront. The Standard Oil Company of California buildings on North Spring Street served as sales department and provided industrial facilities for one of the most powerful corporations in the world. Rockefeller's Standard Oil of California was one of the "seven sisters" that ran the oil industry during the 20th century and later became Chevron Corporation. The Baker Iron Works Site, on North Broadway, was an influential industrial pioneer in Los Angeles. Baker played a major role in stimulating growth in California, particularly through the production of streetcars, water distribution systems, and oil drilling products. In the following years, the area surrounding Baker became the premier steel and iron manufacturing center in California. In addition, Baker was a major supplier to the United States military during World Wars I and II. Located on North Spring Street, Capitol Milling Company was one of Los Angeles' leading enterprises, specializing in milling grains to produce flour, cereal, and food. The nearby Southern Pacific Railroad allowed Capitol Milling to transport products nationwide. Today,

² This section is largely adapted from the Background History section of the Cornfield Arroyo Seco Specific Plan, draft 3/9/2010.

these buildings provide a window to Los Angeles' past and serve as symbols of the industries that allowed the city to grow.

The concentration of industry near the river fostered the growth of new immigrant communities, including vibrant Italian, Mexican, and Chinese districts. These communities introduced new cultural elements and helped to establish Los Angeles as a global city. In 1917, Santo Cambianica, an Italian immigrant, opened the San Antonio Winery near the Los Angeles River. San Antonio remains the last producing winery in Los Angeles.

Lincoln Heights

As commercial and industrial activity grew downtown in the late 19th century, new arrivals to Los Angeles looked to adjacent land surrounding downtown as the setting for the City's first suburbs. Similar subdivisions were recorded concurrently in areas east, south, and north of Downtown. The community of Lincoln Heights was built on the higher plain southeast of the confluence of the river and Arroyo Seco, subdividing the former farmlands. This new community was linked to downtown Los Angeles along Downey Avenue and served by horse-drawn streetcars. The main north-south road, San Fernando Road/Avenue 20, passed through Lincoln Heights and connected it to northern and southern California. Into the 20th century, Lincoln Heights grew into a small town with a classic mix of residential neighborhoods around a small downtown located between Broadway and Five Points. At the same time, owing to its location as the mouth of a pass to the north, the first rail lines linking northern and southern California were built, paralleling the Los Angeles River. Along with the railroads came the first industrial uses, some directly rail-related in the form of rail yards, such as the Cornfield site, and some uses that were served by the rail. The residential small town character of Lincoln Heights began to erode.

By the end of World War II, Lincoln Heights transformed into a predominantly working class neighborhood. This transformation accelerated with the construction of the Golden State Freeway (I-5) in the 1950s, replacing the historic north-south Route 99 that used San Fernando Road and Avenue 20, split Lincoln Heights in half at its core and destroyed the neighborhood's important relationship with downtown, the river, and the historic origins of Los Angeles.

Railroads and Industry

After the rapid development of the 1920s, more and more industry began to locate in Lincoln Heights along the river banks following the railroad. Early land use districting ordinances had already established industrial use areas along the rail and river corridor, which were hardened further into discrete zones around 1920. The mixed-use character of Lincoln Heights with its residential neighborhoods was "pushed" to the east, with older neighborhoods nearer the river displaced by industrial lands.

Meanwhile, plagued by the river's unpredictability and constant flooding, the U.S. Army Corps of Engineers began to channelize the river in the 1930s. Ever since, the once natural resource has served as a flood control system and carried storm water and other runoff south to San Pedro and the harbor. Only recently has the city begun to return to the concept of transforming the Los Angeles River into an environmental and open space resource.

In 1996, one of the largest undeveloped parcels within the area was proposed to be developed as an industrial park but the surrounding neighborhoods resoundingly rejected the concept and instead demanded that the parcel, which was known as “the Cornfield,” be set aside as a park. With the assistance of the Trust for Public Land, the State of California purchased the 33-acre property and is today developing conceptual plans to develop the Los Angeles State Historic Park. With the introduction of the Gold Line only a few short years later, in 2002, and subsequently the interest in the revitalization of the River and the Arroyo Seco, the stage was set for developer speculation and the pressure for residential conversion began.

Currently, the area is home to 4,600 residents and approximately 6,000 employees visit the area each weekday to make their livelihood in the light industrial employment sectors, which include everything from the manufacturing of furniture to carpet warehousing and logistics. Six hundred new units have been built in the last three years, which have provided critical affordable housing for low and moderate income seniors and families. Two hundred moderately priced condominiums have been built, 102 units are currently in construction, and another 350 units have been entitled. A 20 unit live-work rental project recently opened to round out the residential offerings.

SUMMARY OF RELEVANT HISTORIC CONTEXTS AND THEMES³

The following HCS Context/Theme summaries are provided to place the resources of the CASP survey area into the framework established by SurveyLA. The Contexts and Themes included here represent potentially relevant themes for the CASP survey area, but the survey team did not ultimately find potentially eligible properties for every theme listed.

3.0 Context: Residential Development and Suburbanization

Much of the central portion of the CASP area was once part of the City’s oldest suburbs. The Lincoln Heights HPOZ is adjacent to the eastern boundary of CASP, and the residential block in CASP appears to have the same general historical association and architectural character, though the level of historic integrity is not as high and I-5 physically separates it from the Lincoln Heights HPOZ.

Sub-Context/Theme: Multifamily Residential Development

Sub-Theme: Public and Defense Housing

In the CASP area, this subtheme is represented entirely by William Mead Homes, a public housing project that was constructed in 1942 and designed by architects T.A. Elisen, A.R. Walker, Armand Monaco, Marsh Smith & Powell. It has been previously determined eligible for the National Register under Criteria A and C.

4.0 Context: Commercial Development

Theme: Neighborhood Theaters, Pre-WWII, 1915–1942

A pre-WWII neighborhood theater is extant at 3232 North Figueroa Street. It was constructed in 1928 and retains some of its historical appearance. Affiliated with Fox West Coast Theaters, this building

³ This outline consists of selections from the SurveyLA Context Outline and has retained that outline’s numbering for easier cross-reference.

was called the Arroyo Theater. A *Los Angeles Times* 1936 movie listing includes the theater located at 3232 N Figueroa Street. The theater was used until at least 1956, according to 1956 City Directory.

Theme: Restaurants, 1880–1980

The former Lawry's California Center (now the Los Angeles River Center and Gardens) is located in the northernmost section of the CASP survey area. It was originally constructed in 1952 by the Frank and Van De Kamp families as an early example of the "corporate campus," a collection of commercial office, restaurants, bars, and manufacturing buildings organized around promoting the Lawry's brand of seasonings. By 1987, the California Center accommodated 600,000 visitors a year. It was determined that while architecturally interesting and generally retaining integrity from 1979, it is not clear that the site rises to the exceptional level of significance necessary for listing. Lawry's had on-site facilities for manufacturing signature spices at this location as early as the 1950s, as well as a gift shop and restaurant. A portion of a 1950s industrial building may be intact. The rest of the site was designed in 1979 by Calvin Straub of Scottsdale, Arizona as a 150-seat restaurant, garden, courtyard and art exhibition, constructed at a cost of \$1.5 million. While a unique property, sufficient time has not passed to gain a historical perspective on the significance of the largely 32-year old campus.

5.0 Context: Institutional Development

Sub-Context: Education

Theme: Public Schools and the LAUSD, 1876–1980

Sub-Theme: Post-1933 Long Beach Earthquake, 1933–1945

Albion Street School is an excellent example of an elementary school built after the 1933 Long Beach Earthquake, a period in which the widespread quake-caused destruction of unreinforced schools led to the development of stricter standards for school construction. This pressure to rebuild schools coupled with the infusion of federal funding from the Works Progress Administration (WPA) produced an extensive collection of Art Deco, Streamline Moderne, and PWA Moderne schools in the Los Angeles Basin. Albion Street School has retained several key buildings from the 1937 Moderne-styled campus.

Sub-Context: Government Infrastructure and Services

Theme: Municipal Water and Power

Sub-Theme: Distributing and Receiving Stations

The Department of Water and Power Main Street Station is a major distributing and receiving station within the Los Angeles power grid. It was previously determined eligible for the National Register.

Theme: Public Works

Sub-Theme: Bridges

The CASP area is home to three landmark bridges across the Los Angeles River: the Main Street Bridge, the North Spring Street Bridge, and the North Broadway Bridge. These three bridges have all been recently designated Los Angeles HCMs.

Sub-Context: Civil Rights Movement – Ethnic and Gender Equality, 1942–1980

Theme: Women's Rights Movements

The Woman's Building and Women's Graphic Center (Woman's Building) was an art gallery and communal space developed by artists within the feminist movement. These women started the

Feminist Studio Workshop in 1973 in reaction to the lack of access or exposure afforded them and all women by mainstream galleries and art museums. The original Woman's Building was opened at the former Chouinard Institute near MacArthur Park, but in 1975, Chouinard was closed and the Woman's Building moved to 1727 North Spring Street in the old Standard Oil Company office and warehouse near the Spring Street Bridge. The Woman's Building became an internationally recognized icon for women's creative expression in the 1970s and 1980s. It closed in 1991. The building has retained its historical appearance from the period of significance for the Woman's Building.

6.0 Context: Architecture and Engineering

Theme: Late 19th and Early 20th Century Architecture, 1865–1950

Theme: Arts and Crafts Movement, 1895–1930

Theme: Mediterranean Revival, 1887–1952

Theme: American Colonial Revival, 1895–1960

Sub-Themes: Folk Victorian, Neoclassical, Craftsman, Spanish Colonial Revival, and Early American Colonial Revival Styles

Due to the age of residential development in the CASP area, there are examples of late 19th early 20th century architectural styles, including Folk Victorian, Colonial Revival, Spanish Colonial Revival, Neoclassical, and Craftsman.

Theme: Postwar Modernism, 1946–1976

Sub-Theme: Googie 1935–1969

The former Prebles Restaurant (now the International House of Pancakes) at 2227 North Figueroa is a good representative example of the Googie style of architecture, a whimsical and visually arresting style applied to retail buildings in the post-World War II era. It was designed by Armet and Davis, an architecture firm responsible for design of many prominent Googie restaurants throughout Southern California. Googie buildings were designed to attract passing motorists and create a memorable brand for the store, and it was common for casual restaurants and coffee shops in the 1950s and 1960s.

8.0 Context: Cultural Landscapes, 1850–1980

Theme: Historic Vernacular Landscapes

Because the CASP survey area contains some of the earliest-developed areas in the City, the survey team investigated the potential for historic vernacular landscapes. Specific areas of focus included the River Station area, where early industry and freight activity left related buildings, street improvements, and spatial relationships from the early 20th century. The residential area surrounding Albion Street School was also investigated due to its Italian heritage.

9.0 Context: Industrial Development, 1850–1980

Theme: Building the City, 1876–1965

The building industry emerged to support the exponential residential and commercial growth in Los Angeles in the late 19th and early 20th centuries, providing the raw materials, carpentry, and furnishings needed to create the City's extensive built environment. Very few, if any properties are extant that represent this critical component of Los Angeles community development. The CASP

Area is unique in the City because it contains a concentration of metal shops from the early 20th century, including the former Price Pfister Brass Manufacturing Company, the California Steel and Cornice Company, and smaller steel and metal shops on Avenue 33 and on Naud Street.

Theme: Oil and Other Petroleum Products, 1892–1950

Oil exploration and processing is a theme that has had a significant impact on the City, from fueling emerging industries in the early 20th century to financing the construction of fantastic residential and commercial architecture. Unfortunately, there are very few industrial properties citywide that strongly represent this theme. There are a few examples in the CASP area, including 1727 North Spring Street, a former Standard Oil Company office and warehouse and the Standard Oil maintenance facilities across the street.

Theme: Freight Transportation, 1876–1920

The River Station area owes its configuration and land use history to the proximity of the Union Pacific rail yard, which is now the site of the Los Angeles SHP. The park contains the partially excavated remains of a roundhouse. While there are no individual resources in the area (besides the SHP) that represent this theme, there are features of industrial buildings in the River Station area that are related to freight transportation, including rail sidings and spurs (see 8.0: Cultural Landscapes Context).

Theme: Manufacturing for the Masses, 1887–1980

Sub-Theme: Food Processing, 1831–1945

Food processing facilities such as mills, bakeries, and bottling plants represent the City's oldest industrial endeavors. They are associated with the City's once-prosperous agricultural sector and represent a significant shift in social history toward purchasing more pre-processed, manufactured food instead of preparing raw ingredients from home. Some food processing plants, like mills and bakeries, are distinctive property types that can be identified by their exterior features.

Theme: Industrial Engineering and Design

Sub-Theme: Daylight Factory, 1887–1940

Prior to the widespread use of electricity, controlling and capitalizing on daylight was a necessary component of the design of manufacturing buildings. Daylight was brought into the building using a variety of methods, including expansive industrial sash windows, orientation of intensive hand work next to the exterior walls of the building, skylights, and specialized roof forms to bring light into the interior. The former Columbia Mills on Lacy Street is an excellent example of a daylight factory, with multiple daylight features including expansive industrial sash and sawtooth rooflines.

Sub-Theme: Industrial Loft, 1900–1940

Industrial lofts were a distinctive early industrial building type designed to accommodate a vertical manufacturing process in a fire-resistant timber or reinforced concrete building. Heavy machinery was generally set on the lower floors and toward the middle of the building, while lighter manufacturing processes and handwork occurred on the perimeters where daylight could illuminate detailed tasks. Offices were located on the upper stories. The structural materials were dense in character, designed to absorb vibration from heavy equipment and keep accidental fires slow-burning and confined as much as possible. Industrial lofts were commonly built in the late 19th and early 20th century in large built-up cities where land area was a premium. Industrial lofts are not common in Los Angeles, due mainly to the timing of industrial development in relation to the City's supply of

available land. Because space was available and relatively inexpensive, manufacturers tended to set up a horizontal process in and around Los Angeles, which was easier to expand and reorganize to suit changing technology. The exception in Los Angeles is the garment industry, where the vertical process provided the most efficient workflow for manufacturers and proximity to markets downtown was essential. The KeLite Products plant, located at 1250 N Main, includes a three-story industrial loft building.

Sub-Theme: Quonset Hut, 1941–1950

The Quonset hut is a variant of the c. 1916, British-designed Nissen hut. It was named for the Naval Air Station at Quonset Point, Rhode Island, where it was first designed for large-scale production in the United States in 1941. Built to serve as temporary, flexible military facilities for World War II, the Quonset hut bears a distinctive form: a simple half-cylinder typically constructed of a wood or steel rib-framing system with corrugated metal sheathing. It was ideal for wartime because it was both inexpensive and efficient to build, and could be easily moved to accommodate a variety of uses.

Following the end of World War II in 1945, there was a nationwide housing shortage as veterans returned from war in large numbers; Quonset huts served as one answer to accommodate the population. Given their flexible interior layout and the low cost to move and erect, it was not uncommon for individual Quonset huts to be purchased and appropriated for a variety of uses, including industrial and commercial facilities. Not all Quonset huts were designed for military activities and then reused; some companies advertised their effectiveness as an efficient, flexible space for a wide variety of home, warehouse, commercial, and other uses, and sold them for those purposes. An important symbol of both the wartime and immediate post-World War II eras, the Quonset hut is a rapidly disappearing property type.

RESOURCES IDENTIFIED

Of the approximately 1,600 unique parcels within the survey area, 50 were digitally photographed and entered into the FiGSS database. Each of the surveyed properties was assigned a California Historical Resources status code according to level of significance. Of this number, 23 properties appeared to meet SurveyLA eligibility criteria under one or more themes, and were recorded on the appropriate DPR forms. One or more of the following status codes were assigned to resources in the CASP survey area:

- **3S:** *Appears to be eligible for the National Register as an individual property through survey evaluation.* These properties met one or more eligibility standards included in the SurveyLA HCS and have retained the highest degree of integrity. **Resources with this code are considered historical resources for the purposes of CEQA.**
- **3CS:** *Appears to be eligible for California Register as an individual property through survey evaluation.* This code includes all properties assigned a 3S status code, plus properties that met one or more eligibility standards included in the SurveyLA HCS, but have lost a critical aspect of integrity that precludes eligibility for the National Register. **Resources with this code are considered historical resources for the purposes of CEQA.**
- **5S3:** *Appears to be eligible for local listing or designation through survey evaluation.* In the CASP survey, this code includes all 3S and 3CS properties. No properties were assigned only a 5S3 code in conjunction with this survey. **Resources with this code are considered historical resources for the purposes of CEQA.**
- **6L/6LQ:** *Determined ineligible for local listing or designation through a survey process, but may warrant special consideration for local planning.* **These resources do not constitute historic resources for the purposes of CEQA.** They are identified because, though ineligible, they possess a distinctive character that planning staff may want to take into consideration during the design phase of future projects in the area.
- **6Z:** *Individual property assessed for significance in accordance with the SurveyLA Multiple Property Documentation approach, but does not meet eligibility standards.* This group comprises the 37 properties that were identified in the reconnaissance surveys but when surveyed using FiGSS did not ultimately meet any of the eligibility standards. **These resources do not constitute historic resources for the purposes of CEQA.**
- **7RQ:** *Individual Property identified in a SurveyLA Survey; not evaluated.* This status code will be assigned to all properties that were not identified for intensive-level survey. **These resources do not constitute historic resources for the purposes of CEQA.** They did not appear to warrant intensive-level survey for the CASP planning and review process, but may need to be evaluated in connection with future projects.

HISTORICAL RESOURCES (3S, 3CS, 5S3)

Nearly all of the properties that the survey found eligible (19 of 21) warranted all three status codes. One property was assigned a 3CS and 5S3 status code because it did not retain sufficient integrity to be eligible for the National Register. One property was assigned a 5S3 status code only because it did not retain integrity sufficient for the National or California Registers, but represented a rare neighborhood property type (1920s Movie Theater). Each of the 21 properties was documented on DPR 523 Primary and Building, Structure, Object (BSO) forms, which are attached to the survey report as Appendix C. Table A provides a brief summary of eligible properties.

Table A: Historical Resources in the CASP Area (not including HCMs)

Address	Name	Historical Property Type	Year Built	Status Code	Notes
147 N. Avenue 18	—	Quonset Hut	1946	3S; 3CS; 5S3	Noted on Sanborn maps as a sheet metal shop.
271 Avenue 18	—	Residence	1885	3CS, 5S3	Folk Victorian, vinyl windows (original openings)
267 Avenue 18	—	Residence	1885	3S, 3CS, 5S3	Early Hipped-Roof Vernacular residence.
322 S. Avenue 18	Albion Street School, Hayes Street School, 19 th Street School	School	1937	3S; 3CS; 5S3	Post-1933 earthquake Moderne School, also identified with the Italian and Mexican immigrant communities.
227, 229, and 231 Avenue 19	—	Multifamily Property	1905	3S; 3CS; 5S3	Trio of identical Folk Victorian residences on one lot.
420 W. Avenue 33	Cannon Electric Development Co., Plant #1	Office (related factory demolished)	1926	3S; 3CS; 5S3	Office building for what was once a key factory producing “Cannon Plugs.” Cannon was known as an early innovator and 20 th century leader in electronic connections, with applications in civic infrastructure, entertainment, and aviation/aerospace industries.
1300 N. Cardinal Street	William Mead Homes; Ann Street Project	Public Housing Project	1942	2S2;	Already formally determined eligible; boundaries updated.
1805 Darwin	—	Residence	1910	3S; 3CS; 5S3	Folk Victorian
1837 Darwin	—	Residence	1895	3S; 3CS; 5S3	Folk Victorian

Table A: Historical Resources in the CASP Area (not including HCMs)

Address	Name	Historical Property Type	Year Built	Status Code	Notes
2227 N. Figueroa Street	Prebles Restaurant	Restaurant	1968	3S; 3CS; 5S3	Googie Architecture, now an IHOP
3232 N. Figueroa Street	Arroyo Theater	Movie Theater	1928	5S3	Affiliated with Fox West Coast Theatres. Extensive alterations.
3005 N. Humboldt	Price Pfister Brass Mfg Co.	Metal Shop	1914–1951	3S; 3CS; 5S3	Associated with industrialist, philanthropist, and Jewish leader Isadore Familian and key factory for Price Pfister, an internationally recognized plumbing/fixture brand.
2630 Lacy Street	Columbia Mills; Talbert-Whitmore Co	Factory	1885–ca. 1945	3S; 3CS; 5S3	Excellent example of Daylight Factory.
1250 N. Main Street	Kelite	Industrial Loft	1924–1954	3S; 3CS; 5S3	Industrial Loft, former Kelite Chemical Factory
1630 N. Main Street	DWP Facility	Municipal Power Plant	1946–2000	2S2	Already formally determined eligible; boundaries updated.
510 Avenue 17; 1801 N. Main Street	Lanza Bros. Market	residence/deli	1898–1926	3S; 3CS; 5S3	Italian Deli and residences historically associated with historical Italian community near Albion Street, Deli run by Italian immigrant family from 1926 through 2000s.
1811 N. Main Street	—	Residence	1898	3S; 3CS; 5S3	Folk Victorian
1611 Naud Street	California Steel and Cornice Co.	Metal Shop	1945	3S; 3CS; 5S3	Produced steel for the Case Study Houses, also for Standard Oil
1640 N. Spring Street	—	Factory	1925	3S; 3CS; 5S3	Daylight Factory, manufactured paper
1726–1756 N. Spring Street	Standard Oil Maintenance	Maintenance Facilities	1920–1960	3S; 3CS; 5S3	Early office and auto repair/machine shop for Standard Oil.
1727 N. Spring Street	Standard Oil Company; Woman's Building	Oil Co. Office	1914	3S; 3CS; 5S3	Originally served as Standard Oil sales office, it was the 1973–1991 home of the Woman's Building, a key institution in Feminist History.

INELIGIBLE PROPERTIES

The other 30 properties identified in the reconnaissance survey were surveyed but did not ultimately meet the eligibility requirements of any particular SurveyLA theme, either for a lack of significance or extensive alterations. Most of these properties (26 of 30) were assigned a “6Z” status code in the FiGSS and were not documented on DPR 523 forms. These are not considered historical resources for the purposes of CEQA. Table B lists these surveyed but ineligible properties.

Table B: Ineligible Properties (6Z)

Address	Historical Names	Historical Property Type	Year Built	Notes
1750 Albion Street	Grogan Olive Co.	food processing	ca 1930	Company does not appear notable and does not visually convey historical use.
351 S. Avenue 17	Certified Chrome Furniture Co; Goldenberg Plywood and Lumber Co.	carpentry/metal shop	1926–1967	Oldest buildings have not retained integrity; associated companies do not appear to be notable.
214 S. Avenue 18	—	multifamily	ca 1925	Not a significant example of multifamily housing.
216 Avenue 18	—	multifamily	ca 1925	Too altered for listing.
440 Avenue 19; 405–427 San Fernando Road	Log Cabin Bakery Bread Co	bakery	1916–1944	Too altered for listing.
540 W. Avenue 26	—	residence	1908	Intact craftsman bungalow identified in the reconnaissance survey, but did not meet eligibility standards.
220 W. Avenue 33	—	duplex	1922	Told by resident that these properties were associated with Lacy Estate or tract, but no associations were found in research.
214 W. Avenue 33	—	duplex	1922	
153 W. Avenue 34	—	metal shop	1929	Does not appear to have significant historical associations.
130 W. Avenue 34	—	residence	1924	Not a significant example of type or style; no historical associations.
140½ Avenue 34	—	residence	ca. 1925	Not a significant example of type or style; no historical associations.
1134 College	Lacy Manufacturing Company	metal shop	1891-1960	Too altered for listing.

Table B: Ineligible Properties (6Z)

Address	Historical Names	Historical Property Type	Year Built	Notes
1812 Darwin	—	residence	1924	Not a significant example of type or style; no historical associations.
1902 Darwin	—	residence	1910	Not a significant example of type or style; no historical associations.
2200 N. Humboldt	Fuller & Co Lacquer Paint	Factory	1937	Not a key facility for Fuller Paint Company.
2684 Lacy Street	National Battery Company	factory	1911–1970	Too altered for listing.
1100 N. Main Street	former neon sign factory	factory	1924–1955	Too altered for listing.
1667 and 1650 N Main Street (corner of Naud Street and Wilhardt)	—	machine shop/factory	1911–1953	No significant historical associations, not sufficiently intact or distinctive example of Daylight Factory.
1718 Albion Street; 1745–55 N. Main Street; 325 Avenue 16	—	trailer manufacturing	1912–1937	Too altered overall for listing, does not appear to have significant historical associations.
1615–1625 Naud Street	—	metal shop	1942–1949	Too altered for listing, does not appear to have significant historical associations.
1200–1220 N. Spring Street	Allison Coffee Co.	food processing plant	1910–1920	Company does not appear notable, no other historical associations.
1400–1426 N. Spring Street	JW MacMillan Electrical Lighting Supply	factory	1910	Too altered for listing.
136 N. San Fernando Road	National Wire and Cable Co.	metal shop	1951	Not a significant example of type or style; no historical associations.
154–162 N. San Fernando Road	—	residence and commercial	1915	Not a significant example of type or style; no historical associations.
208 San Fernando Road	Fuller Paint Co.	warehouse	1925	Now Alta Lofts. Too altered for listing.
221 San Fernando Road	—	commercial	1915	Too altered for listing.

Four of the 30 ineligible properties were assigned a 6L status code to recognize that, although they are not eligible for designation, they warrant consideration in the planning process (see Table C). In

three of the four cases, restoration to the period of significance may render these properties eligible for designation. In the case of Lawry’s California Center (now LA River Center and Gardens) sufficient scholarly perspective may develop in the future in support of its eligibility.

Table C: Ineligible Properties that Warrant Consideration in the Planning Process (6L)

Address	Historical Names	Historical Property Type	Year Built	Notes
308 Avenue 17	Four Square Gospel, Inc. Mexican Church	church	1938	Has been a Mexican Foursquare church for over 50 years, but significantly altered.
570 W. Avenue 26	Lawry’s CA Center	mixed use commercial/ industrial park	1954–1979	Remodeled in 1979, not enough time has passed to evaluate.
404 S. Avenue 20	First Baptist Italian Mission	church	1895–1924	Too altered for listing, but associated with the Italian immigrant community.
1711–1719 N. Spring Street	Carnation Co.	warehouse	1910–1916	Too altered for listing, not a key facility for Carnation. Part of the River Station Historic Landscape.

NON-ELIGIBLE PLANNING AREAS (6LQ)

The survey team identified two non-eligible conservation areas: the River Station Historic Landscape and the Albion Street Community Conservation Area. These areas are each composed of properties and non-parcel features that, when taken together, represent the historical land use and cultural values of the people that lived and worked there. While neither area has retained sufficient integrity to be eligible as a historic district or cultural landscape, the remaining features, spatial relationships, and community character warrant consideration in the planning process for any future projects in the area.

River Station Historic Vernacular Landscape

This landscape contains remnants of industrial development that followed the establishment of the historic Southern Pacific River Station in 1876. Its centerpiece is Los Angeles SHP (HCM #82). It includes several industrial buildings, including the Raphael Junction Block Building (HCM #872, includes related rail siding), the Standard Oil Company Sales and Maintenance Buildings, the Paper Company Factory on North Spring, and the Carnation Company Warehouse. Non-parcel resources that are part of this landscape include the hoof and wagon wheel imprints in front of 1418 North Spring Street, a granite swale in the median of Naud Street (east of Wilhardt), and a railroad spur alignment that runs behind the buildings facing Naud and Main Streets, opening to Wilhardt. Outside of the CASP survey area, the Capitol Milling Company and the section of the Zanja Madre north of the Cornfields are associated with this landscape as well.

Albion Street Community Planning Area

The Albion Street Community Conservation Area is part of the core area that historically represented the Italian immigrant community in Los Angeles. This area is a small part of a larger section of Los Angeles which extends to the Plaza, the area now known as Chinatown, and Lincoln Heights formed a nucleus where Italian families settled from the earliest days of the Pueblo through much of the 20th century. Italian and Mexican families worked in nearby rail yards and factories, lived in the residential blocks, and attended neighborhood schools like Albion Street School. The conservation area consists of the Chavez tract and neighboring residential blocks, neighborhood markets such as the Lanza Brothers Market and Garcia Brothers Market, churches such as the First Italian Baptist Church (now Centro Cristiano Internacional) and the Mexican Four Square Gospel (now Gethsemane Iglesia Cristiana Pentecostes), and the Albion Street School. The Albion Cottages and Milagro Market (HCM #442) are also part of this conservation area. The Albion Street Community Conservation Area was considered for inclusion with the Lincoln Heights HPOZ, but the survey team concluded that the physical separation presented by I-5 diminishes the neighborhood's sense of continuity with Lincoln Heights, and does not on its own represent significant themes in the Residential Development and Suburbanization Context.

RECOMMENDATIONS

All properties assigned a status code of 1–5 are considered to be “historical resources” for CEQA compliance purposes and City’s Cultural Heritage Ordinance. Those properties assigned a status code of 6DQ, 6Z, or 6L do not constitute “historic properties” (Section 106) or “historical resources” (CEQA) and require no further cultural resources considerations. Properties that were not identified for intensive-level survey were assigned a “7RQ” meaning they were identified in a SurveyLA Survey, but not evaluated. These properties did not appear to warrant intensive-level survey for the CASP planning and review process, but may need to be evaluated in connection with future projects.

Planning documents such as the CASP should guide future development toward preserving the area’s historic character through the preservation and/or rehabilitation of eligible resources. The CASP should also promote compatible infill construction that celebrates the historical themes prevalent in the CASP survey area, particularly the industrial character of the River Station and the Italian and Mexican heritage in the Albion Street Community.

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APPENDIX A

SUMMARY OF FIGGS

I. INTRODUCTION TO SURVEYLA

In 2005, the City of Los Angeles entered into a multi-year grant agreement with the J. Paul Getty Trust to complete a citywide historic resources survey, a process of systematically identifying and gathering information on properties and neighborhoods that reflect Los Angeles' architectural, social and cultural history. The project managed by the staff of the Office of Historic Resources (OHR) within the Department of City Planning (DCP), which named this project SurveyLA (www.SurveyLA.com).

SurveyLA is first and foremost a planning tool. The information gathered during the surveys help shape decisions by policymakers, developers, urban planners, community organizations, and property owners. Survey findings also provide vast opportunities for public engagement and education in areas relating to curriculum development, heritage tourism, economic development, and marketing historic neighborhoods and properties.

The surveys identify and evaluate properties according to standardized criteria for listing in the National Register of Historic Places, California Register of Historical Resources, and for local designation as Historic Cultural Monuments and Historic Preservation Overlay Zones. However, no actual designation results directly from survey activity. Designation by the City of Los Angeles and nominations to the California or National Registers are separate processes which include property owner notification and public hearings.

SurveyLA gathers various types of information on potential historic resources throughout Los Angeles including construction and ownership history, architectural styles, reasons for significance, relevant evaluation criteria, and photographs. This information will be organized in a searchable database and made readily accessible to the public via the DCP's SurveyLA and ZIMAS websites. Once the database is launched it will be possible, for example, to search for all buildings designed by a particular architect or all properties associated with an ethnic group in a specific geographic area of Los Angeles.

During the Initiation Phase of SurveyLA (2006-2009), the OHR worked with the DCP's Systems and GIS Division, consultant teams, and staff of the California Office of Historic Preservation to develop and test survey tools and methods. SurveyLA methodology meets all accepted federal and state survey guidelines and standards and provides streamlined, cutting-edge approaches to identifying and evaluating historic resources. For these reasons, SurveyLA has gained national attention and is changing the way...

II. SURVEYLA FIELD SURVEY PHASING PLAN

The field survey phase of SurveyLA, the Implementation Phase, began in July 2010. The OHR developed a three-year plan for this phase, which was approved by SurveyLA's Advisory Committee in January 2009 and by the Cultural Heritage Commission in February 2009. As indicated in the plan (see pages 4-5), the field surveys parallel the DCP's New Community Plan program, to the extent possible. The 35 Community Plans serve as the Land Use Element of the City's General Plan, and guide and focus new development and investment in all Los Angeles communities. Coordinating SurveyLA with the New Community Plan program helps promote the OHR's key goal to integrate historic preservation more fully into the City's planning processes. It also offers key

opportunities to coordinate the SurveyLA public outreach and participation programs with New Community Plan outreach activities. SurveyLA's outreach to Certified Neighborhood Councils, historical societies, business groups and local residents may often proceed in tandem with the Department of City Planning's outreach to these same organizations. SurveyLA and public discussions of potential historic resources may be incorporated, wherever feasible, into focus groups and public workshops held in each Community Plan Area.

Completing the field surveys within three years requires that SurveyLA cover approximately one-third of Los Angeles each year. The Phasing Plan is designed to schedule the survey work to ensure a balanced and manageable workload for each year. The plan also maintains a balance of neighborhoods expected to have a high concentration of historic resources with neighborhoods expected to yield fewer potential resources.

SURVEYLA PHASING PLAN By Community Plan Area

Approximate parcel counts in each Community Plan area in parentheses

Year 1 Total Parcels in Year 1: 282,006

Palms-Mar Vista-Del Rey (22,015)
Harbor Gateway (7,790)
Wilmington-Harbor City (13,628)
South Los Angeles (50,722)
Southeast Los Angeles (46,198)
Central City North (2,920)
West Los Angeles (16,107)
Sunland-Tujunga-Shadow Hills-Lakeview Terrace-East La Tuna Canyon (23,945)
West Adams-Baldwin Hills-Leimert Park (because other surveys are concentrated in South LA) (37,509)
San Pedro (because other surveys are concentrated in Harbor) (17,803)
Hollywood (due to significant development pressure and concentration of historic resources) (43,369)

Year 2 Total Parcels in Year 2: 237,510

Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass (26,906)
North Hollywood-Valley Village (24,560)
Mission Hills-Panorama City-North Hills (20,285)
Arleta-Pacoima (17,152)
Canoga Park-West Hills-Winnetka-Woodland Hills (45,402)
Encino-Tarzana (20,822)
Brentwood-Pacific Palisades (21,298)
Bel Air-Beverly Crest (18,271)
Westchester-Playa del Rey (14,270)
Silver Lake-Echo Park-Elysian Valley (19,192)
Westlake (9,352)

Year 3 Total Parcels in Year 3: 302,515

Venice (11,333)
Sun Valley-La Tuna Canyon (17,841)
Van Nuys-North Sherman Oaks (26,063)
Chatsworth-Porter Ranch (22,853)
Northridge (14,166)
Northeast Los Angeles (65,578)
Westwood (5,279)
Reseda-West Van Nuys (22,719)
Granada Hills-Knollwood (18,061)
Sylmar (14,291)
Wilshire (38,056)
All Industrial Properties in all Community Plan Areas (46,006)
LAX (separate Community Plan – with LAWA) (269)

III. SURVEYLA TOOLS

SurveyLA tools include a citywide Historic Context Statement and customized mobile Field Guide Survey System. These tools, and the methodology developed for their use, are described briefly below.

A. SurveyLA Historic Context Statement (HCS)

A historic context statement is a narrative, technical document that provides a framework for completing historic resources surveys. The SurveyLA HCS uses the Multiple Property Documentation approach developed by the National Park Service. This approach organizes the themes, trends and patterns of history shared by properties into historic contexts, identifies and describes historic resources, or property types that represent the contexts, and provides specific standards to guide the evaluation of significance.

The SurveyLA HCS consists of nine broad contexts which cover the period from about 1850 to 1980 and are specific to the City of Los Angeles:

- Spanish and Mexican Colonial Era Settlement
- Pre-Annexation Communities of Los Angeles
- Residential Development & Suburbanization
- Commercial Development
- Industrial Development
- Institutional Development: Government & Private
- Architecture and Engineering
- The Entertainment Industry
- Cultural Landscapes

Each of the nine contexts is comprised of a number of themes and sub-themes which not only address important movements in Los Angeles architecture or distinct property types, but also focus on important topics in ethnic, social, and cultural history. For example, Institutional Development includes government

buildings as well as resources relating to social, cultural, political, and religious history and movements. The Entertainment Industry includes resources associated with the motion picture, recording, television and radio industries in addition to those associated with entertainment culture such as night clubs and restaurants. Within Residential Development and Suburbanization, the theme-relating to Multi-Family Residential Development deals with resources ranging from elegant high-rise apartments of the 1920s and 30s to the apartment types of the post-World War II era. Los Angeles' diverse ethnic and cultural history is reflected throughout the HCS and addresses topics such as the Civil Rights Movement, Deed Restriction and Segregation, and LGBT history.

The HCS not only identifies contexts and themes within which a property may be significant, but also includes "Eligibility Standards," which are specific physical and associative characteristics a property must have to convey its significance. For example, a property that is an excellent example of a Craftsman house must embody the physical characteristics of the Craftsman style. A residence associated with an important writer in Los Angeles, may not be significant architecturally, but must be directly associated with the persons productive career and retain the physical characteristics present during that time.

Developing a comprehensive HCS for a city as large, diverse, and complex as Los Angeles is an extreme challenge. Throughout the initiation phase, consultant teams and the OHR have worked together to develop the format and structure for the HCS. Using this framework, a team of over 40 historic preservation professionals, volunteers, and student interns have completed numerous themes, but others are still in development. And while context statements help guide survey work, they are also informed by the results of field work. The OHR, therefore, anticipates that the HCS will remain a "work in progress" as the field surveys progress over the next few years.

B. Field Guide Survey System (FiGSS)

The HCS framework has been used as the basis for developing the FiGSS, a custom mobile application designed for use in the field on tablet PCs. The FiGSS uses Geographic Information System (GIS) mapping software and is preloaded with maps and aerial photographs of survey areas, context statement eligibility standards, and information relating to designated, previously surveyed and potentially significant historic resources.

The FiGSS is unique in that it "translates" the components of the HCS into data fields so that surveyors can readily place a property within the appropriate context and theme by selecting from drop down lists. For example, when surveying a neighborhood school, a field surveyor may select the context "Institutional Development" and then the theme "Education" and the sub-theme "Education and Ethnic-Cultural Associations." A set of eligibility standards associated with this context/theme selection are then presented as a list of check boxes which the surveyors will select from as appropriate to determine if the property retains the physical and associative qualities needed to be an important example of its type. The FiGSS also allows surveyors to "flag" properties that require additional research or follow up.

The overall concept behind the FiGSS is to provide surveyors with the information they need in the field to identify and evaluate resources according to defined contexts and themes and in an efficient and consistent manner. The FiGSS is garnering attention from local, state and federal agencies and organizations for its potential to change the way historic resources surveys are completed.

IV. SURVEYLA METHODOLOGY

A. Survey Teams

The DCP is contracting with pre-qualified consultant firms specializing in historic preservation to complete SurveyLA.

- Consultants are deployed in the field in teams of two and multiple teams may be working in survey areas at any one time.
- At least one surveyor from each team of two must meet or exceed professional qualification standards in the field of historic preservation. Consultants meeting these professional standards are responsible for making historic resource evaluations.
- Consultants may enlist students and other volunteers with training and interest in the field of historic preservation, or specialized knowledge of geographic areas and contexts, to assist them with the field survey work.
- All consultants and volunteers receive classroom and field training from the DCP in the use of the FiGSS and SurveyLA methodology.

B. Field Survey Methods Summary

- SurveyLA identifies and evaluates properties and districts that are significant within the contexts developed for the HCS.
- Properties are evaluated in the field using the HCS in accordance with National Register of Historic Places and California Register of Historical Resources criteria as well as for local eligibility as potential City Historic-Cultural Monuments and Historic Preservation Overlay Zones.
- Surveys focus on identifying resources dating from 1850 to 1980.
- Information relating to properties of historic, social and cultural significance is pre-loaded in the FiGSS based on research completed for development of the HCS, pre-field research provided by interns and volunteers, and community input from SurveyLA's public participation program. This information appears as a GIS data layer on the FiGSS application.

- All surveys are completed from the public right-of-way (from vehicles or on foot as needed).
- Digital photographs are be taken of all surveyed properties.
- Field Surveys do not include:
 - Individual resources and historic districts (including HPOZs) that are already designated (federal, state, local). For individual resources, there may be some verification (updating) of existing conditions in the field where appropriate
 - Community Redevelopment Area (CRA) surveys conducted within the last five years
 - Historic Preservation Overlay Zone (HPOZ) surveys completed within the last five years (submitted to OHR as complete but not designated)

V. CRITERIA FOR EVALUATION

Properties surveyed for SurveyLA are evaluated for eligibility for listing in the National Register of Historic Places, California Register of Historical Resources and for local designation as City Historic-Cultural Monuments (HCM) or Historic Preservation Overlay Zones (HPOZ), commonly known as historic districts. A discussion of the criteria for each of these programs is summarized below.

A. National Register of Historic Places (NR)

The National Register of Historic Places is the Nation's official list of cultural resources worthy of preservation. According to *National Register Bulletin 15*, in order to qualify for the register, a resource must meet the criteria for evaluation, which are:

CRITERIA FOR EVALUATION:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- a) That are associated with events that have made a significant contribution to the broad patterns of our history; or
- b) That are associated with the lives of persons significant in our past; or
- c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d) That have yielded, or may be likely to yield, information important in prehistory or history.

CRITERIA CONSIDERATIONS:

Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- a) A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- b) A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- c) A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his or her productive life; or
- d) A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- e) A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- f) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
- g) A property achieving significance within the past 50 years if it is of exceptional importance.

INTEGRITY:

Integrity is the ability of a property to convey its significance. To be listed in the National Register of Historic Places, a property must not only be shown to be significant under the National Register criteria, but it also must have integrity. The evaluation of integrity is sometimes a subjective judgment, but it must always be grounded in an understanding of a property's physical features and how they relate to its significance. Historic properties either retain integrity (this is, convey their significance) or they do not. Within the concept of integrity, the National Register criteria recognize seven aspects or qualities that, in various combinations, define integrity. To retain historic integrity a property will always possess several, and usually most, of the aspects. The retention of specific aspects of integrity is paramount for a property to convey its significance. Determining *which* of these aspects are most important to a particular property requires knowing why, where, and when the property is significant. The following

sections define the seven aspects and explain how they combine to produce integrity.

The Seven Aspects of Integrity:

- 1) **Location** is the place where the historic property was constructed or the place where the historic event occurred.
- 2) **Design** is the combination of elements that create the form, plan, space, structure, and style of a property.
- 3) **Setting** is the physical environment of a historic property.
- 4) **Materials** are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
- 5) **Workmanship** is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- 6) **Feeling** is a property's expression of the aesthetic or historic sense of a particular period of time.
- 7) **Association** is the direct link between an important historic event or person and a historic property.

B. California Register of Historical Resources (CR)

The California Register program encourages public recognition and protection of resources of architectural, historical, archeological and cultural significance, identifies historical resources for state and local planning purposes, determines eligibility for state historic preservation grant funding and affords certain protections under the California Environmental Quality Act. According to the California Office of Historic Preservation's *Technical Assistance Bulletin #3*, to become a historic resource, a site must be significant at the local, state, or national level under one or more of the following four criteria:

- 1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
- 2) It is associated with the lives of persons important to local, California, or national history; or
- 3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or

- 4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition to having significance, resources must have integrity for the period of significance. The period of significance is the date or span of time within which significant events transpired, or significant individuals made their important contributions. Integrity is the authenticity of a historical resource's physical identity as evidenced by the survival of characteristics or historic fabric that existed during the resource's period of significance. Alterations to a resource or changes in its use over time may have historical, cultural, or architectural significance. Simply, resources must retain enough of their historic character or appearance to be recognizable as historical resources, and to convey the reasons for their significance.

C. City of Los Angeles Historic Cultural Monument (HCM)

Sec. 22.171.8. Monument Designation Criteria

A proposed Monument may be designated by the City Council upon the recommendation of the Commission if it:

(A) Meets at least one of the following criteria:

- 1) Is identified with important events in the main currents of national, State or local history, or exemplifies significant contributions to the broad cultural, political, economic or social history of the nation, state, city, or community; or
- 2) Is associated with the lives of Historic Personages important to national, state, city, or local history; or
- 3) Embodies the distinctive characteristics of a style, type, period, or method of construction; or represents a notable work of a master designer, builder or architect whose genius influenced his or her age; or possesses high artistic values; or
- 4) Has yielded, or has the potential to yield, information important to the pre-history or history of the nation, state, city or community; or
- 5) Reflects or exemplifies the diversity of Los Angeles, including, but not limited to, the significant contributions of people of color, women, and workers; or stimulates and promotes a greater understanding of diversity, democracy, and freedom.

and

(B) Retains Integrity from its Period of Significance. Proposed Monuments do not need to retain all aspects of Integrity, but should retain a sufficient degree of those aspects of Integrity that relate to why it is significant. Flexibility shall be used in assessing Integrity, particularly when a proposed Monument is significant under designation criteria 1 or 2 above. A proposed Monument's deferred maintenance, dilapidated condition, or illegal alterations shall not, on their own, be construed to equate to a loss of Integrity.

D. Historic Preservation Overlay Zone (HPOZ)

A Historic Preservation Overlay Zone (HPOZ) is a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. According to Section 12.20.3 of the City of Los Angeles Municipal Code, the criteria for the designation of an HPOZ are:

- 1) Adds to the Historic architectural qualities or Historic associations for which a property is significant because it was present during the period of significance, and possesses Historic integrity reflecting its character at that time; or
- 2) Owing to its unique location or singular physical characteristics, represents an established feature of the neighborhood, community or city; or
- 3) Retaining the building, structure, Landscaping, or Natural Feature, would contribute to the preservation and protection of a Historic place or area of Historic interest in the City.

E. SurveyLA Evaluations

The California State Office of Historic Preservation has developed California Register Status Codes as a standardized system for classifying historical resources in the State's Historic Resources Inventory. These Status Codes are used statewide and are assigned to properties and districts by field surveyors as part of the survey process.

Field surveyors will apply the following CHR Status Codes when evaluating properties for SurveyLA. A property may have more than one Status Code:

3S – Appears eligible for National Register as an individual property through survey evaluation

3CS – Appears eligible for California Register as an individual property through survey evaluation

5S3 – Appears to be individually eligible for local listing or designation through survey evaluation

6L – Property identified through the SurveyLA process as ineligible for National Register, California Register or local designation; may warrant special consideration for local planning

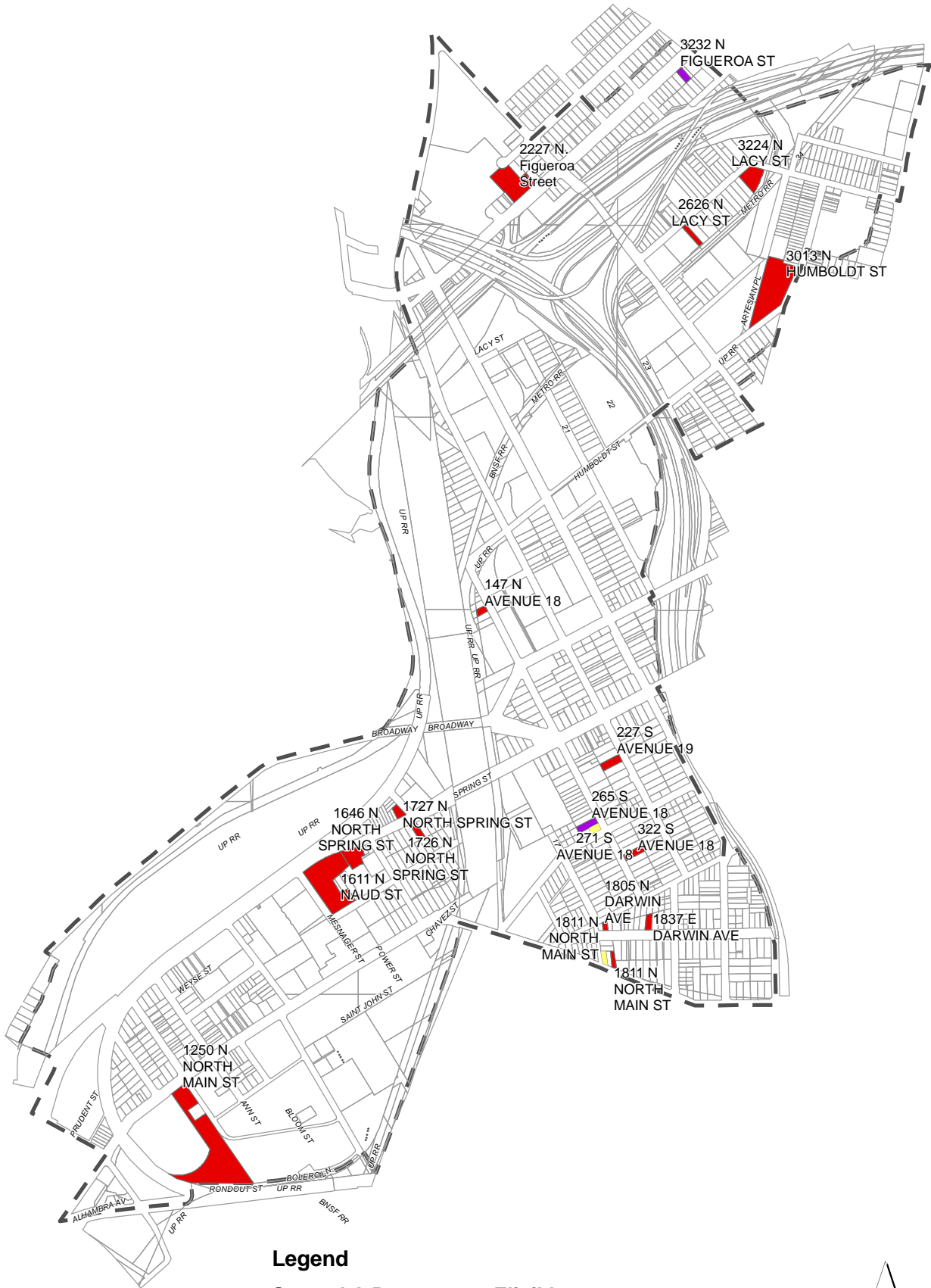
6LQ – Determined ineligible for local listing or designation as a historic district through a survey process; neighborhood or area may warrant special consideration for local planning.

6Z – Found ineligible for National Register, California Register or local designation through survey evaluation

7RQ – Individual property identified in a SurveyLA Survey – Not evaluated

7SQ – Individual property assessed for significance in accordance with the SurveyLA Multiple Property Documentation approach, but does not meet eligibility standards.

CASP Survey Area



Legend

SurveyLA Resources - Eligible

- National Register, California Register, HCM (3S,3CS,5S3)
- California Register, HCM (3CS,5S3)
- HCM (5S3)



1,000 Feet

APPENDIX C

DEPARTMENT OF PARKS AND RECREATION (DPR 523) FORMS

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 3S

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

Page 1 of 3 *Resource Name or #: (Assigned by recorder) 147 Ave 18

P1. Other Identifier: City Wide Towing, Inc.

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 22

c. Address: 147 Ave 18 City: Los Angeles Zip: 90031

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5447019002

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: Utilitarian
Siding/Sheathing: metal, all visible sides
Fenestration: metal, hopper, arranged in pairs
Primary Entrance: front, Roll-up door

Plan: rectangular
No. Stories: 1
Property Type: industrial, Quonset Hut
Related: Parking lot
Retains integrity: yes, setting, location, materials, workmanship, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP08

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/09/11

*P6. Date Constructed/Age and

Sources: Historic

Prehistoric Both

1946

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
Chattel Architecture, Planning and
Preservation
13417 Ventura Boulevard
Sherman Oaks, CA 91423

*P9. Date Recorded: 05/25/2011

*P10. Survey Type: (Describe)

Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record

Archeological Record District Record Linear Feature Record Milling Station Record

Rock Art Record Artifact Record Photograph Record Other (List): _____

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # _____

HRI # _____

Page 2 of 3

*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 147 Ave 18

B1. Historic Name: 147 N Ave 18

B2. Common Name: City Wide Towing, Inc.

B3. Original Use: Industrial B4. Present Use: Towing

*B5. Architectural Style: Utilitarian

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1946

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

Parking lot

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Industrial Engineering/Design 1887-1940

Period of Significance: 1946 Property Type: Industrial Applicable Criteria: C/3/3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This property appears eligible for the National and California Registers and for designation as an HCM under Criterion C/3/3 as an excellent example of a Quonset Hut, an increasingly rare property type developed to provide mass temporary workspace and housing in the World War II era. The 1920-1951 Sanborn map identifies its early use as a "sheet metal shop." The Quonset hut is a variant of the c. 1916, British-designed Nissen hut. It was named for the Naval Air Station at Quonset Point, Rhode Island, where it was first designed for large-scale production in the United States in 1941. Built to serve as temporary, flexible military facilities for World War II, the Quonset hut bears a distinctive form: a simple half-cylinder typically constructed of a wood or steel rib-framing system with corrugated metal sheathing. It was ideal for wartime because it was both inexpensive and efficient to build, and could be easily moved to accommodate a variety of uses.

Following the end of...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP08

*B12. References:

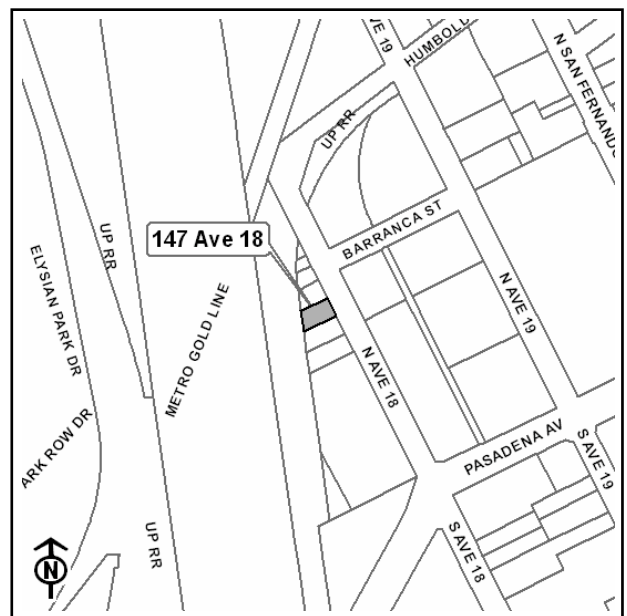
Sanborn Maps

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 05/25/2011

(This space reserved for official comments.)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____

HRI # _____

Trinomial _____

Page 3 of 3

Resource Name or #:(Assigned by recorder)

147 Ave 18

*Recorded By: LSA Associates, Inc.

*Date: 05/25/2011

Continuation

Update

B10. Statement of Significance (continued): World War II in 1945, there was a nationwide housing shortage as veterans returned from war in large numbers; Quonset huts served as one answer to accommodate the population. Given their flexible interior layout and the low cost to move and erect, it was not uncommon for individual Quonset huts to be purchased and appropriated for a variety of uses, including industrial and commercial facilities. Not all Quonset huts were designed for military activities and then reused; some companies advertised their effectiveness as an efficient, flexible space for a wide variety of home, warehouse, commercial, and other uses, and sold them for those purposes. An important symbol of both the wartime and postwar eras, the Quonset hut is a rapidly disappearing property type. Despite its simple, utilitarian design, research and existing cultural resources evaluations support the notion that Quonset huts are of nationwide importance and extant examples may be eligible for listing in the National Register under Criterion C for their architecture.

State of California - The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
 HRI # _____
 Trinomial _____
 NRHP Status Code 3S

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

Page 1 of 2 *Resource Name or #: (Assigned by recorder) 265-267 Ave 18

P1. Other Identifier: _____

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 23

c. Address: 267 Ave 18 City: _____ Zip: 90031

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5447026014

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: Wood-frame Vernacular Victorian, elements of
Siding/Sheathing: wood: clapboard, all visible sides
Roof: hipped, medium, narrow eaves, fascia and brackets, closed eaves
Fenestration: wood, double-hung, front, bars cover windows
Primary Entrance: single door, transom lights, Beneath a pent roof supported by turned spindles, security door added
Other notable features: symmetrical massing

Plan: rectangular
No. Stories: 1
Porches: Front Stoop
Additions: Compatible, rear
Retains integrity: yes, setting, location, materials, workmanship, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP02

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

06/01/11

*P6. Date Constructed/Age and

Sources: Historic

Prehistoric Both

1885

*P7. Owner and Address:

*P8. Recorded by:

Kathryn McGee
 Chattel Architecture, Planning and
 Preservation
 13417 Ventura Boulevard
 Sherman Oaks, CA 91423

*P9. Date Recorded: 06/02/2011

*P10. Survey Type: (Describe)

Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record

Archeological Record District Record Linear Feature Record Milling Station Record

Rock Art Record Artifact Record Photograph Record Other (List): _____

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 of 2

*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 265-267 Ave 18

B1. Historic Name: _____

B2. Common Name: _____

B3. Original Use: Single Family Residence B4. Present Use: Single Family Residence

*B5. Architectural Style: Wood-frame Vernacular, Folk Victorian

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1885

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

None

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Early Residential Development 1880-1930

Period of Significance: 1885 Property Type: Single Family Residence Applicable Criteria: A/1/1

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This property appears eligible for the National and California Registers and for designation as an HCM under Criterion A/1/1. This hipped-roof Victorian-era residence appears to be one of the oldest residences in the Albion Street neighborhood, and is a rare intact representative of the early residential development that occurred just outside the original Pueblo of Los Angeles.

B11. Additional Resource Attributes: (List attributes and codes) HP02

*B12. References:

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 06/02/2011

(This space reserved for official comments.)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 3CS

Other Listings 5S3

Review Code _____ Reviewer _____ Date _____

Page 1 of 3

*Resource Name or #: (Assigned by recorder) 271 Ave 18

P1. Other Identifier: _____

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 23

c. Address: 271 Ave 18 City: Los Angeles Zip: 90031

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5447026025

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: Folk Victorian
Construction: wood frame
Siding/Sheathing: wood: clapboard, all visible sides
Roof: front gable, medium, decorative vergeboards/fascia, boxed eaves and brackets
Fenestration: vinyl, vertical sliding, front, side, arranged in pairs, bay window in front gable, alteration: yes
Primary Entrance: front, single door
Other notable features: spindles and spandrels

Plan: irregular
No. Stories: 1
Porches: Partial, front, side
Retains integrity: yes, setting, location, materials, workmanship, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP02

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/09/11

*P6. Date Constructed/Age and

Sources: Historic

Prehistoric Both

1885

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
Chattel Architecture, Planning and
Preservation
13417 Ventura Boulevard
Sherman Oaks, CA 91423

*P9. Date Recorded: 05/25/2011

*P10. Survey Type: (Describe)

Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record

Archeological Record District Record Linear Feature Record Milling Station Record

Rock Art Record Artifact Record Photograph Record Other (List): _____

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # _____

HRI # _____

Page 2 of 3

*NRHP Status Code 3CS

*Resource Name or #: (Assigned by recorder) 271 Ave 18

B1. Historic Name: _____

B2. Common Name: _____

B3. Original Use: Residential B4. Present Use: Residential

*B5. Architectural Style: Folk Victorian

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1885

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

None

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Folk Victorian Architecture 1885-1905

Period of Significance: 1885 Property Type: Residential Applicable Criteria: 3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This property appears eligible for the California Register and for designation as an HCM under Criterion C/3/3 as an excellent example of Folk Victorian architecture. Due to the replacement of the original wood windows with vinyl (albeit in their original openings) the residence does not retain sufficient integrity for the National Register. It does, however, still retain sufficient integrity to appear eligible for the California Register and for designation as an LAHCM. Folk Victorian styled residences were popular in the late 19th and early 20th centuries as an affordable way to decorate otherwise modest homes with the elaborate decorative styles of the Victorian Era. Generally chosen from pattern books and mass-produced, the ornamentation on Folk Victorian homes demonstrate how industrialization of the building industry boadened and popularized what would otherwise have been prohibitively expensive design for most people. Hundreds of these residences were built during the...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP02

*B12. References:

Sanborns

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 05/25/2011

(This space reserved for official comments.)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
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Trinomial _____

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Resource Name or #:(Assigned by recorder) 271 Ave 18

*Recorded By: LSA Associates, Inc. *Date: 05/25/2011 Continuation Update

B10. Statement of Significance (continued): residential booms in the 1880s and 1900s, but intact examples have since become increasingly rare.

State of California - The Resources Agency
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Trinomial _____
NRHP Status Code 3S

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

Page 1 of 3 *Resource Name or #: (Assigned by recorder) 322 S Ave 18

P1. Other Identifier: Albion Street School

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 23

c. Address: 322 S Ave 18 City: Los Angeles Zip: 90031

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5447030900

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: Moderne
Siding/Sheathing: stucco: smooth, all visible sides
Roof: hipped, low, parapet, narrow eaves
Fenestration: metal, vertical sliding, front, side, rear, arranged in pairs
Primary Entrance: front, double doors

Plan: rectangular
No. Stories: 2, 7 buildings
Property Type: institutional, School
Related: Ancillary buildings; paved playground
Retains integrity: yes, setting, location, materials, workmanship, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP15

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/09/11

*P6. Date Constructed/Age and

Sources: Historic

Prehistoric Both

1937

Sanborn

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
Chattel Architecture, Planning and
Preservation
13417 Ventura Boulevard
Sherman Oaks, CA 91423

*P9. Date Recorded: 05/25/2011

*P10. Survey Type: (Describe)

Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archeological Record District Record Linear Feature Record Milling Station Record
 Rock Art Record Artifact Record Photograph Record Other (List): _____

State of California - The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # _____
 HRI # _____

Page 2 of 3

*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 322 S Ave 18

B1. Historic Name: Hayes Street School; Nineteenth Avenue School

B2. Common Name: Albion Street School

B3. Original Use: School B4. Present Use: School

*B5. Architectural Style: Moderne

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1937

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

Ancillary buildings; paved playground

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Post-1933 Earthquake LAUSD Schools

Period of Significance: 1937 Property Type: School Applicable Criteria: A/1/1

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This property appears eligible for the National and California Registers and for designation as an HCM under Criterion A/1/1 because it significantly represents the public response to early earthquake awareness within the LAUSD school system. Albion Street School is an excellent example of an elementary school built after the 1933 Long Beach Earthquake, a period in which the widespread quake-caused destruction of unreinforced schools led to the development of stricter standards for school construction. This pressure to rebuild schools coupled with the infusion of federal funding from the Works Progress Administration (WPA) produced an extensive collection of Art Deco, Streamline Moderne, and PWA Moderne schools in the Los Angeles Basin. Albion Street School has retained several key buildings from the 1937 Moderne-styled campus.

Located in the Chavez Tract and known as Hayes Street School until 1903 and then Nineteenth Avenue School (to accompany a change in street names) until...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP15

*B12. References:

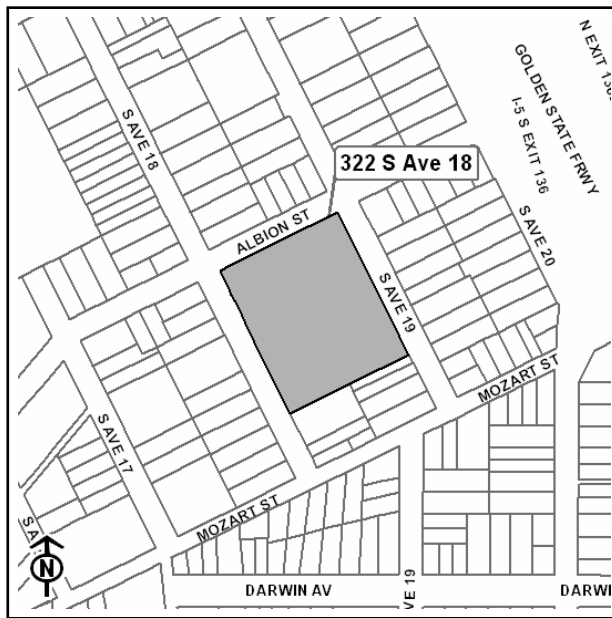
Sanborn Maps, LA Times Database

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 05/25/2011

(This space reserved for official comments.)



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Trinomial _____

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Resource Name or #:(Assigned by recorder) 322 S Ave 18

*Recorded By: LSA Associates, Inc. *Date: 05/25/2011 Continuation Update

B10. Statement of Significance (continued): 1917, the Albion Street School was one of the earliest school sites in the City of Los Angeles. Its first structure was a wood building constructed ca. 1891 (demolished 1968). A 1968 LA Times article identifies this structure as the oldest L.A. school building and a "gleaming wood-frame school building with...hand-carved gingerbread trimming, big double doors and broad front porch." It had five rooms and was torn down for replacement with a "modern two-story stucco building--with air conditioning." While the building was in 1968 found to be structurally sound, it had pipe and wiring issues and had, "gone about as far as it can go" ("Oldest L.A. School Building Scheduled to Be Demolished," LA Times, 26 May 1968, EB). The site served as the center of its neighborhood and, according to the United States Census, originally enrolled children of Italian and Mexican immigrants who worked in nearby railyards. The existing buildings were constructed in 1937. According to a brief, undated school history, "The Albion community is identified with the early history of Los Angeles. It is within the "five minute call zone" of the Southern Pacific shops, where many of the parents are employed. It is a compact community... Most of the children are American born, but their racial backgrounds are Italian and Mexican. The school is a neighborhood center..." ("History fo the School," Albion Street School, California Index, Los Angeles Public Library, undated). In 1938, the school was part of a program called American Friends Service Committee wherein college and graduate-level students would engage in a "volunteer work camp" at the Albion Street School to learn more about the community and "study the perplexities of American life" ("Seeking Understanding of Industrial Changes," LA Times, 25 Jul 1938, 10).

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 HRI # _____
 Trinomial _____
 NRHP Status Code 3S

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

Page 1 of 3

*Resource Name or #: (Assigned by recorder) 227-229-231 Ave 19

P1. Other Identifier: _____

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 23

c. Address: 227 Ave 19 City: Los Angeles Zip: 90031

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5447025018

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: Folk Victorian, modest
 Construction: wood frame
 Siding/Sheathing: wood: clapboard, all visible sides
 Roof: gable-on-hip, medium
 Fenestration: wood, double-hung, front, side
 Primary Entrance: front, single door

Plan: rectangular
 No. Stories: 1, 3 buildings
 Porches: Partial, front
 Retains integrity: yes, setting, location, materials, workmanship, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP03

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/09/11

*P6. Date Constructed/Age and Sources: Historic

Prehistoric Both

1907

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
 Chattel Architecture, Planning and Preservation
 13417 Ventura Boulevard
 Sherman Oaks, CA 91423

*P9. Date Recorded: 05/25/2011

*P10. Survey Type: (Describe)
 Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archeological Record District Record Linear Feature Record Milling Station Record
 Rock Art Record Artifact Record Photograph Record Other (List): _____

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
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Primary # _____
HRI # _____

Page 2 of 3

*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 227-229-231 Ave 19

B1. Historic Name: _____

B2. Common Name: _____

B3. Original Use: Multi-family residential B4. Present Use: Multi-family residential

*B5. Architectural Style: Folk Victorian

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1907

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

None

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Folk Victorian Architecture 1885-1905

Period of Significance: 1907 Property Type: Residential Applicable Criteria: C/3/3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The grouping of three early residences located on one parcel appears eligible for the National and California Registers and for designation as an HCM under Criterion C/3/3 as a unique example of Folk Victorian as applied to a multifamily property. Folk Victorian styled residences were popular in the late 19th and early 20th centuries as an affordable way to decorate otherwise modest homes with the elaborate decorative styles of the Victorian Era. Generally chosen from pattern books and mass-produced, the ornamentation on Folk Victorian homes demonstrate how industrialization of the building industry boadened and popularized what would otherwise have been prohibitively expensive design for most people. Hundreds of these residences were built during the residential booms in the 1880s and 1900s, but intact examples have since become increasingly rare. While these residences represent a modest example of the style, together they represent an application of the style to a multifamily...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP03

*B12. References:

Sanborn Maps

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 05/25/2011

(This space reserved for official comments.)



Primary # _____

HRI # _____

Trinomial _____

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Resource Name or #:(Assigned by recorder) 227-229-231 Ave 19

*Recorded By: LSA Associates, Inc. *Date: 05/25/2011 Continuation Update

B10. Statement of Significance (continued): property, which is distinctive and uncommon in Los Angeles.

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NRHP Status Code 2S2

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

Page 1 of 2

*Resource Name or #: (Assigned by recorder) 1300 N Cardinal St

P1. Other Identifier: William Mead Homes

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 22

c. Address: 1300 N Cardinal St City: Los Angeles Zip: 90012

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5409012902

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: Moderne, elements of **Architectural Style:** International
Construction: brick
Siding/Sheathing: brick, all visible sides
Siding/Sheathing: poured concrete: painted, all visible sides
Roof: flat, multiple rooflines, narrow eaves
Fenestration: metal, casement, front, side, rear
Fenestration: metal, fixed, front, side, rear
Primary Entrance: front, side, rear, single door

Plan: irregular
No. Stories: 3, 27 buildings
Property Type: residential
Related: Poured concrete walkways, lawns, balconies with metal banisters, outdoor fixed laundry racks
Retains integrity: yes, setting, location, materials, workmanship, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP03

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/09/11

*P6. Date Constructed/Age and

Sources: Historic

Prehistoric Both

1942

Assessor

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
Chattel Architecture, Planning and
Preservation
13417 Ventura Boulevard
Sherman Oaks, CA 91423

*P9. Date Recorded: 04/06/2011

*P10. Survey Type: (Describe)

Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archeological Record District Record Linear Feature Record Milling Station Record
 Rock Art Record Artifact Record Photograph Record Other (List): _____

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
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HRI # _____
Trinomial _____

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*Resource Name or #: (Assigned by recorder) 1300 N Cardinal St

*Recorded By: Kathryn McGee *Date: 04/06/2011 _____ Continuation X Update

Update Status: Retains Integrity

The William Mead Homes is significant as one fo the first government housing projects in Los Angeles and is also significant for its Pre-War Modern architecture. Originally known as Ann Street project, William Mead Homes was constructed c. 1942 and partially occupied by 1943. It is located in the industrial area east of Downtown, situated on 15-acre tract located north of the Union Pacific Rail Line and bounded by E. Elmyra St and Bolero Ln to the south and west and Leroy St and N. Main St to the east and north. It includes multiple standardized, rectangular and L-shaped apartment buildings configured around communal and outdoor spaces, a leasing office and the Ann Street Elementary School. It was designed to accommodate 449 families and its estimated cost of construction in 1940 was \$2,100,000 ("One Housing Project Wins," LA Times, 13 Dec 1940). In 1941, President Roosevelt approved a \$1,862,100 U.S. Housing Authority loan to the City of Los Angeles for construction of the project, covering about 90 percent of the estimated cost of construction. The land for the project was purchased by the Los Angeles Housing Authority from Consolidated Steel Corporation for \$20,000 an acre. Over 100 dwellings were demolished to make way for the project ("President Approves Loan for Slum Clearance Here," LA Times, 13 March 1941). The early nickname for the area, "Dog Town," comes from the site's historical proximity to a dog pound.

State of California - The Resources Agency
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PRIMARY RECORD

Primary # _____
 HRI # _____
 Trinomial _____
 NRHP Status Code 3S

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

Page 1 of 3 *Resource Name or #: (Assigned by recorder) 1805 Darwin Ave

P1. Other Identifier: _____

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 23

c. Address: 1805 Darwin Ave City: Los Angeles Zip: 90031

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5410019002

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: Folk Victorian
Construction: wood frame
Siding/Sheathing: wood: clapboard, all visible sides
Siding/Sheathing: brick: patterned veneer, S
Roof: front gable, medium, multiple rooflines, narrow eaves, decorative vergeboards/fascia
Fenestration: wood, vertical sliding, front, side, alteration: yes
Primary Entrance: front, single door, transom lights, beneath turned spindle porch
Other notable features: spandrels, boxed eaves,

Plan: rectangular
No. Stories: 1
Porches: Partial, front
Retains integrity: yes, setting, location, workmanship, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP02

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/09/11

*P6. Date Constructed/Age and Sources: Historic

Prehistoric Both

1910

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
 Chattel Architecture, Planning and Preservation
 13417 Ventura Boulevard
 Sherman Oaks, CA 91423

*P9. Date Recorded: 05/25/2011

*P10. Survey Type: (Describe)
 Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archeological Record District Record Linear Feature Record Milling Station Record
 Rock Art Record Artifact Record Photograph Record Other (List): _____

State of California - The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
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Primary # _____
 HRI # _____

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*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 1805 Darwin Ave

B1. Historic Name: _____

B2. Common Name: _____

B3. Original Use: Residence B4. Present Use: Residence

*B5. Architectural Style: Folk Victorian

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1910

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

None

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Folk Victorian Architecture 1885-1905

Period of Significance: 1910 Property Type: Single Family Residence Applicable Criteria: C/3/3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This property appears eligible for the National and California Registers and for designation as an HCM under Criterion C/3/3 as an excellent example of Folk Victorian architecture. Folk Victorian styled residences were popular in the late 19th and early 20th centuries as an affordable way to decorate otherwise modest homes with the elaborate decorative styles of the Victorian Era. Generally chosen from pattern books and mass-produced, the ornamentation on Folk Victorian homes demonstrate how industrialization of the building industry boadened and popularized what would otherwise have been prohibitively expensive design for most people. Hundreds of these residences were built during the residential booms in the 1880s and 1900s, but intact examples have since become increasingly rare.

This residence has many character-defining features of the style, including an asymmetrical massing with a prominent front gable containing an angled bay, an entry porch with turned spindles and...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP02

*B12. References:

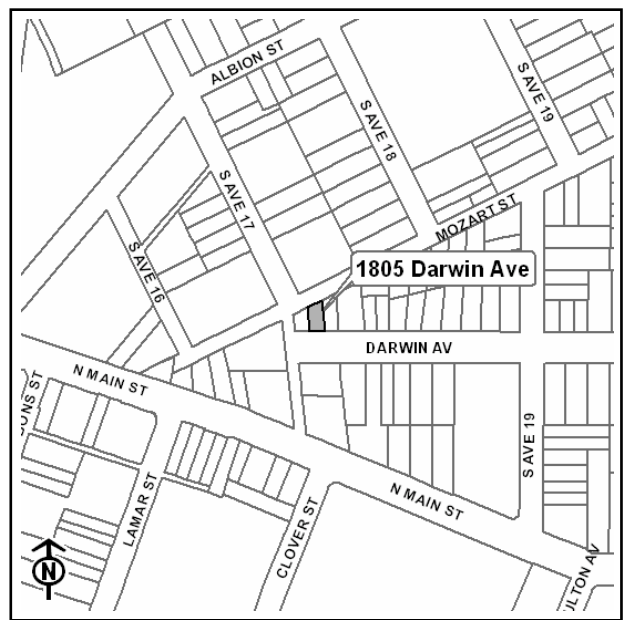
Sanborn Maps

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 05/25/2011

(This space reserved for official comments.)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
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Resource Name or #:(Assigned by recorder) 1805 Darwin Ave

*Recorded By: LSA Associates, Inc. *Date: 05/25/2011 Continuation Update

B10. Statement of Significance (continued): spandrels, and Colonial Revival ornamentation such as boxed eaves, cornice, and brackets. While its original windows may have been double-hung, the existing wood single-hung windows are compatible with the residence and this potential alteration does not impair the overall integrity of materials or workmanship of the residence.

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HRI # _____
Trinomial _____
NRHP Status Code 3S

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

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*Resource Name or #: (Assigned by recorder) 1837 Darwin Ave

P1. Other Identifier: _____

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 23

c. Address: 1837 Darwin Ave City: Los Angeles Zip: 90031

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5410019042

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: Folk Victorian
Construction: wood frame
Siding/Sheathing: wood: clapboard, all visible sides
Siding/Sheathing: wood: shingles, S
Roof: hipped, medium, decorative vergeboards/fascia, attic story, with decorated front gable, boxed eaves
Fenestration: wood, vertical sliding, arranged in pairs, alteration: yes
Primary Entrance: front, single door, transom lights
Other notable features: turned spindles and spandrels on porch, brackets

Plan: rectangular
No. Stories: 1
Porches: Partial, front
Retains integrity: yes, setting, location, materials, workmanship, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP02

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/09/11

*P6. Date Constructed/Age and

Sources: Historic

Prehistoric Both

1895

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
Chattel Architecture, Planning and
Preservation
13417 Ventura Boulevard
Sherman Oaks, CA 91423

*P9. Date Recorded: 05/25/2011

*P10. Survey Type: (Describe)

Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record

Archeological Record District Record Linear Feature Record Milling Station Record

Rock Art Record Artifact Record Photograph Record Other (List): _____

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 of 3

*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 1837 Darwin Ave

B1. Historic Name: _____

B2. Common Name: _____

B3. Original Use: Residence B4. Present Use: Residence

*B5. Architectural Style: Folk Victorian

*B6. Construction History: (Construction date, alterations, and data of alterations)

Constructed Circa 1900

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

None

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Folk Victorian Architecture 1885-1905

Period of Significance: 1885-1905 Property Type: Single Family Residence Applicable Criteria: C/3/3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This property appears eligible for the National and California Registers and for designation as an HCM under Criterion C/3/3 as an excellent example of Folk Victorian architecture. Folk Victorian styled residences were popular in the late 19th and early 20th centuries as an affordable way to decorate otherwise modest homes with the elaborate decorative styles of the Victorian Era. Generally chosen from pattern books and mass-produced, the ornamentation on Folk Victorian homes demonstrate how industrialization of the building industry boadened and popularized what would otherwise have been prohibitively expensive design for most people. Hundreds of these residences were built during the residential booms in the 1880s and 1900s, but intact examples have since become increasingly rare. This residence has many character-defining features of the style, including an asymmetrical massing with a prominent front gable containing an angled bay, a partial-width porch with turned spindles...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP02

*B12. References:

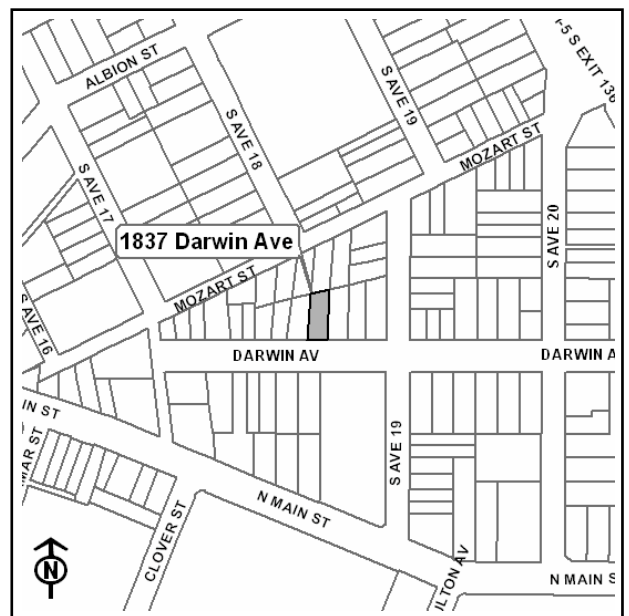
Sanborn Maps

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 05/25/2011

(This space reserved for official comments.)



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DEPARTMENT OF PARKS AND RECREATION
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Resource Name or #:(Assigned by recorder) 1837 Darwin Ave

*Recorded By: LSA Associates, Inc. *Date: 05/25/2011 Continuation Update

B10. Statement of Significance (continued): and spandrels, and Colonial Revival ornamentation such as boxed eaves, cornice, and brackets.

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Trinomial _____
NRHP Status Code 3S

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

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*Resource Name or #: (Assigned by recorder) 2227 N Figueroa St

P1. Other Identifier: Prebles Restaurant, IHOP

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 15

c. Address: 2227 N Figueroa St City: Los Angeles Zip: 90065

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5446013058

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: Googie

Siding/Sheathing: stucco: textured, all visible sides

Siding/Sheathing: brick: patterned veneer, all visible sides

Siding/Sheathing: wood: shiplap, all visible sides

Roof: side gable, wide eaves, other, rock roofing, wide fascia

Fenestration: wood, fixed, continuous aluminum framed glass

Primary Entrance: storefront, single door

Plan: irregular

No. Stories: 1

Property Type: commercial, Diner

Related: Parking lot

Retains integrity: yes, setting, location, materials, workmanship, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP06

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/10/11

*P6. Date Constructed/Age and Sources: Historic

Prehistoric Both

1968

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
Chattel Architecture, Planning and Preservation
13417 Ventura Boulevard
Sherman Oaks, CA 91423

*P9. Date Recorded: 05/25/2011

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archeological Record District Record Linear Feature Record Milling Station Record
 Rock Art Record Artifact Record Photograph Record Other (List): _____

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HRI # _____

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*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 2227 N Figueroa St

B1. Historic Name: Prebles Restaurant

B2. Common Name: IHOP

B3. Original Use: Restaurant B4. Present Use: Restaurant

*B5. Architectural Style: Googie

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1968

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

Parking lot

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Googie 1935-1969

Period of Significance: 1968 Property Type: Restaurant Applicable Criteria: C/3/3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This property appears eligible for the National and California Registers and for designation as an HCM under Criterion C/3/3 as an excellent example of the Googie style of architecture, a whimsical and visually arresting style applied to retail buildings in the post-World War II era. It was designed by Armet and Davis, an architecture firm responsible for design of many prominent Googie restaurants throughout Southern California. Googie buildings were designed to attract passing motorists and create a memorable brand for the store, and it was common for casual restaurants and coffee shops in the 1950s and 1960s.

The property was constructed in 1968 as part of the chain Prebles Restaurants. Based in Pasadena and owned by Richard S. Preble, the chain originally included locations in South Pasadena and Alhambra, opened in 1965, comprising 85 seats and 4,100 square feet, both of which had designs identical to the Figueroa location. ('Prebles Chain Begins Expansion Program,' LA Times,...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP06

*B12. References:

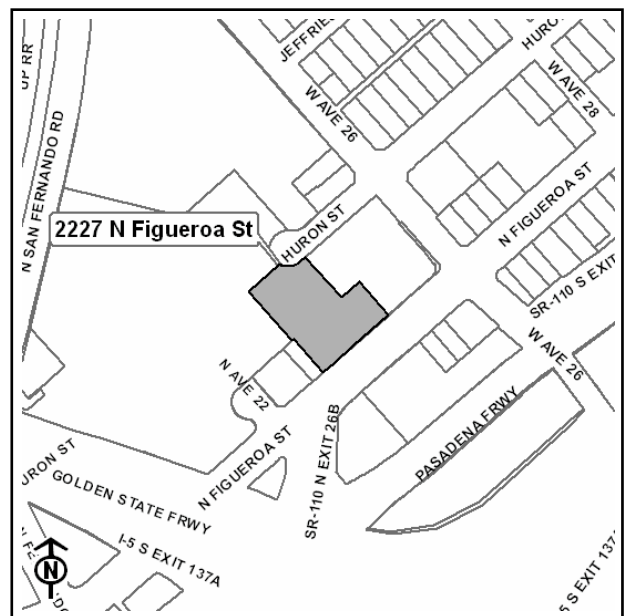
LA Times Database

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 05/25/2011

(This space reserved for official comments.)



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Resource Name or #:(Assigned by recorder) 2227 N Figueroa St

*Recorded By: LSA Associates, Inc. *Date: 05/25/2011 Continuation Update

B10. Statement of Significance (continued): 24 May 1968). A major franchising and expansion program in the 1960s included new Prebles drive-through restaurants and coffee shops in Pasadena, La Crescenta, Anaheim, Cardiff-By-The-Sea, and San Diego ('Display Ad 24,' LA Times, 18 March 1966)

The 2227 N Figueroa location was designed by architecture firm Arnet & Davis. Joseph Illig & Sons, Inc. served as developer and contractor. Formed by Louis Arnet and Eldon Davis in 1947, the Arnet & Davis firm was known primarily for designs of coffee shops in Southern California. Notable works include the Holiday Bowl on Crenshaw Boulevard, Johnie's Coffee Shop at Wilshire Boulevard and Fairfax Avenue, Pann's Restaurant in Inglewood, and the original Norm's in West Hollywood. Their restaurant designs were defined by slanted roofs, terrazzo floors, driftstone walls, and exposed stainless steel kitchens, which were designed to allow for quick delivery of food while keeping patrons entertained. Restaurants like the Figueroa location frequently featured cantilevered stools, with bases that angled out from counters, which could be swept under while seats were occupied by customers. To evoke warmth, yellow, red, and orange were frequently used colors on their buildings ('You Can Still Get a Cup of Nostalgia at L.A.'s...: Coffee Shops Modern" by Amy Wallace, LA Times, 1 April 1993).

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Primary # _____
 HRI # _____
 Trinomial _____
 NRHP Status Code 5S3 _____

Other Listings _____
 Review Code _____ Reviewer _____ Date _____

Page 1 of 3 *Resource Name or #: (Assigned by recorder) 3232 N Figueroa St

P1. Other Identifier: Arroyo Theater

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 14

c. Address: 3232 N Figueroa St City: Los Angeles Zip: 90065

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5446018010

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

<p>Architectural Style: Spanish Colonial Revival, elements of Siding/Sheathing: stucco: modern, NW, altered: yes Siding/Sheathing: brick, all visible sides Roof: flat, parapet Fenestration: metal, casement, front, alteration: yes Primary Entrance: front, double doors, distinctive entry, alteration: yes Other notable features: Churrigueresque decoration at center of facade</p>	<p>Plan: rectangular No. Stories: 2 Property Type: commercial, Neighborhood theater Retains integrity: no, setting, location, association, feeling</p>
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*P3b. Resource Attributes: (List attributes and codes) HP10

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)
03/10/11
 *P6. Date Constructed/Age and Sources: Historic
 Prehistoric Both
1928

*P7. Owner and Address:
 not known

*P8. Recorded by:
 Kathryn McGee
 Chattel Architecture, Planning and Preservation
 13417 Ventura Boulevard
 Sherman Oaks, CA 91423

*P9. Date Recorded: 05/25/2011

*P10. Survey Type: (Describe)
 Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archeological Record District Record Linear Feature Record Milling Station Record
 Rock Art Record Artifact Record Photograph Record Other (List): _____

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*NRHP Status Code SS3

*Resource Name or #: (Assigned by recorder) 3232 N Figueroa St

B1. Historic Name: Arroyo Theater

B2. Common Name: _____

B3. Original Use: Theater B4. Present Use: Commercial

*B5. Architectural Style: Spanish Colonial Revival

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1928

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

None

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Pre WWII Neighborhood Theaters 1915-1942

Period of Significance: 1928 Property Type: Theater Applicable Criteria: HCM 1

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The former Arroyo Theater has lost much of its original integrity, but in the context of the neighborhood is a rare property type, a pre-World War II neighborhood theater. It has retained its attractive Churrigueresque frieze and essential form. For this reason, it appears eligible for HCM status in spite of appearing ineligible for National and California Registers due to a lack of integrity.

Affiliated with Fox West Coast Theaters, this building was called the Arroyo Theater. In December 1932, the theater collaborated with the Marcal, Marquis, Larchmont, and Western theaters to host a holiday event during which movie screenings were hosted for children (Display ad, LA Times, 22 June 1936, A16; "Youngsters Hail Times Film Party," LA Times, 30 Dec 1932, A2). An LA Times 1936 movie listing includes the theater located at 3232 N Figueroa. There is an advertisement in the LA Times for the Arroyo Theater as late as 1955. The theater was used until at least 1956, according to...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP10

*B12. References:

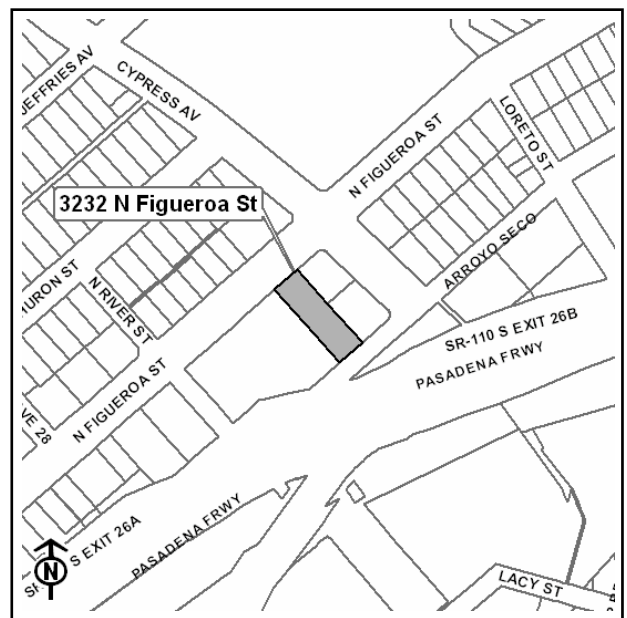
Sanborn Maps, LA Time Database

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 05/25/2011

(This space reserved for official comments.)



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Resource Name or #:(Assigned by recorder) 3232 N Figueroa St

*Recorded By: LSA Associates, Inc. *Date: 05/25/2011 Continuation Update

B10. Statement of Significance (continued): 1956 City Directory. In the 1960 directory, the address associated with the theater was listed as Halco Corp-Health Foods.

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Trinomial _____
NRHP Status Code 3S

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

Page 1 of 3 *Resource Name or #: (Assigned by recorder) 3011 Humboldt St

P1. Other Identifier: Price Pfister Brass Manufacturing Company

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 14

c. Address: 3011 Humboldt St City: Los Angeles Zip: 90031

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5205009003

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: Utilitarian
Construction: unknown
Siding/Sheathing: metal, all visible sides, Metal
Roof: front gable, medium, multiple rooflines
Fenestration: metal, hopper, front
Fenestration: metal, fixed, front
Primary Entrance: front, single door, distinctive entry

Plan: irregular
No. Stories: 2, 5 buildings
Property Type: industrial
Retains integrity: yes, setting, location, materials, workmanship, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP08

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/10/11

*P6. Date Constructed/Age and Sources: Historic

Prehistoric Both

1951

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
Chattel Architecture, Planning and Preservation
13417 Ventura Boulevard
Sherman Oaks, CA 91423

*P9. Date Recorded: 05/25/2011

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archeological Record District Record Linear Feature Record Milling Station Record
 Rock Art Record Artifact Record Photograph Record Other (List): _____

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*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 3011 Humboldt St

B1. Historic Name: Price Pfister Brass Manufacturing Company

B2. Common Name: Impact International Belle Arte

B3. Original Use: Industrial B4. Present Use: Industrial

*B5. Architectural Style: Utilitarian

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1951

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

None

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Building the City 1876-1980; Industrialist

Period of Significance: 1951-1965 Property Type: Industrial Applicable Criteria: A/1/1, B/2/2

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This property appears eligible for the National and California Registers and for designation as an HCM under Criterion A/1/1 and B/2/2 for its association with Isadore Familian and Price Pfister Brass Manufacturing Co, an important manufacturer of brass plumbing fixtures and faucets. Isadore Familian (1911-2002) was an important Los Angeles industrialist, philanthropist and Jewish Community leader. According to his LA Times obituary, Familian was born in Chicago to Russian immigrant parents and came to Los Angeles in 1913. He became partner in his family business in 1941, at which time the business purchased Price Pfister Brass Manufacturing Company. Under Mr. Familian's leadership, the Price Pfister plant expanded from 50 employees to 1,500 and became one of the largest manufacturers of brass bath and kitchen hardware in the world. In 1969, Price- Pfister became a subsidiary of Norris Industries and Mr. Familian continued as chairman of the board. Since the 1947 founding...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP08

*B12. References:

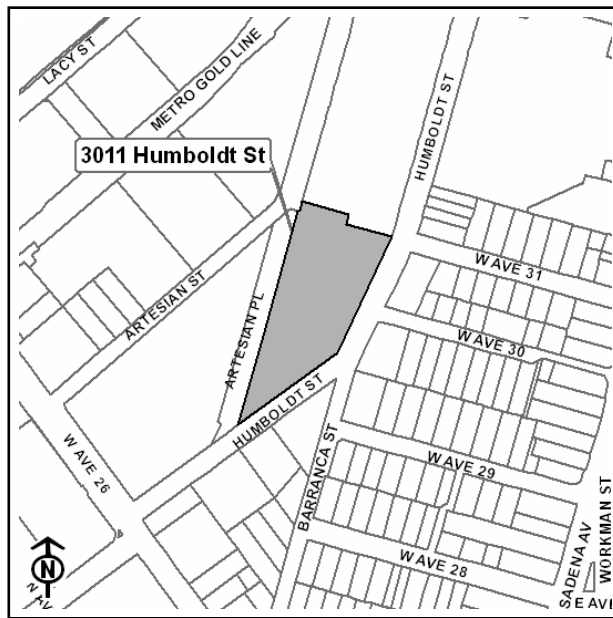
Sanborn Maps, Los Angeles Times Database

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 05/25/2011

(This space reserved for official comments.)



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DEPARTMENT OF PARKS AND RECREATION
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Resource Name or #:(Assigned by recorder) 3011 Humboldt St

*Recorded By: LSA Associates, Inc. *Date: 05/25/2011 Continuation Update

B10. Statement of Significance (continued): of the University of Judaism in Hollywood, Mr. Familian served on its board of directors and various committees. In the 1970s, he spearheaded the fund-raising campaign to build the university's 28-acre campus, which is named after him and his first wife, Sunny, who died in 1979. Familian also made important contributions to the City of Hope and served as chairman of the manufacturing committee for the March of Dimes in 1954 ("Familian Heads Polio Drive Industry Group," LA Times, 17 Dec 1954, 21). Price Pfister moved to an expanded plant in Pacoima in 1965, and remained there until 1997, when parent company Black and Decker closed the plant and moved operations to Mexico.

The building industry emerged to support the exponential residential and commercial growth in Los Angeles in the late 19th and early 20th centuries, providing the raw materials, carpentry, and furnishings needed to create the City's extensive built environment. Very few, if any properties are extant that represent this critical component of Los Angeles community development. The CASP Area is unique in the City because it contains a concentration of metal shops from the early 20th century, including the former Price Pfister Brass Manufacturing Company, the California Steel and Cornice Company, and smaller steel and metal shops on Avenue 33 and on Naud Street.

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Primary # _____
 HRI # _____
 Trinomial _____
 NRHP Status Code 3S

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

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*Resource Name or #: (Assigned by recorder) 2630 Lacy St

P1. Other Identifier: Columbia Mills; Talbert-Whitmore Co., Lacy Street Production Center

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 14

c. Address: 2630 Lacy St City: Los Angeles Zip: 90031

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5205011012

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

<p>Architectural Style: Utilitarian Construction: wood frame Siding/Sheathing: brick, all visible sides Siding/Sheathing: wood: board/batten, all visible sides Siding/Sheathing: metal, all visible sides Roof: flat, parapet Roof: front gable, medium Fenestration: wood, double-hung, front, side Fenestration: metal, fixed, front, side Primary Entrance: side Other notable features: Multiple industrial buildings of varying styles on site</p>	<p>Plan: rectangular No. Stories: 2, 4 buildings Property Type: industrial Retains integrity: yes, setting, location, materials, workmanship, association, design, feeling</p>
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*P3b. Resource Attributes: (List attributes and codes) HP08

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/10/11

*P6. Date Constructed/Age and Sources: Historic

Prehistoric Both

1908-1948

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
 Chattel Architecture, Planning and Preservation
 13417 Ventura Boulevard
 Sherman Oaks, CA 91423

*P9. Date Recorded: 05/25/2011

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archeological Record District Record Linear Feature Record Milling Station Record
 Rock Art Record Artifact Record Photograph Record Other (List): _____

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # _____

HRI # _____

Page 2 of 3

*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 2630 Lacy St

B1. Historic Name: Columbia Mills; Talbert Whitmore Co. Window Shade Manufacturing

B2. Common Name: Lacy Street Production Center

B3. Original Use: Industrial B4. Present Use: Film production

*B5. Architectural Style: Utilitarian

*B6. Construction History: (Construction date, alterations, and data of alterations)
Originally Constructed 1908, expanded 1921 and 1948

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:
None

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Industrial Engineering/Design 1887-1940

Period of Significance: 1908-1948 Property Type: Industrial Applicable Criteria: C/3/3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This property appears eligible for the National and California Registers and for designation as an HCM under Criterion C/3/3 as an excellent example of the Daylight Factory within the context of industrial design and engineering. Prior to the widespread use of electricity, controlling and capitalizing on daylight was a necessary component of the design of manufacturing buildings. Daylight was brought into the building using a variety of methods, including expansive industrial sash windows, orientation of intensive hand work next to the exterior walls of the building, skylights, and specialized roof forms to bring light into the interior. This property is an excellent example of a daylight factory, with multiple daylight features including expansive industrial sash and sawtooth rooflines.

In 1908 Talbert-Whitmroe Co developed a factory at 2360 Lacy St for manufacture of shade cloth and window shades. By 1921, the factory had become the largest shade cloth producer west of Chicago,...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP08

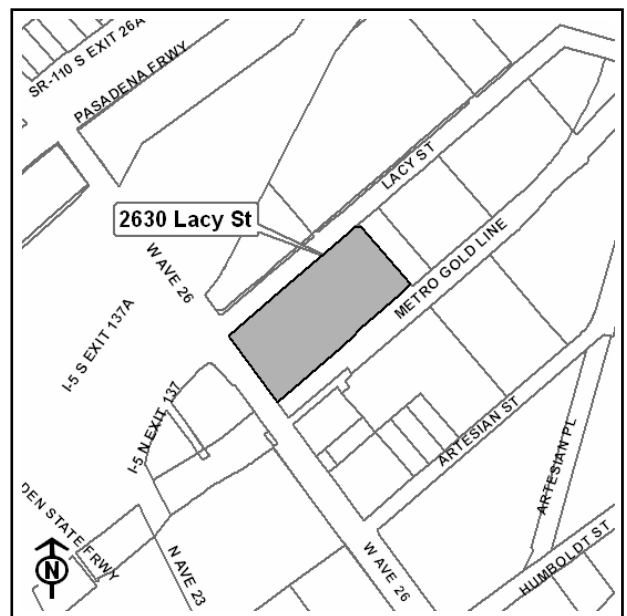
*B12. References:
Sanborn Maps, LA Times Database

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 05/25/2011

(This space reserved for official comments.)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
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Primary # _____

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Trinomial _____

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Resource Name or #:(Assigned by recorder) 2630 Lacy St

*Recorded By: LSA Associates, Inc. *Date: 05/25/2011 Continuation Update

B10. Statement of Significance (continued): manufacturing about 1.25 million yards of cloth annually. By 1950, this company was renamed Columbia Mills, Inc., but continued to manufacture window shades at the site.

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Primary # _____
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Trinomial _____
NRHP Status Code 3S

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

Page 1 of 3 *Resource Name or #: (Assigned by recorder) 3214 Lacy St

P1. Other Identifier: Cannon Electric Development Co.

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 14

c. Address: 3214 Lacy St City: Los Angeles Zip: 90031

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5205011003

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: Utilitarian **Architectural Style:** Mediterranean Revival, elements of
Construction: wood frame
Siding/Sheathing: stucco: textured, all visible sides
Roof: flat, parapet
Fenestration: metal, casement, front, side, rear
Fenestration: metal, fixed, front, side, rear
Primary Entrance: front, single door, distinctive entry, Tile door surround

Plan: irregular
No. Stories: 2
Property Type: industrial
Related: Situated on railway; transformer; telephone poles
Retains integrity: yes, setting, location, materials, workmanship, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP08

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/10/11

*P6. Date Constructed/Age and Sources: Historic

Prehistoric Both

1926

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
Chattel Architecture, Planning and
Preservation
13417 Ventura Boulevard
Sherman Oaks, CA 91423

*P9. Date Recorded: 03/31/2011

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archeological Record District Record Linear Feature Record Milling Station Record
 Rock Art Record Artifact Record Photograph Record Other (List): _____

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Primary # _____

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*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 3214 Lacy St

B1. Historic Name: Cannon Electric Development Co.

B2. Common Name: Debacke

B3. Original Use: Factory B4. Present Use: Industrial

*B5. Architectural Style: Utilitarian, Mediterranean Revival

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1926

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

Situated on railway; transformer; telephone poles

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Manufacturing for the Masses 1887-1980

Period of Significance: 1926 Property Type: _____ Applicable Criteria: A/1/1

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This property appears eligible for the National and California Registers and for designation as an HCM under Criterion A/1/1 because it is a key factory for the Cannon Electric Company, a significant manufacturer in Los Angeles industrial history. According to a 1941 LA Times article, Cannon was at the time the world's largest exclusive manufacturer of electrical cable connectors (Cannon Plugs) in 1941 and that the company had developed from a 2-man specialty shop into an organization supplying Electrical Signal Systems to such institutions as the Los Angeles Stock Exchange and Los Angeles County General Hospital, and experimental switchboards to scores of Southland schools. By 1941, the company was creating the greatest variety of cable connector fittings provided by any manufacturer ("Display Ad 22," LA Times, 2 Jan 1941, A24). Property meets most eligibility standards for the property sub-type. This property is significant as the last remaining building from a key factory for...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP08

*B12. References:

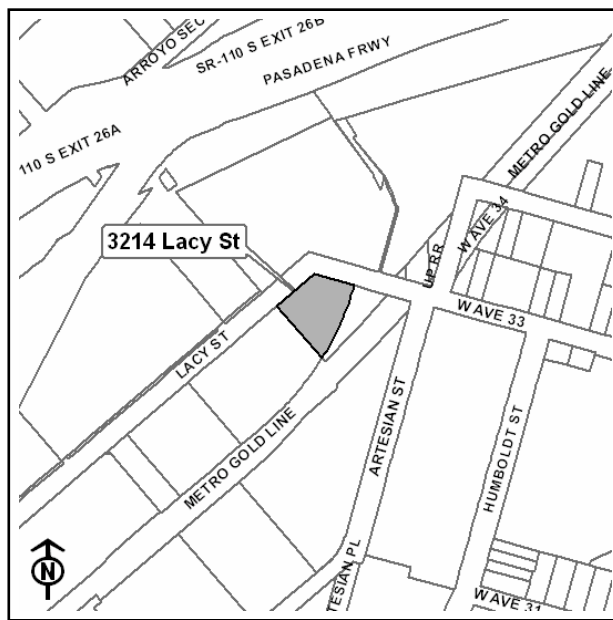
Sanborn Maps, Los Angeles Times Database

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 03/31/2011

(This space reserved for official comments.)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

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Trinomial _____

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Resource Name or #:(Assigned by recorder) 3214 Lacy St

*Recorded By: LSA Associates, Inc. *Date: 03/31/2011 Continuation Update

B10. Statement of Significance (continued): Cannon Electric Development Co. Cannon became known as early as the 1910s as a leader in developing electrical connectors, the "Cannon Plug" being the most notable.

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NRHP Status Code 3S

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

Page 1 of 2 *Resource Name or #: (Assigned by recorder) 1250 N Main

P1. Other Identifier: Kelite Factory

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 22

c. Address: 1250 N Main City: Los Angeles Zip: 90012

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5409010032

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: Art Deco, elements of **Architectural Style:** Utilitarian
Siding/Sheathing: poured concrete: painted, all visible sides, Brick is used on all elevations of rear building
Roof: flat, parapet, multiple rooflines
Fenestration: metal, fixed, front, side, rear
Fenestration: metal, vertical sliding, front, side, rear
Primary Entrance: side

Plan: irregular
No. Stories: 3, 3 buildings
Property Type: industrial
Retains integrity: yes, setting, location, workmanship, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP08

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/09/11

*P6. Date Constructed/Age and

Sources: Historic

Prehistoric Both

1924

Assessor

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
Chattel Architecture, Planning and
Preservation
13417 Ventura Boulevard
Sherman Oaks, CA 91423

*P9. Date Recorded: 05/25/2011

*P10. Survey Type: (Describe)

Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record

Archeological Record District Record Linear Feature Record Milling Station Record

Rock Art Record Artifact Record Photograph Record Other (List): _____

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*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 1250 N Main

B1. Historic Name: Kelite Products

B2. Common Name: Kelite Products

B3. Original Use: Factory B4. Present Use: Factory

*B5. Architectural Style: Art Deco, Utilitarian

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1924, 1946, 1954

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

None

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Industrial Engineering/Design 1887-1940

Period of Significance: 1924-1954 Property Type: Industrial Applicable Criteria: C/3/3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This property appears eligible for the National and California Registers and for designation as an HCM under Criterion C/3/3 as an excellent example of an industrial loft. Although some glazing and sash is missing, it still retains sufficient integrity to convey its significance. Shown in Sanborn maps (corrected through 1951) as a site used for Kelite Products, Inc., a manufacturer of specialized chemical compositions and equipment for industrial cleaning and metal treating, the site contains three buildings: Plant No's 1-3, all of which are extant. Plant No. 1, located at the corner of E. Elmyra and N. Main Streets, is the primary building, composed in an industrial/utilitarian style with elements of Art Deco. In 1966, Keylite Products Inc. had plants in L.A., Chicago, and Berkeley Heights, New Jersey. In the year ended Jan 31, 1966, it had sales of \$4.5 million and earnings of \$325,000 ("Boards Agree on Acquisition of L.A. Firm", LA Times, 11 Feb 1966, B16).

B11. Additional Resource Attributes: (List attributes and codes) HP08

*B12. References:

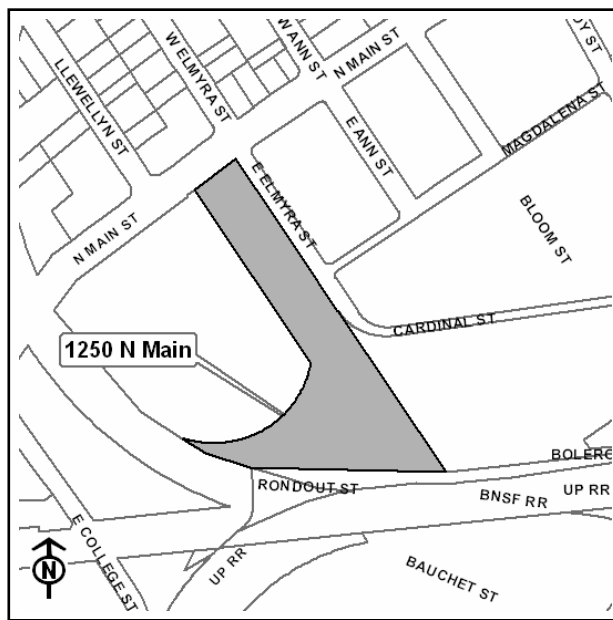
Sanborn Maps, LA Times Database

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 05/25/2011

(This space reserved for official comments.)



State of California - The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
 HRI # _____
 Trinomial _____
 NRHP Status Code 2S2

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

Page 1 of 2 *Resource Name or #: (Assigned by recorder) 1630 N Main

P1. Other Identifier: DWP Main Street Facility

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 22

c. Address: 1630 N Main City: Los Angeles Zip: 90012

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5409013913

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: International Architectural Style: Beaux Arts
 Architectural Style: Art Deco
 Construction: poured concrete
 Siding/Sheathing: poured concrete: painted, all visible sides, Sheetmetal siding wraps machine shop building abutting North Main Street.
 Roof: flat, parapet, multiple rooflines
 Fenestration: metal, fixed, front, side, rear
 Fenestration: metal, horizontal sliding, front, side, rear
 Fenestration: metal, hopper, front, side, rear
 Primary Entrance: side, Roll-up door
 Other notable features: Sunshade eyebrows extend from some southeast

Plan: irregular
 No. Stories: 3, 11 buildings
 Property Type: Utilities
 Retains integrity: yes, setting, location, materials, workmanship, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP09

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)
03/09/11
 *P6. Date Constructed/Age and Sources: Historic
 Prehistoric Both
1946
 Assessor

*P7. Owner and Address:
 not known

*P8. Recorded by:
 Kathryn McGee
 Chattel Architecture, Planning and Preservation
 13417 Ventura Boulevard
 Sherman Oaks, CA 91423

*P9. Date Recorded: 05/25/2011

*P10. Survey Type: (Describe)
 Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archeological Record District Record Linear Feature Record Milling Station Record
 Rock Art Record Artifact Record Photograph Record Other (List): _____

State of California - The Resources Agency
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Page 2 of 2

*Resource Name or #: (Assigned by recorder) 1630 N Main

*Recorded By: Kathryn McGee *Date: 05/25/2011 _____ Continuation X Update

Update Status: Retains Integrity

The Department of Water and Power Main Street Facility is significant as an early power station for the Department of Water and Power that played an important role in support of development of the City of Los Angeles. It is located on a triangular-shaped site containing multiple buildings and bounded by Main and Leroy Streets to the north and west and the Union Pacific Rail Road to the east and south. The early DWP site shown in Sanborn maps (corrected through 1951) include such buildings as Transformer House No 1 (1923 and 1918); Electrical Manintenance building (no date); General Warehouse (1923 and 1940); General Repair Shop (1925); Test Laboratory (1916); Outdoor Transformers (no date) and other ancillary buildings. Unable to confirm from public right-of-way whether all buildings listed are extant and if they all retain integrity. Site currently contains large collection of outdoor transformers at corner of Main St and the UPRR.

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Trinomial _____
NRHP Status Code 3S

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

Page 1 of 3

*Resource Name or #: (Assigned by recorder) 1801 N. Main St

P1. Other Identifier: Lanza Brothers Market

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 15

c. Address: 1801 N. Main St City: Los Angeles Zip: 90065

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5410019005

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: Utilitarian
Siding/Sheathing: brick, all visible sides, painted
Roof: flat
Fenestration: aluminum, fixed, storefront, alteration: yes
Primary Entrance: storefront, single door, three storefronts total
Other notable features: metal awning printed with "famous italian sandwiches since 1926", mural of sandwiches on right side

Plan: rectangular
No. Stories: 1, 2 buildings
Property Type: Market
Related: Modest turn of the century residence behind market, "Lanza Bros Market" wall sign
Retains integrity: yes

*P3b. Resource Attributes: (List attributes and codes) HP06, HP02

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/09/11

*P6. Date Constructed/Age and Sources: Historic

Prehistoric Both

1926

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
Chattel Architecture, Planning and
Preservation
13417 Ventura Boulevard
Sherman Oaks, CA 91423

*P9. Date Recorded: 05/25/2011

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archeological Record District Record Linear Feature Record Milling Station Record
 Rock Art Record Artifact Record Photograph Record Other (List): _____

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Primary # _____

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*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 1801 N. Main St

B1. Historic Name: Lanza Bros Market

B2. Common Name: _____

B3. Original Use: Market B4. Present Use: Market

*B5. Architectural Style: Utilitarian

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1926

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

Modest turn of the century residence behind market, "Lanza Bros Market" wall sign

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: ; Early Neighborhood Commercial Development 1880-1930

Period of Significance: 1926 Property Type: Commercial Applicable Criteria: A/1/1, HCM 5

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The Lanza Brothers Market appears eligible for the National and California Registers and for HCM designation under Criterion A/1/1 because it is a rare intact commercial building associated with the Italian immigrant community, which has its roots in the earliest days of the Pueblo and continues to be active today. The building and associated residence was operated by the Lanza and Bruno families from the early 1920s through the early 2000s. In addition, the property appears to be eligible for designation as an HCM under Criterion 5 because it reflects the diversity of Los Angeles history as a physical representative of the City's Italian heritage.

Los Angeles City Directories starting as early as 1923 locate the Lanza Family at 1801 N Main St, listing Frank, a sheet metal worker, John (no occupation given), Joseph, a sheet metal worker, and Tony A., a sheet metal worker, as residing at 1801 N. Main. According to the 1930 United States Census, John Lanza was born in Italy to...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP06, HP02

*B12. References:

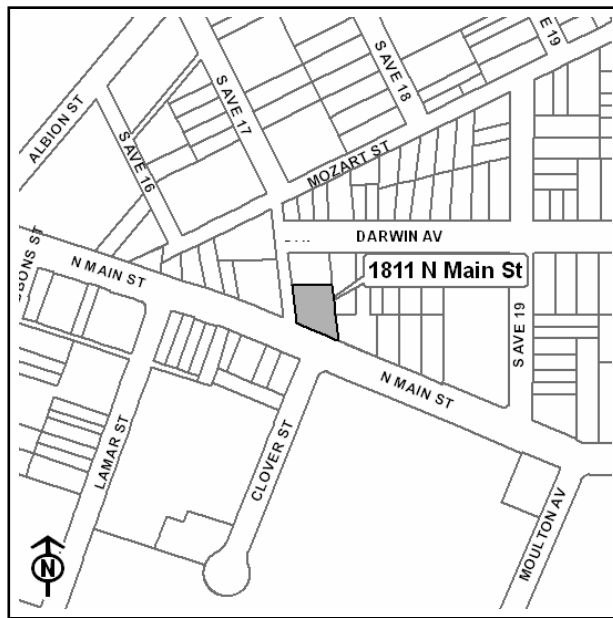
Sanborn Maps, Directories, LA Times Database, Census records

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 05/25/2011

(This space reserved for official comments.)



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CONTINUATION SHEET

Primary # _____
HRI # _____
Trinomial _____

Page 3 of 3

Resource Name or #:(Assigned by recorder) 1801 N. Main St

*Recorded By: LSA Associates, Inc. *Date: 05/25/2011 Continuation Update

B10. Statement of Significance (continued): Italian parents c. 1866 and immigrated to the United States in 1898. He was recorded in the 1930 U.S. Census as residing at 1801 N Main at the age of 64 where he lived with his wife, Phyllis (age 54; born in Italy), daughter, Margaret Bruno (age 21; born in Texas), son-in-law Nick Bruno (age 25; born in Italy), and grandchildren Sam, John, Rosala and Rosie. The 1930 U.S. Census also includes other Lanza family members residing on the property. Head of household, Frank Lanza (age 29; born in Italy) and his wife Jenny (age 21; born in Italy) resided at 1801 1/2 N. Main with their children Johnny and Phyllis. Frank Lanza was a carpenter in a railroad shop at the time. At 1805 N. Main, head of household Phillip Lanza (age 28; born in Italy) resided with his wife Elizabeth (age 20; born in Colorado). Phillip Lanza was a builder of railroad cars at the time. At 1807 N. Main, head of household Anthony Lanza (age 26; born in Alabama) resided with his wife Cornelia (age 25; born in Italy) and their son, John. Anthony Lanza was a grocery merchant at the time. Census records indicate that while John and Phyllis Lanza lived in Los Angeles in the 1930s, they lived in southern states, likely including Texas and Alabama, and possibly also Louisiana, after immigrating to the U.S. and prior to moving to Los Angeles.

The 1927 Los Angeles City Directories also associate the property with Mary Millone, a grocer at 1803 N Main, and John Millone, who worked as a truck builder; the couple resided at 1706 Pomeroy Ave at the time. In addition, Bruno Pete meats is listed as tenant of 1803 N Main. The connection between the Lanza and Bruno names likely starts with Margaret Lanza's marriage to Nick Bruno (Margaret was the Texas-born daughter of John and Phyllis Lanza). The Millone connection is, however, unclear. It is possible Mary Millone was simply a worker at that location, or was related to the Lanza or Bruno Families in a manner that has not been identified; it is also possible the Millone family had a small shop in the building, since the building contains three storefront entrances (and could have contained three businesses). Anthony Lanza and wife Cornelia are listed as grocers at 1803 N Main and residing at 1801 1/2 N Main in the 1942 LA City Directory. The Lanza Bros Grocery is located at 1803 N Main in the 1956 LA City Directory; Anthony Lanza still occupies 1801 1/2 N Main; and 1807 N. Main is identified as Jerry G Barroy dry goods in the same year.

A 2000 Los Angeles Times article written by the son-in-law of Lanza Family member Gloria Worsham, who owned the property with her brothers Anthony and Louis Lanza for many years, notes that the site housed generations of Lanzas since the 1920s in the seven houses directly behind the store (not all of which are necessarily on the APN listed above; it is unclear exactly which houses are associated with the Lanza family). The author also notes, "My wife's family still owns most of the city block where the store sits, and her mother was brought up in the family compound that consists of the seven houses directly behind the store. But the family moved away long ago, Gloria and Anthony heading to the suburbs of San Gabriel a few miles away, Louis a little closer in Silver Lake. The Lanza Brothers market remained behind, however, and has served the neighborhood for 80 years." The author further notes, "When the [store opened] in the 1920s, [it was] a working-class neighborhood. In a time before supermarkets, it was the place where the Italian immigrants would buy fresh groceries on their way home from the nearby rail yards and factories. People would come to talk, buy stamps and money orders, and have a feeling of home and community in a strange new land." The article concludes that due to frequent break-ins and robberies in recent years, the Lanza family has vacated some or all of the site (Rick Garcia, 'Sunset in Lincoln Heights,' Los Angeles Times, 8 Oct. 2000). Current on-line reviews of the market indicate that it is being run by Korean immigrants.

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PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 3S

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

Page 1 of 3

*Resource Name or #: (Assigned by recorder) 1811 N Main St

P1. Other Identifier: _____

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 23

c. Address: 1811 N Main St City: Los Angeles Zip: 90031

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5410019005

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

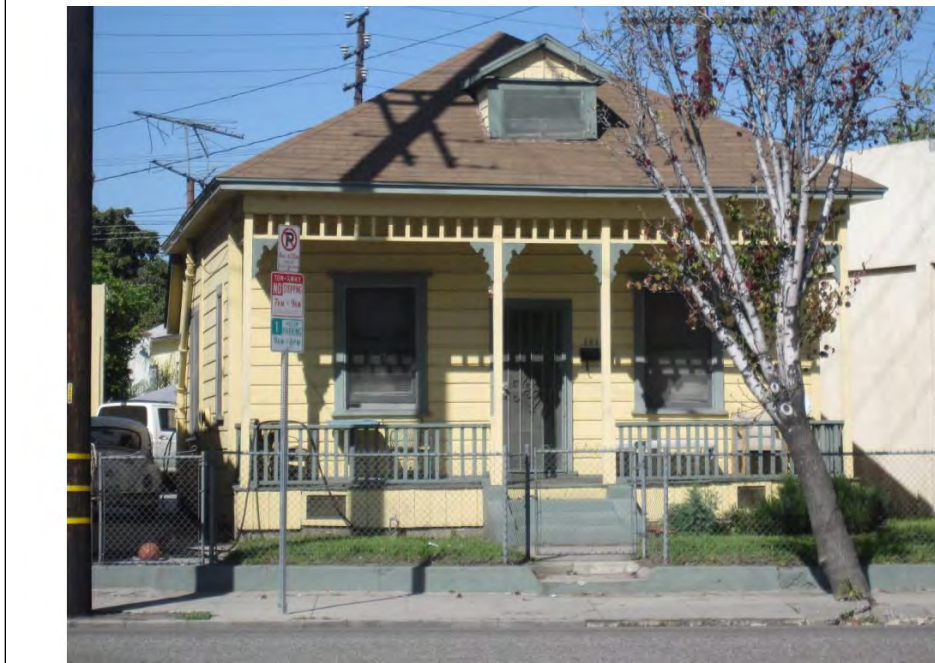
Architectural Style: Folk Victorian
Construction: wood frame
Siding/Sheathing: wood: clapboard, all visible sides
Roof: hipped, medium, narrow eaves
Fenestration: wood, double-hung, front
Primary Entrance: front, single door
Other notable features: decorative brackets and spandrels

Plan: rectangular
No. Stories: 1
Porches: Full-Width, front
Retains integrity: yes, setting, location, materials, workmanship, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP02

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/09/11

*P6. Date Constructed/Age and

Sources: Historic

Prehistoric Both

ca 1900

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
Chattel Architecture, Planning and
Preservation
13417 Ventura Boulevard
Sherman Oaks, CA 91423

*P9. Date Recorded: 05/25/2011

*P10. Survey Type: (Describe)

Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record

Archeological Record District Record Linear Feature Record Milling Station Record

Rock Art Record Artifact Record Photograph Record Other (List): _____

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # _____

HRI # _____

Page 2 of 3

*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 1811 N Main St

B1. Historic Name: _____

B2. Common Name: _____

B3. Original Use: Residence B4. Present Use: Residence

*B5. Architectural Style: Folk Victorian

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: ca 1900

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

None

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Folk Victorian Architecture 1885-1905

Period of Significance: ca 1900 Property Type: Single Family Residence Applicable Criteria: C/3/3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This property appears eligible for the National and California Registers and for designation as an HCM under Criterion C/3/3 as an excellent example of Folk Victorian architecture. Folk Victorian styled residences were popular in the late 19th and early 20th centuries as an affordable way to decorate otherwise modest homes with the elaborate decorative styles of the Victorian Era. Generally chosen from pattern books and mass-produced, the ornamentation on Folk Victorian homes demonstrate how industrialization of the building industry boadened and popularized what would otherwise have been prohibitively expensive design for most people. Hundreds of these residences were built during the residential booms in the 1880s and 1900s, but intact examples have since become increasingly rare. This residence has several character-defining features of the style as applied to a hipped-roof cottage, including a full-width front porch with decorative spindles and spandrels, and boxed eaves. It...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP02

*B12. References:

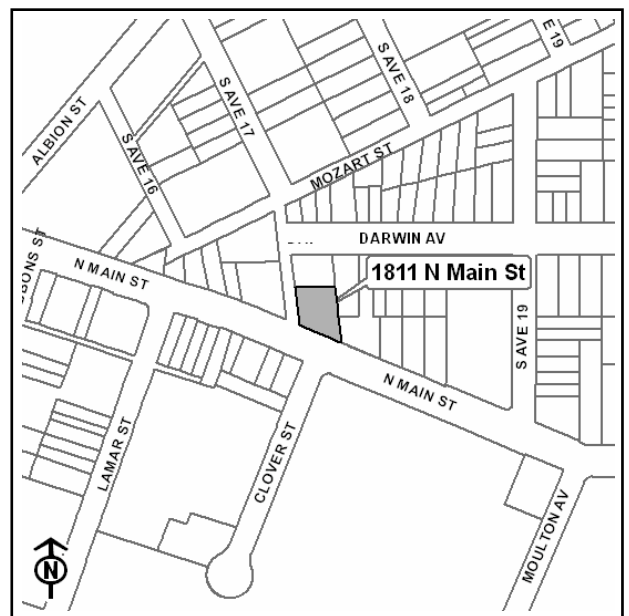
Sanborn Maps

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 05/25/2011

(This space reserved for official comments.)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____

HRI # _____

Trinomial _____

Page 3 of 3

Resource Name or #:(Assigned by recorder) 1811 N Main St

*Recorded By: LSA Associates, Inc. *Date: 05/25/2011 Continuation Update

B10. Statement of Significance (continued): appears that the balustrade has been rebuilt with narrower gaps between rails, but the building retains integrity in spite of this apparent alteration.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 3S

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

Page 1 of 3 *Resource Name or #: (Assigned by recorder) 1611 Naud St

P1. Other Identifier: California Steel and Cornice Co., Stadco Fab Shop; Veolia Transportation

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 22

c. Address: 1611 Naud St City: Los Angeles Zip: 90012

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5409002016

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: Utilitarian, utilitarian
Construction: wood frame
Siding/Sheathing: metal, all visible sides, Metal
Roof: side gable, medium, other, Sawtooth
Fenestration: metal, fixed, front
Primary Entrance: front, Truck door

Plan: rectangular
No. Stories: 2
Property Type: industrial
Related: Associated with large covered maintenance yard
Retains integrity: yes, setting, location, materials, workmanship, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP08

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/09/11

*P6. Date Constructed/Age and Sources: Historic

Prehistoric Both

1945

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
Chattel Architecture, Planning and Preservation
13417 Ventura Boulevard
Sherman Oaks, CA 91423

*P9. Date Recorded: 05/25/2011

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archeological Record District Record Linear Feature Record Milling Station Record
 Rock Art Record Artifact Record Photograph Record Other (List): _____

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # _____

HRI # _____

Page 2 of 3

*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 1611 Naud St

B1. Historic Name: California Steel and Cornice Co.

B2. Common Name: Stadco; Veolia

B3. Original Use: Industrial B4. Present Use: Industrial

*B5. Architectural Style: Utilitarian

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1945

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

Associated with large covered maintenance yard

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Building the City 1876-1980

Period of Significance: 1945 Property Type: Industrial Applicable Criteria: A/1/1

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This property appears eligible for the National and California Registers and for designation as an HCM under Criterion A/1/1 as a key factory of the California Steel and Cornice Co., an important steel fabricator that made steel for the Case Study House program and Standard Oil Company. A 1939 Los Angeles Times ad also credits the company for providing steel for the I.Magnin & Co. store constructed at the intersection of Wilshire Boulevard and New Hampshire Avenue.

The building industry emerged to support the exponential residential and commercial growth in Los Angeles in the late 19th and early 20th centuries, providing the raw materials, carpentry, and furnishings needed to create the City's extensive built environment. Very few, if any properties are extant that represent this critical component of Los Angeles community development. The CASP Area is unique in the City because it contains a concentration of metal shops from the early 20th century, including the former Price...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP08

*B12. References:

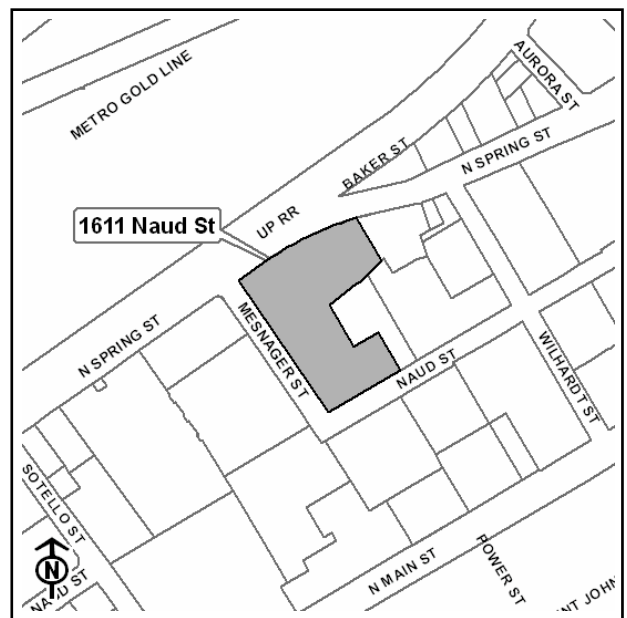
Sanborn Maps, City Directories, LA Times Database

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 05/25/2011

(This space reserved for official comments.)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____

HRI # _____

Trinomial _____

Page 3 of 3

Resource Name or #:(Assigned by recorder) 1611 Naud St

*Recorded By: LSA Associates, Inc. *Date: 05/25/2011 Continuation Update

B10. Statement of Significance (continued): Pfister Brass Manufacturing Company and smaller steel and metal shops on Avenue 33 and on Naud Street.

State of California - The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
 HRI # _____
 Trinomial _____
 NRHP Status Code 3S

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

Page 1 of 2 *Resource Name or #: (Assigned by recorder) 1640 N Spring St

P1. Other Identifier: Paper Products Manufacturing Co., KGB Studios

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 22

c. Address: 1640 N Spring St City: Los Angeles Zip: 90012

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5409002014

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: Utilitarian Architectural Style: Italianate, elements of
 Construction: wood frame
 Siding/Sheathing: brick, all visible sides
 Roof: side gable, medium, other, Sawtooth roof
 Fenestration: wood, fixed, front
 Primary Entrance: front, single door, transom lights, side lights

Plan: irregular
 No. Stories: 1
 Property Type: industrial
 Retains integrity: yes, setting, location, materials, workmanship, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP08

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/09/11

*P6. Date Constructed/Age and Sources: Historic

Prehistoric Both

1925

Assessor

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
Chattel Architecture, Planning and Preservation
13417 Ventura Boulevard
Sherman Oaks, CA 91423

*P9. Date Recorded: 05/25/2011

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archeological Record District Record Linear Feature Record Milling Station Record
 Rock Art Record Artifact Record Photograph Record Other (List): _____

State of California - The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # _____

HRI # _____

Page 2 of 2

*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 1640 N Spring St

B1. Historic Name: Paper Products Manufacturing Co.

B2. Common Name: KGB Studios

B3. Original Use: Paper products manufacturing B4. Present Use: light industrial

*B5. Architectural Style: Utilitarian, Italianate

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1925

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

None

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Industrial Engineering/Design 1887-1940

Period of Significance: 1925 Property Type: Industrial Applicable Criteria: C/3/3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This property appears eligible for the National and California Registers and for designation as an HCM under Criterion C/3/3 as an excellent example of a daylight factory because it combines the important elements of a daylight factory with an architecturally distinct façade. Prior to the widespread use of electricity, controlling and capitalizing on daylight was a necessary component of the design of manufacturing buildings. Daylight was brought into the building using a variety of methods, including expansive industrial sash windows, orientation of intensive hand work next to the exterior walls of the building, skylights, and specialized roof forms to bring light into the interior.

B11. Additional Resource Attributes: (List attributes and codes) HP08

*B12. References:

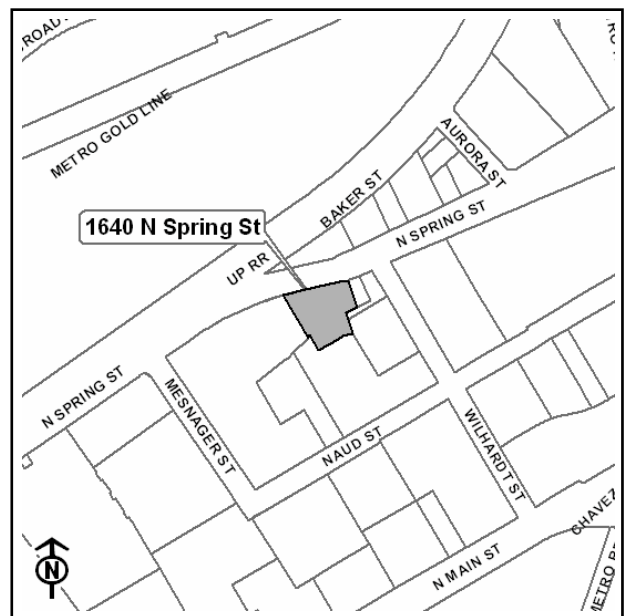
Sanborn Maps

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 05/25/2011

(This space reserved for official comments.)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 3S

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

Page 1 of 3 *Resource Name or #: (Assigned by recorder) 1727 N Spring St

P1. Other Identifier: Standard Oil Company Sales Department, The Woman's Building

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 22

c. Address: 1727 N Spring St City: Los Angeles Zip: 90012

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5409002011

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: Italianate, elements of
Construction: unknown
Siding/Sheathing: brick, all visible sides
Siding/Sheathing: metal, all visible sides
Roof: flat, parapet
Fenestration: metal, fixed, front, side
Fenestration: metal, casement, front, side
Primary Entrance: front, single door, recessed, distinctive entry
Other notable features: Ornament surrounding entrance and windows above

Plan: irregular
No. Stories: 3
Property Type: commercial
Retains integrity: yes, setting, location, materials, workmanship, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP06, HP08

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/09/11

*P6. Date Constructed/Age and Sources: Historic

Prehistoric Both

1914

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
Chattel Architecture, Planning and Preservation
13417 Ventura Boulevard
Sherman Oaks, CA 91423

*P9. Date Recorded: 03/31/2011

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archeological Record District Record Linear Feature Record Milling Station Record
 Rock Art Record Artifact Record Photograph Record Other (List): _____

State of California - The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # _____

HRI # _____

Page 2 of 3

*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 1727 N Spring St

B1. Historic Name: Standard Oil Company (the Sales Department); The Woman's Building

B2. Common Name: _____

B3. Original Use: Industrial/Office B4. Present Use: Artist space/Industrial

*B5. Architectural Style: Italianate

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1914

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

None

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Oil/Petroleum Products 1892-1965

Period of Significance: 1892-1965 Property Type: Industrial Applicable Criteria: A/1/1

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The building located at 1727 N. Spring St appears eligible for the National and California Registers and for designation as an HCM under Criterion A/1/1 for its association with Standard Oil Company of California, as well as for its association with the Womens Rights Movement. Originally designed in 1914 as a sales department office and industrial facility for Standard Oil Company of California, the building retains integrity from its date of construction. Standard Oil Company was founded by John D. Rockefeller and was broken up in the U.S. Supreme Court antitrust decision in 1911. Standard Oil Company of California was a successor company resulting from that break up. It played an important role in Citywide development and later became Chevron Corporation.

In 1975 the building reopened by the Feminist Studio Workshop (FSW) organization as "The Woman's Building & Women's Graphic Center," home of the FSW, Sisterhood Bookstore, Olivia Records, Women's Graphic Center, Women's...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP06, HP08

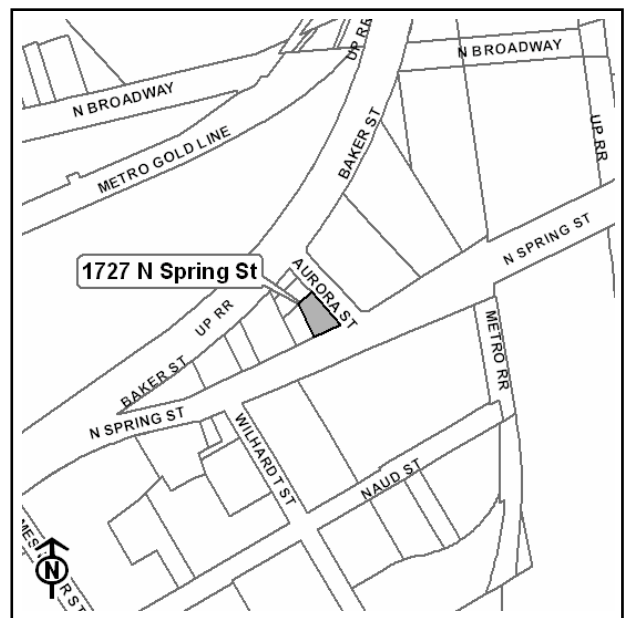
*B12. References:

B13. Remarks:

*B14. Evaluator: Kathryn McGee

*Date of Evaluation: 03/31/2011

(This space reserved for official comments.)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____

HRI # _____

Trinomial _____

Page 3 of 3

Resource Name or #:(Assigned by recorder)

1727 N Spring St

*Recorded By: LSA Associates, Inc.

*Date: 03/31/2011

Continuation

Update

B10. Statement of Significance (continued): Switchboard, Canis Gallery, a cafe, open gallery and performance spaces and feminist therapists ("About Women," LA Times, 7 Dec 1975, E4). A center supporting the creative achievements of women, its archives are currently held at the Smithsonian and Getty, among other locations. The Woman's Building & Women's Graphic Center was at this location until 1991. It was assessed for significance for its association with Judy Chicago, founder of the Feminist Art Program at Fresno State College and co-founder of Feminist Art Program at CalArts, and, finally, cofounder of the FSW, the group that started the first Woman's Building at Choinard Art Institute (743 S Grandview) in 1973. Chicago left Feminist Studio Workshop Staff in 1974, prior to FSW's move to the 1727 N Spring St location. Since she left the organization prior to its occupation of 1727 N Spring, the building isn't significant for its association with her. Note that while references to the building alternate between calling it "Woman's Building" and "Women's Building," a 1980s photo of the building shows that its facade signage read: "The Woman's Building & Women's Graphic Center."

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 3S

Other Listings 3CS, 5S3

Review Code _____ Reviewer _____ Date _____

Page 1 of 2 *Resource Name or #: (Assigned by recorder) 1756 N Spring St

P1. Other Identifier: Standard Oil Company Facilities

*P2. Location: Not for Publication Unrestricted *a. County Los Angeles and (P2b and P2c or P2d.)

*b. USGS 7.5' Quad: Los Angeles Date: 1994 T: 01.0S; R: 13.0W; S: 22

c. Address: 1756 N Spring St City: Los Angeles Zip: 90012

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): APN:5409002029

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Architectural Style: Utilitarian Construction: wood frame Siding/Sheathing: brick, all visible sides Roof: flat, parapet Fenestration: metal, fixed, boarded up Primary Entrance: side, Truck door	Plan: rectangular No. Stories: 1, 4 buildings Secondary Entrance: front, side, rear Property Type: industrial Retains integrity: yes, setting, location, materials, workmanship, association, design, feeling
---	--

*P3b. Resource Attributes: (List attributes and codes) HP08, HP06

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of photo:

(View, data, accession #)

03/09/11

*P6. Date Constructed/Age and Sources: Historic

Prehistoric Both

1920-1938

Assessor

*P7. Owner and Address:

not known

*P8. Recorded by:

Kathryn McGee
Chattel Architecture, Planning and
Preservation
13417 Ventura Boulevard
Sherman Oaks, CA 91423

*P9. Date Recorded: 05/25/2011

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")

Tanya Sorrell, Kathryn McGee, and Shane Swerdlow. Historic Resources Survey of the Cornfield Arroyo Seco Specific Plan. Prepared by LSA Associates and Chattel Architecture Planning and Preservation for Arup, April 2011

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archeological Record District Record Linear Feature Record Milling Station Record
 Rock Art Record Artifact Record Photograph Record Other (List): _____

State of California - The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # _____

HRI # _____

Page 2 of 2

*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 1756 N Spring St

B1. Historic Name: Standard Oil Company Facilities

B2. Common Name: L.A. Lucky Trading Inc.

B3. Original Use: Industrial B4. Present Use: Industrial

*B5. Architectural Style: Utilitarian

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1920, 1934, 1938

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features:

None

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Area: Los Angeles Theme: Oil/Petroleum Products 1892-1965

Period of Significance: 1920-1938 Property Type: Industrial Applicable Criteria: A/1/1

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This property appears eligible for the National and California Registers and for designation as an HCM under Criterion A/1/1 as a key facility for the Standard Oil Company of California. It was an early office and auto repair/machine shop for Standard Oil Company of CA, a successor company of Standard Oil that played an important role in citywide development, later becoming Chevron Corp. Note that this parcel includes the small office building located just below the Spring Street Bridge.

Oil exploration and processing is a theme that has had a significant impact on the City, from fueling emerging industries in the early 20th century to financing the construction of fantastic residential and commercial architecture. Unfortunately, there are very few industrial properties that strongly represent this theme. There are a few examples in the CASP area, including a former Standard Oil Company office and warehouse, and Standard Oil maintenance facilities across the street.

B11. Additional Resource Attributes: (List attributes and codes) HP08, HP06

*B12. References:

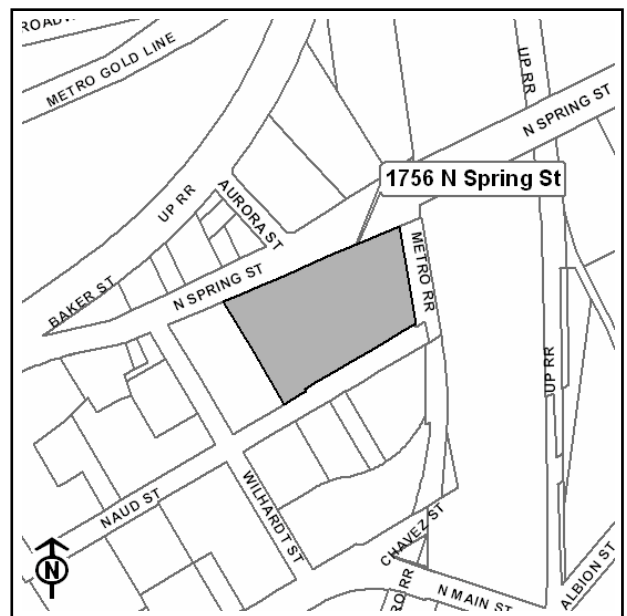
Sanborn Maps, LA Times Database

B13. Remarks:

*B14. Evaluator: Kathryn McGee

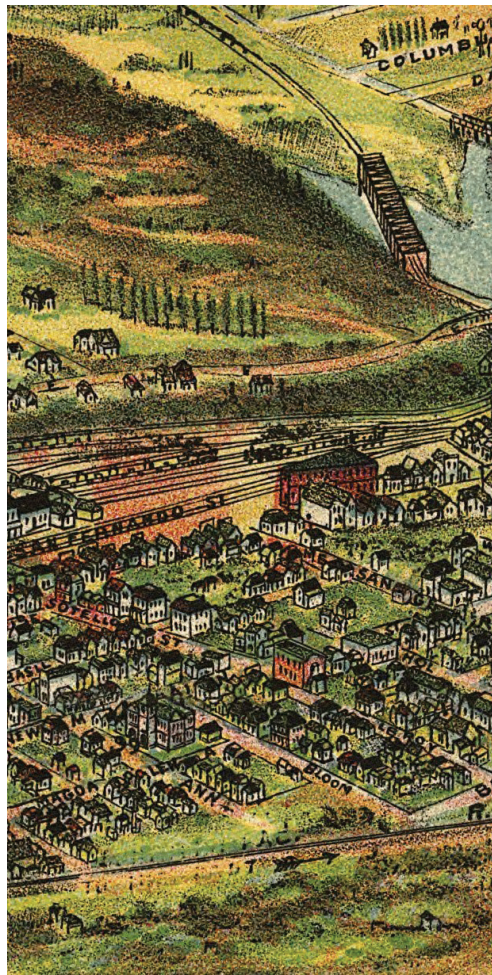
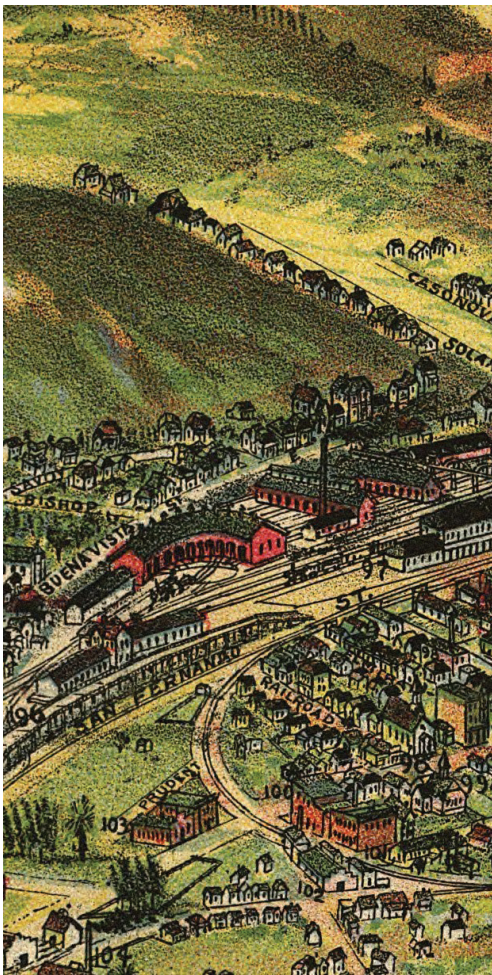
*Date of Evaluation: 05/25/2011

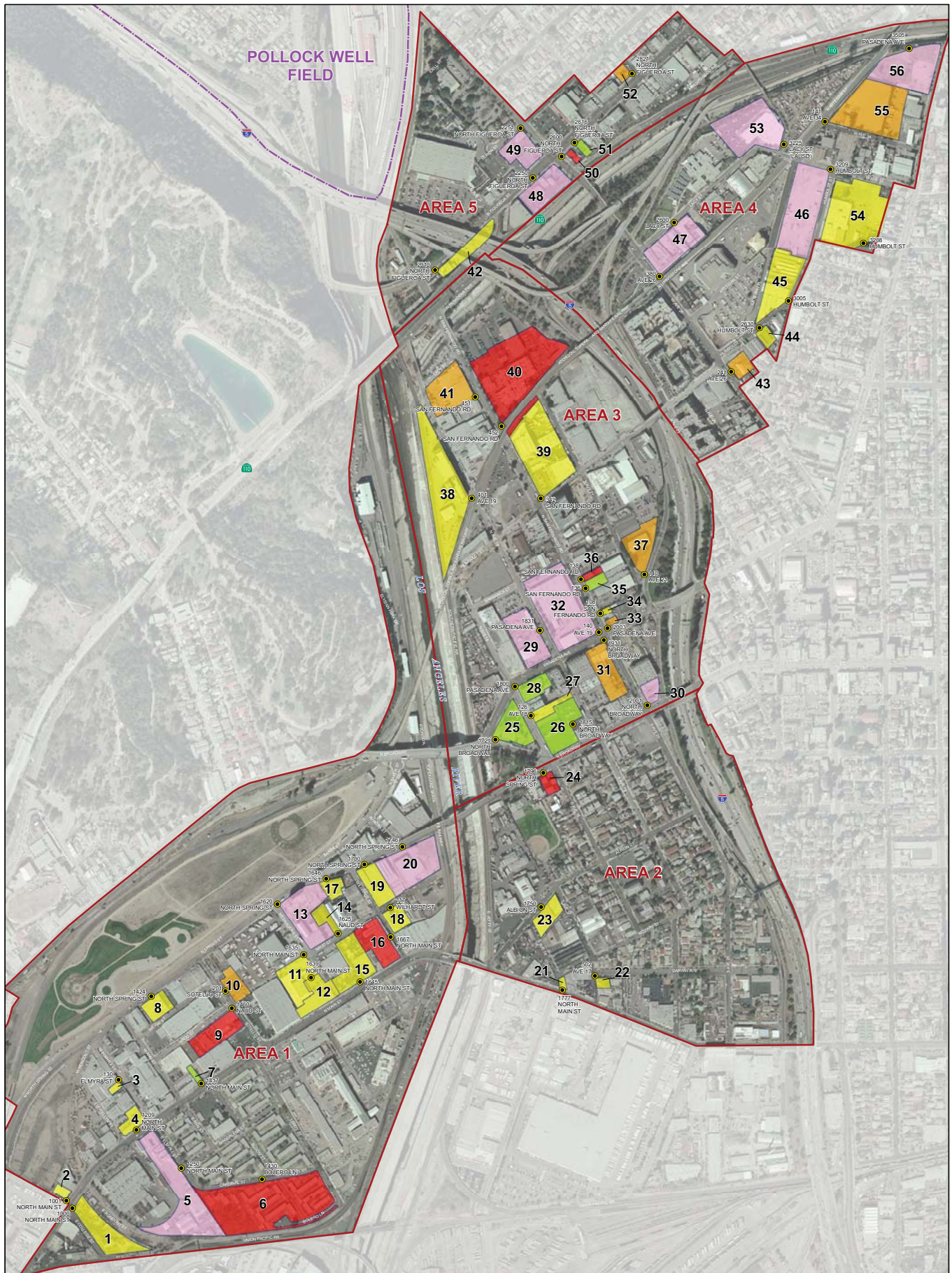
(This space reserved for official comments.)



Potential Hazardous Property Inventory

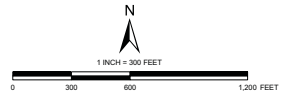
Appendix 3





SOURCE: POLLOCK WELL FIELD - EPA, JUNE 2008; CASP BOUNDARY - ARUP 2008; AERIAL IMAGERY - ESRI. Copyright © 2009. Unlabeled

- LEGEND**
- GENERAL PHOTO LOCATION WITH ASSOCIATED ADDRESS
 - ▭ PROJECT BOUNDARY / AREA DIVISION
 - ▭ POLLOCK WELL FIELD BOUNDARY
 - ▭ SITE BOUNDARY
 - ENVIRONMENTAL HAZARD RANK AND SITE ID
 - 1 - HIGH POTENTIAL
 - 1B - MODERATE - HIGH POTENTIAL
 - 2 - MODERATE POTENTIAL
 - 3 - LOW-MODERATE POTENTIAL
 - 4 - LOW POTENTIAL



NOTE: ALL DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE

Ningo + Moore		ENVIRONMENTAL HAZARD SITE ASSESSMENT	FIGURE
PROJECT NO.	DATE	CORNFIELD ARROYO SECO PROJECT (CASP)	2
207523003	1/10	LOS ANGELES, CALIFORNIA	

**TABLE 1 – SELECTED REDEVELOPMENT PROPERTIES ASSESSED
CORNFIELD ARROYO SECO SPECIFIC PLAN AREA, LOS ANGELES, CALIFORNIA**

Rank 1 - (red on Figure 2) meaning the property has known unresolved environmental issues, an open regulatory agency case. Ranking of 1 was further subdivided into 1A, which includes those properties where no obvious action is being taken (and no responsible party [RP] is known, based on reviewed information), and 1B which includes those properties where action is being taken by an identified RP or through a voluntary cleanup.

Rank 2 - (orange) meaning the property has had environmental concerns in the past, but there is a potential for further issues in the future, and thus further assessment is recommended. In some cases these sites may have received a regulatory closure that did not address all potential issues.

Rank 3 - (yellow) meaning the property has active permits (typically underground storage tanks [USTs], or hazardous waste permits) and/or known historic uses that have a potential for causing impact.

Rank 4 - (green) meaning the property has no significant known environmental issues, based on the information readily available.

SITE NUMBER	ADDRESS	ASSESSOR PARCEL NUMBER	GEOTRACKER NOTES (Regional Water Quality Control Board [RWQCB])	ENVIROSTOR NOTES (Department of Toxic Substances Control [DTSC])	FIRST SEARCH REVIEW NOTES (Compilation of Databases)	SIDEWALK OBSERVATION FOR RECs	RANK	RANK REASONING	RECOMMENDATIONS
1	1000 NORTH MAIN STREET	5409009010	Nothing found for this site.	Nothing found for this site.	The site has hazardous waste permits.	The site is currently used as a recycling center. There are railroad tracks on site.	3	(3) Permits are an indication of possible impacts.	Additional research, site inspection - Review historic info.
2	1001 NORTH MAIN STREET	5409007001	Nothing found for this site.	Nothing found for this site.	The site listed as a hazardous waste generator as Biner Ellison.	Unknown occupants; a sign reading Fu Yuan International was observed on the side of the building (facing 109 West College Street). No hazardous materials were observed from the street. Fu Yuan International is a manufacturer of art supplies; unclear if manufacturing occurred at this site.	3	(3) Manufacturing operations are potential sources of impacts.	Additional research on current and historic uses of site.
3	130 WEST ELMYRA STREET	5409006057	Nothing found for this site.	Nothing found for this site.	The site listed as a hazardous waste generator as Kim Phuoc Jewelry.	The site is currently occupied by KP Inc, a jewelry manufacturer for unidentified uses.	3	(3) Manufacturing operations are potential sources of impacts.	Additional research on current and historic uses of site.
4	1209 NORTH MAIN STREET	5409006048	Nothing found for this site.	Nothing found for this site.	Historic UST (inactive); site listed as Chevron USA gas station as of 1994.	The site is currently occupied by "Arts of Self Defense" studio and "Neon Light and Novelty" custom gifts. No other information was found on the reported former association of the site with Chevron.	3	(3) Historic uses might have impacted the site. Possibly, formerly used as a gasoline station.	Research the past uses of the site. Reverse Directory, Chain of Title, Aerial Photo Review.
5	1250 NORTH MAIN STREET	5409010032	The site was owned Allied Kelite. The lead agency is the Los Angeles Regional Water Quality Control Board (RWQCB), but DTSC is also providing oversight.	The site is referred to as Witco/Allied Kelite Division. The site is listed as overseen by DTSC under the VCP. The site status is No Further Action (NFA) as of October 1995. The site was historically used for manufacturing, chemical usage, and metal finishing. The contaminants of concern are metals and VOCs. The media affected at the site are soil vapor, soil, and groundwater ("other than drinking water). Groundwater sampling has been conducted at the site. (A copy of the Preliminary Endangerment Assessment (PEA) Report dated October 1995 for this site is available in the interactive Figure 2 on the CD.)	The site was used for blending and formulation of liquid and solid chemical compounds and as a metal finishing plant. Soil vapor, groundwater, and soil are impacted by VOCs and metals. An NFA for soil was granted in October 1995 from the DTSC. Groundwater is still impacted from the site and off site sources. Former site uses are for electroplating, plating, polishing, anodizing and coloring, industrial machine manufacturing, and miscellaneous chemical use and manufacturing.	Former occupants Kelite, Witco Allied Kelite are no longer active at this site, which is an abandoned building. Kelite Allied Witco was purchased by MacDermid Corp. in 1994.	1	(1B) Known releases at the site, NFA granted. Groundwater still impacted.	Assess reasons for the NFA. Identify current RP (likely MacDermid) See if the impacts have been delineated and/or cleaned up. Track down groundwater and soil sample reports. The available report in Geotracker is a PEA agreement with the Department of Toxic Substances Control (DTSC). Review DTSC, Los Angeles Regional Water Quality Control Board (LARWQCB) and City of Los Angeles Fire Department (LAFD) files. Potential Phase II or request further information from Responsible Party (RP).
6	1430 BOLERO LANE	5409012903	The site is the Burlington Northern Santa Fe (BNSF) Mission Tower site. A site assessment was conducted in June 2000 but the case is still open. No evidence in database of work performed after June 2000. The contaminants of concern at the site are metals, VOCs, arsenic, and chromium. (A copy of the Office of Environmental Health Hazard Assessment (OEHHA) toxicologist's review for this site is available in the interactive Figure 2 on the CD.)	Nothing found for this site.	The site is listed as a "spills case". The site assessment indicates that arsenic, chromium, other metals, total petroleum hydrocarbons (TPH), and VOCs were released.	Currently at the site are residential apartments with a maintenance yard for automobiles and tool storage.	1	(1A) Known spill and the media affected is not specified. Current residential use; site may be impacted.	Additional research, review the LARWQCB and the Office of Environmental Health Hazard Assessment (OEHHA) health risk files. Site is owned by the City of Los Angeles. Phase II recommended.
7	1417 NORTH MAIN STREET	5409005016	Nothing found for this site.	Nothing found for this site.	Nothing found for this site.	The site is currently occupied by Food Corp.	4	(4) No indication of impacts	None
8	1418- 1424 NORTH SPRING STREET	5409004002	Nothing found for this site.	Nothing found for this site.	The site is listed with UST (inactive) as Bradley Import Co. as of 1994.	The site is currently used as a Poultry Distributor. The new site building address is 1418 North Spring Street. The site address of 1424 North Spring Street was not found during the site visit.	3	(3) Site listed as historically containing a UST, which may have impacted the site.	Additional research on current and historic uses of site.

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**TABLE 1 – SELECTED REDEVELOPMENT PROPERTIES ASSESSED
CORNFIELD ARROYO SECO SPECIFIC PLAN AREA, LOS ANGELES, CALIFORNIA**

Rank 1 - (red on Figure 2) meaning the property has known unresolved environmental issues, an open regulatory agency case. Ranking of 1 was further subdivided into 1A, which includes those properties where no obvious action is being taken (and no responsible party [RP] is known, based on reviewed information), and 1B which includes those properties where action is being taken by an identified RP or through a voluntary cleanup.

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9	1460 NAUD STREET	5409005022 5409005023 5409005024	Nothing found for this site on this database.	This site is referred to as Champion Brass Manufacturing Company, and is listed as an evaluation is needed. The Envirostor website indicates "For the clean-up Status Reference: 1248 Local Agency as of February 2004." Additional information concerning this clean-up status reference was not provided on the Envirostor website.	Evaluation needed to be conducted at the site. The past use of the site was by a brass manufacturer. There is limited information available.	Currently the site contains a large building occupied by Super Home Mart with second level parking.	1	(1A) DTSC recommendation is "Evaluation needed."	Research the past uses of the site with a DTSC and LAFD File Review. Possibly reverse directory, aerial photos and chain of title reviews. Identify why the site needs to be evaluated. Check RP status. Phase II recommended.
10	201 WEST SOTELLO STREET	5409003029	The site currently has an UST.	Nothing found for this site.	Site listed with UST and on hazardous waste tracking system for oil/water separator sludge.	The site is currently being utilized for bus storage and maintenance with lifts by Atlantic Express Transportation Group. The site is adjacent to a metals scrap yard.	2	(2) Permitted USTs at the site, possible impacts from adjacent property.	Review tank records and a LAFD File Review. Evaluate corner property for possible off site impacts.
11	1635 NORTH MAIN STREET	5409003041	Nothing found for this site.	Nothing found for this site.	The site has hazardous waste permits for: -Aqueous solution with organic residues >10% (0.22935 tons per year) -Unspecified Solvent Mixture (0.60465 tons per year), -Unspecified Organic Mixture (0.22935 tons per year).	The site contains a large building which was addressed as 1639 North Main Street and also identified as 1635 Main Street, occupied by Vaughn Benz. No indications of potential environmental concerns were observed from the street.	3	(3) Hazardous waste permits are an indication of possible impacts, but relative low volumes of waste indicate impact likely limited.	Site inspection to investigate current site uses.
12	1639 NORTH MAIN STREET	5409003034	Nothing found for this site.	Nothing found for this site.	Site listed with active UST.	A sign on the site building indicates the occupant is I-basic Intima. The site is associated with 1635 North Main Street (Vaughn Benz). No indications of potential environmental concerns were observed from the street. The site contains a large building.	3	(3) Permitted UST is an indication of possible impacts. This address is on the same building as 1635 North Main Street.	Site inspection to investigate current site uses. Review tank records and a LAFD File Review.
13	1620 NORTH SPRING STREET	5409002016	The site is the former Main Street Dairy, and has a leaking UST case which was closed in January 1997. The site contaminant of concern is gasoline.	Nothing found for the site on this database.	A gasoline leak was discovered at the site. Free product was removed from the groundwater table. Groundwater samples indicate methyl-tertiary butyl ether (MTBE) concentrations were reported at 36 parts per billion (ppb).	The site is currently occupied by Veolia, as a Metrolink Bus Maintenance yard. The property is fenced around the perimeter. An Avco Gas aboveground storage tank (AST), vehicle lifts, and possible chemical storage containers were observed at the site.	1	(1B) Groundwater apparently still impacted. Past and current uses have the potential to have impacted the site.	Further investigation needed. LARWQCB and LAFD File Review. Phase II recommended.
14	1625 NAUD STREET	5409002017	Nothing found for this site.	Nothing found for this site.	The site is listed with an inactive UST.	The site is currently occupied by the Southern California Steel Company. The site is adjacent to Stadco and Veolia Metro Bus Maintenance yard (addressed at 1623 Naud Street and 1620 North Spring Street, respectively). 55-gallon drums were observed the rear area.	3	(3) UST and current uses have the potential to impact the site.	Site inspection to investigate current site uses. Review tank records and a LAFD File Review.
15	1645 NORTH MAIN STREET	5409003036 5409003037 5409003038	Nothing found for this site.	Nothing found for this site.	Site listed on the California hazardous waste tracking system.	The site is currently occupied by the California Department of General Services. Two ASTs were seen on site; one labeled as containing diesel fuel, and the other containing nitrogen gas.	3	(3) ASTs were observed on site.	Site inspection and LAFD file review.
16	1667 NORTH MAIN STREET	5409003018	The site is the Sage Property. The case was closed in August 2002. The contaminants of concern are chromium, petroleum, tetrachloroethylene (PCE), other metals, and VOCs.	Site listed as inactive, but needs an evaluation as of June 1995. The DTSC received a complaint about unlawful release or disposal of hazardous waste or hazardous substances, including PCE, trichloroethylene (TCE), 1,1,1-trichloroethane (1,1,1-TCA), and toluene, at the site and the neighboring property. Due to evidence of on-site contamination, the DTSC recommends conducting a Preliminary Environmental Assessment (PEA).	DTSC indicates an evaluation is needed and recommends conducting a PEA. Unlawful disposal of PCE, TCE, 1,1,1-TCA, and toluene was reported at the site. The site was historically used for tire manufacturing (except retreading), then a circuit breaker company. Available hazardous waste records indicates halogenated solvents for degreasing, ignitable waste, corrosive waste, lead, and various others chemicals have been used at the site.	Oriental art statues and pottery glazed in metal were observed at the site The site is also addressed as 1650 North Naud Street.	1	(1A) There are known impacts at the site. The DTSC recommends a PEA, but there is no record of it being performed.	Check for recent environmental work conducted at the site. Further investigation needed. DTSC and LAFD File Review. Check RP status. Phase II recommended.

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 TPH = Total Petroleum Hydrocarbons

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CORNFIELD ARROYO SECO SPECIFIC PLAN AREA, LOS ANGELES, CALIFORNIA**

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SITE NUMBER	ADDRESS	ASSESSOR PARCEL NUMBER	GEOTRACKER NOTES (Regional Water Quality Control Board [RWQCB])	ENVIROSTOR NOTES (Department of Toxic Substances Control [DTSC])	FIRST SEARCH REVIEW NOTES (Compilation of Databases)	SIDEWALK OBSERVATION FOR RECs	RANK	RANK REASONING	RECOMMENDATIONS
17	1646 NORTH SPRING STREET	5409002014	Nothing found for this site.	Nothing found for this site.	Site address listed a Resource Conservation & Recovery Act (RCRA) waste generator as Kim Phuoc Jewelry.	The site is currently an Art Gallery. There is a placard on the door indicating the site building was constructed in 1925.	3	(3) Hazardous waste permits are an indication of possible impacts, but relative low volumes of waste indicate impact likely limited.	Site inspection to investigate current site uses.
18	117 WEST WILHARDT STREET	5409002021	The site currently has an UST.	Nothing found for this site.	Site listed with an active UST.	Current property occupant is Daily Seafood Company. The site is adjacent to 119 Wilhardt (which contains unknown users), and 1716 Naud Street which is occupied by Left Coast Electric Inc. (where drums, pallets, and chemical containers were observed).	3	(3) Current uses (Permitted UST) have the potential to impact the site.	Check for possible impacts from surrounding properties. DTSC and LAFD File Review. Phase II recommended.
19	1700 NORTH SPRING STREET	5409002019	Nothing found for this site.	Nothing found for this site.	A train track incident was reported at the site; a dead body was found.	The site is currently occupied by Soy Sauce and Canned Food, Inc. No hazardous materials were observed on the site from the public road.	3	(3) Historic uses might have impacted the site. (Railroad tracks)	Review historical site use, reverse directory, chain of title, historic aerial photo review. Phase II recommended.
20	1746 NORTH SPRING STREET	5409002029	Owned by Bortz Oil Company (BOC). The contaminant of concern is gasoline. (Copies of reports for this site are available in the interactive Figure 2 on the CD.)	State Superfund Site, and the site status indicates there are active land use restrictions as of August 1996. The impacts were caused by Bortz Oil Company (BOC) which was a distributor and manufacturer of chemicals. The contaminants of concern are volatile organic compounds (VOCs). The site cleanup program lead agency is the California Department of Toxic Substances Control (DTSC). Copies of reports available on the CD.	The site has active land use restrictions prohibiting residential reuse. The site historically was used for distribution and manufacturing of chemicals. A building fire occurred in August 1984. BOC was cited for spills, leaking piping valves and drums, and illegal disposal of chemicals. Soil and groundwater was impacted by VOCs and metals. Soils were cleaned-up as of August 2002 according to the DTSC. Groundwater is still impacted. The property next door is 1726 Naud Street and is owned by the same owner. Soil vapor extraction was conducted between June 2000 and April 2001. Soil vapor clean-up goals were met as of December 2001. Currently, groundwater is sampled semi annually.	The site does not appear to be actively used, and consists of an empty yard. One 55-gallon drum was observed on this site. The property adjacent to this site is addressed as 1726 North Spring Street, which was occupied by Luckey Import and Export, Inc.	1	(1B) On-going ground water concern. Land use restrictions suggest contamination left in place.	Review reports for nature and scope of cleanup and Prohibited Uses. Review and synopsise all environmental reports or complete Phase I ESA. Phase II recommended.
21	1777 NORTH MAIN STREET	5410019008	Nothing found for this site.	Nothing found for this site.	Site listed on the California hazardous waste tracking system.	The site is currently occupied by China Pacific Restaurant Equipment Inc. The site is adjacent to 1785 North Main Street (which is occupied by Ace Used Auto Parts and Dismantling).	3	(3) No indication of on-site impacts. Possible impacts from site use and surrounding properties.	Further investigate the uses of the Ace Used Auto Parts and Dismantling next door at 1785 N. Main. Research 1785 North Main Street Geotracker, Envirostor, and LAFD records. Phase II recommended.
22	502 SOUTH AVENUE 17	5410019004	The site reportedly has active hazardous waste permits.	Nothing found for this site.	The site is utilized for dismantling vehicle and sale of used auto parts. The site has active hazardous waste permits.	The site is currently occupied by R&F Used Auto Parts for used auto parts and a junk yard.	3	(3) Permits are an indication of possible impacts. Historic uses might have impacted the site.	Review historical site use, reverse directory, chain of title, historic aerial photo review.
23	1750 ALBION STREET	5447028001	Nothing found for this site.	Nothing found for this site.	The site has active hazardous waste permits, including (waste type, other organic solids) - 0.85 tons per year.	The site is currently occupied by General Truck Body, Inc. The inside of the building looks similar to a metals shop. The site is adjacent to General Restaurant Equipment Inc.	3	(3) Permits are an indication of possible impacts. Current and/or historic uses might have impacted the site.	Review historical site use, reverse directory, change of title, historic aerial photo review.
24	1796 NORTH SPRING STREET	5447026001	The site is Bill's Automotive shop and has a leaking UST case with no record of closure as of June 1997. The contaminant of concern is gasoline. The oversight agency is LARWQCB. (Copies of Quarterly Groundwater Monitoring reports are available for this site in the interactive Figure 2 on the CD.)	Nothing found for this site.	The site has active hazardous waste permits. A gasoline release occurred on site. MTBE migrated into groundwater with concentration of 180 ppb. The requested abatement method by the LARWQCB is to remove free product and floating product for MTBE in groundwater.	The site is currently occupied by an auto repair shop. 55-gallon drums and vehicle lifts were observed at the site.	1	(1A) There are known impacts at the site. The site is an open case.	Further investigation needed. Check for most recent reports. Check RP status. LARWQCB and LAFD File Review. Contact with RP or Phase II recommended.
25	1721 NORTH BROADWAY	5447020006	Nothing found for this site.	Nothing found for this site.	Site listed with and active UST as Young-Nak Press Church as of 1994.	The site building is currently utilized as a Church campus. Another address on the building reads 125 Avenue 18.	3	(3) Current uses (Permitted UST) have the potential to impact the site.	Further investigation needed. LARWQCB and LAFD File Review.

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26	1815 NORTH BROADWAY	5447021028	Nothing found for this site.	Nothing found for this site.	Site listed as a RCRA Small Quantity Generator (SQG) as Service Motor Parts Co.	The site is attached to the 1800 Pasadena Avenue site. This side of the property is used as the Church bus parking lot.	4	(4) No indication of on-site impacts. Possible impacts from surrounding properties.	None
27	126 SOUTH AVENUE 18	5447021027	The site is listed with a permitted UST.	Nothing found for this site.	Site listed with active UST.	The entire block looks to be occupied by a church (with main address at 1800 Pasadena). There is one building with a sign for Jabels Cosmetics at 126 South Avenue 18.	3	(3) Current uses (Permitted UST) have the potential to impact the site.	Additional research, LAFD file review.
28	1800 NORTH PASADENA AVENUE	5447021022	Nothing found for this site.	Nothing found for this site.	Nothing found for this site.	The site building is currently a church; the parking area is utilized as a church bus parking lot.	4	(4) No indication of on-site impacts. Possible impacts from surrounding properties.	None
29	1831 NORTH PASADENA AVENUE	5447018900 5447018901	The site is the Los Angeles Department of Transportation (LADOT) Central Traffic Yard, and had a leaking UST case which was closed in March 2002. The contaminant of concern is aviation fuel.	Nothing found for this site.	Only soil was impacted by on-site Leaking UST. Case was closed.	The site is occupied by the LADOT Central Yard, and is utilized as a truck maintenance facility.	1	(1B) Known historic impacts at the site. Case was closed 3/2002. Current site uses have potential to impact the site.	Review closure report, LARWQCB and LAFD File Review. Site is owned by the City of Los Angeles. Phase II may be recommended based on review.
30	2001 NORTH BROADWAY	5447023018	The site is the NASA Oil Company. The site has a leaking UST case which was closed in November 2006. The contaminant of concern is gasoline. (Copies of Groundwater Monitoring reports are provided in the interactive Figure 2 on the attached CD.)	Nothing found for this site.	The site has hazardous waste permits. There was a reported gasoline leak. MTBE concentrations in groundwater were reported at 65,000 ppb. According to First Search, the case is closed since 2008.	The site is currently a gas station with auto repair. Lifts, ASTs, drum storage, USTs, and pump stations were observed at the site.	1	(1B) Known historic impacts at the site. Current site uses have potential to impact the site.	Review closure report, LARWQCB and LAFD File Review. Site reconnaissance. Phase II recommended.
31	1931 NORTH BROADWAY	5447022027	Nothing found for this site.	Nothing found for this site.	The site has been used for machine manufacturing and fabricated metal products manufacturing. The site has hazardous waste permits.	The site is currently occupied by STADCO. 55-gallon drums, storage of chemicals, Invar solids (i.e., a nickel steel alloy), nitrogen ASTs, and a machine room were observed at the site.	2	(2) Current uses have the potential to impact the site. Permits are an indication of possible impacts. Drums and chemical storage bins observed at the site.	Further investigation needed. LAFD File Review. Site reconnaissance. Determine historical profile. Phase II recommended.
32	140 NORTH AVENUE 19	5447015901	The site is the Supply and Maintenance Division of the City of Los Angeles Fire Department (LAFD). The site had a leaking UST case which was closed in March 1993. The contaminant of concern was gasoline. UST(s) still present on the site.	Nothing found for this site.	A gasoline leak was discovered at the site. Approximately 3 gallons of ethyl ether was spilled (dumped), which impacted the soil. Chemicals found in soil consist of benzene, methyl ethyl ketone (MEK), TCE, PCE, and others. The site is used for general auto paint, maintenance, and repair.	The site is currently the City of Los Angeles Fire Department, Supply and Maintenance Yard. There is an on-site fueling station. Vehicle lifts and possible chemical storage containers were observed from the street.	1	(1B) Known gasoline spill and the media affected is soil. Chemicals found in soil indicate impacts other than known gasoline leak.	LARWQCB and LAFD File Review. Site reconnaissance. Determine historical profile. Phase II recommended. Site is owned by the City of Los Angeles.
33	2003 NORTH PASADENA AVENUE	5447014001	Nothing found for this site.	Nothing found for this site.	The site has hazardous waste permits.	The site is currently a radiator repair shop. Lifts and a possible drum storage area were observed.	2	(2) Historic and current uses might have impacted the site. Permits are an indication of possible impacts.	Review historical site use, reverse directory, chain of title, historic aerial photo review. LAFD File Review. Site inspection.
34	108 NORTH SAN FERNANDO ROAD	5447014003	Nothing found for this site.	Nothing found for this site.	The site has hazardous waste permits.	The site building is currently used as an art shop, and adjacent to a radiator repair shop (at 2003 Pasadena Avenue).	3	(3) Permits are an indication of possible impacts. Next door is a radiator repair shop.	Review historical site use, reverse directory, chain of title, historic aerial photo review for this site as well as adjacent site.
35	136 NORTH SAN FERNANDO ROAD	5447014025	Nothing found for this site.	Nothing found for this site.	Site listed on the California hazardous waste tracking system for small amounts of liquid wastes.	The name on the side of the building indicates the site is occupied by the National Wire and Cable Company. No hazardous materials were observed from the public thoroughfare.	4	(4) No indication of impacts.	None
36	138 NORTH SAN FERNANDO ROAD	5447014024	Nothing found for this site.	Nothing found for this site.	The site was historically used to manufacture industrial batteries. Groundwater beneath the site is suspected to be contaminated. There was a possible illegal discharge of hazardous waste into an unlined pit in the rear and driveway portions of the site. Maximum lead concentrations of 30,000 mg/kg and the minimum pH of 0.48 were reported. The site has active deed restrictions. An NFA status was granted by the DTSC. The First Search report included "(note: check deed restrictions at DTSC website.)". No other information was provided regarding the note to check deed restrictions.	Signs on building possibly indicate this building is occupied by a sports bar.	1	(1A) Active deed restrictions, possibly still contaminated.	Check for recent work conducted at the site. Further investigation needed. Check RP status. DTSC File Review. Phase II recommended.

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Rank 2 - (orange) meaning the property has had environmental concerns in the past, but there is a potential for further issues in the future, and thus further assessment is recommended. In some cases these sites may have received a regulatory closure that did not address all potential issues.

Rank 4 - (green) meaning the property has no significant known environmental issues, based on the information readily available.

SITE NUMBER	ADDRESS	ASSESSOR PARCEL NUMBER	GEOTRACKER NOTES (Regional Water Quality Control Board [RWQCB])	ENVIROSTOR NOTES (Department of Toxic Substances Control [DTSC])	FIRST SEARCH REVIEW NOTES (Compilation of Databases)	SIDEWALK OBSERVATION FOR RECs	RANK	RANK REASONING	RECOMMENDATIONS
37	140 NORTH AVENUE 21	5447012019	Nothing found for this site.	Nothing found for this site.	The site has hazardous waste permits	The site is currently a LADOT bus maintenance and storage yard. Vehicle lifts and ASTs were observed at the site.	2	(2) Historic and current uses might have impacted the site. Permits are an indication of possible impacts.	Review historic records, LAFD File Review. Site reconnaissance. Site operated by the City of Los Angeles. Phase II recommended.
38	401 NORTH AVENUE 19	5447005900	The site is listed as having a permitted UST.	Nothing found for this site.	Site listed with an active UST.	The back portion of the site is currently used as a LADOT truck maintenance facility. The front portion of the site contains a large building with a Bilingual Foundation of the Arts poster over the front doors (421 North Avenue 19). The site has railroad tracks on the western and southern borders. There are two old-appearing electric transformer towers which are suspected of containing polychlorinated biphenyls (PCBs). Stains were not observed beneath the transformers.	3	(3) Current uses (Permitted UST) have the potential to impact the site.	Review UST records, LAFD file review. Site is owned by the City of Los Angeles. Phase II recommended.
39	342 SAN FERNANDO ROAD	5447009017	The site is listed as having a permitted UST.	Nothing found for this site.	The site has hazardous waste permits. Site listed with an active UST.	The site is currently occupied by Good Will Industries.	3	(3) Current uses (Permitted UST) have the potential to impact the site. Permits are an indication of possible impacts.	Review UST records, LAFD file review.
40	452 SAN FERNANDO ROAD	5447003900 5447003902 5447009903 5447009901	The site is the San Fernando Consolidated Facility. The site has a leaking UST case. The case appears to still be open with significant amount of contamination still likely to be present. The potential contaminant of concern is diesel and gasoline. (Copies of the most recent Groundwater Monitoring reports are provided in the interactive Figure 2 on the attached CD.)	Nothing found for this site.	The site is referred as the San Fernando Consolidated Facility, San Fernando Road Consolidated, East Yard, East Street Maintenance District Yard and the City of LA General services. A piping leak was discovered from conducting subsurface monitoring at the site March 2004, it was leaking 1203 (gasoline). The leak was stopped by removing contents. The lead agency is the Regional Board. The current known status of the site is a Remediation Plan. The site has hazardous waste permits for: -off specification, aged or surplus organics (1.7 tons per year), -unspecified aqueous solution (2.5 tons per year), -waste oil and mixed oil (51.6 tons per year), -tank bottom waste (0.834 tons per year) and Aqueous solution with total organic residues less than 10% (6.72 tons per year.)	452 North San Fernando Road, is currently used as a maintenance yard for dump trucks, with an on-site fueling station, lifts, and possible chemicals stored bins.	1	(1A) Historic and current uses might have impacted the site.	LARWQCB and LAFD File Review. Synopsise environmental reports. Site is owned by the City of Los Angeles. Phase II recommended.
41	451 SAN FERNANDO ROAD	5447004001	Nothing found for this site.	Nothing found for this site.	The site listing indicates it has on-site dry-cleaning and laundry services. Tetrachloroethylene is listed under hazardous waste information. Site is listed with an active UST as Angelica Textile Services.	The site is currently occupied by Angelica's Health Services. It appears to be a large scale laundry services building. Possible PCE and TCE impacts. A 2-inch monitoring well was observed (MW9). Believed to be from 452 San Fernando Road GW investigation.	2	(2) Historic and current uses might have impacted the site. Possible impacts from an off-site source (452 San Fernando Road)	Research current site activities, develop historical profile. Phase II recommended.
42	2010 NORTH FIGUEROA STREET	5415001016	Nothing found for this site.	Nothing found for this site.	The site has hazardous waste permits for waste oil and mixed oil, produced at a rate of approximately 5.421 tons per year (TPY).	The site is currently utilized as a tow truck yard with tow trucks and recently towed cars. A diesel AST was observed at the site. There is possible truck maintenance conducted in one of the buildings at the site.	3	(3) Current uses have the potential to impact the site. Permits are an indication of possible impacts. Diesel AST observed at the site.	Review historic records, LAFD File Review. Site reconnaissance.

DTSC = California Department of Toxic Substances Control
 EPA = U.S. Federal Agency
 tpy = tons per year
 VOCs = Volatile organic compounds
 UST = Underground Storage Tank
 AST = Aboveground Storage Tank
 VCP = Voluntary Cleanup Program
 REA = Preliminary Remedial Assessment
 RCRA = Resource Conservation and Recovery Act
 RCQ = Small Quantity Hazardous Waste Generator
 REC = Recognized Environmental Condition
 LARWQCB = California Regional Water Quality Control Board - Los Angeles Region
 LAFD = City of Los Angeles Fire Department
 OEHHA = California Office of Environmental Health Hazard Assessment
 RP = Responsible Party
 TPH = Total Petroleum Hydrocarbons

**TABLE 1 – SELECTED REDEVELOPMENT PROPERTIES ASSESSED
CORNFIELD ARROYO SECO SPECIFIC PLAN AREA, LOS ANGELES, CALIFORNIA**

Rank 1 - (red on Figure 2) meaning the property has known unresolved environmental issues, an open regulatory agency case. Ranking of 1 was further subdivided into 1A, which includes those properties where no obvious action is being taken (and no responsible party [RP] is known, based on reviewed information), and 1B which includes those properties where action is being taken by an identified RP or through a voluntary cleanup.

Rank 2 - (orange) meaning the property has had environmental concerns in the past, but there is a potential for further issues in the future, and thus further assessment is recommended. In some cases these sites may have received a regulatory closure that did not address all potential issues.

Rank 3 - (yellow) meaning the property has active permits (typically underground storage tanks [USTs], or hazardous waste permits) and/or known historic uses that have a potential for causing impact.

Rank 4 - (green) meaning the property has no significant known environmental issues, based on the information readily available.

SITE NUMBER	ADDRESS	ASSESSOR PARCEL NUMBER	GEOTRACKER NOTES (Regional Water Quality Control Board [RWQCB])	ENVIROSTOR NOTES (Department of Toxic Substances Control [DTSC])	FIRST SEARCH REVIEW NOTES (Compilation of Databases)	SIDEWALK OBSERVATION FOR RECs	RANK	RANK REASONING	RECOMMENDATIONS
43	241 AVENUE 26	5205015005	Nothing found for this site.	The site is the former Baron Manufacturing property. The site is listed under special programs for RCRA 3012 regarding waste oil. The cause of contamination was not specified. The contaminant of concern is an unspecified solvent mixture.	The site has been used for sheet metal fabrication. Unspecified solvent mixtures were used at the site. Potential improper hazardous waste disposal and inventory issues for waste oil were identified. A site screening was conducted and no significant impacts were found. The site was granted an NFA by the DTSC in October 1994.	The site is currently used as a swap meet lot.	2	(2) Historic uses might have impacted the site.	Additional research, DTSC File Review. Phase II recommended.
44	2630 HUMBOLDT STREET	5205015014	Nothing found for this site.	Nothing found for this site.	The site has hazardous waste permits. Site listed with an inactive UST.	No hazardous materials were observed on site.	3	(3) Permits and UST are an indication of possible impacts.	Review historical site use, reverse directory, chain of title, historic aerial photo review. LAFD File Review. Site inspection.
45	3005 HUMBOLDT STREET	5205009003	Nothing found for this site.	Nothing found for this site.	Site is listed on the hazardous waste tracking system.	The site occupants currently include L.A. Cabinet & Millwork, Inc. Indications of various other occupants were observed in the same building; however, they were not identifiable from the road.	3	(3) The site is one suite of a large building, and is on the same lot as 3209 Humboldt Street along with many other types of businesses.	Further investigation needed of entire block, reverse directory, chain of title, historic aerial photo review.
46	3209 HUMBOLDT STREET	5205006053	Nothing found for this site.	The site is referred to as the former Kennington Property. The site status is active, with land use restrictions, as of April 1996. The lead regulatory oversight agency is the DTSC under the site voluntary cleanup program (VCP). Past uses of the site include battery manufacturing and manufacturing of electronics. The contaminants of concern at the site include lead, PCBs, PCE, and TCE. Reported concentrations of PCBs were at 24,076 parts per million (ppm), and concentrations of total recoverable petroleum hydrocarbons (TRPH) up to 73,050 ppm. A Final Remedial Investigation Report has been reviewed and approved by the DTSC. There are active land use restrictions at the site. (Copies of the Groundwater Monitoring reports for this site are available in the interactive Figure 2 on the CD.)	There are active land use restrictions at the site. The site was used in the past by a battery manufacturer, it was also used at one time for preparation of ant poison. The soil and groundwater are impacted with high levels of PCE, PCBs, TCE and metals (primarily lead). Reported concentrations of PCBs were at 24,076 ppm, and concentrations of TRPH up to 73,050 ppm. The site is in process of implementing a groundwater monitoring plan (for PCE and TCE). As directed by DTSC, fence and erosion controls are needed at the site until developed. Asbestos-containing materials (ACMs) were found in the previous building. Soil impacts were contained by concrete flooring (i.e., engineering controls).	Currently the site contains a large building with parking on the second level.	1	(1B) Active land use restrictions. Site still contaminated.	Check for recent work conducted at the site. DTSC File Review. Identify potential RPs. Phase II recommended.
47	380 AVENUE 26 2600 LACY STREET	5205011012	Nothing found for this site.	Nothing found for this site.	The site was used by the Blue Line Construction Authority in the past. Lead is listed under hazardous waste information. Substances released at the site are lead and total petroleum hydrocarbons (TPH), the lead agency is the LARWQCB. Case is closed.	The site is currently a film production studio. The title on the side of the building is Lacy Street Production Studios and American Wrecking Company (at 2600 Lacy Street). Blue drums were observed at the site.	1	(1B) Lead and TPH indicates a known release at the site. Case has been closed.	Additional research, LAFD and LARWQCB file review. Site was formerly used by Metropolitan Transit Authority (MTA). Phase II recommended.
48	2250 NORTH FIGUEROA STREET	5446016010 5446016003 5446016004 5446016012	The site is referred to as the Former 76 Station and Circle-K. The site had a leaking UST. The LUST case is closed as of July 2005. The contaminant of concern was gasoline. (Copies of Groundwater Monitoring reports for the site are available in the interactive Figure 2.)	Nothing found for this site.	The LUST case is closed. The site has hazardous waste permits.	The site is currently a Circle-K gas station with USTs and pump stations. Drums were observed at the site.	1	(1B) Known historic impacts at the site. Case was closed 2005. Current site uses have potential to impact the site.	Further investigation needed. The most recent available report from second quarter 2005 indicates groundwater is still impacted with TPH and MTBE, concentrations are increasing. LARWQCB and LAFD File Review. Phase II recommended.
49	2251 NORTH FIGUEROA STREET	5446015061	The site is referred to as an ARCO Facility. The site had a leaking UST case which was closed as of September 2003. The contaminant of concern was gasoline. (Some groundwater data is available on Geotracker, but no reports were found.)	Nothing found for this site.	The site had a gasoline leak. The case status is closed.	Currently the site is a gas station and tire repair shop, with possible lifts on site.	1	(1B) Known historic impacts at the site, Case was closed 2003. Current site uses have potential to impact the site.	LARWQCB and LAFD File Review, further investigation needed. Phase II recommended.

DTSC = California Department of Toxic Substances Control
 NFA = No Further Action
 ppb = parts per billion
 VOCs = Volatile organic compounds
 UST = Underground Storage Tank
 AST = Aboveground Storage Tank
 VCP = Voluntary Cleanup Program
 REA = Remedial Environmental Assessment
 RCRA = Resource Conservation and Recovery Act
 RCQ = Small Quantity Hazardous Waste Generator
 RFO = Recognized Environmental Condition
 LARWQCB = California Regional Water Quality Control Board - Los Angeles Region
 LAFD = City of Los Angeles Fire Department
 OEHHA = California Office of Environmental Health Hazard Assessment
 RP = Responsible Party
 TPH = Total petroleum hydrocarbons

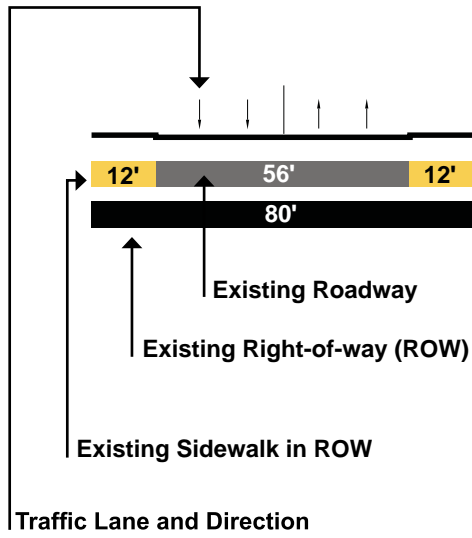
Modified Street Cross-Sections

Appendix 4

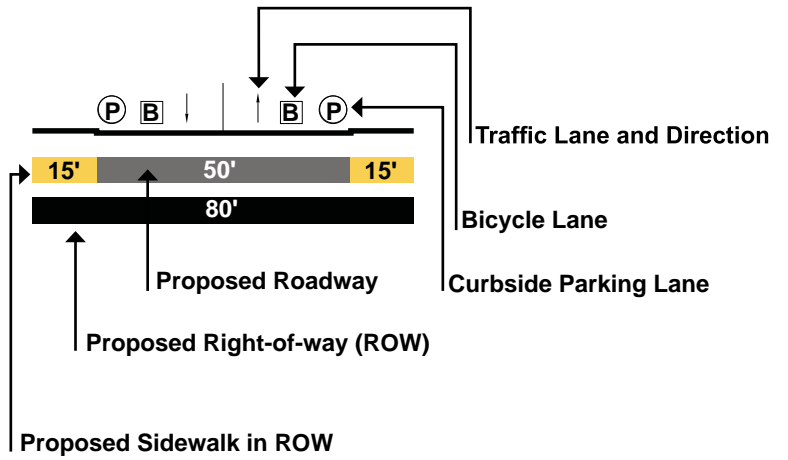


STREET CROSS SECTION LEGEND

EXISTING
Secondary Hwy
(Current Street Designation)



PROPOSED
Collector Modified
(Proposed Street Designation)

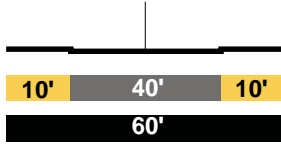


North - South Streets (Looking North)

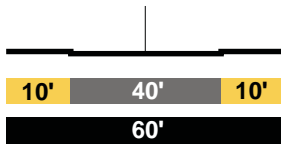
EXISTING

ANN STREET Collector Street

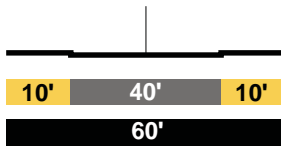
Spring - Weyse



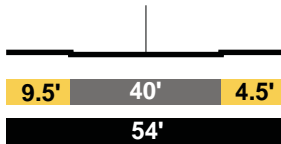
Weyse - Naud



Naud - Main



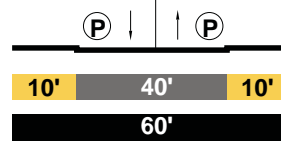
Main - Magdalena Local Street



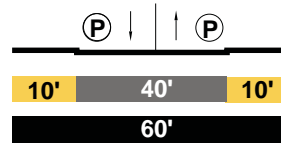
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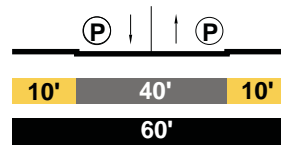
Spring - Weyse



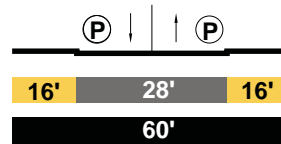
Weyse - Naud



Naud - Main



Main - Magdalena

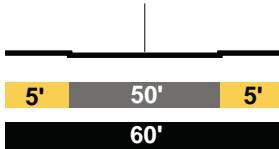


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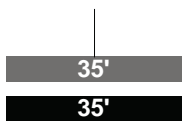
EXISTING

ARTESIAN STREET Local

Ave. 34 - Ave. 33

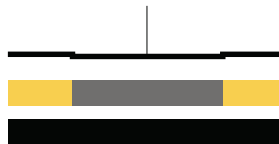


Ave. 33 - Humbolt



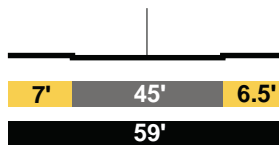
ARTESIAN PL STREET Local

Artesian - Ave. 26



AURORA STREET Local

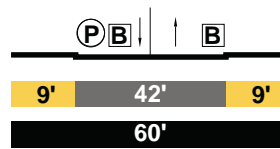
Baker - Spring



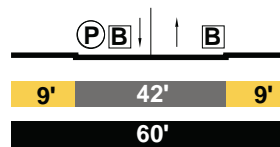
PROPOSED

ARTESIAN STREET Local Industrial Modified

Ave. 34 - Ave. 33

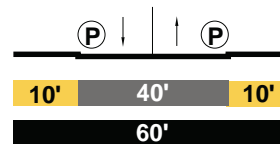


Ave. 33 - Humbolt



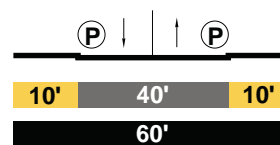
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Artesian - Ave. 26



AURORA STREET Local Modified

Baker - Spring

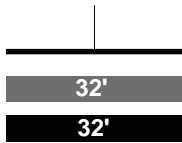


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EXISTING

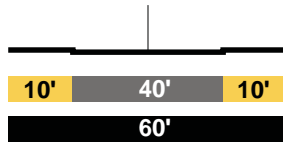
AVE. 16 Local

Albion - Mozart

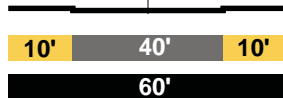


AVE. 17 Local

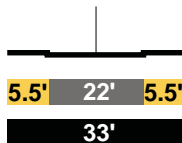
Albion - Mozart



Mozart - Darwin



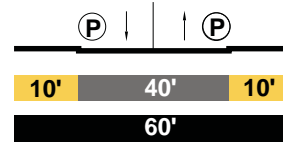
Darwin - Main



PROPOSED

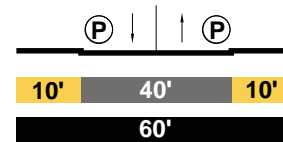
AVE. 16 Looking north

Albion - Mozart

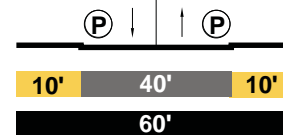


AVE. 17 Local Modified

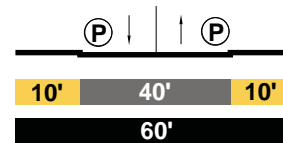
Albion - Mozart



Mozart - Darwin



Darwin - Main

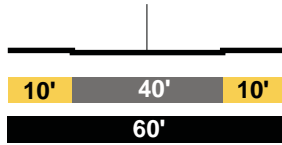


North - South Streets (Looking North)

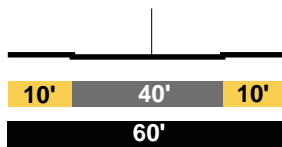
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AVE. 18 Local

Barranca - Pasadena

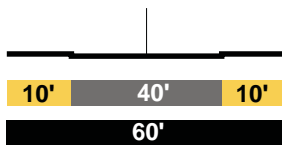


Pasadena - Spring/Broadway

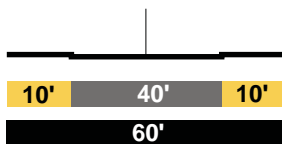


AVE. 18 Local

Spring/Broadway - Albion



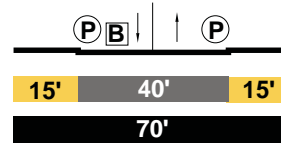
Albion - Mozart



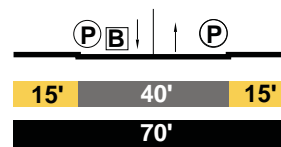
PROPOSED

AVE. 18 Collector Modified

Barranca - Pasadena

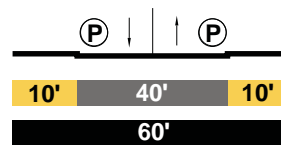


Pasadena - Spring/Broadway

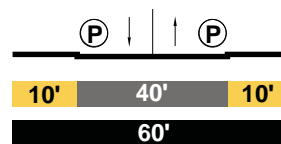


AVE. 18 Local Modified

Spring/Broadway - Albion



Albion - Mozart

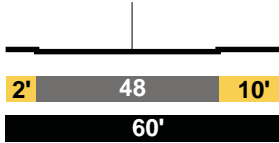


North - South Streets (Looking North)

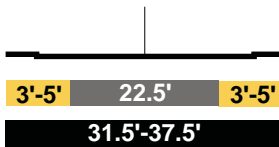
EXISTING

AVE. 19 Local

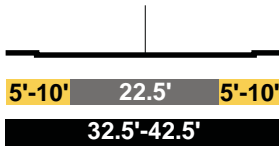
San Fernando Rd - Riverside



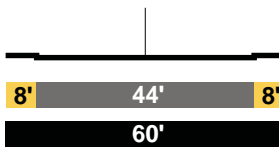
Riverside - Southbound Pasadena Fwy.



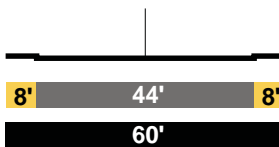
Riverside - Northbound Pasadena Fwy.



Pasadena Fwy. - Humboldt



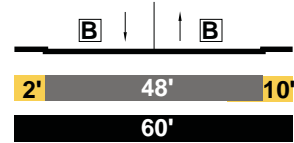
Humboldt - Barranca



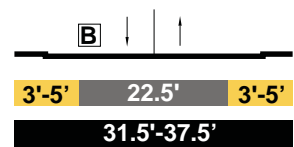
PROPOSED

AVE. 19 Collector Modified

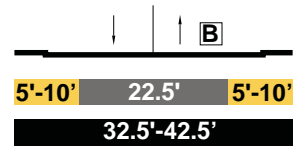
San Fernando Rd - Riverside



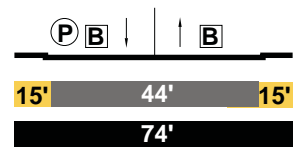
Riverside - Southbound Pasadena Fwy.



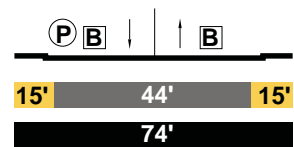
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Pasadena Fwy. - Humboldt



Humboldt - Barranca

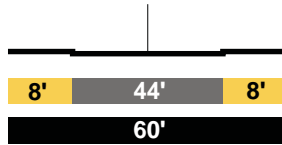


North - South Streets (Looking North)

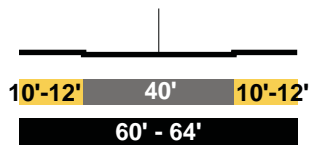
EXISTING

AVE. 19 Local

Barranca - Pasadena

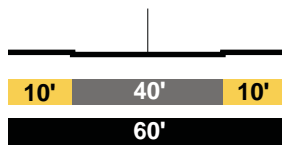


Pasadena - Broadway

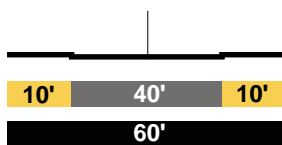


AVE. 19 Local

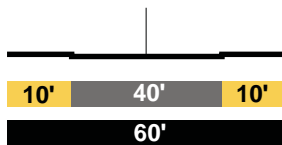
Broadway - Albion



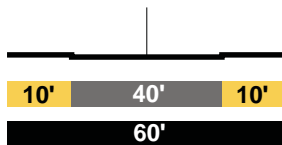
Albion - Mozart



Mozart - Darwin



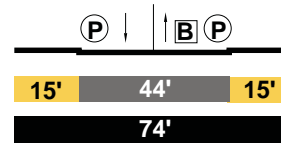
Darwin - Main



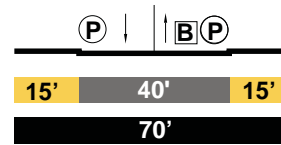
PROPOSED

AVE. 19 Collector Modified

Barranca - Pasadena

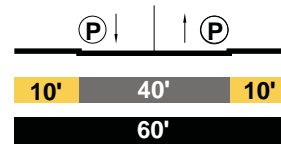


Pasadena - Broadway

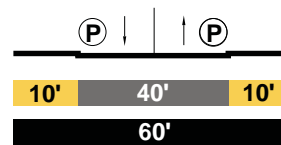


AVE. 19 Local Modified

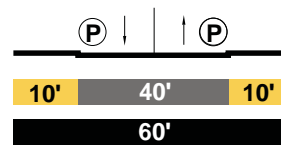
Broadway - Albion



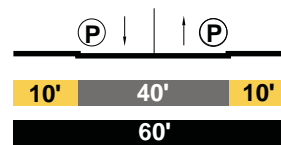
Albion - Mozart



Mozart - Darwin



Darwin - Main

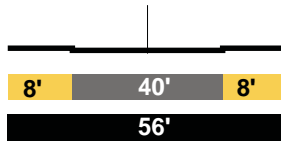


North - South Streets (Looking North)

EXISTING

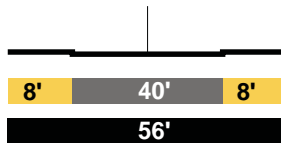
AVE. 20 Secondary Hwy

Pasadena - Broadway



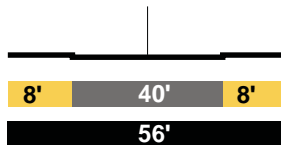
AVE. 20 Secondary Hwy

Broadway - Albion

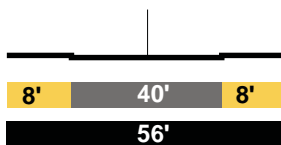


AVE. 20 Collector Street

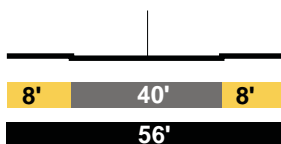
Albion - Mozart



Mozart - Darwin



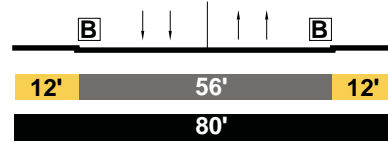
Darwin - Main



PROPOSED

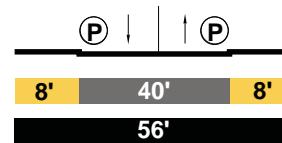
AVE. 20 Secondary Modified

Pasadena - Broadway



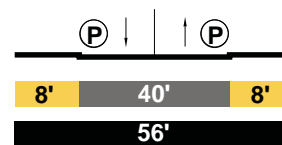
AVE. 20 Local Modified

Broadway - Albion

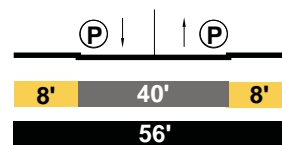


AVE. 20 Local Modified

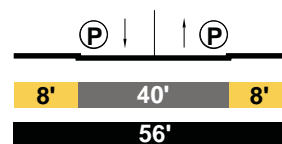
Albion - Mozart



Mozart - Darwin



Darwin - Main

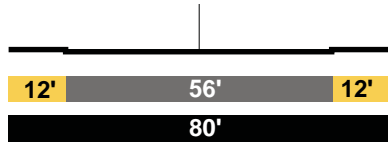


North - South Streets (Looking North)

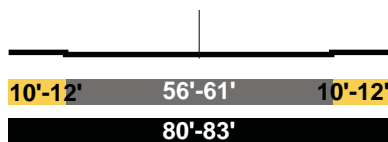
EXISTING

SAN FERNANDO RD Secondary Hwy

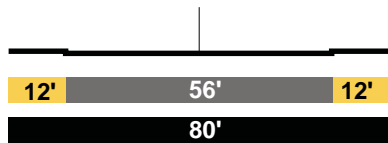
Ave. 19 - Figueroa



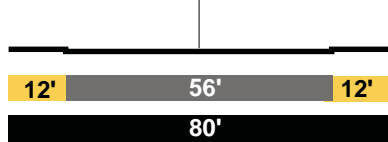
Figueroa - Humboldt



Humboldt - Barranca



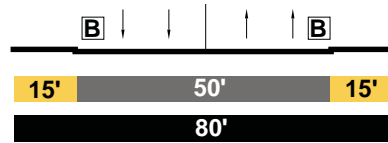
Barranca - Pasadena



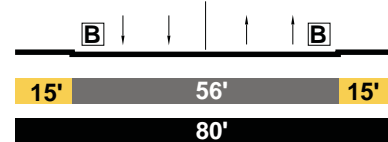
PROPOSED

SAN FERNANDO RD Secondary Modified

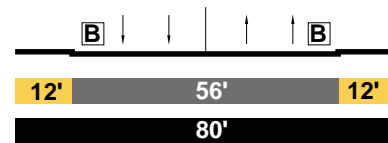
Ave. 19 - Figueroa



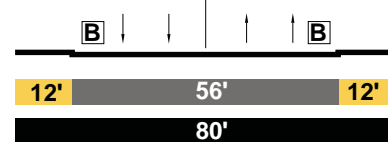
Figueroa - Humboldt



Humboldt - Barranca



Barranca - Pasadena

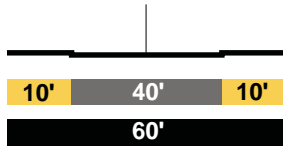


North - South Streets (Looking North)

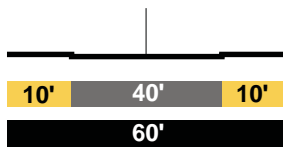
EXISTING

AVE. 21 Local

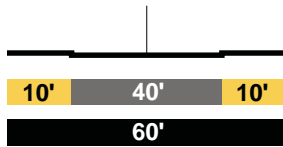
(Railroad Tracks) - Humboldt



Humboldt - Barranca

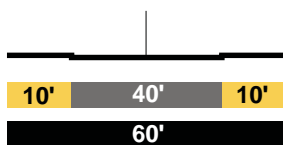


Barranca - Pasadena



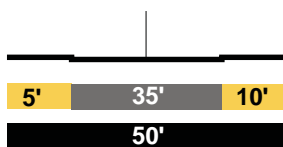
AVE. 23 Local

Humboldt - Barranca



AVE. 25 Local

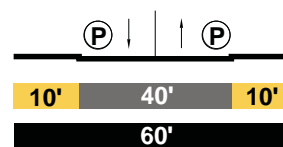
Humboldt - Barranca



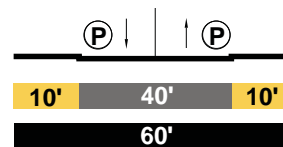
PROPOSED

AVE. 21 Local Modified

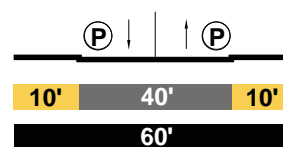
(Railroad Tracks) - Humboldt



Humboldt - Barranca

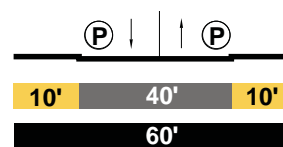


Barranca - Pasadena



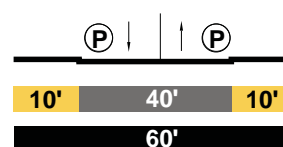
AVE. 23 Local Modified

Humboldt - Barranca



AVE. 25 Local Modified

Humboldt - Barranca

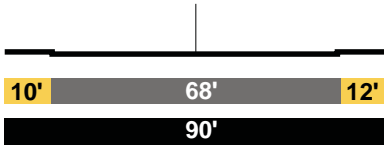


North - South Streets (Looking North)

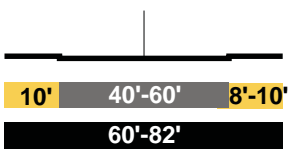
EXISTING

AVE. 26 Secondary Hwy

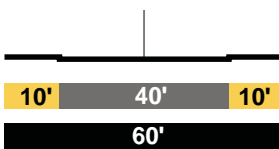
Figueroa - Pasadena Fwy.



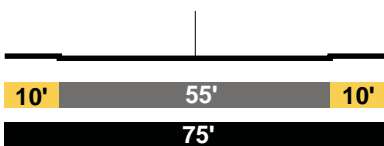
Pasadena Fwy. - Lacy



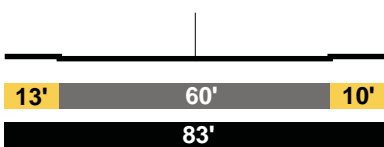
Lacy - Gold Line Bridge



Gold Line Bridge - Artesian



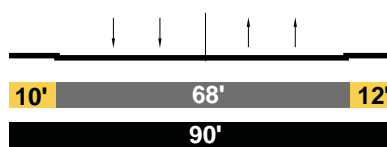
Artesian - Humboldt



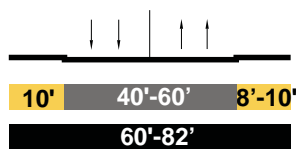
PROPOSED

AVE. 26 Secondary Modified

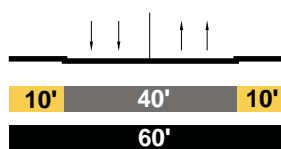
Figueroa - Pasadena Fwy.



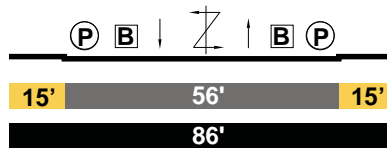
Pasadena Fwy. - Lacy



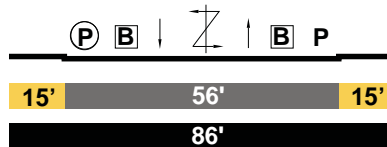
Lacy - Gold Line Bridge



AVE. 26 Collector Modified Gold Line Bridge - Artesian



Artesian - Humboldt

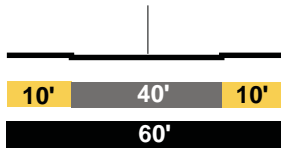


North - South Streets (Looking North)

EXISTING

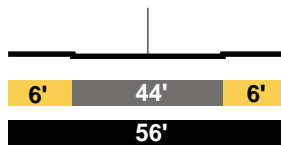
AVE. 26 Local

Humboldt - Barranca



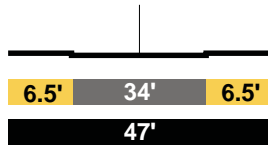
AVE. 28 Local

Huron - Figueroa

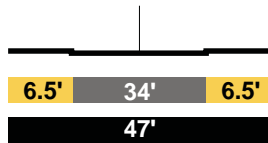


BLOOM Local

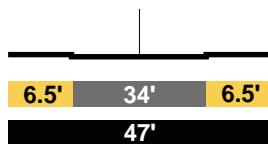
Main - Magdalena



Magdalena - Cardinal



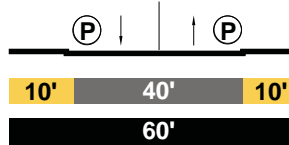
Cardinal - Bolero



PROPOSED

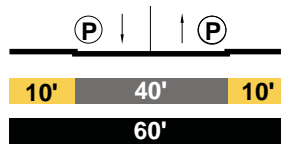
AVE. 26 Collector Modified

Humboldt - Barranca



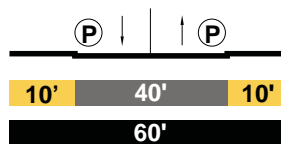
AVE. 28 Local Modified

Huron - Figueroa

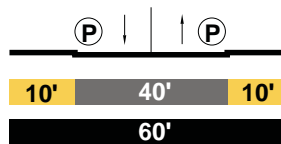


BLOOM Local Modified

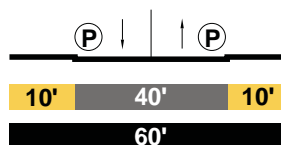
Main - Magdalena



Magdalena - Cardinal



Cardinal - Bolero

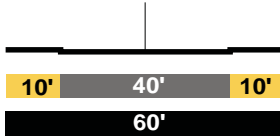


North - South Streets (Looking North)

EXISTING

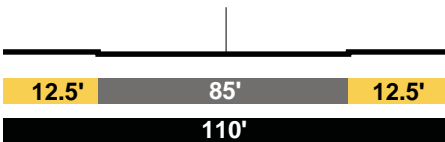
COLLEGE Secondary Hwy

Spring - Main



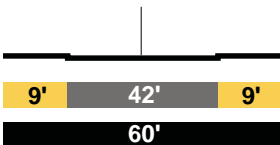
CYPRESS Local

Figueroa - Arroyo Seco Ave



ELMYRA Collector

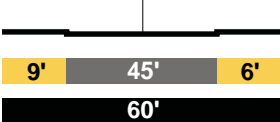
Spring - Main



Main - Magdalena



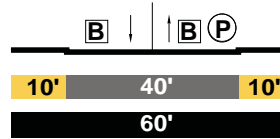
Magdalena - Cardinal
Local



PROPOSED

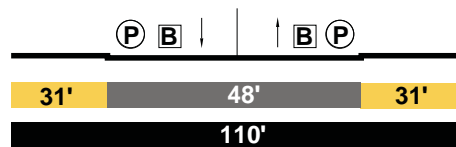
COLLEGE Collector Modified

Spring - Main



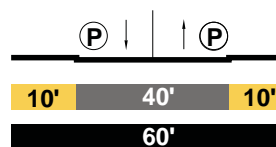
CYPRESS Local Modified

Figueroa - Arroyo Seco Ave

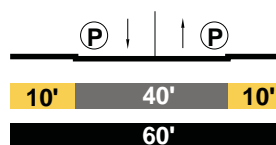


ELMYRA Local Modified

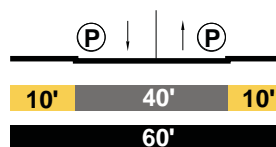
Spring - Main



Main - Magdalena



Magdalena - Cardinal

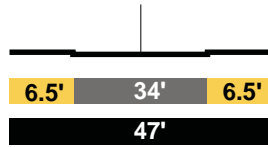


North - South Streets (Looking North)

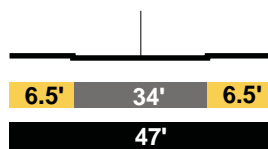
EXISTING

LEROY Local

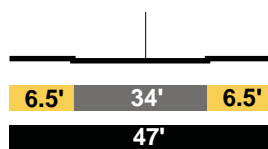
Main - Magdalena



Magdalena - Cardinal

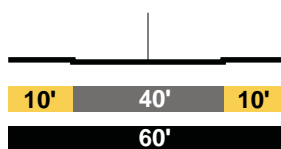


Cardinal - Bolero



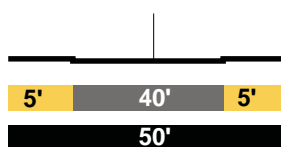
LLEWELLYN Local

Roundout - Main



MESNAGERS Collector

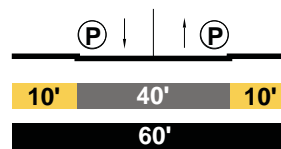
Spring - Naud



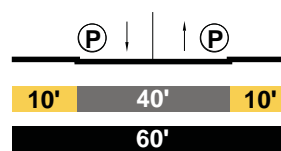
PROPOSED

LEROY Local Modified

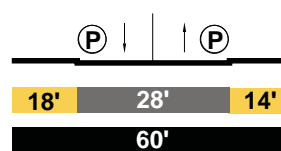
Main - Magdalena



Magdalena - Cardinal

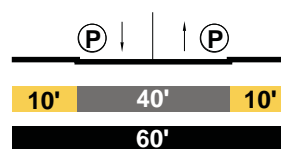


Cardinal - Bolero



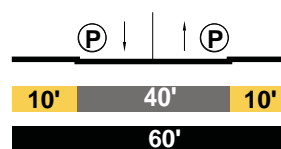
LLEWELLYN Local Modified

Roundout - Main



MESNAGERS Local Modified

Spring - Naud

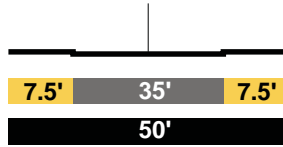


North - South Streets (Looking North)

EXISTING

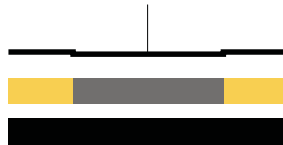
RIVER Local

Huron - Figueroa



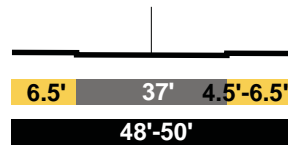
ROUNDOUT Local

Spring - Main

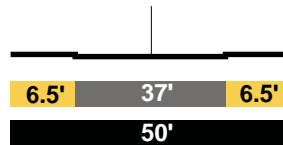


SOTELLO Collector

Spring - Naud



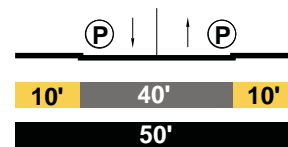
Naud - Main



PROPOSED

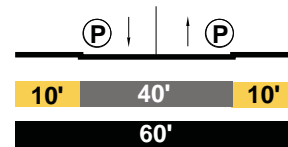
RIVER Local Modified

Huron - Figueroa



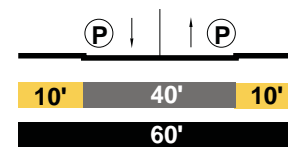
ROUNDOUT Local Modified

Spring - Main

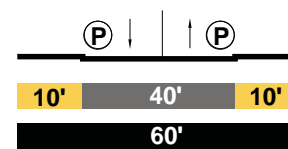


SOTELLO Local Modified

Spring - Naud



Naud - Main

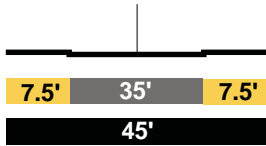


North - South Streets (Looking North)

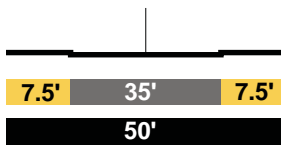
EXISTING

WILHARDT Collector

Spring - Naud



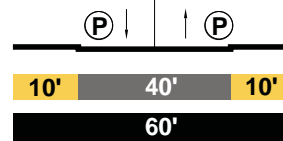
Naud - Main



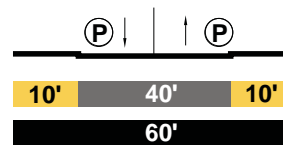
PROPOSED

WILHARDT Local Modified

Spring - Naud



Naud - Main



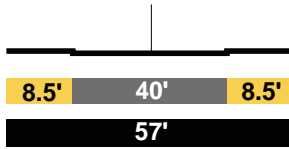
MESNAGERS
Local Modified

East - West Streets (Looking West)

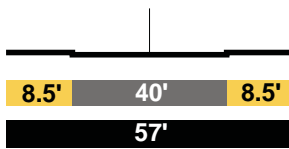
EXISTING

ALBION STREET Local

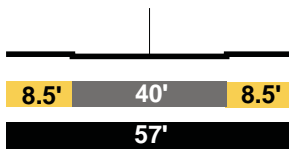
Main - Ave. 16



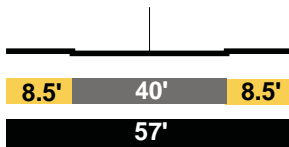
Ave. 16 - Ave. 17



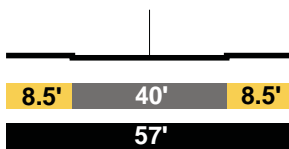
Ave. 17 - Ave. 18



Ave. 18 - Ave. 19



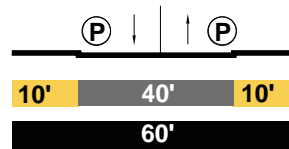
Ave. 19 - Ave. 20



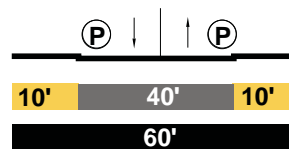
PROPOSED

ALBION STREET Local Modified

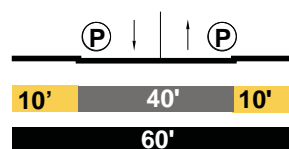
Main - Ave. 16



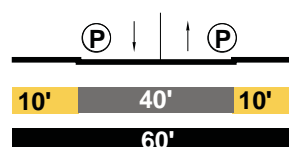
Ave. 16 - Ave. 17



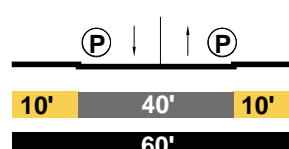
Ave. 17 - Ave. 18



Ave. 18 - Ave. 19



Ave. 19 - Ave. 20

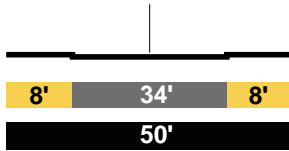


East - West Streets (Looking West)

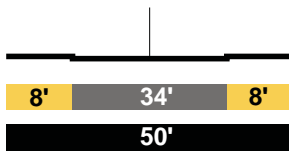
EXISTING

AVE. 33 Local

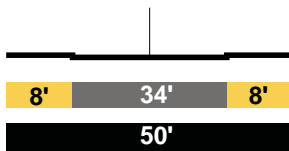
Pasadena - Humboldt



Humboldt - Artesian

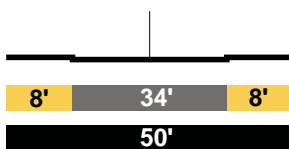


Artesian - Lacy



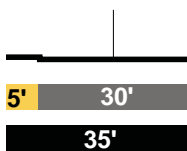
AVE. 34 Local

Pasadena - Artesian



BAKER STREET Local

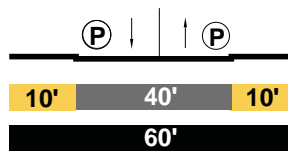
Spring - Aurora



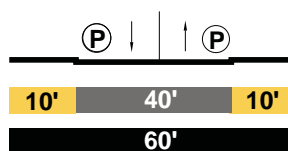
PROPOSED

AVE. 33 Local Modified

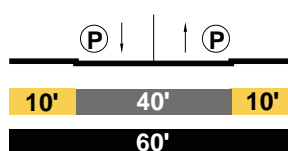
Pasadena - Humboldt



Humboldt - Artesian

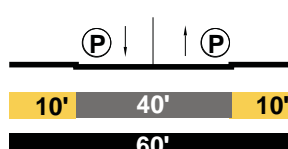


Artesian - Lacy



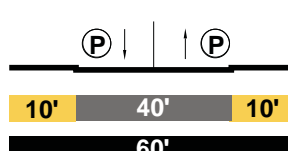
AVE. 34 Local Modified

Pasadena - Artesian



BAKER STREET Local Modified

Spring - Aurora

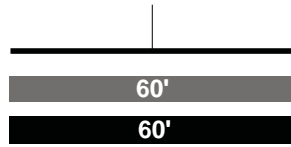


East - West Streets (Looking West)

EXISTING

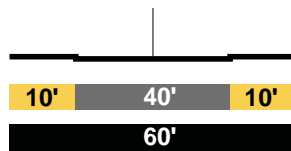
BARRANCA Local

Ave. 18 - Ave. 19

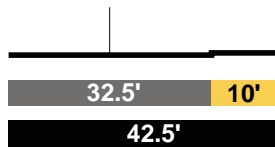


BARRANCA Local

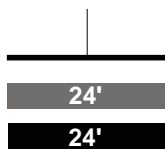
Ave. 20 into (San Fernando Rd) - Ave. 21



Ave. 23 - Ave. 25

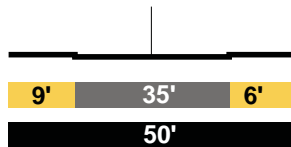


Ave. 25 - Ave. 26



BOLERO STREET Local

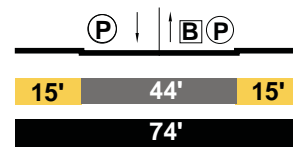
Bloom - Leroy



PROPOSED

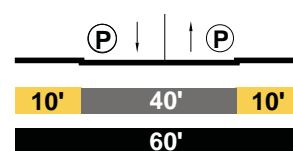
BARRANCA Collector Modified

Ave. 18 - Ave. 19

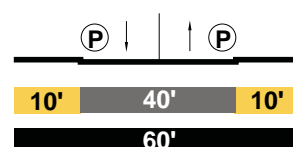


BARRANCA Local Modified

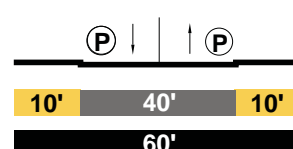
Ave. 20 into (San Fernando Rd) - Ave. 21



Ave. 23 - Ave. 25

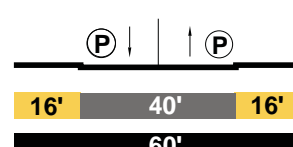


Ave. 25 - Ave. 26



BOLERO STREET Local Modified

Bloom - Leroy

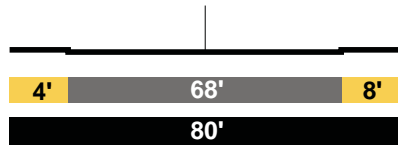


East - West Streets (Looking West)

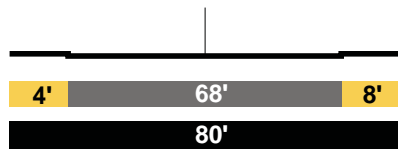
EXISTING

BROADWAY Major Hwy Class II

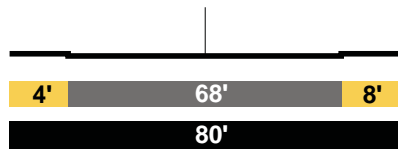
Cottage Home - Bishops



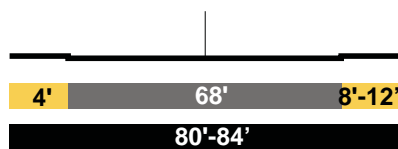
Bishops - Savoy



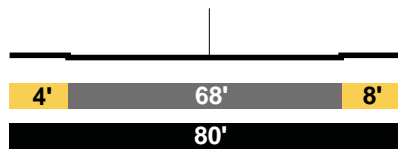
Savoy - Solano



Solano - Casanova



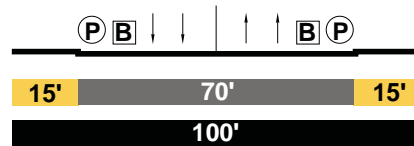
Casanova - Park Row Drive



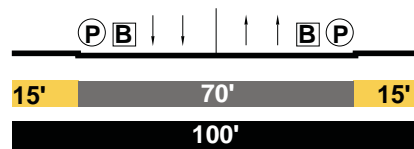
PROPOSED

BROADWAY Secondary Modified

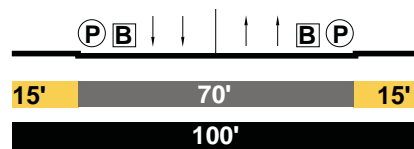
Cottage Home - Bishops



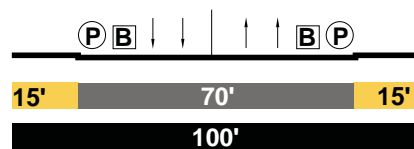
Bishops - Savoy



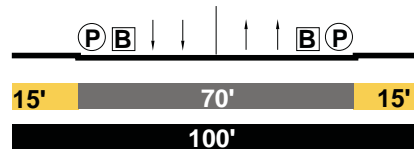
Savoy - Solano



Solano - Casanova



Casanova - Park Row Drive



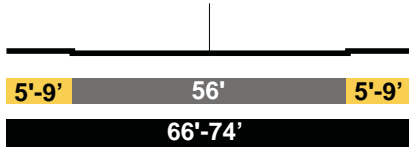
East - West Streets (Looking West)

EXISTING

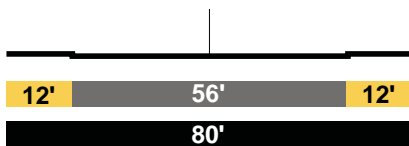
BROADWAY/BRIDGE

Major Hwy Class II

Park Row Drive - Pasadena

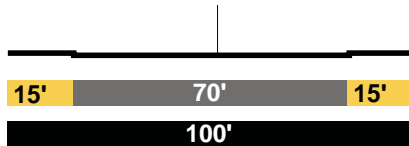


Pasadena - Ave. 18

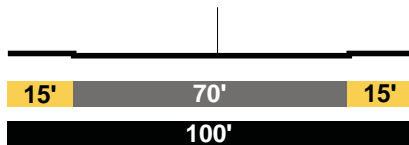


BROADWAY Major Hwy Class II

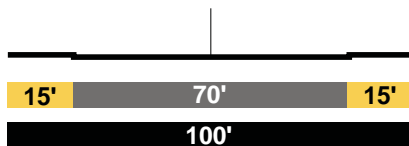
Ave.18 - Ave.19



Ave.19 - Ave.20



Ave.20 - Ave.21

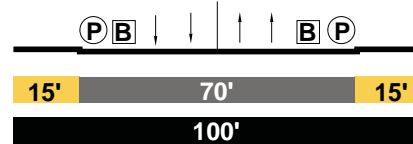


PROPOSED

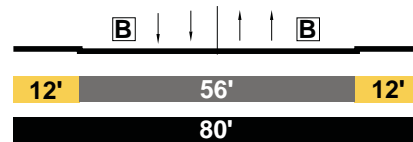
BROADWAY/BRIDGE

Secondary Modified

Park Row Drive - Pasadena

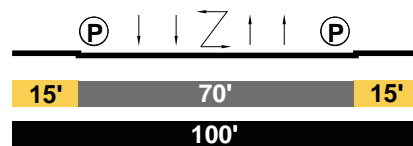


BROADWAY Secondary Modified 2 Pasadena - Ave. 18

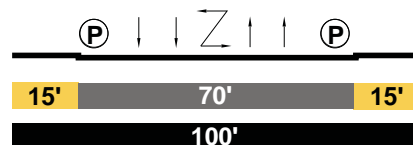


BROADWAY Major Hwy Class II

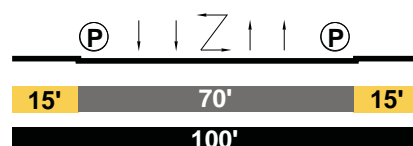
Ave.18 - Ave.19



Ave.19 - Ave.20



Ave.20 - Ave.21



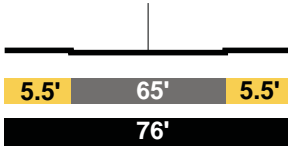
East - West Streets (Looking West)

EXISTING

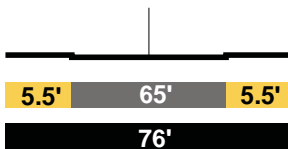
CARDINAL STREET

Local

Elmyra - Bloom



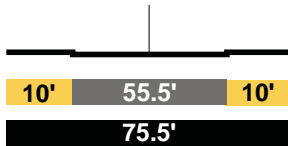
Bloom - Leroy



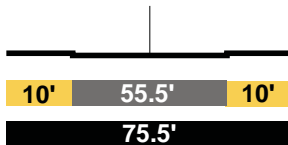
DARWIN

Local

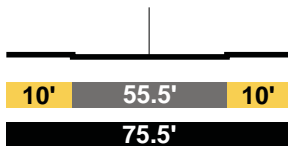
Ave.17 - Ave.19



Ave.19 - Ave.20



Ave.20 - Ave.21

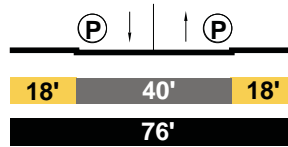


PROPOSED

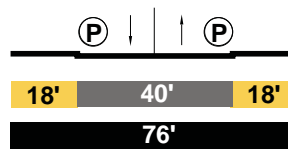
CARDINAL STREET

Local Modified

Elmyra - Bloom



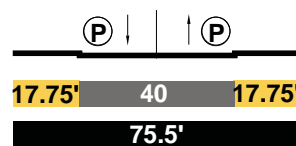
Bloom - Leroy



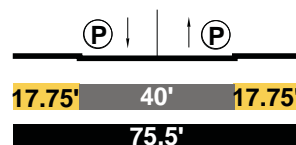
DARWIN

Local Modified 3

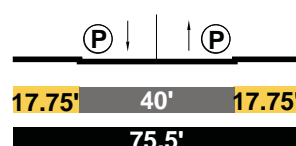
Ave.17 - Ave.19



Ave.19 - Ave.20



Ave.20 - Ave.21

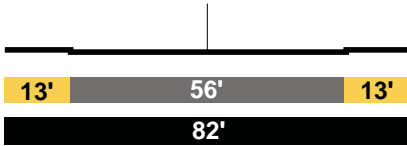


East - West Streets (Looking West)

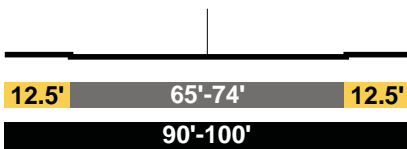
EXISTING

FIGUEROA Major Hwy Class II

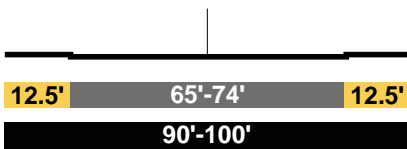
San Fernando Rd - Ave. 22



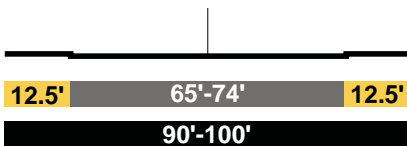
Ave.22 - Ave.26



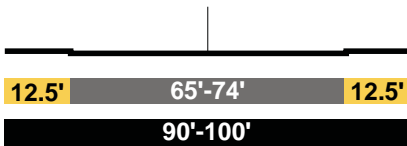
Ave.26 - Ave.28



Ave.28 - River



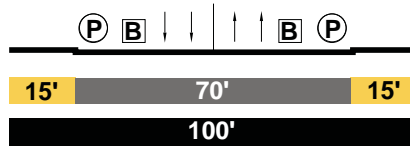
River - Cypress



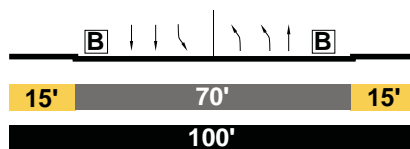
PROPOSED

FIGUEROA Secondary Modified

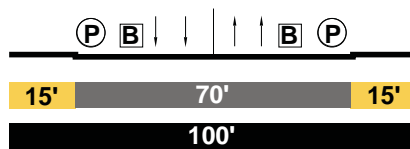
San Fernando Rd - Ave. 22



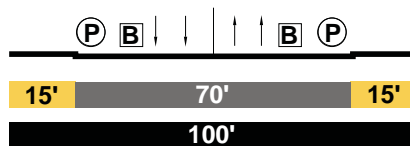
Ave.22 - Ave.26



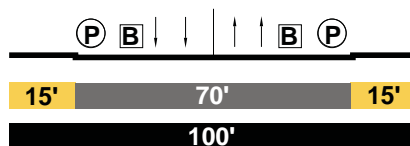
Ave.26 - Ave.28



Ave.28 - River



River - Cypress



East - West Streets (Looking West)

EXISTING

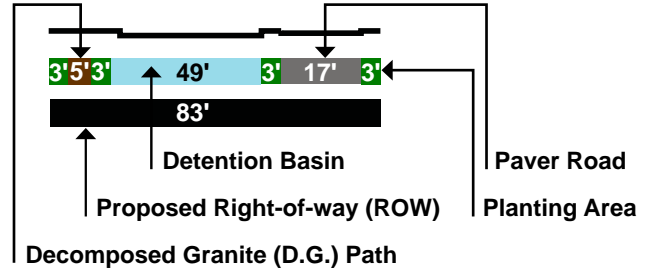
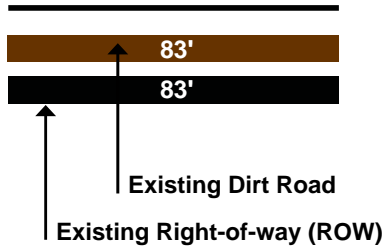
PROPOSED

**HUMBOLDT
Local**

**HUMBOLDT
Local Modified**

Ave. 18 - Ave. 19

Ave.18 - Ave. 19

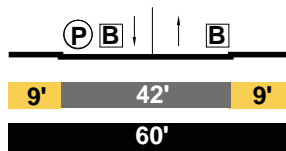
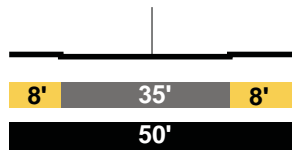


**HUMBOLDT
Local**

**HUMBOLDT
Local Industrial Modified**

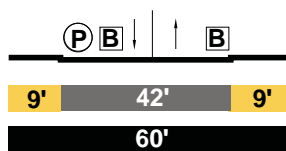
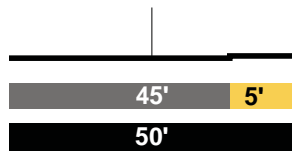
Ave.19 - San Fernando Rd

Ave.19 - San Fernando Rd



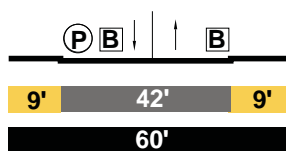
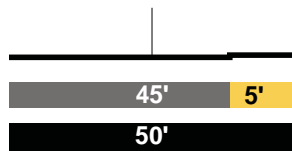
San Fernando Rd - Ave. 21

San Fernando Rd - Ave. 21



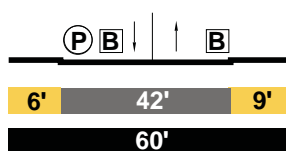
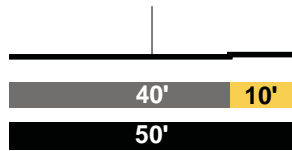
Ave. 21 - Ave. 23

Ave. 21 - Ave. 23



Ave. 23 - Ave. 25

Ave. 23 - Ave. 25

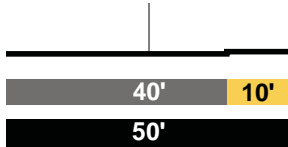


East - West Streets (Looking West)

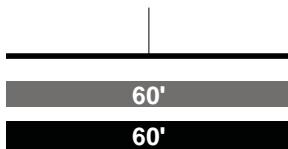
EXISTING

HUMBOLDT Local

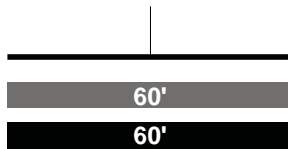
Ave. 25 - Ave. 26



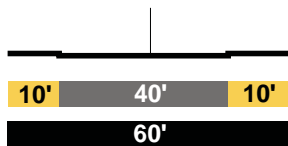
Ave. 26 - Ave. 30



Ave. 30 - Ave. 31

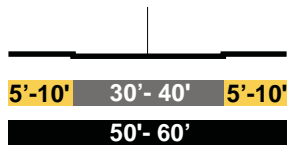


Ave. 31 - Ave. 33



LACY STREET Local

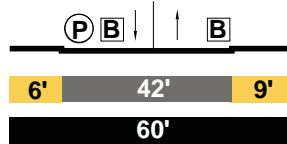
Ave. 26 - Ave. 23



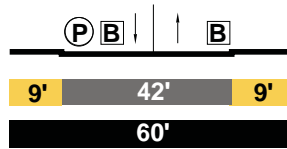
PROPOSED

HUMBOLDT Local Industrial Modified

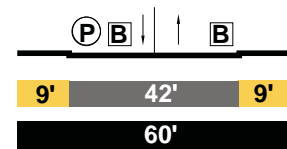
Ave. 25 - Ave. 26



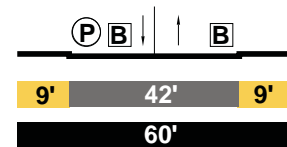
Ave. 26 -Artesian



Ave. 30 - Ave. 31

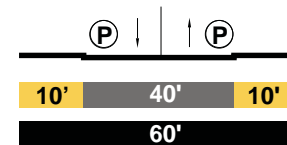


Ave. 31 - Ave. 33



LACY STREET Local Modified

Ave. 26 - Ave. 33

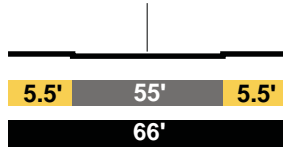


East - West Streets (Looking West)

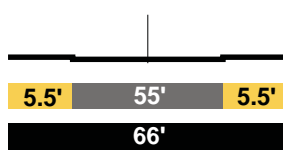
EXISTING

MAGDALENA Local

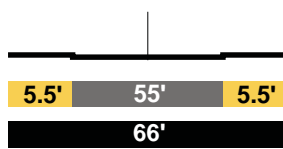
Elmyra - Ann



Ann - Bloom



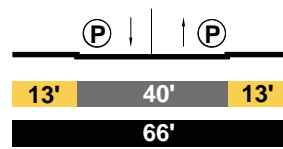
Bloom - Leroy



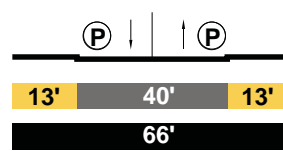
PROPOSED

MAGDALENA Local Modified

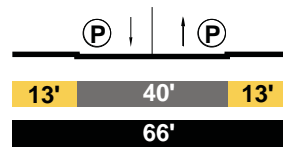
Elmyra - Ann



Ann - Bloom



Bloom - Leroy

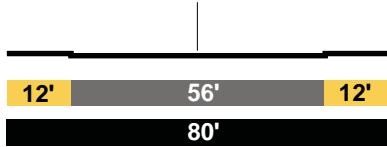


East - West Streets (Looking West)

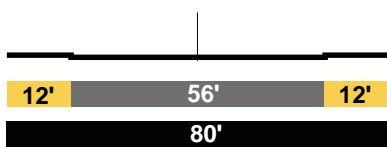
EXISTING

MAIN Secondary Hwy

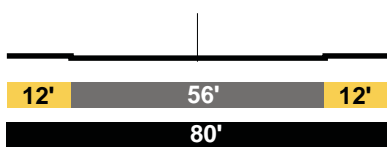
Vignes - College



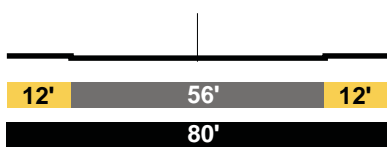
College - Roundout



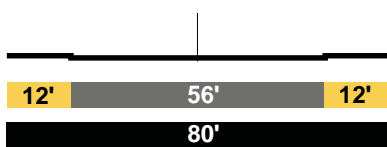
Roundout - Llewellyn



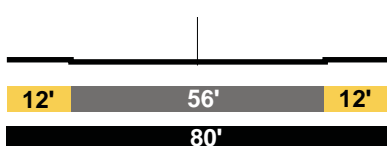
Llewellyn - Elmyra



Elmyra - Ann



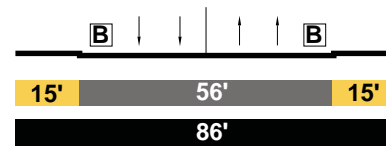
Ann - Bloom



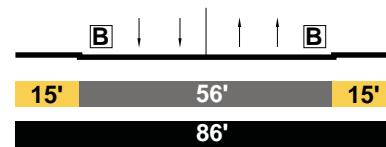
PROPOSED

MAIN Secondary Modified

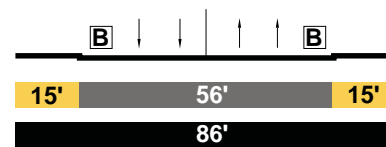
Vignes - College



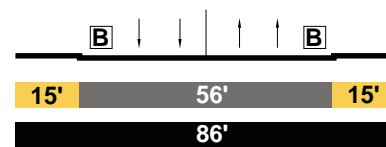
College - Roundout



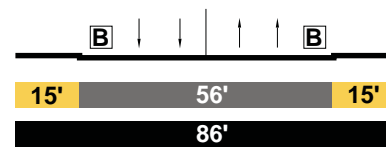
Roundout - Llewellyn



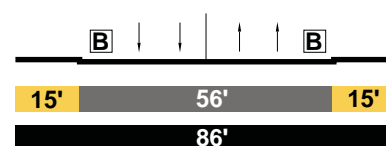
Llewellyn - Elmyra



Elmyra - Ann



Ann - Bloom

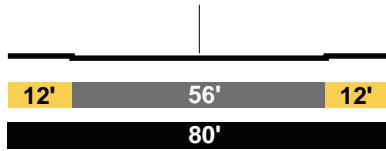


East - West Streets (Looking West)

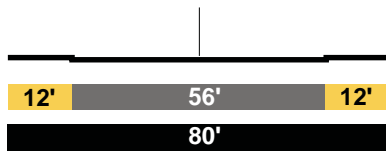
EXISTING

MAIN Secondary Hwy

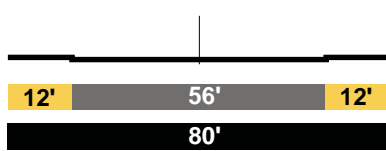
Bloom - 150' east of Bloom



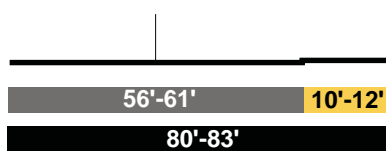
150' east of Bloom - 400' east of Leroy



400' east of Leroy - Wilhardt



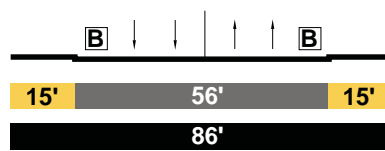
Wilhardt - Albion



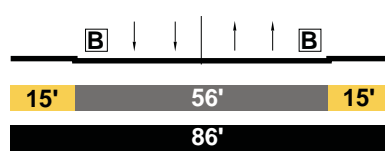
PROPOSED

MAIN Secondary Modified 3

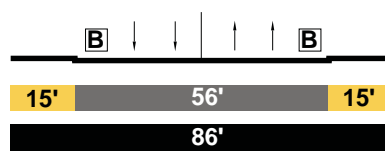
Bloom - 150' east of Bloom



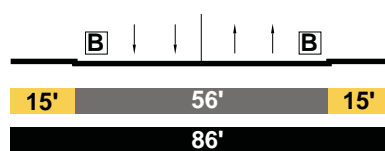
150' east of Bloom - 400' east of Leroy



400' east of Leroy - Wilhardt



Wilhardt - Albion

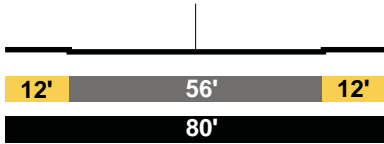


East - West Streets (Looking West)

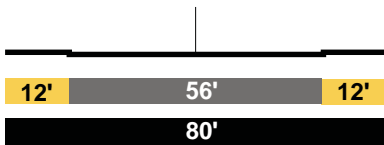
EXISTING

MAIN Secondary Hwy

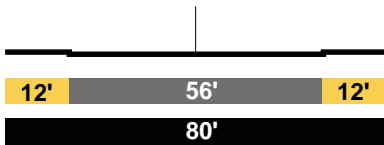
Lamar - Ave 17



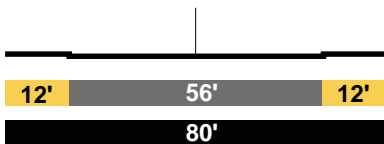
Ave 17 - Clover



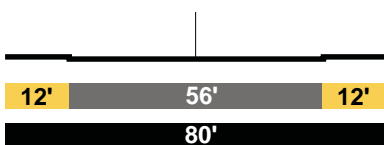
Clover - Ave 19



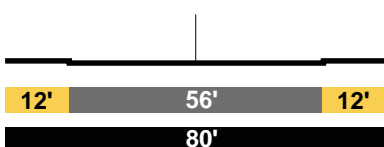
Ave 19 - Moulton



Moulton - Ave 20



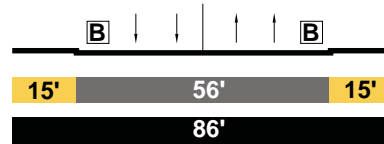
Ave 20 - Ave 21



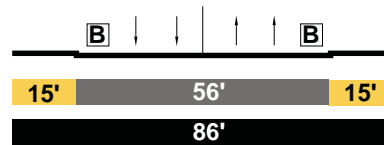
PROPOSED

MAIN Secondary Modified

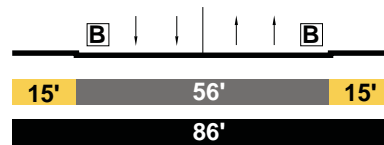
Lamar - Ave 17



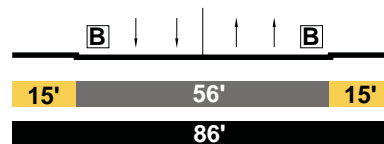
Ave 17 - Clover



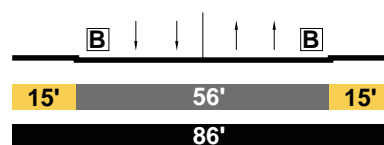
Clover - Ave 19



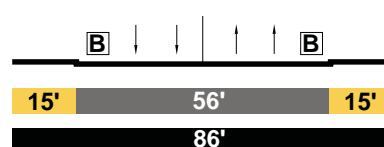
Ave 19 - Moulton



Moulton - Ave 20



Ave 20 - Ave 21

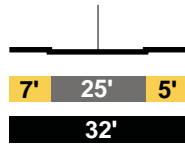


East - West Streets (Looking West)

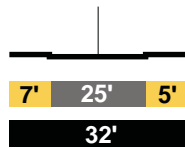
EXISTING

MOZART Local

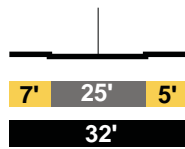
Ave.16 - Ave.17



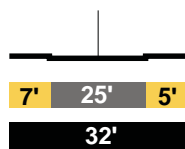
Ave.17 - Ave.18



Ave.18 - Ave.19



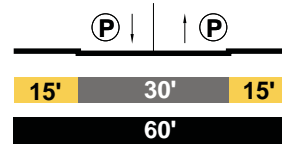
Ave.19 - Ave.20



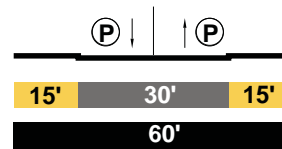
PROPOSED

MOZART Local Modified

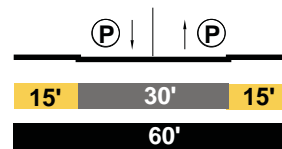
Ave.16 - Ave.17



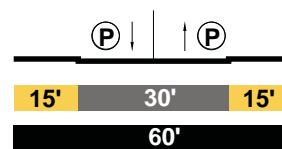
Ave.17 - Ave.18



Ave.18 - Ave.19



Ave.19 - Ave.20

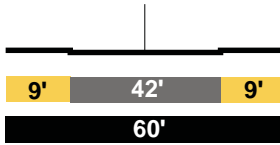


East - West Streets (Looking West)

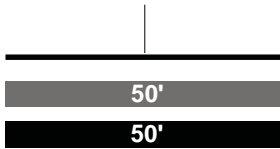
EXISTING

NAUD Collector

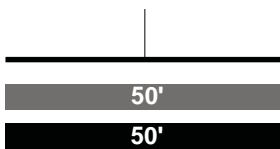
Ann - Sotello



Mesnagers - Wilhardt

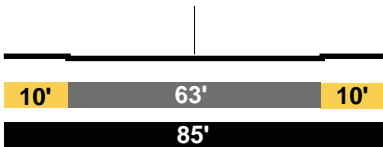


Wilhardt - (LA River)

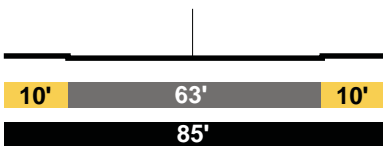


Secondary Hwy

Broadway - Ave. 18



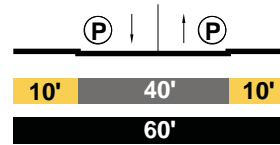
Ave. 18 - Ave. 19



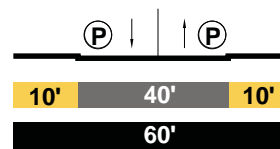
PROPOSED

NAUD Local Modified

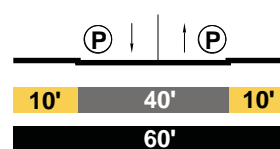
Ann - Sotello



Mesnagers - Wilhardt

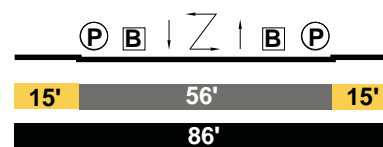


Wilhardt - (LA River)

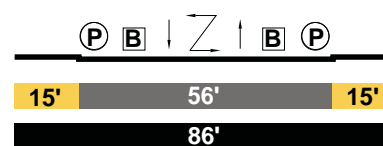


PASADENA Secondary Modified

Broadway - Ave. 18



Ave. 18 - Ave. 19

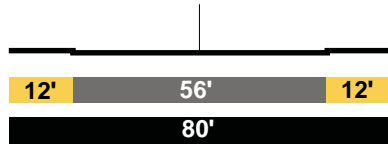


East - West Streets (Looking West)

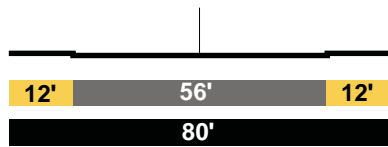
EXISTING

PASADENA Secondary Hwy

Ave. 19 - Ave. 20

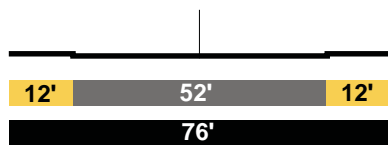


Ave. 20 - Ave. 21

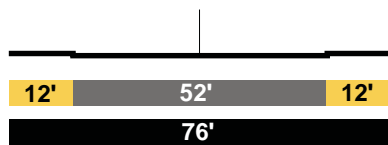


PASADENA Secondary Hwy

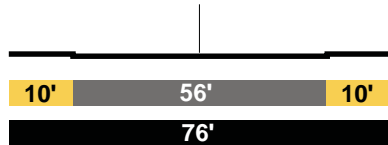
Ave. 33 - Ave. 34



Ave. 34 - Ave. 35



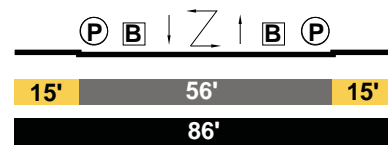
Ave. 35 - (Arroyo Seco/Pasadena Fwy.)



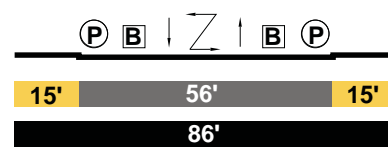
PROPOSED

PASADENA Secondary Modified

Ave. 19 - Ave. 20

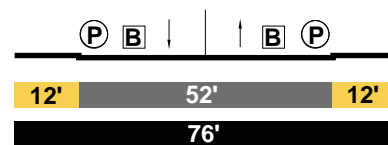


Ave. 20 - Ave. 21

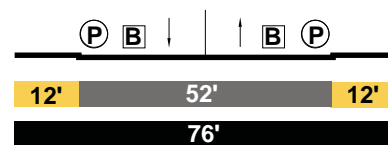


PASADENA Collector Modified

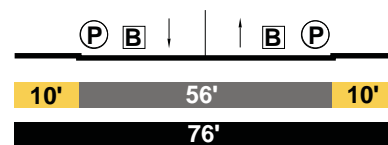
Ave. 33 - Ave. 34



Ave. 34 - Ave. 35



Ave. 35 - (Arroyo Seco/Pasadena Fwy.)

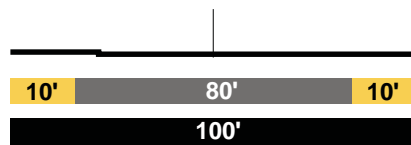


East - West Streets (Looking West)

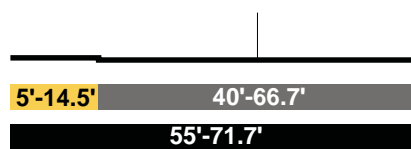
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SPRING Major Class Hwy II

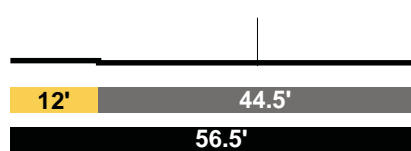
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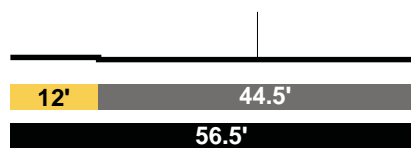
Roundout/Elmyra - Ann



Ann - Sotello



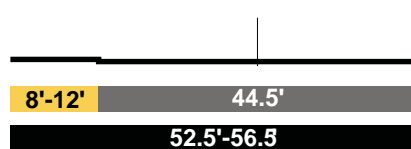
Sotello - Mesnager



Mesnager - Baker



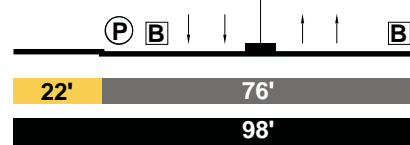
Baker - Wilhardt



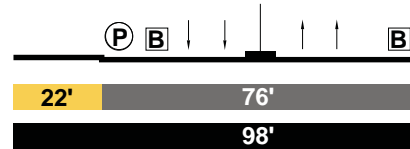
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SPRING Secondary Modified

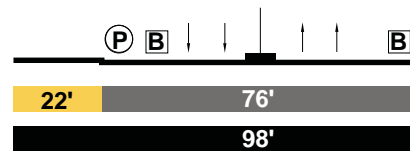
College - Roundout/Elmyra



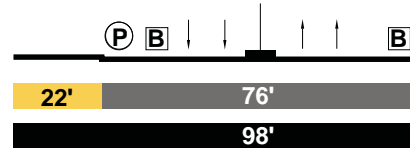
Roundout/Elmyra - Ann



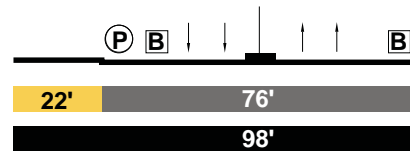
Ann - Sotello



Sotello - Mesnager

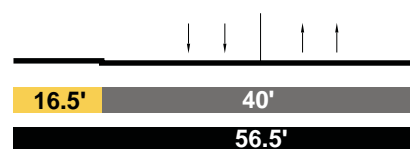


Mesnager - Baker



SPRING Secondary Modified 4

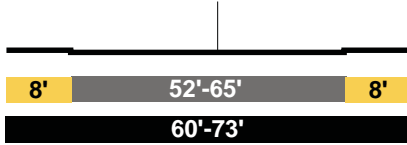
Baker - Wilhardt



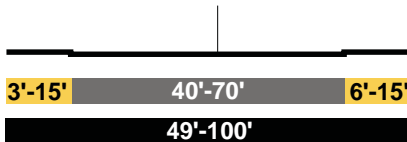
East - West Streets (Looking West)

EXISTING

SPRING
Major Class Hwy II

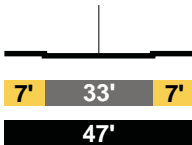


Aurora - Ave. 18



Collector

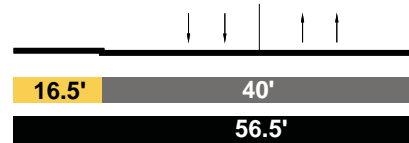
Ann - (ends before Sotello)



PROPOSED

SPRING
Secondary Modified 4

Wilhardt - Aurora

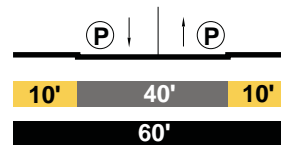


Aurora - Ave. 18

BRIDGE SECTION
Secondary Modified

WEYSE STREET
Local Modified

Ann - (ends before Sotello)



Appendix D

Proposed CASP

CORNFIELD ARROYO SECO SPECIFIC PLAN

Summer 2023 Draft



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Chapter 1

Introduction

A. Administration

1. Authority

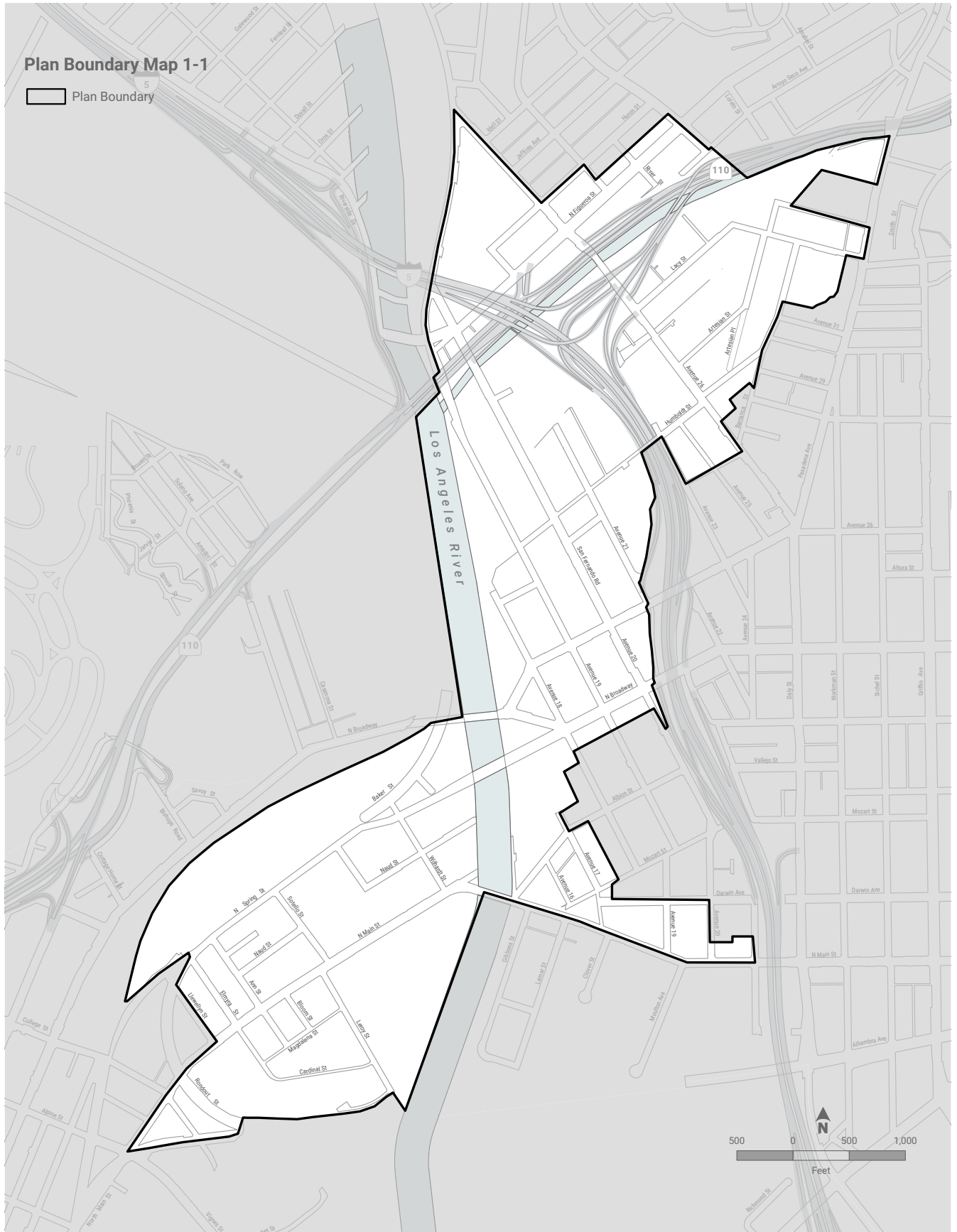
Pursuant to Div. 8.3. (*Special Districts*), Sec. 13B.1.2. (*Specific Plan Adoption/Amendment*), and Sec. 13B.1.3. (*Zoning Code Amendment*) of Chapter 1A (Zoning Code) of the Los Angeles Municipal Code (LAMC), the City Council hereby establishes a Special District that utilizes the provisions of this Cornfield Arroyo Seco Specific Plan (“CASP” or “Specific Plan”) as the vehicle for regulatory measures to achieve the planning objectives of the designated area.

2. Boundaries

The Special District shall apply to all lots located in whole or in part within the boundaries indicated on **Map 1-1 (Plan Boundary Map)** as specifically set forth in this Specific Plan. The boundaries of each General Plan land use designation are illustrated on **Map 1-2 (General Plan Land Use Designation Map)**.

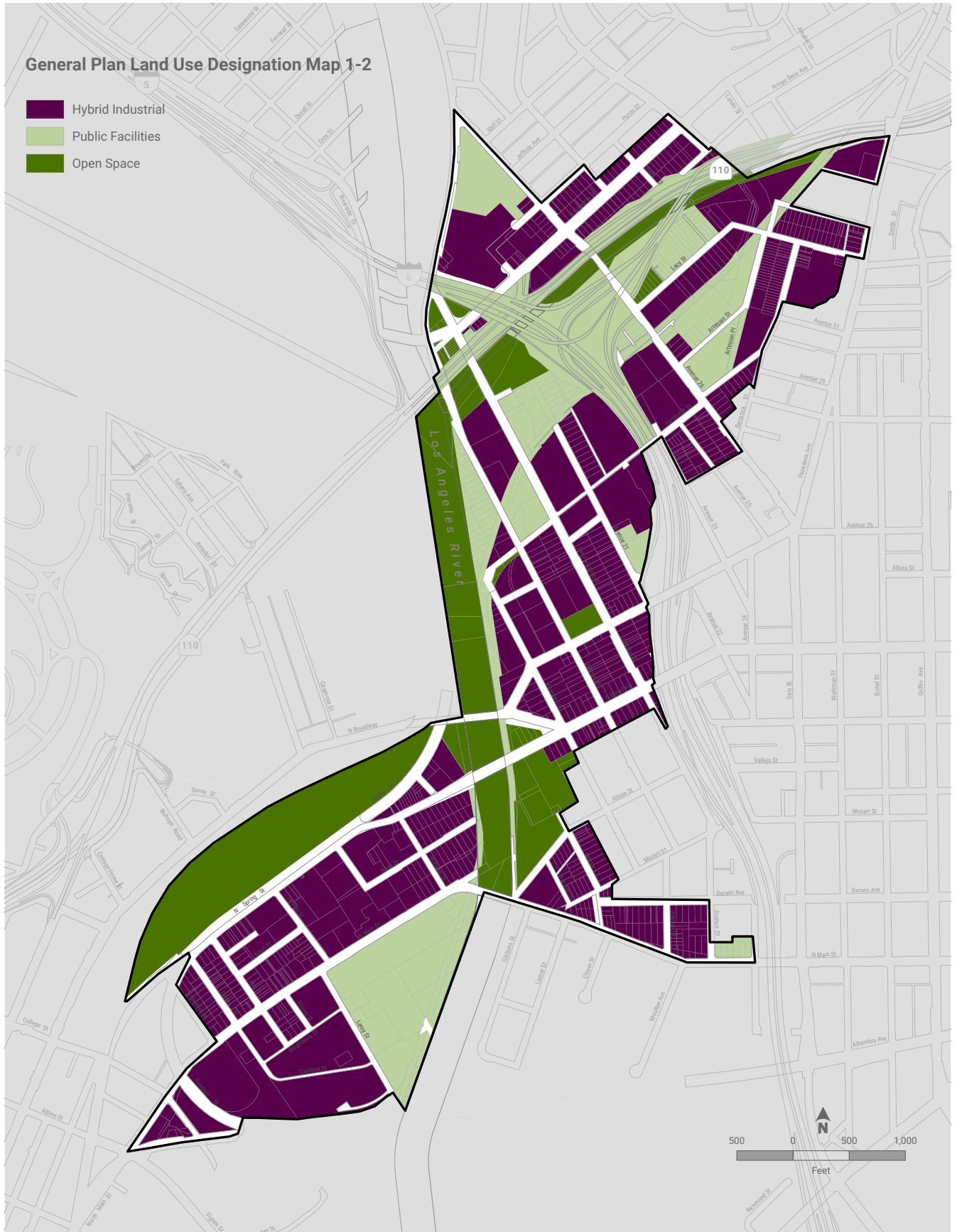
Plan Boundary Map 1-1

Plan Boundary



General Plan Land Use Designation Map 1-2

- Hybrid Industrial
- Public Facilities
- Open Space



3. Purposes

The purposes of this Specific Plan are as follows:

- a. Establish regulatory measures for the designated Special District.
- b. Implement the Downtown Los Angeles and Northeast Los Angeles Community Plans.
- c. Increase the production of affordable, mixed-income, and permanent supportive housing within the Specific Plan Area.
- d. Protect residents, especially low-income households, from indirect and direct displacement, and ensure stability of existing vulnerable communities.
- e. Establish Specific Plan standards, processes, and procedures that are intuitive and transparent.
- f. Preserve employment areas that show a concentration of jobs, while supporting small and/or legacy businesses, local employment, new productive uses, and employment spaces, such as light industrial and general commercial uses.
- g. Provide a range of housing types and price levels that offer a full range of choices for people of diverse ages, ethnicities, household sizes, and incomes.
- h. Provide shops and services for everyday needs, including groceries, day care, restaurants, banks and drug stores, within walking distance from home or work.
- i. Facilitate pedestrian mobility, encourage bicycle use, and provide access to a variety of transportation options including frequent light rail and bus connections, shared vehicles, and bicycles.
- j. Lessen dependence on automobiles, and thereby reduce vehicle emissions, while enhancing the personal health of residents, employees, and visitors.
- k. Respect historically significant buildings, including massing and scale, while at the same time encouraging innovative architectural design that expresses the identity of contemporary Los Angeles.

- l. Reduce the use of energy and potable water, improve the ecology surrounding the Los Angeles River Watershed and Arroyo Seco, and create connections from the community to the River and Arroyo Seco.
- m. Provide public open space, including parks, courtyards, and plazas, within walking distance of residents and employees.
- n. Clean up sources of air pollution and soil contamination, while ensuring that the communities disproportionately burdened by environmental harms and risks are meaningfully involved in the process.

4. Definitions

The general rules and definitions as set forth in Article 14 (*General Rules*) of Chapter 1A (Zoning Code) of the LAMC shall apply to this Specific Plan.

Additionally, whenever the following terms are used in this Specific Plan, they shall be construed as defined herein. The definitions set forth in this ordinance that reference, or incorporate by reference, other statutes or ordinances are deemed to be amended when those statutes or ordinances are amended or renumbered from time to time.

“100 Percent Affordable Housing” shall mean a project in which 100 percent of the residential dwelling units, excluding any manager unit(s), are Restricted Affordable Units, as defined in Div. 14.2. (*Glossary*) of Chapter 1A (Zoning Code) of the LAMC.

“Mixed-income Housing” shall mean a project comprising a mix of market-rate and Restricted Affordable Units.

“Small and/or Legacy Business” shall mean 1) any business that is on the Citywide Legacy Business Registry, or 2) a privately-owned corporation, cooperative, non-profit, social enterprise, or other entity that serves the neighborhood in which it is located, is not franchised or affiliated with a national chain, and meets at least three of the following five standards:

- a. Has been in continuous operation within the Specific Plan, or within a half-mile radius of the Specific Plan boundaries, for at least 10 years with no break in its operations exceeding two years;
- b. Has no more than 50 employees/shareholders;

- c. The business includes employees who can speak a language other than English in order to serve linguistically isolated members of the community;
- d. Accepts government issued assistance such as EBT;
- e. Pays employees a living wage per the City's Living Wage Ordinance.

5. Relationship to Other Zoning Regulations

- a. This Specific Plan contains self-contained zoning regulations pursuant to Div. 8.1. (*Specific Plans*) and Div. 8.3. (*Special Districts*) of Chapter 1A (Zoning Code) of the LAMC. The regulations of this Specific Plan supersede the Zoning Districts outlined in Part 2B (Form Districts), Part 3B (Frontage Districts), Part 4B (Development Standards Districts), Part 5B (Use Districts), and Part 6B (Density Districts) of Chapter 1A. All other provisions of Chapter 1A, including rules and non-string articles, apply to the properties within the boundaries of this Specific Plan.
- b. The Specific Plan is the zone of the lot, as outlined in Sec. 1.5.2.A.4. (*Special Districts*) of Chapter 1A (Zoning Code) of the LAMC, for the properties located within its boundaries. It is intended, therefore, to serve as a zoning designation for purposes of California Public Resources Code Section 21083.3.
- c. Chapter 1 (General Provisions and Zoning) of the LAMC does not apply to the properties within the boundaries of this Specific Plan.
- d. All references to sections of the LAMC shall be deemed references to those sections as they are amended, modified, or renumbered from time to time. At the discretion of the Director, the Plan may be administratively modified for clarity to reflect any such amendments, modifications, or renumbering.
- e. **Reconciling Regulations.** Refer to Sec. 8.3.1.B.3. (*Reconciling Provisions*) of Chapter 1A (Zoning Code) of the LAMC.

6. Uses and Buildings Made Nonconforming by This Plan

Any legally existing uses, buildings, or structures that are made nonconforming by the establishment of this Specific Plan shall be deemed to be legal nonconforming uses, buildings, or structures and may continue to exist, in accordance with Division 12.1. (*General Provisions*) of Chapter 1A (Zoning Code) of the LAMC.

7. Severability

If any portion, subsection, sentence, clause or phrase of this Specific Plan is for any reason held by a court of competent jurisdiction to be invalid, such a decision shall not affect the validity of the remaining portions of this Specific Plan. The City Council hereby declares that it would have passed this Specific Plan and each portion or subsection, sentence, clause and phrase herein, irrespective of the fact that any one or more portions, subsections, sentences, clauses, or phrases may be declared invalid.



B. Applicability of the Specific Plan

1. Definition of a Project

Only the following Project Activities as set forth in Sec. 14.1.15. (*Project Activities*) of Chapter 1A (Zoning Code) of the LAMC shall constitute a Project in the Specific Plan:

- a. New Construction
- b. Major Demolition
- c. Facade Modification
- d. Use Modification

2. Applicability of Specific Plan Regulations

- a. Any Project Activity that constitutes a Project, in whole or in part, shall be done so in conformance with the Specific Plan's regulations as set forth in the applicability provisions of each Specific Plan chapter.
- b. The provisions of this Specific Plan apply to all buildings, structures, or land owned, operated or controlled by any person, corporation, or, to the extent permitted by law, governmental agency.
- c. In the event that any provision of this Specific Plan conflicts with LAMC Chapter 5, Article 7 (Fire Code), then LAMC Chapter 5, Article 7 (Fire Code) shall prevail.

C. Review Procedures

1. Prohibition of Issuance of Permits Prior to Specific Plan Review

The Department of Building and Safety shall not issue any building, grading, demolition, or change of use permit for any Project within the Specific Plan boundaries (in whole or in part) unless the Project has been reviewed pursuant to Subdivision 4 (Specific Plan Review) below.

2. Demolition

No demolition permit shall be issued for any Project unless building permits for a replacement development on the site have been issued, and any necessary land use entitlements have been granted.

- a. Notwithstanding the above this prohibition shall not apply to any structure deemed hazardous by the Department of Building and Safety.
- b. Furthermore, this prohibition shall not apply to structures that are considered uninhabitable.

3. Filing Requirements for Multiple Approvals

When an applicant applies for any discretionary approval for a property located (in whole or in part) within the Specific Plan boundaries, the applicant shall also apply for a Specific Plan Review.

4. Specific Plan Review

- a. **Administrative Review.** The Director shall grant an Administrative Review pursuant to Sec. 13B.3.1. (*Administrative Review*) of Chapter 1A (Zoning Code) of the LAMC, after reviewing the Project and determining that it is in compliance with all applicable provisions of the Specific Plan as indicated by a plan stamped by the Department of City Planning.
- b. **Scope of Review.** In reviewing a Project for an Administrative Review, the Director shall review the Project for compliance with those regulations that are applicable to the proposed scope of construction or use.

5. Project Compliance

A Project that has one or more of the following characteristics shall obtain Project Compliance pursuant to Section 13B.4.2. (*Project Compliance*) of Chapter 1A, in lieu of Specific Plan Review.

- a. Any development project which adds at least 500,000 square feet of nonresidential floor area.
- b. Any development project which adds at least 500 dwelling units.
- c. Any development project that includes drive-through lanes which results in a net increase of 500 or more average daily trips.
- d. Any change of use which results in a net increase of 1,000 or more average daily trips.

6. Project Adjustment

Refer to Sec. 13B.4.4. (*Project Adjustment*) of Chapter 1A (Zoning Code) of the LAMC.

7. Project Exception

Refer to Sec. 13B.4.5. (*Project Exception*) of Chapter 1A (Zoning Code) of the LAMC.

8. Specific Plan Interpretation

When there is a lack of clarity in the meaning of the Specific Plan's regulations, the Director of Planning may issue a written interpretation of the Specific Plan's regulations either upon application by an applicant or upon the Director of Planning's own initiation. Refer to Sec. 13B.4.6. (*Specific Plan Interpretation*) of Chapter 1A (Zoning Code) of the LAMC.

9. Conditional Use Permit

Refer to Sec. 13B.2.1. (*Class 1 Conditional Use Permit*), Sec. 13B.2.2. (*Class 2 Conditional Use Permit*), and Sec. 13B.2.3. (*Class 3 Conditional Use Permit*) of Chapter 1A (Zoning Code) of the LAMC.

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AMERICAN WRECKING



Chapter 2

Form

This Chapter establishes Form Districts to regulate the placement, scale, and intensity of buildings and structures on a lot in order to ensure building forms are compatible with their context and consistent with community goals.

A. Form Applicability

1. General

All Projects filed after the effective date of this Specific Plan shall comply with the Form District standards as further specified below.

2. Applicability

Refer to Sec. 2A.2.2. (*Form Applicability*) of Chapter 1A (Zoning Code) of the LAMC for the Form Rule Categories that apply to a Project based on the types of Project Activities involved.

3. Form Rules

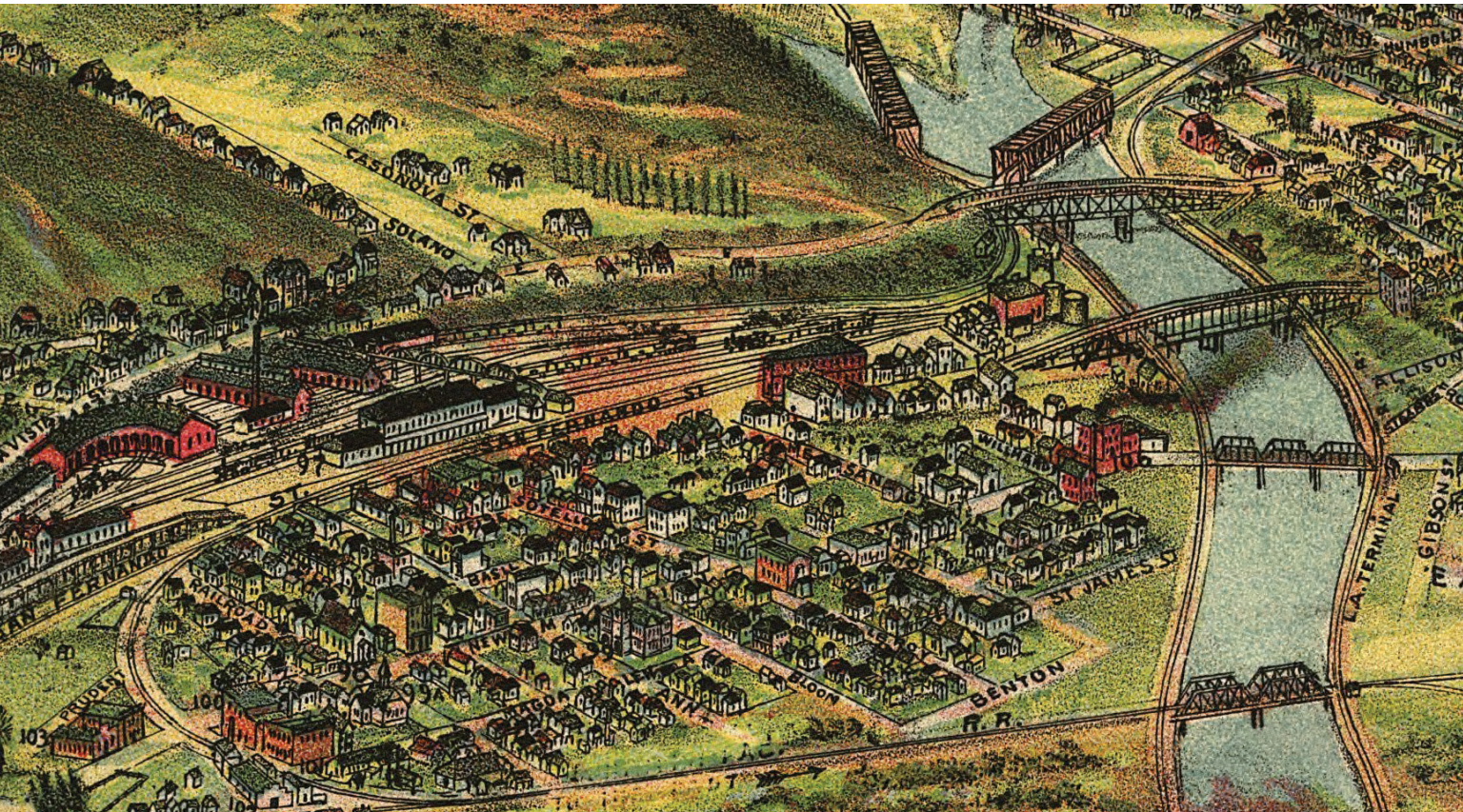
Refer to Part 2C. (*Form Rules*) of Chapter 1A (Zoning Code) of the LAMC for the Intent, Applicability, Standards, Measurement, Exceptions, and Relief of each Form Rule Category, except as modified in Paragraph a. (Relief) below.

- a. **Relief.** Where relief may be requested pursuant to the Form Rules, Sec. 13.B.4.4. (*Project Adjustment*) of Chapter 1A (Zoning Code) of the LAMC shall substitute for Sec. 13B.5.2. (*Adjustments*) of Chapter 1A, and Sec. 13B.4.5. (*Project Exception*) of Chapter 1A shall substitute for Sec. 13B.5.3. (*Variance*) of Chapter 1A.

B. Form Districts

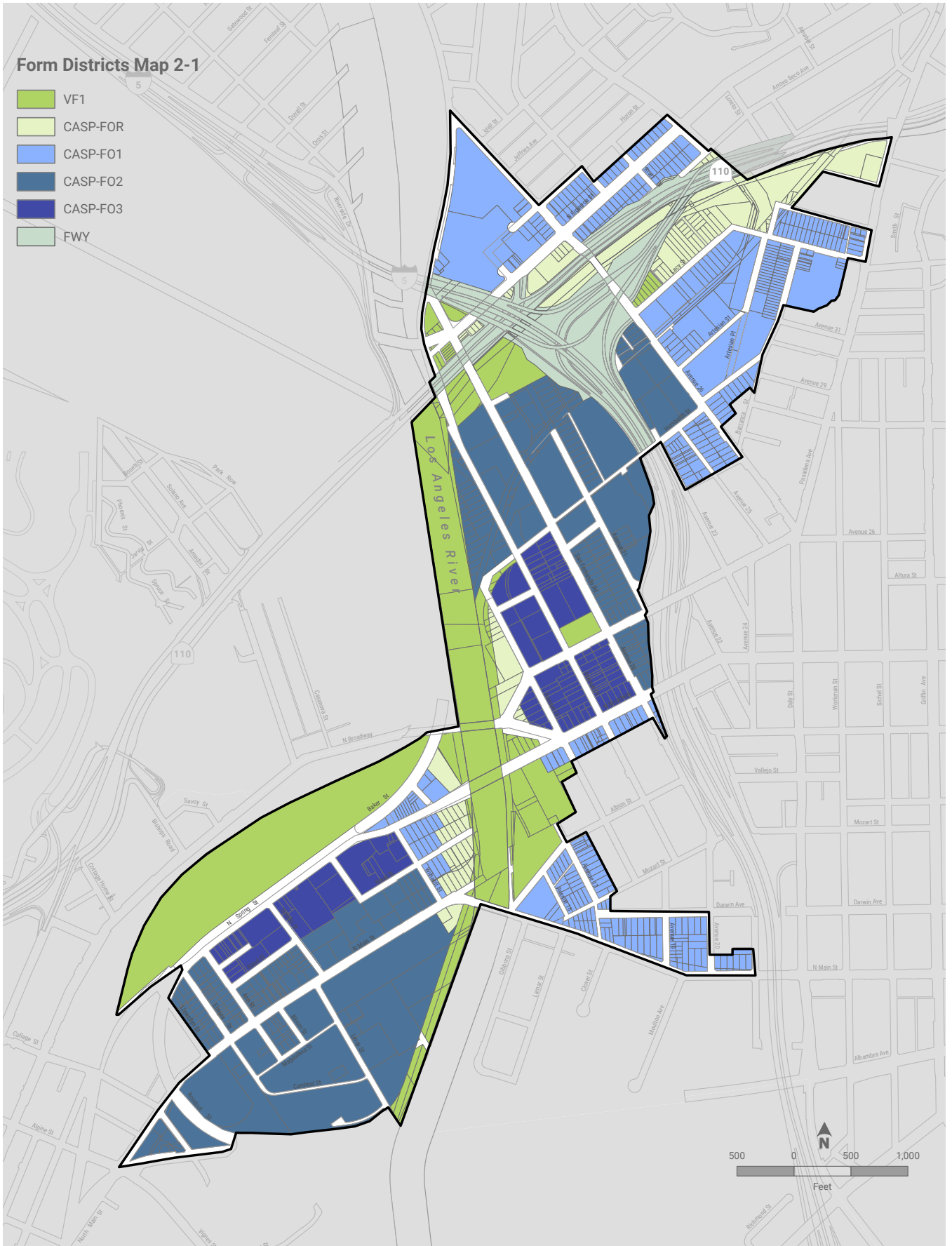
1. Form Districts Map

The Form District for each property within the Specific Plan is set forth in **Map 2-1 (Form Districts Map)**.



Form Districts Map 2-1

- VF1
- CASP-FOR
- CASP-F01
- CASP-F02
- CASP-F03
- FWY



2. Form Districts Table

The regulations for each Form District are provided for in **Table 2-1 (Form Districts Table)**.

Table 2-1: Form District Table

Metric	CASP-FOR	CASP-F01	CASP-F02	CASP-F03
Lot Size				
Lot Area (min)	n/a	n/a	n/a	n/a
Lot Width (min)	25'	25'	25'	25'
Coverage				
Building Coverage (max)	50%	85%	85%	85%
Building Setbacks				
Primary Street (min)	0'	0'	0'	0'
Side Street (min)	0'	0'	0'	0'
Side (min)	0'	0'	0'	0'
Rear (min)	0'	0'	0'	0'
Alley (min)	0'	0'	0'	0'
Special: River (min)	10'	10'	10'	10'
Amenity				
Lot Amenity Space	15%	15%	15%	15%
Residential Amenity Space	10%	10%	10%	10%

Table 2-1: Form District Table

Metric	CASP-FOR	CASP-F01	CASP-F02	CASP-F03
Floor Area Ratio and Height				
Floor Area Ratio (FAR)	-	-	-	-
Base (max)	1.5	1.5	1.5	1.5
Bonus (max)	2.0	3.0	4.0	5.0
Height in Feet	n/a	n/a	n/a	n/a
Height in Stories (max)	5	-	-	-
Height In Stories (min)	-	-	-	-
Upper-Story Bulk				
District Boundary Transition				
Abutting district allowed height (max)	-	45'	-	-
Stories without height transition (max)	-	2	-	-
Transition Depth (min)	-	20'	-	-
Building Mass				
Building Width (max)	160'	280'	280'	280'
Building Break (min)	15'	25'	25'	25'

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WHOLESALE FOOD & RESTAURANT SUPPLY

LAX-C Inc.

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E-Sea Fresh Restaurant



Chapter 3

Frontage

This Chapter establishes Frontage Districts to regulate the portions of a lot and exterior building facades that affect the public realm. Frontage Districts help ensure that projects respond to the public realm in a contextually appropriate manner.

A. Frontage Applicability

1. General

All Projects filed after the effective date of this Specific Plan shall comply with the Frontage District standards as further specified below.

2. Applicability

Refer to Sec. 3A.2.2. (*Frontage Applicability*) of Chapter 1A (Zoning Code) of the LAMC for the Frontage Rule Categories that apply to a Project based on the types of Project Activities involved.

3. Frontage Rules

Refer to Part 3C. (*General Frontage Rules*) of Chapter 1A (Zoning Code) of the LAMC for the Intent, Applicability, Standards, Measurement, and Relief of each Frontage Rule Category, except as modified by Paragraph a. (Relief) below.

- a. **Relief.** Where relief may be requested pursuant to the Frontage Rules, Sec. 13.B.4.4. (*Project Adjustment*) of Chapter 1A (Zoning Code) of the LAMC shall substitute for Sec. 13B.5.2. (*Adjustments*) of Chapter 1A, and Sec. 13B.4.5. (*Project Exception*) of Chapter 1A shall substitute for Sec. 13B.5.3. (*Variance*) of Chapter 1A.

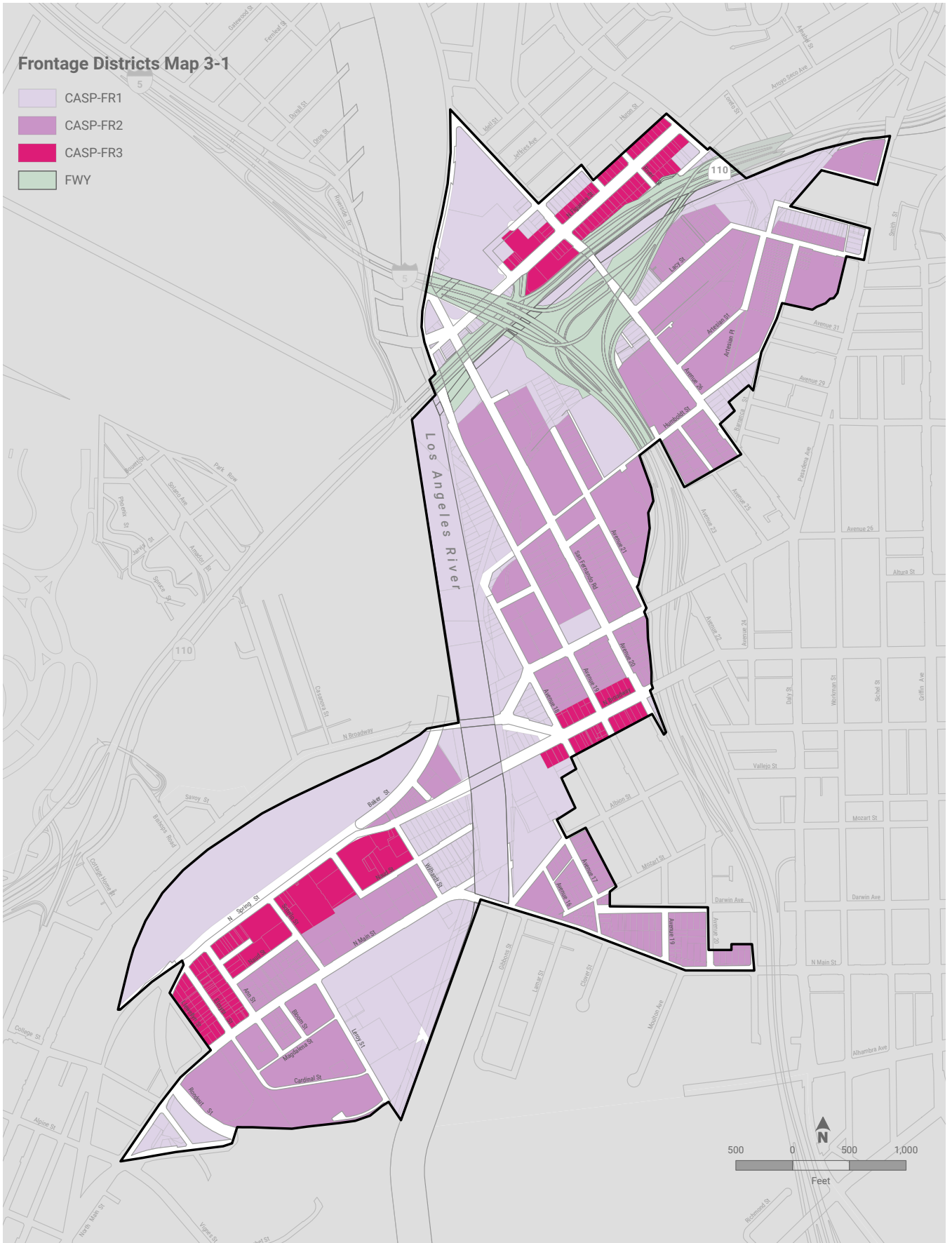
B. Frontage Districts

1. Frontage Districts Map

The Frontage District for each property within the Specific Plan is set forth in **Map 3-1 (Frontage Districts Map)**.

Frontage Districts Map 3-1

- CASP-FR1
- CASP-FR2
- CASP-FR3
- FWY



2. Frontage Districts Table

The regulations for each Frontage District are provided for in **Table 3-1 (Frontage Districts Table)**.

Table 3-1: Frontage District Table

Metric	CASP-FR1			CASP-FR2		CASP-FR3	
	Primary	Side	River	Primary	Side	Primary	Side
Build To							
Applicable Stories (min)	1	1	1	1	1	1	1
Build-To Depth (max)	n/a	n/a	n/a	10'	15'	10'	15'
Build-To Width (min)	n/a	n/a	n/a	60%	40%	90%	70%
Pedestrian Amenity Allowance (max)	n/a	n/a	n/a	20%	n/a	40%	30%
Parking							
Parking Setback (min)	5'	5'	20'	20'	5'	20'	5'
Landscaping							
Frontage Planting Area (min)	30%	30%	75'	30%	30%	30%	30%
Frontage Yard Fence & Wall Type Allowed	A4	A4	A3	A3	A3	A2	A2
Transparency							
Transparent Area							
Ground Story (min)	n/a	n/a	20%	25%	20%	50%	40%
Upper Stories (min)	n/a	n/a	20%	20%	20%	20%	20%
Active Wall Spacing (max)	n/a	n/a	50'	50'	50'	20'	30'

Table 3-1: Frontage District Table

Metric	CASP-FR1			CASP-FR2		CASP-FR3	
	Primary	Side	River	Primary	Side	Primary	Side
Entrances							
Street-Facing Entrance	Required	n/a	Required	Required	n/a	Required	n/a
Entrance Spacing (max)	n/a	n/a	100'	75'	100'	50'	100'
Required Entry Feature	No	No	No	No	No	No	No
Ground Story							
Ground Story Height (min)							
Residential	n/a	n/a	n/a	10'	10'	10'	10'
Nonresidential	n/a	n/a	n/a	10'	10'	10'	10'
Ground Floor Elevation (min/max)							
Residential	n/a	n/a	n/a	-2'/5'	-2'/5'	-2'/2'	-2'/2'
Nonresidential	n/a	n/a	n/a	n/a	n/a	n/a	n/a

CRELLIN MACHINE CO.
SCREW MACHINE PRODUCTS



Chapter 4

Development

Standards

This Chapter establishes Development Standards Districts to regulate site design, including location and characteristics of access, parking, landscape and other site features. Development Standards Districts consist of a combination of regulations that are appropriate to a variety of contexts.

A. Development Standards Applicability

1. General

All Projects filed after the effective date of this Specific Plan shall comply with the Development Standards as further specified below.

2. Applicability

Refer to Sec. 4A.2.2. (*Development Standards Applicability*) of Chapter 1A (Zoning Code) of the LAMC for the Development Standards Rule Categories that apply to a Project based on the types of Project Activities involved.

3. Development Standards Rules

Refer to Part 4C. (*Development Standards Rules*) of Chapter 1A (Zoning Code) of the LAMC for the Intent, Applicability, Standards, Measurement, and Relief of each Development Standards Rule Category, except as modified in Paragraph a. (Relief) and Paragraph b. (Development Review) below.

- a. **Relief.** Where relief may be requested pursuant to the Development Standards Rules, Sec. 13.B.4.4 (*Project Adjustment*) of Chapter 1A (Zoning Code) of the LAMC shall substitute for Sec. 13B.5.1. (*Alternative Compliance*) and Sec. 13B.5.2. (*Adjustments*) of Chapter 1A, and Sec. 13B.4.5. (*Project Exception*) of Chapter 1A shall substitute for Section 13B.5.3. (*Variance*) of Chapter 1A.
- b. **Development Review.** In lieu of Div. 4C.14. (*Development Review*) of Chapter 1A (Zoning Code) of the LAMC, Projects that conform with the Specific Plan and receive Specific Plan Review, or Project Compliance, shall be exempt from Development Review.



B. Development Standards Districts

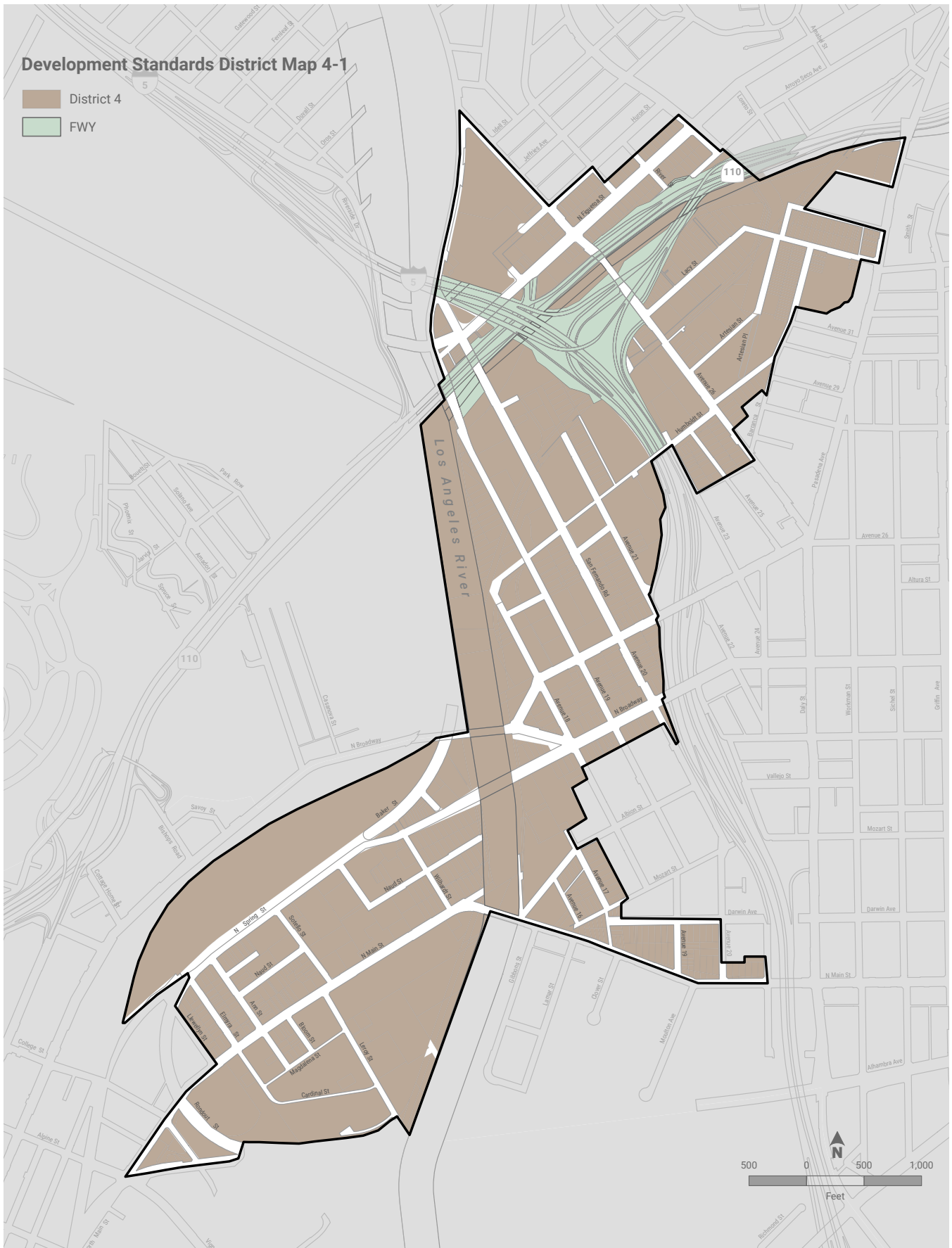
1. Development Standards Districts Map

The Development Standards District for each property within the Specific Plan is set forth in **Map 4-1 (Development Standards Districts Map)**.



Development Standards District Map 4-1

-  District 4
-  FWY



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Chapter 5

Use

This Chapter establishes Use Districts and Use Standards to regulate the activities on a lot, and to mitigate any potential impacts within a lot and on surrounding property as a result of those activities.

A. Use Applicability

1. General

All Projects filed after the effective date of this Specific Plan shall comply with the Use District standards as further specified below.

2. Applicability

Refer to Sec. 5A.2.2. (*Use Applicability*) of Chapter 1A (Zoning Code) of the LAMC for the Use Rule Categories that apply to a Project based on the types of Project Activities involved.

3. Use Rules

Refer to Part 5C. (*Use Rules*) of Chapter 1A (Zoning Code) of the LAMC for Use Definitions, Use Permissions, Use Standards, and Special Use Programs.

B. Use Districts

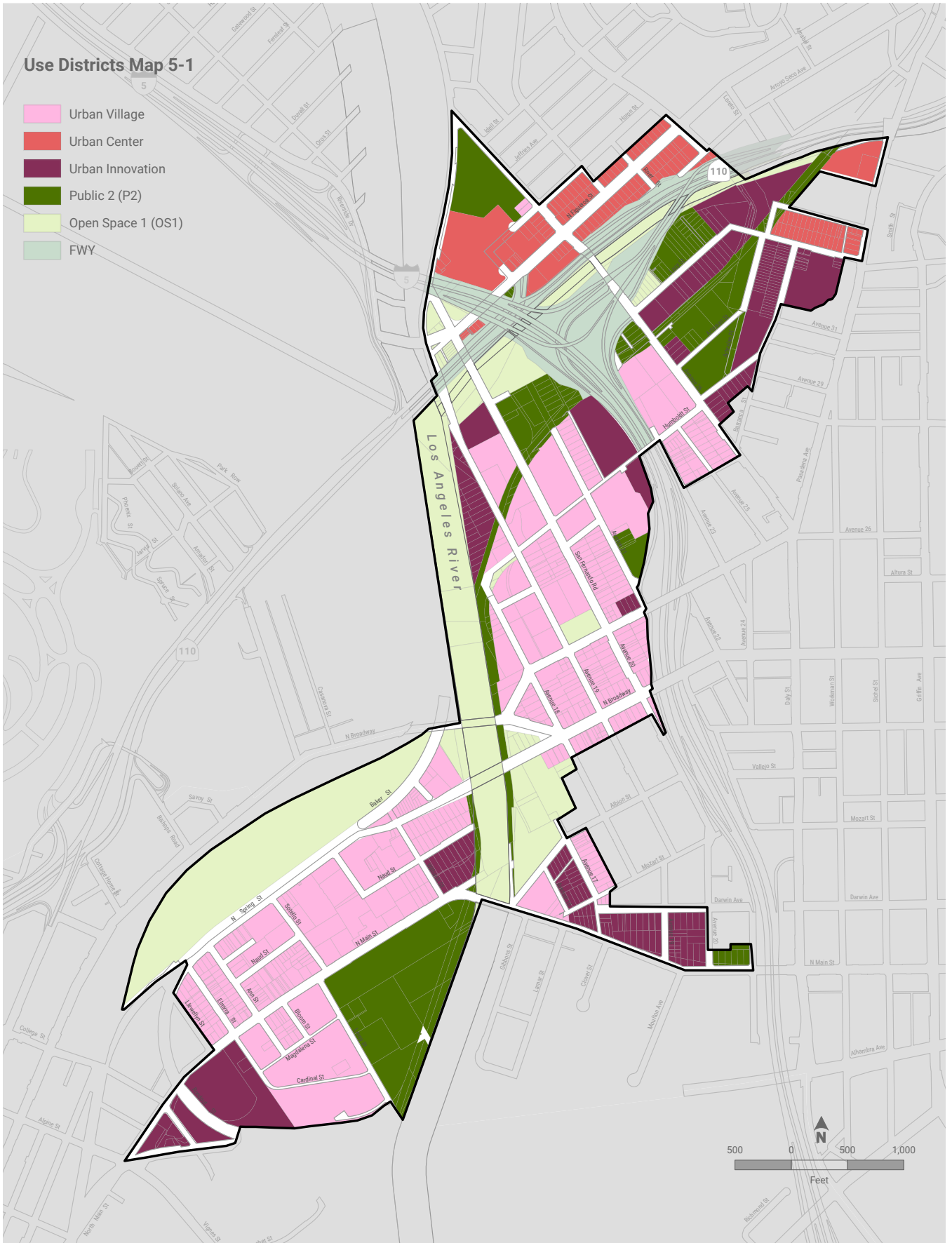
1. Use Districts Map

The Use District for each property within the Specific Plan is set forth in **Map 5-1 (Use Districts Map)**.



Use Districts Map 5-1

- Urban Village
- Urban Center
- Urban Innovation
- Public 2 (P2)
- Open Space 1 (OS1)
- FWY



C. Urban Village Use District

1. Intent

Urban Village is an Industrial-Mixed Use District intended to expand housing opportunities that include affordable units, while accommodating employment uses and community supporting services.

2. Allowed Uses & Use Limitations

Use	Permission	Use Standard	Specification
Residential	*	Use Separation (min)	
		Heavy Industrial	50'
		Relief	C1
Dwelling	P*	<i>(see Residential)</i>	
Household Business:			
Family Child Care	P*	In conjunction with:	Dwelling
Home Occupation	P*	In conjunction with:	Dwelling
		Hours of operation (early/late)	8AM/8PM
		Client visits per hour (max)	1
		Supplemental standards	CASP Sec. 5.F.2.
Home Sharing	P*	In conjunction with:	Dwelling
		Special use program	Ch. 1A Sec. 5C.4.4.
Joint Living & Work Quarters	P*	<i>(see Residential)</i>	
Live/Work	P*	<i>(see Residential)</i>	
Mobilehome Park	--		

Key: P = Permitted Use
-- = Not Permitted

S = Special Use Program
* = Use standard applies

C1 = Approval by Zoning Administrator
C2 = Public Hearing by Zoning Administrator
C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
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Supportive Housing:

General	P*	(see Residential)	
Medical Care	P*	(see Residential)	
Transitional Shelter	P*	(see Residential)	

Public & Institutional

Cemetery	--		
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Civic Facility:

Local	P		
Regional	C3		
Detention Facility	--		
Fleet Services	P		

Medical:

Local	C2		
Regional	C3		

Office, Government	P		
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Parking	P	In conjunction with:	Other allowed use
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Public Safety Facility	P		
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Religious Assembly	C2		
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Key: P = Permitted Use S = Special Use Program C1 = Approval by Zoning Administrator
 -- = Not Permitted * = Use standard applies C2 = Public Hearing by Zoning Administrator
 C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
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School:

Preschool/Daycare	P*	Persons in care (max)	50
K-12	P		
Post-secondary	P		
Social Services	P		

Utilities:

Minor	P*	Screening	
		Frontage screen	F-Screen 2
		Transition screen	T-Screen 2
Major	C3		
Solar Energy Facility	P*	In conjunction with:	Other allowed use
		Floor area (min)	0.1 FAR
		Relief	C3
Wireless Facility, Monopole	C2*	Supplemental standards	CASP Sec. 5.F.7.
Wireless Facility, Rooftop	P*	Supplemental standards	CASP Sec. 5.F.7.

Open Space & Recreation

Indoor Recreation, Commercial	P		
Nature Reserve	P		
Open Space, Public	P		
Outdoor Recreation, Commercial:			
General	P		
Golf Course	--		

Key: P = Permitted Use S = Special Use Program C1 = Approval by Zoning Administrator
 -- = Not Permitted * = Use standard applies C2 = Public Hearing by Zoning Administrator
 C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
Recreation, Public	P		
Amphitheater or Stadium			
Local	P		
Regional	C3		
Transportation			
Airport	--		
Freight Terminal	--		
Heliport	C2*	Incidental to:	Residential Uses, Office or Medical
Railway Facility	--		
Transit Station	P		
General Commercial			
Animal Services:			
General	P*	Use enclosure	Fully Indoor
Kennel	--		
Veterinary Care	P*	Use enclosure	Fully indoor
Commissary Kitchen	P		
Eating & Drinking:			
Alcohol Service	S*	Special use program	Ch. 1A Sec. 5C.4.2.
Bar	S*	Special use program	Ch. 1A Sec. 5C.4.2.

Key: P = Permitted Use
-- = Not Permitted

S = Special Use Program
* = Use standard applies

C1 = Approval by Zoning Administrator
C2 = Public Hearing by Zoning Administrator
C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
Counter Service	P		
Restaurant	P		
Entertainment Venue, Indoor:			
Local	P		
Regional	P		
Financial Services:			
General	P		
Alternative	--		
Instructional Services	P		
Lodging	C2*	Supplemental standards	CASP Sec. 5.F.3.
Medical Clinic	P		
Office	P		
Personal Services:			
General	P		
Massage, Licensed	P		
Massage, Unlicensed	--		
Postmortem Services	C2		
Retail:			
General	P		

Key: P = Permitted Use
 -- = Not Permitted

S = Special Use Program
 * = Use standard applies

C1 = Approval by Zoning Administrator
 C2 = Public Hearing by Zoning Administrator
 C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
Alcohol	S*	Special use program	Ch. 1A Sec. 5C.4.2.
Farmers' Market, Certified	P*	Service hours	7AM/10PM
		Operating days per week (max)	5
		Special use program	Ch. 1A Sec. 5C.4.1.
Firearms	C2*	Supplemental procedures	CASP Sec. 5.G.3.
Food & Beverage	P		
Large Format	C3*	Supplemental procedures	CASP Sec. 5.G.4.
Pet Shop	P		
Merchant Market	P		
Temporary Outdoor	P		
Smoke & Vape Shop	--		
Sexually Oriented Business:			
General	P*	Use separation (min)	
		Other Sexually Oriented Business Use	1,000'
		Sensitive Use	500'
		Residential or Agricultural Use District	500'
Sexual Encounter	--		

Key: P = Permitted Use
-- = Not Permitted

S = Special Use Program
* = Use standard applies

C1 = Approval by Zoning Administrator
C2 = Public Hearing by Zoning Administrator
C3 = Review by City Planning Commission

Heavy Commercial

Motor Vehicle Services:

General	P*	Use separation (min)			
		Sensitive Use	200'		
		Agricultural, Residential, or Residential Mixed Use District	200'		
		Use enclosure	Fully indoors		
		Screening			
		Frontage screen	F-Screen 3		
		Transition screen	T-Screen 1		
		Hours of operation (open/close)	7AM/7PM		
		Service hours (open/close)	7AM/7PM		
		Outdoor sound system	Prohibited		
		Supplemental standards	CASP Sec. 5.F.4.		
		Relief	C2		
		Car Wash	--		
		Commercial Vehicle	--		
Fueling Station	--				

Motor Vehicle Sales & Rental:

Commercial Vehicle	--		
Household Moving Truck Rental	--		
Standard Vehicle	P*	Screening	
		Frontage screen	F-Screen 3
		Transition screen	T-Screen 1

Key: P = Permitted Use
 -- = Not Permitted

S = Special Use Program
 * = Use standard applies

C1 = Approval by Zoning Administrator
 C2 = Public Hearing by Zoning Administrator
 C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
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Storage, Indoor:

General	P		
Self-Service Facility	--		

Storage, Outdoor:

General	P*	Accessory to:	Other allowed use
		Screening	
		Outdoor storage screen	S-Screen 2
Cargo Container	--		
Commercial Vehicle	--		
Official Motor Vehicle Impound	P*	Screening	
		Frontage screen	F-Screen 1
		Transition screen	T-Screen 1
		Use separation (min)	
		Residential or Agricultural Use District	300'
Standard Vehicle	P*	Accessory to:	General Motor Vehicle Services

Light Industrial

		Use standard applicability	
		Adjoining	Sensitive Use, Agricultural, Residential, or Residential-Mixed Use District
		Screening	
		Frontage Screen	F-Screen 4
		Transition Screen	T-Screen 1
		Use enclosure	Fully Indoor
Electronics Assembly	P*	<i>(see Light Industrial)</i>	
Maintenance & Repair Services	P*	<i>(see Light Industrial)</i>	

Key: P = Permitted Use
-- = Not Permitted

S = Special Use Program
* = Use standard applies

C1 = Approval by Zoning Administrator
C2 = Public Hearing by Zoning Administrator
C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
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Manufacturing, Light:

General	P*	(see Light Industrial)	
Alcoholic Beverage	P*	(see Light Industrial)	
Artistic & Artisanal	P*	(see Light Industrial)	
Cosmetic, Pharmaceutical	P*	(see Light Industrial)	
Food & Drink	P*	(see Light Industrial)	
Garment & Accessory	P*	(see Light Industrial)	
Textile	P*	(see Light Industrial)	
Research & Development	P*	(see Light Industrial)	
Soundstages & Backlots	P*	(see Light Industrial)	
Wholesale Trade & Warehousing	P*	(see Light Industrial)	
		Non-residential tenant size (max)	50,000 SF
		Relief	C2

Heavy Industrial

Animal Products Processing	--		
Manufacturing, Heavy:			
General	--		
Chemical Products	--		
Petroleum & Coal Products	--		
Salvage Yard	--		

Key: P = Permitted Use
-- = Not Permitted

S = Special Use Program
* = Use standard applies

C1 = Approval by Zoning Administrator
C2 = Public Hearing by Zoning Administrator
C3 = Review by City Planning Commission

Use Permission Use Standard Specification

Recycling Facility:

Collection	C2*	In conjunction with:	Other allowed use
		Area (max)	600 SF
		Use separation	
		Agricultural or Residential Use District (min)	150'
		Use setback	
		Frontage lot line (min)	20'
		Common lot line (min)	10'
		Use enclosure	Covered and enclosed
		Hours of operation (early/late)	7AM/7PM
		Supplemental standards	CASP Sec. 5.F.5.
Supplemental procedures	CASP Sec. 5.G.1.		
Donation Bin	P*	In conjunction with:	Other allowed use
		Size	Height: 82" Depth: 50" Width: 60"
		Use separation	
		Agricultural or Residential Use District (min)	100'
		Use setback	
		Frontage lot line (min)	20'
		Common lot line (min)	10'
		Use enclosure	Covered and enclosed
		Supplemental standards	CASP Sec. 5.F.6.
		Supplemental procedures	CASP Sec. 5.G.2.
Sorting & Processing	--		

Key: P = Permitted Use
-- = Not Permitted

S = Special Use Program
* = Use standard applies

C1 = Approval by Zoning Administrator
C2 = Public Hearing by Zoning Administrator
C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
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Resource Extraction:

General	--		
Exploratory Core Hole	--		
Off-Shore Drilling Servicing Installation	--		

Solid Waste Facility:

Green Waste	--		
Hazardous Waste Facility	--		
Solid Waste	--		

Agricultural

Animal Keeping:

Bees	P*	Accessory to:	Dwelling
		Lot Area (min)	
		Per beehive	2,500 SF
		Location	
		Frontage yard	Prohibited
		Use Setback (min)	
		Side, rear, and alley lot lines	5'
		Screening	
		Transition screen	T-Screen 1
		Exception	Rooftop location
		Supplemental standards	CASP Sec. 5.F.1.
Dairy	--		
Equine, Commercial	--		

Key: P = Permitted Use
-- = Not Permitted

S = Special Use Program
* = Use standard applies

C1 = Approval by Zoning Administrator
C2 = Public Hearing by Zoning Administrator
C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
Equine, Non-commercial	--		
Livestock	--		
Pets	P*	In conjunction with:	Other allowed use
Small Animals	--		
Wild Animals	--		
Plant Cultivation:			
Community Garden	P		
Farming	P	Use enclosure	Fully Indoor
Truck Gardening	P		

Key: P = Permitted Use
 -- = Not Permitted

S = Special Use Program
 * = Use standard applies

C1 = Approval by Zoning Administrator
 C2 = Public Hearing by Zoning Administrator
 C3 = Review by City Planning Commission

D. Urban Center

1. Intent

Urban Center is an Industrial-Mixed Use District intended to accommodate a wide range of commercial uses, along with light industrial uses and office space, while also providing affordable and permanent supportive housing opportunities.

2. Allowed Uses & Use Limitations

Use	Permission	Use Standard	Specification
Residential	*	Use Separation (min)	
		Heavy Industrial	50'
		Relief	C1
Dwelling	P*	(see Residential)	
		In conjunction with:	General Commercial, Light Industrial Uses
		Floor area (min)	0.5 FAR
		Exception	100% Restricted affordable units
Household Business:			
Family Child Care	P*	In conjunction with:	Dwelling
		In conjunction with:	Dwelling
Home Occupation	P*	Hours of operation (early/late)	8AM/8PM
		Client visits per hour (max)	1
		Supplemental standards	CASP Sec. 5.F.2.
		In conjunction with:	Dwelling
Home Sharing	P*	Special use program	Ch. 1A Sec. 5C.4.4.
Joint Living & Work Quarters	--		

Key: P = Permitted Use
-- = Not Permitted

S = Special Use Program
* = Use standard applies

C1 = Approval by Zoning Administrator
C2 = Public Hearing by Zoning Administrator
C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
Live/Work	P*	(see Residential)	
		In conjunction with:	General Commercial, Light Industrial Uses
		Floor area (min)	0.5 FAR
		Exception	100% Restricted affordable housing
Mobilehome Park	--		
Supportive Housing:			
General	P*	(see Residential)	
Medical Care	--		
Transitional Shelter	P*	(see Residential)	
Public & Institutional			
Cemetery	--		
Civic Facility:			
Local	P		
Regional	C3		
Detention Facility	--		
Fleet Services	P		
Medical:			
Local	C2		
Regional	C3		
Office, Government	P		
Parking	P		

Key: P = Permitted Use
-- = Not Permitted

S = Special Use Program
* = Use standard applies

C1 = Approval by Zoning Administrator
C2 = Public Hearing by Zoning Administrator
C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
Public Safety Facility	P		
Religious Assembly	C2		
School:			
Preschool/Daycare	P		
K-12	P		
Post-secondary	P		
Social Services	P		
Utilities:			
Minor	P*	Screening	
		Frontage screen	F-Screen 2
		Transition screen	T-Screen 2
Major	C3		
Solar Energy Facility	P*	In conjunction with:	
		Floor area (min)	0.1 FAR
		Relief	C3
Wireless Facility, Monopole	C2*	Supplemental standards	CASP Sec. 5.F.7.
Wireless Facility, Rooftop	P*	Supplemental standards	CASP Sec. 5.F.7.
Open Space & Recreation			
Indoor Recreation, Commercial	P		
Nature Reserve	P		
Open Space, Public	P		

Key: P = Permitted Use
-- = Not Permitted

S = Special Use Program
* = Use standard applies

C1 = Approval by Zoning Administrator
C2 = Public Hearing by Zoning Administrator
C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
Outdoor Recreation, Commercial:			
General	P		
Golf Course	--		
Recreation, Public			
Amphitheater or Stadium			
Local	P		
Regional	C3		
Transportation			
Airport	--		
Freight Terminal	--		
Heliport	C2*	Incidental to:	Residential Uses, Office or Medical
Railway Facility	--		
Transit Station	P		
General Commercial			
Animal Services:			
General	P*	Use enclosure	Fully Indoor
Kennel	--		
Veterinary Care	P*	Use enclosure	Fully indoor
Commissary Kitchen	P		

Key: P = Permitted Use
 -- = Not Permitted

S = Special Use Program
 * = Use standard applies

C1 = Approval by Zoning Administrator
 C2 = Public Hearing by Zoning Administrator
 C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
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Eating & Drinking:

Alcohol Service	S*	In conjunction with: Special use program	Restaurant <i>Ch. 1A Sec. 4C.4.2</i>
Bar	S*	Special use program	<i>Ch. 1A Sec. 4C.4.2.</i>
Counter Service	P		
Restaurant	P		

Entertainment Venue, Indoor:

Local	P		
Regional	P		

Financial Services:

General	P		
Alternative	--		

Instructional Services

Lodging	C2*	Supplemental standards	<i>CASP Sec. 5.F.3.</i>
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Medical Clinic

Office	P		
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Personal Services:

General	P		
Massage, Licensed	P		
Massage, Unlicensed	--		

Key: P = Permitted Use S = Special Use Program C1 = Approval by Zoning Administrator
 -- = Not Permitted * = Use standard applies C2 = Public Hearing by Zoning Administrator
 C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
Postmortem Services	C2		
Retail:			
General	P		
Alcohol	S*	Special use program	Ch. 1A Sec. 4C.4.2.
Farmers' Market, Certified	C1*	Hours of operation (open/close)	7AM/9PM
		Service hours	6AM/10PM
		Operating days per week (max)	5
		Special use program	Ch. 1A Sec. 5C.4.1.
Firearms	C2*	Supplemental procedures	CASP Sec. 5.G.3.
Food & Beverage	P		
Large Format	C3*	Supplemental procedures	CASP Sec. 5.G.4.
Pet Shop	P		
Merchant Market	P		
Temporary Outdoor	P		
Smoke & Vape Shop	P	Use separation	
		Residential or Residential Mixed Use District	500'
		Hours of operation (open/close)	
		Within 500' of Residential or Residential Mixed Use District	7AM/10PM
		Relief	C2
Sexually Oriented Business:			

Key: P = Permitted Use
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C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification	
			Use separation (min)	
General	P*	Other Sexually Oriented Business Use	1,000'	
		Sensitive Use	500'	
		Residential or Agricultural Use District	500'	
Sexual Encounter	--			
Heavy Commercial				
Motor Vehicle Services:				
			Use separation (min)	
General	P*	Sensitive Use	200'	
		Agricultural, Residential, or Residential Mixed use District	200'	
		Use enclosure	Fully indoors	
		Screening		
		Frontage screen	F-Screen 3	
		Transition screen	T-Screen 1	
		Hours of operation (open/close)	7AM/7PM	
		Service hours (open/close)	7AM/7PM	
		Outdoor sound system	Prohibited	
		Supplemental standards	CASP Sec. 5.F.4.	
		Relief	C2	
Car Wash	--			
Commercial Vehicle	--			
Fueling Station	--			
Motor Vehicle Sales & Rental:				
Commercial Vehicle	--			

Key: P = Permitted Use
-- = Not Permitted

S = Special Use Program
* = Use standard applies

C1 = Approval by Zoning Administrator
C2 = Public Hearing by Zoning Administrator
C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
Household Moving Truck Rental	--		
		Screening	
Standard Vehicle	P*	Frontage screen	F-Screen 3
		Transition screen	T-Screen 1
Storage, Indoor:			
General	P		
Self-Service Facility	P		
Storage, Outdoor:			
General	P*	Accessory to:	Other allowed use
		Screening	
		Outdoor storage screen	S-Screen 2
Cargo Container	--		
Commercial Vehicle	--		
Official Motor Vehicle Impound	P*	Screening	
		Frontage screen	F-Screen 1
		Transition screen	T-Screen 1
		Use separation (min)	
		Residential or Agricultural Use District	300'
Standard Vehicle	P*	Accessory to:	General Motor Vehicle Services

Key: P = Permitted Use
-- = Not Permitted

S = Special Use Program
* = Use standard applies

C1 = Approval by Zoning Administrator
C2 = Public Hearing by Zoning Administrator
C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
Light Industrial		Use standard applicability	
		Adjoining	Sensitive Use, Agricultural, Residential, or Residential Mixed Use District
		Screening	
		Frontage Screen	F-Screen 4
		Transition Screen	T-Screen 1
		Use enclosure	Fully Indoor
Electronics Assembly	P*	(see Light Industrial)	
Maintenance & Repair Services	P*	(see Light Industrial)	
Manufacturing, Light:			
General	P*	(see Light Industrial)	
Alcoholic Beverage	P*	(see Light Industrial)	
Artistic & Artisanal	P*	(see Light Industrial)	
Cosmetic, Pharmaceutical	P*	(see Light Industrial)	
Food & Drink	P*	(see Light Industrial)	
Garment & Accessory	P*	(see Light Industrial)	
Textile	P*	(see Light Industrial)	
Research & Development	P*	(see Light Industrial)	
Soundstages & Backlots	P*	(see Light Industrial)	
Wholesale Trade & Warehousing	P*	(see Light Industrial)	
		Non-residential tenant size (max)	50,000 SF
		Relief	C2

Key: P = Permitted Use
 -- = Not Permitted

S = Special Use Program
 * = Use standard applies

C1 = Approval by Zoning Administrator
 C2 = Public Hearing by Zoning Administrator
 C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
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Heavy Industrial

Animal Products Processing	--		
Manufacturing, Heavy:			
General	--		
Chemical Products	--		
Petroleum & Coal Products	--		
Salvage Yard	--		

Recycling Facility:

		In conjunction with:	Other allowed use
		Area (max)	600 SF
		Use separation	
		Agricultural or Residential Use District (min)	150'
		Use setback	
		Frontage lot line (min)	20'
		Common lot line (min)	10'
		Use enclosure	Covered and enclosed
		Hours of operation (early/late)	7AM/7PM
		Supplemental standards	CASP Sec. 5.F.5.
		Supplemental procedures	CASP Sec. 5.G.1.
Collection	C2*		

Key: P = Permitted Use
-- = Not Permitted

S = Special Use Program
* = Use standard applies

C1 = Approval by Zoning Administrator
C2 = Public Hearing by Zoning Administrator
C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
Donation Bin	P*	In conjunction with:	Other allowed use
		Size	Height: 82" Depth: 50" Width: 60"
		Use separation	
		Agricultural or Residential Use District (min)	100'
		Use setback	
		Frontage lot line (min)	20'
		Common lot line (min)	10'
		Use enclosure	Covered and enclosed
		Supplemental standards	CASP Sec. 5.F.6.
Supplemental procedures	CASP Sec. 5.G.2.		
Sorting & Processing	--		
Resource Extraction:			
General	--		
Exploratory Core Hole	--		
Off-Shore Drilling Servicing Installation	--		
Solid Waste Facility:			
Green Waste	--		
Hazardous Waste Facility	--		
Solid Waste	--		

Key: P = Permitted Use
-- = Not Permitted

S = Special Use Program
* = Use standard applies

C1 = Approval by Zoning Administrator
C2 = Public Hearing by Zoning Administrator
C3 = Review by City Planning Commission

Agricultural

Animal Keeping:

		Accessory to:	Dwelling
		Lot Area (min)	
		Per beehive	2,500 SF
		Location	
		Frontage yard	Prohibited
		Use Setback (min)	
Bees	P*	Side, rear, and alley lot lines	5'
		Screening	
		Transition screen	T-Screen 1
		Exception	Rooftop location
		Supplemental standards	CASP Sec. 5.F.1.
Dairy	--		
Equine, Commercial	--		
Equine, Non-commercial	--		
Livestock	--		
Pets	P*	In conjunction with:	Other allowed use
Small Animals	--		
Wild Animals	--		

Plant Cultivation:

Community Garden	P		
Farming	P	Use enclosure	Fully Indoor
Truck Gardening	P		

Key: P = Permitted Use S = Special Use Program C1 = Approval by Zoning Administrator
 -- = Not Permitted * = Use standard applies C2 = Public Hearing by Zoning Administrator
 C3 = Review by City Planning Commission

E. Urban Innovation

1. Intent

Urban Innovation is an Industrial-Mixed Use District intended to promote light industrial uses and a wide variety of employment, cultural and recreational opportunities, while also providing affordable and permanent supportive housing opportunities.

2. Allowed Uses & Use Limitations

Use	Permission	Use Standard	Specification
Residential	*	Use Separation (min):	
		Heavy Industrial	50'
		Relief	C1
Dwelling	P*	(see Residential)	
		In conjunction with:	- Office - Light Industrial Uses
		Floor area (min)	1.0 FAR
		Exception	100% Restricted affordable units
Household Business:			
Family Child Care	P*	In conjunction with:	Dwelling
Home Occupation	P*	In conjunction with:	Dwelling
		Hours of operation (early/late)	8AM/8PM
		Client visits per hour (max)	1
		Supplemental standards	CASP Sec. 5.F.2.
Home Sharing	P*	In conjunction with:	Dwelling
		Special use program	Ch. 1A Sec. 5C.4.4.

Key: P = Permitted Use
-- = Not Permitted

S = Special Use Program
* = Use standard applies

C1 = Approval by Zoning Administrator
C2 = Public Hearing by Zoning Administrator
C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
Joint Living & Work Quarters	P*	(see Residential)	
		Designated work space:	
		Work space area (min/max)	10%/50%
Live/Work	P*	(see Residential)	
		In conjunction with:	<ul style="list-style-type: none"> - Office - Light Industrial Uses
		Floor area (min)	1.0 FAR
Mobilehome Park	--		
Supportive Housing:			
General	P*	(see Residential)	
Medical Care	--		
Transitional Shelter	P*	(see Residential)	
Public & Institutional			
Cemetery	--		
Civic Facility:			
Local	P		
Regional	C3		
Detention Facility	--		
Fleet Services	P		

Key: P = Permitted Use
-- = Not Permitted

S = Special Use Program
* = Use standard applies

C1 = Approval by Zoning Administrator
C2 = Public Hearing by Zoning Administrator
C3 = Review by City Planning Commission

Use	Permission	Use Standard	Specification
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Medical:

Local	C2		
Regional	C3		
Office, Government	P		
Parking	P		
Public Safety Facility	P		
Religious Assembly	C2		

School:

Preschool/Daycare	P		
K-12	P		
Post-secondary	P		
Social Services	P		

Utilities:

Minor	P*	Screening:	
		Frontage screen	F-Screen 2
		Transition screen	T-Screen 2
Major	C3		
Solar Energy Facility	P*	In conjunction with:	
		Floor area (min)	0.1 FAR
		Relief	C3
Wireless Facility, Monopole	C2*	Supplemental standards	CASP Sec. 5.F.5.
Wireless Facility, Rooftop	P*	Supplemental standards	CASP Sec. 5.F.5.

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Use Permission Use Standard Specification

Open Space & Recreation

Indoor Recreation, Commercial	P		
Nature Reserve	P		
Open Space, Public	P		
Outdoor Recreation, Commercial:			
General	P		
Golf Course	--		
Recreation, Public	P		
Amphitheater or Stadium:			
Local	P		
Regional	C3		

Transportation

Airport	--		
Freight Terminal	--		
Heliport	C2*	Incidental to:	Residential Uses, Office or Medical
Railway Facility	--		
Transit Station	P		

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General Commercial

Animal Services:

General	P*	Use enclosure	Fully Indoor
Kennel	--		
Veterinary Care	P*	Use enclosure	Fully indoor

Commissary Kitchen

P

Eating & Drinking:

Alcohol Service	S*	In conjunction with:	Restaurant
		Special use program	Ch. 1A Sec. 4C.4.2.
Bar	S*	Special use program	Ch. 1A Sec. 4C.4.2.
Counter Service	P		
Restaurant	P		

Entertainment Venue, Indoor:

Local	P		
Regional	P		

Financial Services:

General	P		
Alternative	--		

Instructional Services

P

Lodging

C2*

Supplemental standards

CASP Sec. 5.F.3.

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Use	Permission	Use Standard	Specification
Medical Clinic	P		
Office	P		
Personal Services:			
General	P		
Massage, Licensed	P		
Massage, Unlicensed	--		
Postmortem Services	C2		
Retail:			
General	P		
Alcohol	S*	Special use program	Ch. 1A Sec. 4C.4.2.
Farmers' Market, Certified	C1*	Hours of operation (open/close)	7AM/9PM
		Service hours	6AM/10PM
		Operating days per week (max)	5
		Special use program	Ch. 1A Sec. 5C.4.1.
Firearms	C2*	Supplemental procedures	CASP Sec. 5.G.3.
Food & Beverage	P		
Large Format	C3*	Supplemental procedures	CASP Sec. 5.G.4.
Pet Shop	P		
Merchant Market	P		
Temporary Outdoor	P		

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Use	Permission	Use Standard	Specification	
Smoke & Vape Shop	P		Use separation	
			Residential or Residential Mixed Use District	500'
			Hours of operation (open/close)	
			Within 500' of Residential or Residential Mixed Use District	7AM/10PM
			Relief	C2
Sexually Oriented Business:				
General	P*		Use separation (min)	
			Other Sexually Oriented Business Use	1,000'
			Sensitive Use	500'
			Residential or Agricultural Use District	500'
Sexual Encounter	--			
Heavy Commercial				
Motor Vehicle Services:				
General	P*		Use separation (min)	
			Sensitive Use	200'
			Agricultural, Residential or Residential Mixed Use District	200'
			Use enclosure	Fully indoors
			Screening	
			Frontage screen	F-Screen 3
			Transition screen	T-Screen 1
			Hours of operation (open/close)	7AM/7PM
			Service hours (open/close)	7AM/7PM
			Outdoor sound system	Prohibited
			Supplemental standards	CASP Sec. 5.F.4.
			Relief	C2
Key:	P = Permitted Use -- = Not Permitted	S = Special Use Program * = Use standard applies	C1 = Approval by Zoning Administrator C2 = Public Hearing by Zoning Administrator C3 = Review by City Planning Commission	

Use	Permission	Use Standard	Specification
Car Wash	--		
Commercial Vehicle	--		
Fueling Station	--		
Motor Vehicle Sales & Rental:			
Commercial Vehicle	--		
Household Moving Truck Rental	--		
Standard Vehicle	P*	Screening	
		Frontage screen	F-Screen 3
		Transition screen	T-Screen 1
Storage, Indoor:			
General	P		
Self-Service Facility	P		
Storage, Outdoor:			
General	P*	Accessory to:	Other allowed use
		Screening	
		Outdoor storage screen	S-Screen 2
Cargo Container	--		
Commercial Vehicle	--		
Official Motor Vehicle Impound	P*	Screening:	
		Frontage screen	F-Screen 1
		Transition screen	T-Screen 1
		Use separation (min):	
		Residential or Agricultural Use District	300'

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Use	Permission	Use Standard	Specification
Standard Vehicle	P*	Accessory to:	General Motor Vehicle Services
Light Industrial		Use standard applicability:	
		Adjoining	Sensitive Use, Agricultural, Residential or Residential Mixed Use District
		Screening:	
		Frontage Screen	F-Screen 4
		Transition Screen	T-Screen 1
		Use enclosure:	Fully Indoor
Electronics Assembly	P*	<i>(see Light Industrial)</i>	
Maintenance & Repair Services	P*	<i>(see Light Industrial)</i>	
Manufacturing, Light:			
General	P*	<i>(see Light Industrial)</i>	
Alcoholic Beverage	P*	<i>(see Light Industrial)</i>	
Artistic & Artisanal	P*	<i>(see Light Industrial)</i>	
Cosmetic, Pharmaceutical	P*	<i>(see Light Industrial)</i>	
Food & Drink	P*	<i>(see Light Industrial)</i>	
Garment & Accessory	P*	<i>(see Light Industrial)</i>	
Textile	P*	<i>(see Light Industrial)</i>	
Research & Development	P*	<i>(see Light Industrial)</i>	
Soundstages & Backlots	P*	<i>(see Light Industrial)</i>	
Wholesale Trade & Warehousing	P*	<i>(see Light Industrial)</i>	
		Non-residential tenant size (max)	50,000 SF
		Relief	C2

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Use	Permission	Use Standard	Specification
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Heavy Industrial

Animal Products Processing	--		
----------------------------	----	--	--

Manufacturing, Heavy:

General	--		
---------	----	--	--

Chemical Products	--		
-------------------	----	--	--

Petroleum & Coal Products	--		
---------------------------	----	--	--

Salvage Yard	--		
--------------	----	--	--

Recycling Facility:

Collection	C2*	In conjunction with:	Other allowed use
		Area (max)	600 SF
		Use separation	
		Agricultural or Residential Use District (min)	150'
		Use setback	
		Frontage lot line (min)	20'
		Common lot line (min)	10'
		Use enclosure	Covered and enclosed
		Hours of operation (early/late)	7AM/7PM
		Supplemental standards	CASP Sec. 5.F.5.
		Supplemental procedures	CASP Sec. 5.G.1.

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Use	Permission	Use Standard	Specification
Donation Bin	P*	In conjunction with:	Other allowed use
		Size	Height: 82" Depth: 50" Width: 60"
		Use separation	
		Agricultural or Residential Use District (min)	100'
		Use setback	
		Frontage lot line (min)	20'
		Common lot line (min)	10'
		Use enclosure	Covered and enclosed
		Supplemental standards	CASP Sec. 5.F.6.
		Supplemental procedures	CASP Sec. 5.G.2.
Sorting & Processing	--		
Resource Extraction:			
General	--		
Exploratory Core Hole	--		
Off-Shore Drilling Servicing Installation	--		
Solid Waste Facility:			
Green Waste	--		
Hazardous Waste Facility	--		
Solid Waste	--		

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Agricultural

Animal Keeping:

Bees	P*	Accessory to:	Dwelling
		Lot Area (min)	
		Per beehive	2,500 SF
		Location	
		Frontage yard	Prohibited
		Use Setback (min)	
		Side, rear, and alley lot lines	5'
		Screening	
		Transition screen	T-Screen 1
		Exception	Rooftop location
		Supplemental standards	CASP Sec. 5.F.1.
Dairy	--		
Equine, Commercial	--		
Equine, Non-commercial	--		
Livestock	--		
Pets	P*	In conjunction with:	Other allowed use
Small Animals	--		
Wild Animals	--		
Plant Cultivation:			
Community Garden	P		
Farming	P	Use enclosure	Fully Indoor
Truck Gardening	P		

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F. Supplemental Standards

1. Animal Keeping, Bees

- a. Bee keeping operator shall be registered as a beekeeper with the Los Angeles County Agricultural Commission.
- b. A water source for bees shall be provided at all times on the lot where the bees are kept.

2. Home Occupation

On-site deliveries and shipments related to the commercial use in a home occupation shall not be performed by vehicles having a gross vehicular weight rating designation greater than Class 4 or greater than 16,000 pounds. Deliveries from larger trucks shall occur no more frequently than once every 2 months.

3. Lodging

A lodging use shall not be permitted where it requires a change of use from any residential use.

4. Motor Vehicle Services, General

- a. Bay doors and other building entrances and exits designed and intended for motor vehicle access shall meet the following standards:
 - i. Shall remain closed except during the allowed hours of operation, and
 - ii. Shall not face any frontage lot line.
- b. An off-street loading area, in compliance with development standard requirements for loading areas (LAMC Chapter 1A Sec. 4C.2.2.3.), shall be provided to adequately accommodate all loading, unloading and any other activities requiring the use of commercial vehicles for transportation.
- c. All client vehicles being serviced by a general motor vehicle service use shall be stored onsite.

5. Recycling Facilities, Collection

- a. All deposited goods and materials, temporary installations, debris, trash, and any other material associated with the use shall be placed or stored in a fully covered and enclosed recycling facility, and not be left or stored outdoors beyond the hours of operation.
- b. Collection facilities shall be emptied in accordance with their posted pick-up schedule, and the area surrounding the collection bins shall be maintained free of overflow goods and materials, litter, debris, posted bills, and graffiti at all times.
- c. In order to prevent unauthorized access to the collection facility, a tamper-resistant locking mechanism shall secure the opening of the collection facility.
- d. The receptacle, container, or bin in which goods and materials are stored shall be fabricated of durable, noncombustible, and waterproof materials.
- e. The recycling collection facility enclosure shall be clearly identified with the operator's name, address, and telephone number, the lot owner's name, address of the lot, the types of items or materials that may be deposited, the pick-up schedule, a notice that no material shall be left outside the enclosure, and instructions to call 311 to register any complaint regarding the facility with the Department of Building and Safety.

6. Recycling Facilities, Donation Bin

- a. No more than one collection bin shall be located on any lot.
- b. Collection bins shall be emptied in accordance with their posted pick-up schedule, and the area surrounding the collection bins shall be maintained free of overflow goods and materials, litter, debris, posted bills, and graffiti at all times.
- c. In order to prevent unauthorized access to the collection bin, a tamper-resistant locking mechanism shall secure the opening of the collection bin.
- d. The collection bin shall be fabricated of durable, noncombustible, and waterproof materials.
- e. Collection bins shall be illuminated between sunset and sunrise by a light source providing at least 1 footcandle of light.

- f. The collection bin shall be clearly identified with the operator’s name, address, and telephone number, the lot owner’s name, address of the lot, the types of items or materials that may be deposited, the pick-up schedule, a notice that no material shall be left outside the enclosure, and instructions to call 311 to register any complaint regarding the collection bin with the Department of Building and Safety.

7. Wireless Facility, All

The wireless facility shall meet all applicable standards required by LAMC Chapter 1A Sec. 4C.12.4. (Wireless Telecommunication Facilities).



G. Supplemental Procedures

1. Recycling Facilities, Collection

An annual site inspection shall be conducted by LADBS, pursuant to Sec. 13B.10.3. (Annual Inspection Monitoring - Auto Dismantling Yards, Junk Yards, Scrap Metal or Recycling Materials Processing Yards, Recycling Collection Centers, Buyback Centers, Recycling Materials Sorting Facilities, and Cargo Container Storage Yards).

2. Recycling Facilities, Donation Bin

An annual site inspection shall be conducted by LADBS pursuant to Sec. 13B.10.3. (Annual Inspection Monitoring - Auto Dismantling Yards, Junk Yards, Scrap Metal or Recycling Materials Processing Yards, Recycling Collection Centers, Buyback Centers, Recycling Materials Sorting Facilities, and Cargo Container Storage Yards).

3. Retail, Firearms

- a. In addition to the findings otherwise required by Sec. 13B.2.2. (Class 2 Conditional Use Permit), the Zoning Administrator shall also consider:
 - i. Whether the proposed use will result in an over-concentration of this use in the area, and
 - ii. The number of firearms available for sale at the lot.

4. Retail, Large Format

- a. In addition to a Conditional Use Permit with approval by the City Planning Commission, pursuant to Sec. 13B.2.3. (Class 3 Conditional Use Permit), new large format retail uses are required to prepare an economic impact analysis report for submission to the Department of City Planning and the Economic & Workforce Development Department for review in conjunction with its application to the Department of City Planning. The Economic & Workforce Development Department shall complete its review of the report within 60 days after receipt of the report from the applicant. The report shall identify the following:

- i. The economic impact on retail businesses within a 3-mile radius based on the potential to divert or expand the local or regional customer base. Data portraying the existing customer volume of the study area as well as the anticipated customer volume of the study area shall be included in the report.
 - ii. The destruction or demolition of any buildings, structures, facilities or site area containing any of the following uses: any Residential Use, Civic Facility, School, Nature Reserve, Public Open Space, or Public Recreation.
 - iii. Contribution to local retail market in terms of providing lower in cost or higher in quality goods and services than currently available to residents within a 3-mile radius. A survey of goods and services offered by retail uses within a 3-mile radius shall be included within the report.
 - iv. The number of permanent jobs displaced or created as a direct result of the project. Permanent jobs shall be categorized by employment sector within the report.
 - v. Fiscal impact on City tax revenue, either positive or negative.
 - vi. Viability of future reuse of the project site in the event the business vacates the premises based on factors such as building design, site layout, and lease terms requiring the lot to remain vacant for a significant amount of time.
 - vii. Reasonable expectation that employment solicitation by day laborers will occur at or around the lot.
 - viii. Measures to mitigate any materially adverse impacts identified within the report.
- b. If determined by the City Planning Commission, or the City Council on appeal, that based on the findings of the report, or any other information received before or at a public hearing that there is a reasonable expectation that employment solicitation by day laborers will occur at or around the lot then the following measures may be required to the satisfaction of the City Planning Commission, or the City Council on appeal:

- i. The project shall accommodate employment solicitation by day laborers with dedicated congregation space that meets the following criteria:
 - a. Is sufficient in size based on reasonably expected users;
 - b. Located along but clear of a pedestrian accessway leading to a primary entrance; and
 - c. Is covered to provide adequate shelter from the weather.
- ii. Amenities including publicly accessible sources of drinking water, toilet and trash facilities, tables, and seating areas shall also be made available during business hours of operation.
- iii. A signage plan, indicating the location of signs at appropriate locations throughout the lot directing users to dedicated congregation areas and amenities.



Chapter 6

Density

This Chapter establishes the maximum density of household dwelling units and efficiency dwelling units permitted on a lot.

Properties designated with the FA Density District, an abbreviation for “Floor Area”, are limited only by floor area. Properties designated with the N Density District, an abbreviation for “Not Permitted”, do not allow dwelling units.

A. Density Applicability

1. General

All Projects filed after the effective date of this Specific Plan shall comply with the Density District standards as further specified below.

2. Applicability

Refer to Section 6A.2.2. (*Density Applicability*) of Chapter 1A of the LAMC for the Density Rule Category that applies to a Project based on the types of Project Activities involved.

B. Density Districts

1. Density Districts Map

The Density District for each property within the Specific Plan is set forth in **Map 6-1 (Density Districts Map)**.

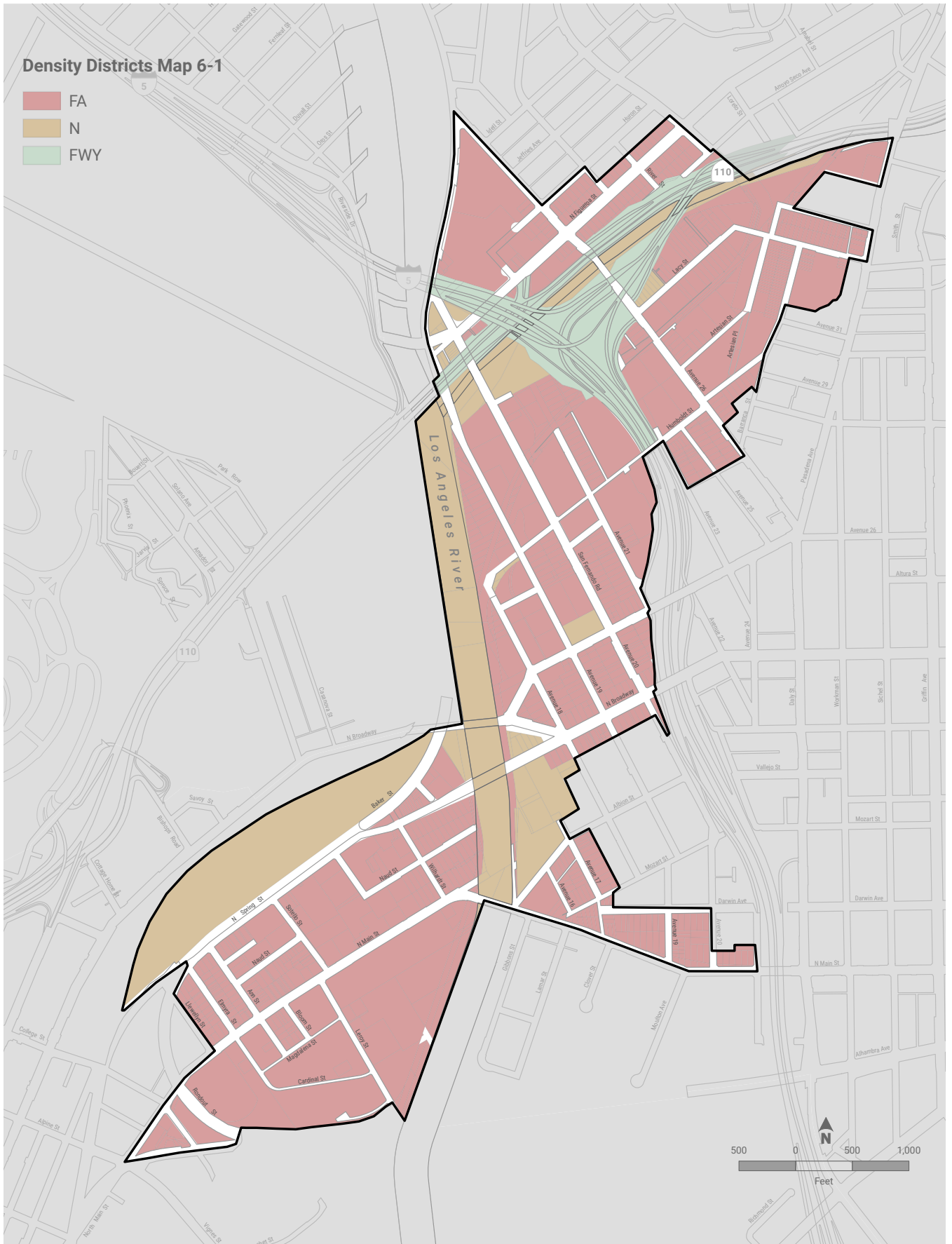
2. Density Districts Table

The regulations for each Density District are provided for in Section 6B.1.2. (*Lot-Area Based Density Districts*) of Chapter 1A (Zoning Code) of the LAMC.



Density Districts Map 6-1

- FA
- N
- FWY





Chapter 7 Community Benefits Program

This Chapter establishes a Community Benefits Program pursuant to Div. 9.3. (*Community Benefits Program*) of Chapter 1A of the LAMC. This Community Benefits Program is comprised of a Local Affordable Housing Incentive Program, in Section B below, followed by a Public Benefits Incentive Program, in Section C below.

A. Community Benefits Standards

1. Relief

Requirements of this Chapter shall not be eligible for a Project Adjustment pursuant to Sec. 13B.4.4. (*Project Adjustment*) of Chapter 1A (Zoning Code) of the LAMC or a Project Exemption pursuant to Sec.13B.4.5. (*Project Exemption*) of Chapter 1A (Zoning Code) of the LAMC.

2. Pro Rata Share

Projects may seek less than the full increment of FAR available through the incentives in this Chapter provided that they provide a proportional share of community benefits and meet the minimum requirements.

3. Relationship to Other Regulations

- a. Citywide Density Bonus and Qualified Permanent Supportive Housing. Nothing in this Specific Plan is intended to override or conflict with the regulations set forth in Section 9.2.1. (*Density Bonus*) or 9.4.1. (*Permanent Supportive Housing Incentive Program*) of Chapter 1A (Zoning Code) of the LAMC that provide bonuses, waivers, and incentives for certain affordable housing projects. Projects may utilize bonuses, waivers, and incentives for certain affordable housing projects pursuant to Section 9.2.1. or 9.4.1. of Chapter 1A, applied to the Base FAR or other applicable base development rights for that zone. Projects that obtain density, height, or FAR bonuses, incentives, waivers, or concessions pursuant to Section 9.2.1. or 9.4.1. of Chapter 1A, or any other State or local program, including Government Code Sections 65915-65918, may not use the incentives set forth in this Chapter.
- b. Transit Oriented Communities Affordable Housing Incentive Program. For Housing Development Projects within the boundaries of this Specific Plan, the Citywide Transit Oriented Communities Guidelines shall be superseded by the provisions and requirements contained within this Chapter.

B. Local Affordable Housing Incentive Program Pursuant to Sec. 9.3.2. of Chapter 1A (Zoning Code) of the LAMC

1. Bonus Floor Area

A Housing Development that meets the requirements below may obtain an additional 100 percent FAR above the subject site’s base Maximum FAR.

2. Requirements

- a. **On-Site Restricted Affordable Units.** Within the boundaries of the CASP, a Housing Development shall provide Restricted Affordable Units at rates outlined in Set A of Sec. 9.3.2.B. (*Eligibility*) of Chapter 1A (Zoning Code) of the LAMC. The minimum number of Restricted Affordable Units shall be calculated based upon the total number of units in the final project.

Local Incentive Program Affordability Requirements - Set A (For Reference Only)

Deeply Low Income	Extremely Low Income	Very Low Income	Lower Income	Moderate
--	11%	15%	25%	n/a

As an alternative to providing Restricted Affordable Units at the rates outlined in Set A, a Housing Development may set aside 10% of units for Deeply Low Income Households.

- b. **Dwelling Unit Mix and Location.** A minimum of 20% of the total dwelling units for an eligible Housing Development that is Mixed-Income Housing shall be two bedrooms or greater.

3. Additional Incentives

In addition to the FAR bonus identified in Sec. B.1. of this Chapter, a Housing Development Project shall be granted two additional incentives and a 100 Percent Affordable Housing Project shall be granted three additional incentives. This shall supersede Sec. 9.3.2.D. (*Additional Incentives*) of Chapter 1A (Zoning Code) of the LAMC.

- a. **Building Width.** See Sec. 2.C.6. (*Building Width*) of Chapter 1A (Zoning Code) of the LAMC.
 - i. For all eligible Housing Development Projects, up to a 20% increase in maximum building width may be granted.
- b. **Lot Coverage.** See Sec. 2.C.2. (*Coverage*) of Chapter 1A (Zoning Code) of the LAMC.
 - i. For all eligible Housing Development Projects, up to a 20% increase in maximum lot coverage may be granted.
- c. **Lot Width.** See Sec. 2.C.1. (*Lot Size*) of Chapter 1A (Zoning Code) of the LAMC.
 - i. For all eligible Housing Development Projects, up to a 20% decrease in required minimum lot width may be granted.
- d. **Averaging of Floor Area.** See Sec. 2.C.4. (*Floor Area Ratio & Height*) of Chapter 1A (Zoning Code) of the LAMC.
 - i. A Housing Development Project that is located on two or more adjacent parcels may average the Floor Area over the project site provided that:
 - a. The proposed use is permitted by the Use District of each parcel; and
 - b. No further lot line adjustment or any other action that may cause the Housing Development Project site to be subdivided subsequent to this grant is permitted.

C. Public Benefits Incentive Programs Pursuant to Sec. 9.3. of Chapter 1A (Zoning Code) of the LAMC

To promote the production of improvements, facilities, resources, and services beyond affordable housing for the benefit and enjoyment of the general public.

1. Eligibility

A project must meet the criteria set forth in Sec. 9.3.1.C. (*Eligibility*) of Chapter 1A (Zoning Code) of the LAMC to be eligible for the following Public Benefits Incentive Programs.

A Housing Development Project must first use the Local Affordable Housing Incentive Program established in Section B of this Chapter to its fullest extent before being eligible for Public Benefits Incentive Programs. Projects which do not involve the construction of a Housing Development Project are eligible to use any of the following Public Benefits Incentive Programs.

2. Privately Owned Public Space pursuant to Sec. 9.3.3. of Chapter 1A (Zoning Code) of the LAMC

- a. For every additional four percent of buildable lot area dedicated as publicly accessible outdoor amenity space, above the subject site's required Lot Amenity Space, eligible projects may obtain an additional 1.0:1 FAR for either of the following:
 - i. Land dedicated for public open space, in consultation with the Department of Recreation and Parks.
 - ii. On-site publicly accessible open space, constructed in accordance with the requirements listed below:
 - a. At least one public restroom and drinking water fountain shall be provided within, adjacent to, and/or and directly accessible from the publicly accessible open space. Public restrooms shall be made available during the operational hours of the publicly

accessible open space, and shall not necessitate the need to enter secured or otherwise publicly inaccessible portions of a building or site. Signage viewable from within the publicly accessible open space shall indicate that the restroom and drinking water fountain is available for public use.

- b. At least one of the amenity options listed below, which shall occupy a minimum of 400 square feet with no horizontal dimension less than 15 feet, shall be provided within or adjacent to the publicly accessible open space:
 - i. Outdoor exercise equipment available for public use
 - ii. Sport courts available for public use
 - iii. Dog run available for public use
 - iv. Children’s play area available for public use
 - v. Community garden available for public use
 - vi. Public art or historical interpretive element
 - vii. Alternative Open Space Amenities deemed appropriate by the Director of Planning and approved under a Director’s Determination
- c. At least 20% of the publicly accessible open space shall be shaded. Percentage shading shall be the shadow cast on the publicly accessible open space measured at noon (12:00 p.m.) on the summer solstice.
- d. A minimum of three public charging stations for personal electronic devices, with features like power outlets and USB connections, shall be provided at no cost to users.

3. Community Facilities pursuant to Sec. 9.3.4. of Chapter 1A (Zoning Code) of the LAMC

- a. Sites seeking to utilize the Community Facilities incentive must dedicate a minimum of 5,000 square feet to one of the eligible uses below. In addition to the minimum required space, for every 10% of bonus buildable floor area dedicated to one of the following, eligible projects may obtain an additional 1.0:1 FAR:
 - i. Daycare Facility pursuant to LAMC Chapter 1A Sec. 9.3.4.C.1.
 - ii. Full-Service Grocery Store pursuant to LAMC Chapter 1A Sec. 9.3.4.C.2.
 - iii. Health Center pursuant to LAMC Chapter 1A Sec. 9.3.4.C.3.
 - iv. School and Library pursuant to LAMC Chapter 1A Sec. 9.3.4.C.5.
 - v. Social Services pursuant to LAMC Chapter 1A Sec. 9.3.4.C.6.
 - a. Alternative Social Services shall require the approval of a Director's Determination.
 - vi. Civic Facility pursuant to LAMC Chapter 1A Sec. 9.3.4.C.7.
 - a. Alternative Civic Facilities shall require the approval of a Director's Determination.
 - vii. Small and/or Legacy Business Area
 - a. The property owner shall devote floor area with below-market rent for a Small and/or Legacy Business, as defined in Sec. 1.A.4. (Definitions) of this Specific Plan. Market rent shall be determined by a licensed appraiser.
 - b. Floor area used by a Small and/or Legacy Business shall be used for such purpose for a minimum of 55 years after the Certificate of Occupancy is issued. For the purposes of this provision, the time in which the Small Legacy Business space is vacant does not count towards the required minimum.

- c. A minimum 10-year lease with a Small and/or Legacy Business, with a 5 year renewal option, shall be required prior to the issuance of a Certificate of Occupancy. This requirement does not mean that the Small Legacy Business is required to complete the term of the lease. If the lease is not completed prior to the 10-year term, the property owner or their representatives shall find a new Small Legacy Business to complete the 10-year term. For the purposes of this provision, the time in which the Small Legacy Business space is vacant does not count towards the required minimum.
- d. The floor area devoted to a Small and/or Legacy Business shall be located on-site.
- e. More than one Small and/or Legacy Business may be permitted on a site pursuant to this incentive.
- f. For a project which is obtaining additional floor area for providing a Small and/or Legacy Business, no other Certificate of Occupancy for the project shall be issued prior to a Certificate of Occupancy for the Small and/or Legacy Business required pursuant to this Section.
- g. Prior to the issuance of a building permit, the owner of the lot or lots shall execute and record a covenant and agreement, acknowledging that the owner shall implement each of the applicable requirements set forth in this Community Facilities incentive. The covenant and agreement shall run with the land and be binding upon the owners, and any assignees, lessees, heirs, and successors of the owners. The City's right to enforce the covenant and agreement is in addition to any other remedy provided by law.

4. Additional On-Site Restricted Affordable Units

- a. A Housing Development may exceed the bonus FAR received through the Local Affordable Housing Incentive Program (Section 2 of this Chapter) up to the maximum bonus FAR by an additional 1.0:1 FAR for each increase in the amount of on-site Restricted Affordable Units, calculated on the total number of units, according to the following percentages: 3% Deeply Low, Extremely Low Income, or Very Low Income; or 4% Low Income.

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Chapter 8

Streets

A. Street Dedication and Improvement

1. Requirement

Projects in the Specific Plan shall comply with the applicable dedication and improvement requirements of Div. 10.1. (*Street Dedication and Improvement*) of Chapter 1A (Zoning Code) of the LAMC. For the purposes of this Division, any lot in an Urban Village, Urban Center, Urban Innovation, or Public Use (P2) Use District shall be deemed equivalent to a lot in an Industrial-Mixed Use District.

- a. Pursuant to Div. 10.1.I. of Chapter 1A (Zoning Code) of the LAMC, where the existing improved roadway meets or exceeds the street standard, but the abutting sidewalk dimension is less than standard as depicted in the most recent version of the Bureau of Engineering's standard plan number S470, the sidewalk must be widened to meet the standard.

2. Street Standards

The street designations and street standards of rights-of-way within the Specific Plan boundaries can be found in Appendix A (Street Cross-Sections) and the Bureau of Engineering Navigate LA website.

B. Basic Streetscape Improvements

1. Applicability

When a right-of-way improvement is required of any Project pursuant to Section 8.A. of this Specific Plan, the following Basic Streetscape Improvements are also required as part of the right-of-way improvement.

2. Waiver of Improvements

The Director of Planning may waive, reduce, or modify the requirements of the Basic Streetscape Improvements pursuant to the waiver of dedication and improvement provisions set forth in Sec. 10.1.10. (*Waiver and Appeals*) of Chapter 1A (Zoning Code) of the LAMC.

3. Street Trees

- a. **Requirement.** The Project shall include the installation of street trees planted in parkways along the right of way adjacent to the Project, in coordination with the Bureau of Engineering and as approved by the Bureau of Street Services, Urban Forestry Division.
- b. **Number, Size, and Location of Street Trees.** The Project shall provide the maximum number of street trees, as determined by the Bureau of Street Services, Urban Forestry Division. Trees shall be planted in parkways; or if not in parkways, in the largest possible size tree wells meeting the requirements of the Bureau of Street Services, Urban Forestry Division.
- c. **Tree Removal and Replacement.** Where existing street trees must be removed and/or replaced as a result of required street widening or other improvements, approval from the Board of Public Works through the Bureau of Street Services, Urban Forestry Division, may be necessary.

4. Additional Basic Streetscape Improvements

- a. **Requirement for Projects.** A Project that includes fewer than 50 dwelling units or guest rooms shall provide at least one of the Additional Basic Streetscape Improvements listed in Table 8-1. For every additional 100 dwelling units or guest rooms, a Project shall provide an additional improvement listed in Table 8-1, not to exceed four Additional Basic Streetscape Improvements. A Project that does not include dwelling units or guest rooms shall include one Additional Basic Streetscape Improvement per 50,000 square feet of nonresidential floor area.



Table 8-1. Basic Streetscape Improvements

Typical Characteristics	Required Review	Standard Plan or Agency Review	Typical Maintenance
Parkways			
<ul style="list-style-type: none"> - Standard dimension: 5' wide - Surface treatment: low-growing drought-tolerant plants with mulch - Convenience Strip: Unobstructed area 18" from back of curb, excluding a minimum 6"-wide curb. Required at planted parkways adjacent to curbside parking spaces or loading areas. Natural concrete (standard gray) or permeable pavers if approved by BOE. - House Walk: If parkway is adjacent to marked on-street parking or loading spaces, a 5'-wide walkable surface across the parkway shall be provided every 35 to 50 feet. Walkable surface should be concrete (or permeable pavers if approved by BOE). 	BOE, BSS	BOE, BSS	Repair house walks when damaged; weed and clean as needed by owner
Special Sidewalk Paving			
<ul style="list-style-type: none"> - Preferred: Concrete to be standard gray color, with approved permeable interlocking concrete pavers between tree wells (standard gray color). Type and pattern of permeable pavers to be approved by BOE. Approved pavers are listed on the "Approved Products" page at https://boe.lacity.org/apm/menu.cfm 	BOE	Non-Standard	Repair when damaged; clean as needed by owner

Table 8-1. Basic Streetscape Improvements

Typical Characteristics	Required Review	Standard Plan or Agency Review	Typical Maintenance
Special Lighting			
<ul style="list-style-type: none"> - Special lighting that adds to the Area’s sense of place is encouraged within the public right-of-way, provided that it does not interfere with pedestrian movement, vehicular safety, the approved street light/street tree spacing pattern, or other required streetscape elements 	BSS	Non-Standard	Repair when damaged
<ul style="list-style-type: none"> - Examples of special lighting include accent lighting of landscape and architectural features 			
<ul style="list-style-type: none"> - Special lighting may be installed with a revocable permit. The infrastructure for this lighting shall be maintained by the permit holder and not the Bureau of Street Lighting. 			
Bicycle Racks			
<ul style="list-style-type: none"> - Place at a location approved by the DOT and city engineer. A minimum 48" wide unobstructed sidewalk access must be maintained. 	DOT, BOE	S-671	Per review agency
<ul style="list-style-type: none"> - Inverted U or approved equal 			
Potted Planters			
<ul style="list-style-type: none"> - Shrub heights to be approved by BSS 	BSS	Non-Standard	Weed; remove/replace dead, dying or diseased plants; prune; remove litter; fertilize periodically
<ul style="list-style-type: none"> - Include water trays or internal water system 			
<ul style="list-style-type: none"> - Not to exceed dimensions (width/depth) of tree wells per this plan 			
<ul style="list-style-type: none"> - Must be designed and installed against any overturning force 			
Bus Shelters			
<ul style="list-style-type: none"> - Provided at the discretion of the City Coordinated Street Furniture Program vendor at major bus stops 	BSS, BOE	BSS, BOE	By City vendor

Table 8-1. Basic Streetscape Improvements

Typical Characteristics	Required Review	Standard Plan or Agency Review	Typical Maintenance
Bus Benches & Trash Receptacles			
<ul style="list-style-type: none"> – Provided at the discretion of the City Coordinated Street Furniture Program vendor at major bus stops 	BSS, BOE	BSS, BOE	By City vendor
Bus Stop Lights			
<ul style="list-style-type: none"> – Install in pairs within 20' of bus stops – 14' or 12' AV Steel Pole (galvanized steel) or approved equal 	BSL, DWP	BSL, DWP	By BSL
Crosswalk Striping			
<ul style="list-style-type: none"> – Per LADOT policy, the implementation of continental striping on existing marked crosswalks shall be prioritized on major streets and at intersection crossings 	DOT, BOE	S-480, S-481.1	Reapply every 5–10 years
Crosswalk ADA Ramps			
<ul style="list-style-type: none"> – ADA-approved ramps with detectable warning surface (min. 3' x 4') – Two ramps per corner at intersections (as feasible) and one ramp at each end of mid-block crossings – Detectable warning surface in yellow; remainder of ramp to be natural concrete (standard gray) 	BOE	S-442	Repair when damaged; clean as needed
Major Streetscape Improvements Listed in Table 8-2			
<ul style="list-style-type: none"> – See Table 8-2 			

- b. **Proposed Street Extension.** In addition to the requirement(s) set forth above, a Project shall include, at minimum, a paseo or other pedestrian passageway at the location where a Proposed Street Extension has been identified in the Subarea Street Map. No building or structure shall be erected on the portion of a lot identified as a Proposed Street Extension. The passageway shall be ungated and made permanently available to the general public at no cost.

For the purposes of the Frontage District requirements in Chapter 3 of this Specific Plan, the required passageway is considered a side street and abutting a side street lot line.

Alternatively, the portion of a lot identified as a Proposed Street Extension may be dedicated and improved into a public right-of-way, including lanes for vehicular traffic, pursuant to Section 8.C of this Specific Plan (Major Streetscape Improvements).

C. Major Streetscape Improvements

1. Intent

The Major Streetscape Improvements list in Table 8-2, and as shown on the Subarea Street Maps, serves to inform and support future street improvements and investments within the boundaries of the Specific Plan, and are intended to be implemented over time through a variety of means, including:

- a. By City agencies in conjunction with street improvement projects, Metro Call for Projects funding or other grants;
- b. By Certified Neighborhood Councils, Business Improvement District(s) or other community organizations; and
- c. By private property owners, developers, and business owners, in conjunction with development projects or as voluntary improvements.

2. Project Applicability

A Project that requires discretionary Project Compliance pursuant to Section 1.C.5. of this Specific Plan, or a parcel or tract map approval, may be required to implement applicable portions of the Major Streetscape Improvements, should the decision-maker determine that the selected improvements bear an essential nexus and rough proportionality to the Project's impact and impose conditions on project approvals.

3. Major Streetscape Improvements List

Table 8-2. Major Streetscape Improvements

Typical Characteristics	Required Review	Standard Plan or Agency Review	Typical Maintenance
New Crosswalks			
<ul style="list-style-type: none"> - Per LADOT policy, the implementation of continental striping on new marked crosswalks shall be prioritized on major streets and at intersection crossings - Where the nearest existing pedestrian crossings are spaced more than 600 feet apart, crosswalks should be provided, either at uncontrolled intersections or mid-block, as determined by LADOT - At new uncontrolled, marked crosswalks a new signal (e.g., Rectangular Rapid Flash Beacon, Advanced Pedestrian Warning Device) should be considered, which would require a warrant analysis by the LADOT District Office - Pedestrian refuge islands should be considered for all midblock crossings or intersection locations where there is a center turn lane and where a turn pocket is not necessary - The type and design of specific pedestrian signals, and refuge islands would be studied and determined by LADOT - BSL to review new crosswalks to ensure adequate illumination and lighting level 	<p>DOT, BOE, BSL</p>	<p>S-480, S-481</p>	<p>Reapply every 5–10 years</p>
New Traffic Signals			
<ul style="list-style-type: none"> - Refer to Proposed Traffic Signals locations indicated on the Subarea Street Maps - Any new traffic signal shall be planned and installed in conjunction with the LADOT District Office, including signal warrant analysis 	<p>DOT, BOE</p>	<p>DOT, BOE</p>	<p>By DOT</p>

Table 8-2. Major Streetscape Improvements

Typical Characteristics	Required Review	Standard Plan or Agency Review	Typical Maintenance
Proposed Street Extensions			
<ul style="list-style-type: none"> - The portion of a lot identified as a Proposed Street Extension on the Subarea Street Maps may be dedicated and improved into a public right-of-way, including lanes for vehicular traffic 	DOT, BOE, BSL, BSS	DOT, BOE, BSL, BSS	By DOT, BOE, BSL, and BSS
Curb Extensions			
<ul style="list-style-type: none"> - Located at intersections or midblock, where feasible subject to LADOT approval - Extending to width of parking lane - Natural concrete paving (standard gray) - Planting and trees optional; incorporate per BSS and LADOT guidelines; max 36" high - Refer to Green Street Standard Plans for Vegetated Stormwater Curb Extensions (S-484-0) - Minimum curb return radius of 25' for street cleaning purposes. If less than 25', to be maintained by R-permit holder. - Provide traffic warning sign at the curb extensions to prevent drivers from driving into the curb extension 	BOE, DOT, BSS	S-484	Per review agency
Parking Lane Planters			
<ul style="list-style-type: none"> - Located within existing parking lanes - Minimum size: 4' x 6' (not to exceed width of parking lane) - Install street trees (Lavender Trumpet Tree) within planters - Surface treatment: low growing plants (max 36" high) - Observe LADOT guidelines to maintain visibility for vehicles - Protection from errant drivers provided by raised curbs, bollards, railings, or other fixed objects per LADOT standards 	BOE, DOT, BSS	Non-Standard	Weed; remove/replace dead, dying or diseased plants; prune; remove litter; fertilize periodically; prune trees for clearance (permit required); maintain gutter between planter and sidewalk

Table 8-2. Major Streetscape Improvements

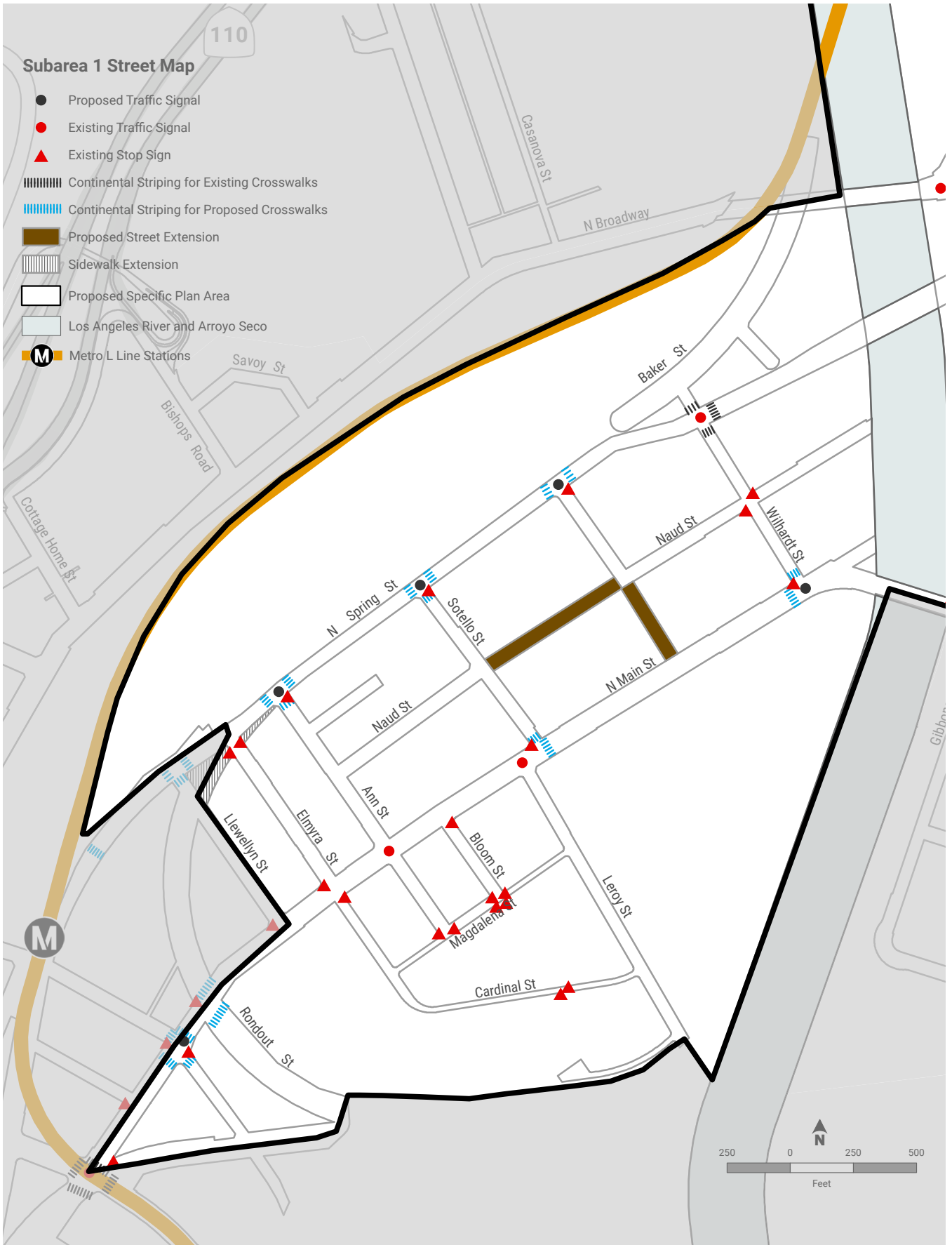
Typical Characteristics	Required Review	Standard Plan or Agency Review	Typical Maintenance
Raised Landscaped Medians			
<ul style="list-style-type: none"> - A landscaped median shall be installed along Spring Street between College and Baker Streets. The median improvements shall be interrupted to accommodate left-turn pockets at Ann Street, Sotello and Mesnager Streets. 	BOE, DOT, BSS	BOE, DOT, BSS	Weed; remove/replace dead, dying or diseased plants; prune; remove litter; fertilize periodically; prune trees for clearance (permit required); mulch and irrigate
<ul style="list-style-type: none"> - The landscaped median shall be approximately 10 feet in width and shall be planted with mature, drought-tolerant, shade canopy trees and low-maintenance, drought-tolerant ground cover and shrubs 			
<ul style="list-style-type: none"> - Minimum 6" high integral curb and gutter per City Standard Plan 			
<ul style="list-style-type: none"> - Natural concrete (standard gray) 			
<ul style="list-style-type: none"> - Slope to center to collect runoff; infiltration or treatment of street runoff where feasible 			
Bioswales			
<ul style="list-style-type: none"> - Plant low-growing plants not to exceed 36" in height (measured from pavement) 	BOE, BSS, BOS	S-480, S-483	Weed; remove/replace dead, dying or diseased plants; prune; remove litter; fertilize periodically; prune trees for clearance (permit required)
<ul style="list-style-type: none"> - Refer to Green Street Standard Plan for list of permitted planting materials 			
Seating and Benches			
<ul style="list-style-type: none"> - 118" wide with a middle arm rest 	BOE, BSS	Non-Standard	Remove graffiti; clean
<ul style="list-style-type: none"> - Place at mid-block or a minimum of every 300' 			
<ul style="list-style-type: none"> - Distinct from benches provided as part of City Coordinated Street Furniture Program 			

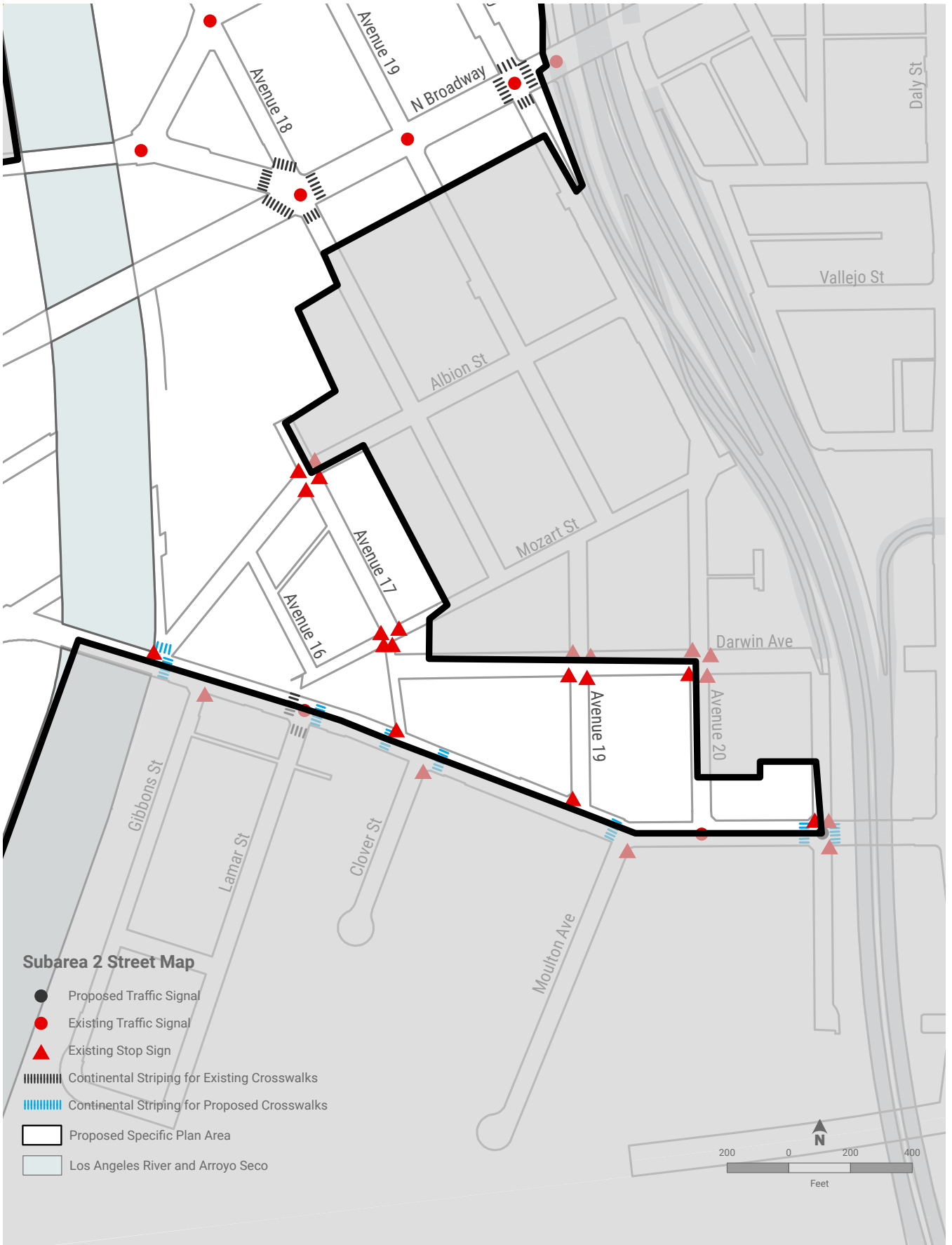
Table 8-2. Major Streetscape Improvements

Typical Characteristics	Required Review	Standard Plan or Agency Review	Typical Maintenance
Trash Receptacles			
<ul style="list-style-type: none"> - At corners of major intersections, and adjacent to benches. - Distinct from trash receptacles provided as part of City Coordinated Street Furniture Program. 	BSS	Non-Standard	Empty as needed; remove graffiti; clean
Bicycle Infrastructure			
<ul style="list-style-type: none"> - All Bicycle Friendly Streets identified in the 2010 Bicycle Plan shall be improved to include Bicycle Friendly Street improvements as described in the 2010 Bicycle Plan and highlighted in the 2010 Bicycle Plan's Technical Design Handbook. - Bicycle lanes shall be included on N. Spring, N. Main, Pasadena Avenue, San Fernando Boulevard, Figueroa Street, and a portion of Avenue 26 as illustrated on the cross-section standard plans on Navigate LA, the Bicycle Network Map, and Appendix 1. - Bicycle sharrow markings shall be included on Avenue 26 between the Arroyo Seco (Pasadena) Freeway and the Gold Line Bridge if severe roadway width constraints (i.e. the existence of freeway on and off-ramps) prohibit the addition of bicycle lanes at this location. - A bicycle lane shall be installed on Avenue 20 between Broadway and Main Street as illustrated in the cross-section standard plans on Navigate LA, the Bicycle Network Map, and Appendix 1. - Temporary sharrow markings shall be installed on Broadway between Avenue 18 and the Golden State Freeway to indicate the presence of bicyclists until such time as a bicycle lane is installed at the location, as described in the 2010 Bicycle Plan. 	DOT	DOT	By DOT

Subarea 1 Street Map

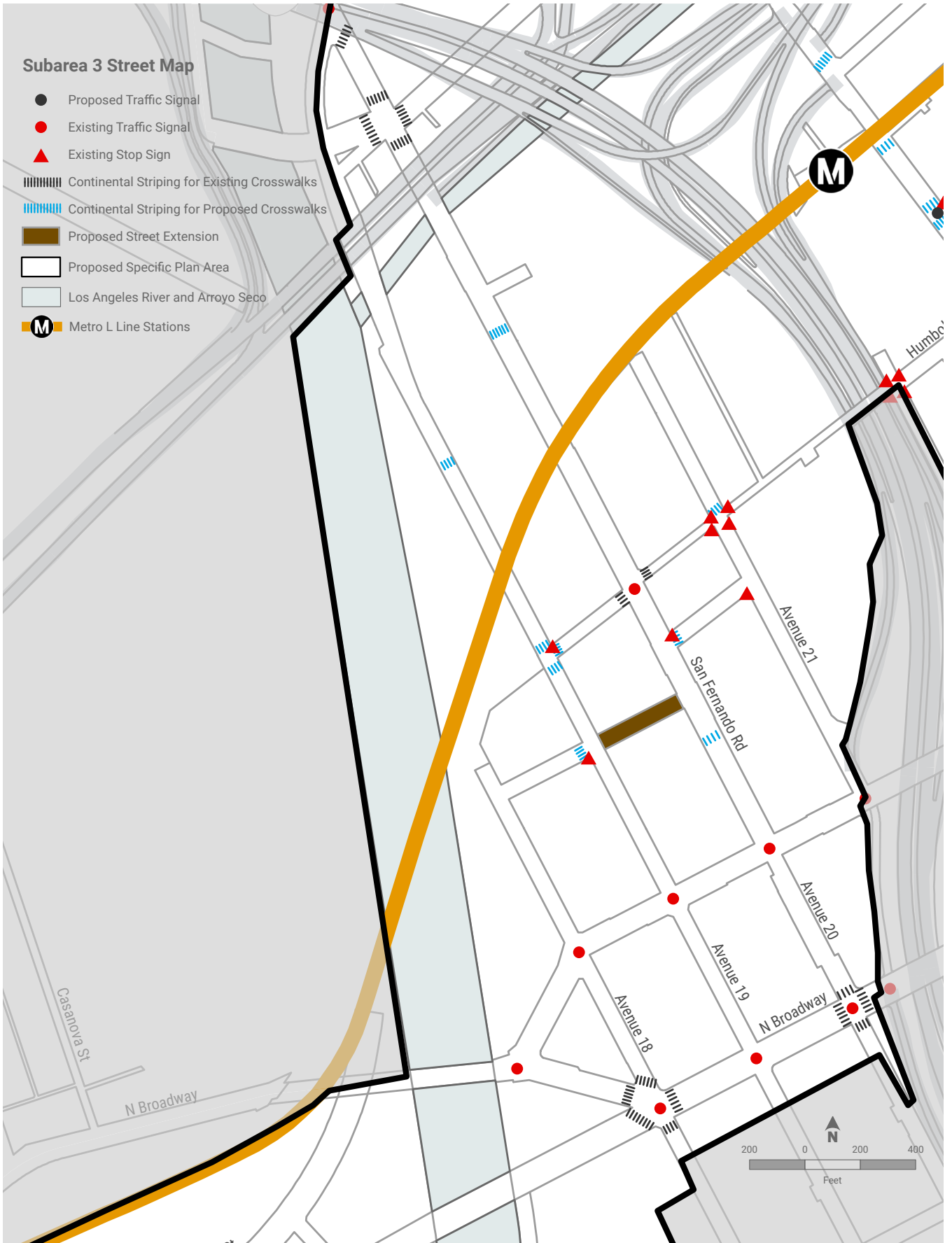
- Proposed Traffic Signal
- Existing Traffic Signal
- ▲ Existing Stop Sign
- ▤ Continental Striping for Existing Crosswalks
- ▤ Continental Striping for Proposed Crosswalks
- ▬ Proposed Street Extension
- ▤ Sidewalk Extension
- ▭ Proposed Specific Plan Area
- ▭ Los Angeles River and Arroyo Seco
- M Metro L Line Stations





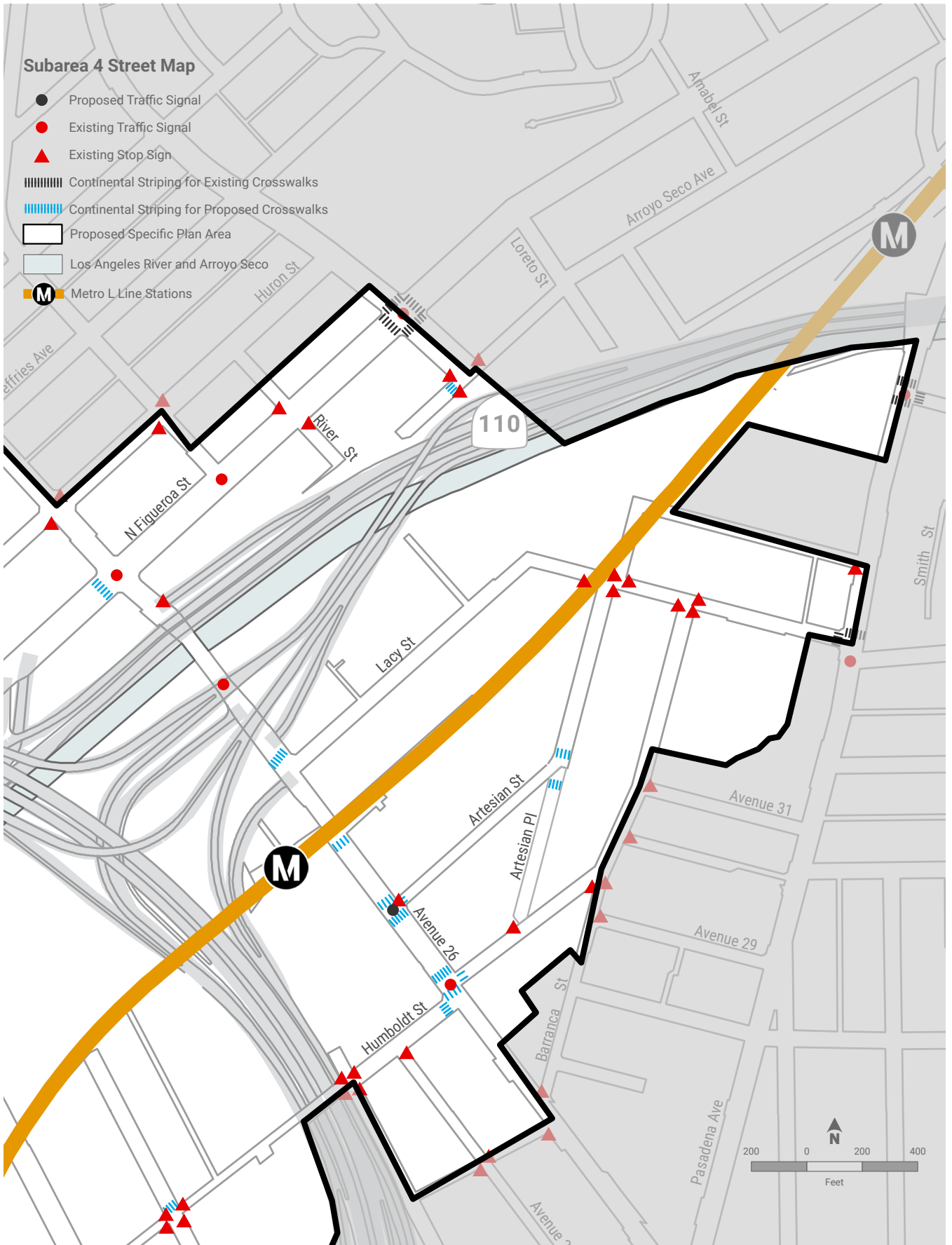
Subarea 3 Street Map

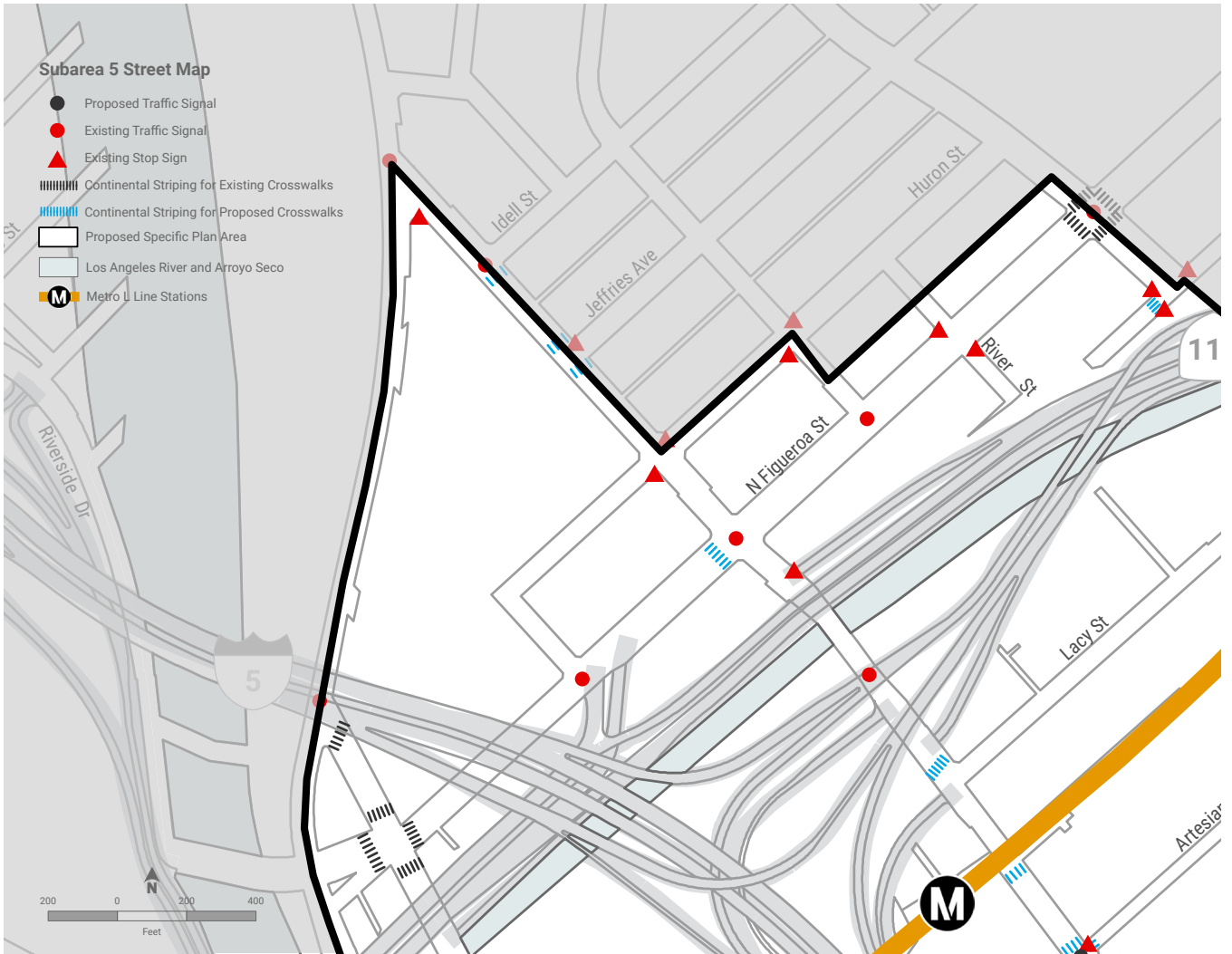
- Proposed Traffic Signal
- Existing Traffic Signal
- ▲ Existing Stop Sign
- ▤ Continental Striping for Existing Crosswalks
- ▤ Continental Striping for Proposed Crosswalks
- ▭ Proposed Street Extension
- ▭ Proposed Specific Plan Area
- ▭ Los Angeles River and Arroyo Seco
- M Metro L Line Stations



Subarea 4 Street Map

- Proposed Traffic Signal
- Existing Traffic Signal
- ▲ Existing Stop Sign
- ▤ Continental Striping for Existing Crosswalks
- ▤ Continental Striping for Proposed Crosswalks
- ▭ Proposed Specific Plan Area
- ▭ Los Angeles River and Arroyo Seco
- M Metro L Line Stations







MENCE

Chapter 9 Environmental Standards

Environmental Standards to be released in conjunction with the Final Environmental Impact Report (EIR).



LOS ANGELES
CITY PLANNING
Community Planning

Appendix E

Air Quality, Greenhouse Gas, Energy

CASP Update Construction Grading Scenario 1 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	CASP Update Construction Grading Scenario 1
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	0.50
Precipitation (days)	8.60
Location	34.07088980001326, -118.22330890228179
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4031
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	10.0	Dwelling Unit	0.26	10,000	0.00	—	30.0	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.41	27.6	20.7	0.05	1.09	6.19	7.28	1.00	2.91	3.91	—	6,431	6,431	0.31	0.59	0.23	6,614
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.08	0.06	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	17.6	17.6	< 0.005	< 0.005	0.01	18.1
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.92	2.92	< 0.005	< 0.005	< 0.005	3.00

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.41	27.6	20.7	0.05	1.09	6.19	7.28	1.00	2.91	3.91	—	6,431	6,431	0.31	0.59	0.23	6,614
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.01	0.08	0.06	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	17.6	17.6	< 0.005	< 0.005	0.01	18.1

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.92	2.92	< 0.005	< 0.005	< 0.005	3.00

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.10	0.39	7.28	0.02	0.72	0.11	0.83	0.71	0.02	0.73	98.4	619	718	0.78	0.02	1.50	745
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.04	0.40	6.60	0.02	0.72	0.11	0.83	0.71	0.02	0.73	98.4	603	702	0.78	0.02	0.11	727
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.63	0.20	2.21	< 0.005	0.05	0.11	0.16	0.05	0.02	0.07	11.2	425	436	0.52	0.02	0.66	455
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.12	0.04	0.40	< 0.005	0.01	0.02	0.03	0.01	< 0.005	0.01	1.85	70.4	72.2	0.09	< 0.005	0.11	75.3

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.20	0.15	1.62	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	340	340	0.02	0.01	1.43	346
Area	2.90	0.21	5.65	0.01	0.71	—	0.71	0.70	—	0.70	93.7	180	274	0.28	< 0.005	—	282

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Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.9	93.9	0.01	< 0.005	—	94.3
Water	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Waste	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	3.10	0.39	7.28	0.02	0.72	0.11	0.83	0.71	0.02	0.73	98.4	619	718	0.78	0.02	1.50	745
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.20	0.16	1.51	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	325	325	0.02	0.02	0.04	330
Area	2.84	0.21	5.09	0.01	0.71	—	0.71	0.70	—	0.70	93.7	179	273	0.28	< 0.005	—	281
Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.9	93.9	0.01	< 0.005	—	94.3
Water	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Waste	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	3.04	0.40	6.60	0.02	0.72	0.11	0.83	0.71	0.02	0.73	98.4	603	702	0.78	0.02	0.11	727
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.19	0.16	1.47	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	313	313	0.02	0.01	0.59	318
Area	0.45	0.02	0.73	< 0.005	0.05	—	0.05	0.05	—	0.05	6.42	13.3	19.7	0.02	< 0.005	—	20.3
Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.9	93.9	0.01	< 0.005	—	94.3
Water	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Waste	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	0.63	0.20	2.21	< 0.005	0.05	0.11	0.16	0.05	0.02	0.07	11.2	425	436	0.52	0.02	0.66	455
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.03	0.03	0.27	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	51.8	51.8	< 0.005	< 0.005	0.10	52.7
Area	0.08	< 0.005	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	1.06	2.20	3.26	< 0.005	< 0.005	—	3.35
Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.5	15.5	< 0.005	< 0.005	—	15.6
Water	—	—	—	—	—	—	—	—	—	—	0.12	0.79	0.91	0.01	< 0.005	—	1.31

Waste	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.12	0.04	0.40	< 0.005	0.01	0.02	0.03	0.01	< 0.005	0.01	1.85	70.4	72.2	0.09	< 0.005	0.11	75.3

3. Construction Emissions Details

3.1. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.30	23.1	18.5	0.03	1.04	—	1.04	0.96	—	0.96	—	2,756	2,756	0.11	0.02	—	2,765
Dust From Material Movement	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.55	7.55	< 0.005	< 0.005	—	7.58
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—

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Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.25	1.25	< 0.005	< 0.005	—	1.25
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.06	0.69	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	137	137	0.01	< 0.005	0.02	138
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.06	4.41	1.49	0.02	0.04	0.95	0.99	0.04	0.25	0.30	—	3,539	3,539	0.19	0.56	0.21	3,710
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.38	0.38	< 0.005	< 0.005	< 0.005	0.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.69	9.69	< 0.005	< 0.005	0.01	10.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.60	1.60	< 0.005	< 0.005	< 0.005	1.68

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.20	0.15	1.62	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	340	340	0.02	0.01	1.43	346
Total	0.20	0.15	1.62	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	340	340	0.02	0.01	1.43	346
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.20	0.16	1.51	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	325	325	0.02	0.02	0.04	330
Total	0.20	0.16	1.51	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	325	325	0.02	0.02	0.04	330
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.03	0.03	0.27	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	51.8	51.8	< 0.005	< 0.005	0.10	52.7
Total	0.03	0.03	0.27	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	51.8	51.8	< 0.005	< 0.005	0.10	52.7

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	62.1	62.1	< 0.005	< 0.005	—	62.4
Total	—	—	—	—	—	—	—	—	—	—	—	62.1	62.1	< 0.005	< 0.005	—	62.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	62.1	62.1	< 0.005	< 0.005	—	62.4
Total	—	—	—	—	—	—	—	—	—	—	—	62.1	62.1	< 0.005	< 0.005	—	62.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Total	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3	< 0.005	< 0.005	—	10.3

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Total	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Total	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.27	5.27	< 0.005	< 0.005	—	5.28
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.27	5.27	< 0.005	< 0.005	—	5.28

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2.61	0.21	5.09	0.01	0.71	—	0.71	0.70	—	0.70	93.7	179	273	0.28	< 0.005	—	281
Consumer Products	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.01	0.56	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.52
Total	2.90	0.21	5.65	0.01	0.71	—	0.71	0.70	—	0.70	93.7	180	274	0.28	< 0.005	—	282

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2.61	0.21	5.09	0.01	0.71	—	0.71	0.70	—	0.70	93.7	179	273	0.28	< 0.005	—	281
Consumer Products	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.84	0.21	5.09	0.01	0.71	—	0.71	0.70	—	0.70	93.7	179	273	0.28	< 0.005	—	281
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.03	< 0.005	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	1.06	2.03	3.09	< 0.005	< 0.005	—	3.18
Consumer Products	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	< 0.005	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.17	0.17	< 0.005	< 0.005	—	0.17
Total	0.08	< 0.005	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	1.06	2.20	3.26	< 0.005	< 0.005	—	3.35

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartment Mid Rise	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Total	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartment Mid Rise	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Total	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartment Mid Rise	—	—	—	—	—	—	—	—	—	—	0.12	0.79	0.91	0.01	< 0.005	—	1.31
Total	—	—	—	—	—	—	—	—	—	—	0.12	0.79	0.91	0.01	< 0.005	—	1.31

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartment Mid Rise	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Total	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Total	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34
Total	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
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4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
------------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/3/2023	1/3/2023	5.00	1.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	25.0	40.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
------------	--	--	--	--	-----------------------------

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	—	—	1.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	690	0.05	0.01

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VM/Weekday	VM/Saturday	VM/Sunday	VM/Year
Apartments Mid Rise	54.4	49.1	40.9	18,876	404	364	303	140,024

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	1
Gas Fireplaces	9
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	1
Conventional Wood Stoves	0
Catalytic Wood Stoves	1
Non-Catalytic Wood Stoves	1
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
20250	6,750	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	32,835	690	0.0489	0.0069	99,254

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	372,738	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	2.50	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
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Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
----------------	-----------	--------	--------------------------	------------------------------	------------------------------

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	12.3	annual days of extreme heat
Extreme Precipitation	6.65	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	1	1	1	2
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The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	59.7
AQ-PM	94.7
AQ-DPM	94.2
Drinking Water	92.5
Lead Risk Housing	84.4
Pesticides	0.00
Toxic Releases	77.5
Traffic	92.5
Effect Indicators	—
CleanUp Sites	95.1
Groundwater	83.8
Haz Waste Facilities/Generators	98.7
Impaired Water Bodies	72.2
Solid Waste	37.6

Sensitive Population	—
Asthma	65.0
Cardio-vascular	24.0
Low Birth Weights	83.8
Socioeconomic Factor Indicators	—
Education	85.3
Housing	91.6
Linguistic	90.6
Poverty	85.3
Unemployment	26.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	9.585525472
Employed	65.58449891
Median HI	7.25009624
Education	—
Bachelor's or higher	38.73989478
High school enrollment	100
Preschool enrollment	60.4901835
Transportation	—
Auto Access	12.42140382
Active commuting	91.06890799
Social	—
2-parent households	56.61491082

Voting	0.795585782
Neighborhood	—
Alcohol availability	4.516874118
Park access	81.35506224
Retail density	87.09097908
Supermarket access	64.42961632
Tree canopy	39.67663288
Housing	—
Homeownership	8.443474913
Housing habitability	3.708456307
Low-inc homeowner severe housing cost burden	2.065956628
Low-inc renter severe housing cost burden	15.78339535
Uncrowded housing	18.58077762
Health Outcomes	—
Insured adults	12.03644296
Arthritis	48.2
Asthma ER Admissions	50.6
High Blood Pressure	37.6
Cancer (excluding skin)	82.6
Asthma	32.2
Coronary Heart Disease	21.3
Chronic Obstructive Pulmonary Disease	22.0
Diagnosed Diabetes	8.1
Life Expectancy at Birth	79.3
Cognitively Disabled	18.3
Physically Disabled	14.9
Heart Attack ER Admissions	76.9

Mental Health Not Good	14.3
Chronic Kidney Disease	14.8
Obesity	21.5
Pedestrian Injuries	97.2
Physical Health Not Good	8.7
Stroke	19.7
Health Risk Behaviors	—
Binge Drinking	86.1
Current Smoker	14.6
No Leisure Time for Physical Activity	11.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	37.8
Elderly	48.0
English Speaking	8.3
Foreign-born	90.8
Outdoor Workers	22.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	8.5
Traffic Density	93.9
Traffic Access	87.4
Other Indices	—
Hardship	86.9
Other Decision Support	—
2016 Voting	22.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	97.0
Healthy Places Index Score for Project Location (b)	19.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Standard plan level construction assumption
Construction: Construction Phases	Grading 1 scenario
Construction: Off-Road Equipment	Grading 1 scenario
Construction: Trips and VMT	grading scenario 1

CASP Update Construction Grading Scenario 2 Detailed Report

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5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	CASP Update Construction Grading Scenario 2
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	0.50
Precipitation (days)	8.60
Location	34.070857221771575, -118.2233250609887
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4031
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	10.0	Dwelling Unit	0.26	1,000	0.00	—	30.0	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.82	55.2	41.5	0.10	2.17	12.4	14.6	2.00	5.82	7.83	—	12,863	12,863	0.63	1.17	0.45	13,228
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.15	0.11	< 0.005	0.01	0.03	0.04	0.01	0.02	0.02	—	35.2	35.2	< 0.005	< 0.005	0.02	36.3
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	5.84	5.84	< 0.005	< 0.005	< 0.005	6.00

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	4.82	55.2	41.5	0.10	2.17	12.4	14.6	2.00	5.82	7.83	—	12,863	12,863	0.63	1.17	0.45	13,228
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.01	0.15	0.11	< 0.005	0.01	0.03	0.04	0.01	0.02	0.02	—	35.2	35.2	< 0.005	< 0.005	0.02	36.3

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	5.84	5.84	< 0.005	< 0.005	< 0.005	6.00

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.69	0.24	5.66	0.01	0.72	—	0.72	0.70	—	0.70	98.4	279	378	0.76	0.01	0.01	398
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.64	0.23	5.10	0.01	0.72	—	0.72	0.70	—	0.70	98.4	278	376	0.76	0.01	0.01	397
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.24	0.04	0.75	< 0.005	0.05	—	0.05	0.05	—	0.05	11.2	112	123	0.50	< 0.005	0.01	137
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	0.01	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	1.85	18.5	20.4	0.08	< 0.005	< 0.005	22.6

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	2.69	0.21	5.65	0.01	0.71	—	0.71	0.70	—	0.70	93.7	180	274	0.28	< 0.005	—	282
Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.9	93.9	0.01	< 0.005	—	94.3

Water	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Waste	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	2.69	0.24	5.66	0.01	0.72	—	0.72	0.70	—	0.70	98.4	279	378	0.76	0.01	0.01	398
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	2.64	0.21	5.09	0.01	0.71	—	0.71	0.70	—	0.70	93.7	179	273	0.28	< 0.005	—	281
Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.9	93.9	0.01	< 0.005	—	94.3
Water	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Waste	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	2.64	0.23	5.10	0.01	0.72	—	0.72	0.70	—	0.70	98.4	278	376	0.76	0.01	0.01	397
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	0.24	0.02	0.73	< 0.005	0.05	—	0.05	0.05	—	0.05	6.42	13.3	19.7	0.02	< 0.005	—	20.3
Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.9	93.9	0.01	< 0.005	—	94.3
Water	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Waste	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.24	0.04	0.75	< 0.005	0.05	—	0.05	0.05	—	0.05	11.2	112	123	0.50	< 0.005	0.01	137
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	0.04	< 0.005	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	1.06	2.20	3.26	< 0.005	< 0.005	—	3.35
Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.5	15.5	< 0.005	< 0.005	—	15.6
Water	—	—	—	—	—	—	—	—	—	—	0.12	0.79	0.91	0.01	< 0.005	—	1.31
Waste	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.04	0.01	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	1.85	18.5	20.4	0.08	< 0.005	< 0.005	22.6

3. Construction Emissions Details

3.1. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.61	46.2	37.1	0.05	2.08	—	2.08	1.92	—	1.92	—	5,512	5,512	0.22	0.04	—	5,531
Dust From Material Movement	—	—	—	—	—	10.2	10.2	—	5.25	5.25	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.13	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15.1	15.1	< 0.005	< 0.005	—	15.2
Dust From Material Movement	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.50	2.50	< 0.005	< 0.005	—	2.51

Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.12	1.39	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	274	274	0.01	0.01	0.03	277
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.12	8.82	2.97	0.05	0.09	1.90	1.99	0.09	0.51	0.60	—	7,077	7,077	0.39	1.12	0.42	7,420
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.76	0.76	< 0.005	< 0.005	< 0.005	0.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.4	19.4	< 0.005	< 0.005	0.02	20.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.13	0.13	< 0.005	< 0.005	< 0.005	0.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.21	3.21	< 0.005	< 0.005	< 0.005	3.37

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	62.1	62.1	< 0.005	< 0.005	—	62.4
Total	—	—	—	—	—	—	—	—	—	—	—	62.1	62.1	< 0.005	< 0.005	—	62.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	62.1	62.1	< 0.005	< 0.005	—	62.4
Total	—	—	—	—	—	—	—	—	—	—	—	62.1	62.1	< 0.005	< 0.005	—	62.4

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Total	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3	< 0.005	< 0.005	—	10.3

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Total	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Total	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.27	5.27	< 0.005	< 0.005	—	5.28
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.27	5.27	< 0.005	< 0.005	—	5.28

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2.61	0.21	5.09	0.01	0.71	—	0.71	0.70	—	0.70	93.7	179	273	0.28	< 0.005	—	281
Consumer Products	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscaping Equipment	0.05	0.01	0.56	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.52
Total	2.69	0.21	5.65	0.01	0.71	—	0.71	0.70	—	0.70	93.7	180	274	0.28	< 0.005	—	282
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2.61	0.21	5.09	0.01	0.71	—	0.71	0.70	—	0.70	93.7	179	273	0.28	< 0.005	—	281
Consumer Products	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.64	0.21	5.09	0.01	0.71	—	0.71	0.70	—	0.70	93.7	179	273	0.28	< 0.005	—	281
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.03	< 0.005	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	1.06	2.03	3.09	< 0.005	< 0.005	—	3.18
Consumer Products	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscaping Equipment	0.01	< 0.005	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.17	0.17	< 0.005	< 0.005	—	0.17
Total	0.04	< 0.005	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	1.06	2.20	3.26	< 0.005	< 0.005	—	3.35

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Total	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Total	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	0.12	0.79	0.91	0.01	< 0.005	—	1.31
Total	—	—	—	—	—	—	—	—	—	—	0.12	0.79	0.91	0.01	< 0.005	—	1.31

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Total	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Total	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34
Total	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme nt Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/3/2023	1/3/2023	5.00	1.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Rubber Tired Dozers	Diesel	Average	4.00	8.00	367	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	50.0	40.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)

Grading	—	—	2.00	0.00	—
---------	---	---	------	------	---

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	690	0.05	0.01

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	54.4	49.1	40.9	18,876	404	364	303	140,024

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	1
Gas Fireplaces	9
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	1
Conventional Wood Stoves	0
Catalytic Wood Stoves	1
Non-Catalytic Wood Stoves	1
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
2025	675	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
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Apartments Mid Rise	32,835	690	0.0489	0.0069	99,254
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5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	372,738	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	2.50	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	12.3	annual days of extreme heat
Extreme Precipitation	6.65	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	0	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	0	0	0	N/A
Wildfire	0	0	0	N/A
Flooding	N/A	N/A	N/A	N/A

Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	59.7
AQ-PM	94.7
AQ-DPM	94.2
Drinking Water	92.5
Lead Risk Housing	84.4
Pesticides	0.00
Toxic Releases	77.5
Traffic	92.5
Effect Indicators	—
CleanUp Sites	95.1
Groundwater	83.8
Haz Waste Facilities/Generators	98.7
Impaired Water Bodies	72.2
Solid Waste	37.6
Sensitive Population	—
Asthma	65.0
Cardio-vascular	24.0
Low Birth Weights	83.8
Socioeconomic Factor Indicators	—
Education	85.3
Housing	91.6
Linguistic	90.6
Poverty	85.3
Unemployment	26.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	9.585525472
Employed	65.58449891
Median HI	7.25009624
Education	—
Bachelor's or higher	38.73989478
High school enrollment	100
Preschool enrollment	60.4901835
Transportation	—
Auto Access	12.42140382
Active commuting	91.06890799
Social	—
2-parent households	56.61491082
Voting	0.795585782
Neighborhood	—
Alcohol availability	4.516874118
Park access	81.35506224
Retail density	87.09097908
Supermarket access	64.42961632
Tree canopy	39.67663288
Housing	—
Homeownership	8.443474913
Housing habitability	3.708456307
Low-inc homeowner severe housing cost burden	2.065956628

Low-inc renter severe housing cost burden	15.78339535
Uncrowded housing	18.58077762
Health Outcomes	—
Insured adults	12.03644296
Arthritis	48.2
Asthma ER Admissions	50.6
High Blood Pressure	37.6
Cancer (excluding skin)	82.6
Asthma	32.2
Coronary Heart Disease	21.3
Chronic Obstructive Pulmonary Disease	22.0
Diagnosed Diabetes	8.1
Life Expectancy at Birth	79.3
Cognitively Disabled	18.3
Physically Disabled	14.9
Heart Attack ER Admissions	76.9
Mental Health Not Good	14.3
Chronic Kidney Disease	14.8
Obesity	21.5
Pedestrian Injuries	97.2
Physical Health Not Good	8.7
Stroke	19.7
Health Risk Behaviors	—
Binge Drinking	86.1
Current Smoker	14.6
No Leisure Time for Physical Activity	11.0
Climate Change Exposures	—

Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	37.8
Elderly	48.0
English Speaking	8.3
Foreign-born	90.8
Outdoor Workers	22.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	8.5
Traffic Density	93.9
Traffic Access	87.4
Other Indices	—
Hardship	86.9
Other Decision Support	—
2016 Voting	22.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	97.0
Healthy Places Index Score for Project Location (b)	19.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Grading 2 scenario
Construction: Construction Phases	Grading 2 scenario
Construction: Trips and VMT	Grading scenario 2
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CASP Update Construction Grading Scenario 3 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	CASP Update Construction Grading Scenario 3
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	0.50
Precipitation (days)	8.60
Location	34.07091751681993, -118.22330422569766
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4031
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	10.0	Dwelling Unit	0.26	10,000	0.00	—	30.0	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.63	110	82.9	0.19	4.34	24.8	29.1	4.01	11.6	15.7	—	25,725	25,725	1.25	2.34	0.91	26,455
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.03	0.30	0.23	< 0.005	0.01	0.07	0.08	0.01	0.03	0.04	—	70.5	70.5	< 0.005	0.01	0.04	72.5
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	0.06	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	0.01	0.01	—	11.7	11.7	< 0.005	< 0.005	0.01	12.0

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	9.63	110	82.9	0.19	4.34	24.8	29.1	4.01	11.6	15.7	—	25,725	25,725	1.25	2.34	0.91	26,455
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.03	0.30	0.23	< 0.005	0.01	0.07	0.08	0.01	0.03	0.04	—	70.5	70.5	< 0.005	0.01	0.04	72.5

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	< 0.005	0.06	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	0.01	0.01	—	11.7	11.7	< 0.005	< 0.005	0.01	12.0

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.90	0.24	5.66	0.01	0.72	—	0.72	0.70	—	0.70	98.4	279	378	0.76	0.01	0.07	399
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.84	0.23	5.10	0.01	0.72	—	0.72	0.70	—	0.70	98.4	278	376	0.76	0.01	0.07	397
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.45	0.04	0.75	< 0.005	0.05	—	0.05	0.05	—	0.05	11.2	112	123	0.50	< 0.005	0.07	137
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.08	0.01	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	1.85	18.5	20.4	0.08	< 0.005	0.01	22.6

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	2.90	0.21	5.65	0.01	0.71	—	0.71	0.70	—	0.70	93.7	180	274	0.28	< 0.005	—	282
Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.9	93.9	0.01	< 0.005	—	94.3

Water	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Waste	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	2.90	0.24	5.66	0.01	0.72	—	0.72	0.70	—	0.70	98.4	279	378	0.76	0.01	0.07	399
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	2.84	0.21	5.09	0.01	0.71	—	0.71	0.70	—	0.70	93.7	179	273	0.28	< 0.005	—	281
Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.9	93.9	0.01	< 0.005	—	94.3
Water	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Waste	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	2.84	0.23	5.10	0.01	0.72	—	0.72	0.70	—	0.70	98.4	278	376	0.76	0.01	0.07	397
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	0.45	0.02	0.73	< 0.005	0.05	—	0.05	0.05	—	0.05	6.42	13.3	19.7	0.02	< 0.005	—	20.3
Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.9	93.9	0.01	< 0.005	—	94.3
Water	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Waste	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	0.45	0.04	0.75	< 0.005	0.05	—	0.05	0.05	—	0.05	11.2	112	123	0.50	< 0.005	0.07	137
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Area	0.08	< 0.005	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	1.06	2.20	3.26	< 0.005	< 0.005	—	3.35
Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.5	15.5	< 0.005	< 0.005	—	15.6
Water	—	—	—	—	—	—	—	—	—	—	0.12	0.79	0.91	0.01	< 0.005	—	1.31
Waste	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.08	0.01	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	1.85	18.5	20.4	0.08	< 0.005	0.01	22.6

3. Construction Emissions Details

3.1. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	9.21	92.4	74.2	0.10	4.17	—	4.17	3.83	—	3.83	—	11,024	11,024	0.45	0.09	—	11,062
Dust From Material Movement	—	—	—	—	—	20.4	20.4	—	10.5	10.5	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.25	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	30.2	30.2	< 0.005	< 0.005	—	30.3
Dust From Material Movement	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.00	5.00	< 0.005	< 0.005	—	5.02

Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.19	0.24	2.78	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	547	547	0.03	0.02	0.06	554
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.23	17.6	5.95	0.09	0.18	3.80	3.97	0.18	1.02	1.19	—	14,154	14,154	0.78	2.23	0.84	14,840
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.52	1.52	< 0.005	< 0.005	< 0.005	1.54
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.8	38.8	< 0.005	0.01	0.04	40.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.25	0.25	< 0.005	< 0.005	< 0.005	0.26
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.42	6.42	< 0.005	< 0.005	0.01	6.74

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	62.1	62.1	< 0.005	< 0.005	—	62.4
Total	—	—	—	—	—	—	—	—	—	—	—	62.1	62.1	< 0.005	< 0.005	—	62.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	62.1	62.1	< 0.005	< 0.005	—	62.4
Total	—	—	—	—	—	—	—	—	—	—	—	62.1	62.1	< 0.005	< 0.005	—	62.4

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Total	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3	< 0.005	< 0.005	—	10.3

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Total	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Total	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.27	5.27	< 0.005	< 0.005	—	5.28
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.27	5.27	< 0.005	< 0.005	—	5.28

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2.61	0.21	5.09	0.01	0.71	—	0.71	0.70	—	0.70	93.7	179	273	0.28	< 0.005	—	281
Consumer Products	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscaping Equipment	0.05	0.01	0.56	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.52
Total	2.90	0.21	5.65	0.01	0.71	—	0.71	0.70	—	0.70	93.7	180	274	0.28	< 0.005	—	282
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2.61	0.21	5.09	0.01	0.71	—	0.71	0.70	—	0.70	93.7	179	273	0.28	< 0.005	—	281
Consumer Products	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.84	0.21	5.09	0.01	0.71	—	0.71	0.70	—	0.70	93.7	179	273	0.28	< 0.005	—	281
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.03	< 0.005	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	1.06	2.03	3.09	< 0.005	< 0.005	—	3.18
Consumer Products	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscaping Equipment	0.01	< 0.005	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.17	0.17	< 0.005	< 0.005	—	0.17
Total	0.08	< 0.005	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	1.06	2.20	3.26	< 0.005	< 0.005	—	3.35

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Total	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Total	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	0.12	0.79	0.91	0.01	< 0.005	—	1.31
Total	—	—	—	—	—	—	—	—	—	—	0.12	0.79	0.91	0.01	< 0.005	—	1.31

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Total	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Total	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34
Total	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme nt Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/3/2023	1/3/2023	5.00	1.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Rubber Tired Dozers	Diesel	Average	8.00	8.00	367	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	40.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	100	40.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)

Grading	—	—	4.00	0.00	—
---------	---	---	------	------	---

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	690	0.05	0.01

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	54.4	49.1	40.9	18,876	404	364	303	140,024

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	1
Gas Fireplaces	9
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	1
Conventional Wood Stoves	0
Catalytic Wood Stoves	1
Non-Catalytic Wood Stoves	1
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
20250	6,750	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
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Apartments Mid Rise	32,835	690	0.0489	0.0069	99,254
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5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	372,738	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	2.50	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	12.3	annual days of extreme heat
Extreme Precipitation	6.65	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	0	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	0	0	0	N/A
Wildfire	0	0	0	N/A
Flooding	N/A	N/A	N/A	N/A

Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	59.7
AQ-PM	94.7
AQ-DPM	94.2
Drinking Water	92.5
Lead Risk Housing	84.4
Pesticides	0.00
Toxic Releases	77.5
Traffic	92.5
Effect Indicators	—
CleanUp Sites	95.1
Groundwater	83.8
Haz Waste Facilities/Generators	98.7
Impaired Water Bodies	72.2
Solid Waste	37.6
Sensitive Population	—
Asthma	65.0
Cardio-vascular	24.0
Low Birth Weights	83.8
Socioeconomic Factor Indicators	—
Education	85.3
Housing	91.6
Linguistic	90.6
Poverty	85.3
Unemployment	26.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	9.585525472
Employed	65.58449891
Median HI	7.25009624
Education	—
Bachelor's or higher	38.73989478
High school enrollment	100
Preschool enrollment	60.4901835
Transportation	—
Auto Access	12.42140382
Active commuting	91.06890799
Social	—
2-parent households	56.61491082
Voting	0.795585782
Neighborhood	—
Alcohol availability	4.516874118
Park access	81.35506224
Retail density	87.09097908
Supermarket access	64.42961632
Tree canopy	39.67663288
Housing	—
Homeownership	8.443474913
Housing habitability	3.708456307
Low-inc homeowner severe housing cost burden	2.065956628

Low-inc renter severe housing cost burden	15.78339535
Uncrowded housing	18.58077762
Health Outcomes	—
Insured adults	12.03644296
Arthritis	48.2
Asthma ER Admissions	50.6
High Blood Pressure	37.6
Cancer (excluding skin)	82.6
Asthma	32.2
Coronary Heart Disease	21.3
Chronic Obstructive Pulmonary Disease	22.0
Diagnosed Diabetes	8.1
Life Expectancy at Birth	79.3
Cognitively Disabled	18.3
Physically Disabled	14.9
Heart Attack ER Admissions	76.9
Mental Health Not Good	14.3
Chronic Kidney Disease	14.8
Obesity	21.5
Pedestrian Injuries	97.2
Physical Health Not Good	8.7
Stroke	19.7
Health Risk Behaviors	—
Binge Drinking	86.1
Current Smoker	14.6
No Leisure Time for Physical Activity	11.0
Climate Change Exposures	—

Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	37.8
Elderly	48.0
English Speaking	8.3
Foreign-born	90.8
Outdoor Workers	22.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	8.5
Traffic Density	93.9
Traffic Access	87.4
Other Indices	—
Hardship	86.9
Other Decision Support	—
2016 Voting	22.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	97.0
Healthy Places Index Score for Project Location (b)	19.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Grading Scenario 3
Construction: Construction Phases	Grading scenario 3
Construction: Off-Road Equipment	Grading scenario 3
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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	CASP Update Construction Grading Scenario 4
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	0.50
Precipitation (days)	8.60
Location	34.07084555438854, -118.22328813843336
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4031
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	10.0	Dwelling Unit	0.26	10,000	0.00	—	30.0	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	12.1	142	105	0.26	5.47	31.9	37.4	5.06	14.8	19.9	—	35,695	35,695	1.76	3.49	1.34	36,779
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.03	0.39	0.29	< 0.005	0.01	0.09	0.10	0.01	0.04	0.05	—	97.8	97.8	< 0.005	0.01	0.06	101
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.07	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	16.2	16.2	< 0.005	< 0.005	0.01	16.7

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	12.1	142	105	0.26	5.47	31.9	37.4	5.06	14.8	19.9	—	35,695	35,695	1.76	3.49	1.34	36,779
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.03	0.39	0.29	< 0.005	0.01	0.09	0.10	0.01	0.04	0.05	—	97.8	97.8	< 0.005	0.01	0.06	101

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.01	0.07	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	16.2	16.2	< 0.005	< 0.005	0.01	16.7

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.10	0.39	7.28	0.02	0.72	0.11	0.83	0.71	0.02	0.73	98.4	619	718	0.78	0.02	1.50	745
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.04	0.40	6.60	0.02	0.72	0.11	0.83	0.71	0.02	0.73	98.4	603	702	0.78	0.02	0.11	727
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.63	0.20	2.21	< 0.005	0.05	0.11	0.16	0.05	0.02	0.07	11.2	425	436	0.52	0.02	0.66	455
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.12	0.04	0.40	< 0.005	0.01	0.02	0.03	0.01	< 0.005	0.01	1.85	70.4	72.2	0.09	< 0.005	0.11	75.3

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.20	0.15	1.62	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	340	340	0.02	0.01	1.43	346
Area	2.90	0.21	5.65	0.01	0.71	—	0.71	0.70	—	0.70	93.7	180	274	0.28	< 0.005	—	282

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Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.9	93.9	0.01	< 0.005	—	94.3
Water	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Waste	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	3.10	0.39	7.28	0.02	0.72	0.11	0.83	0.71	0.02	0.73	98.4	619	718	0.78	0.02	1.50	745
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.20	0.16	1.51	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	325	325	0.02	0.02	0.04	330
Area	2.84	0.21	5.09	0.01	0.71	—	0.71	0.70	—	0.70	93.7	179	273	0.28	< 0.005	—	281
Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.9	93.9	0.01	< 0.005	—	94.3
Water	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Waste	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	3.04	0.40	6.60	0.02	0.72	0.11	0.83	0.71	0.02	0.73	98.4	603	702	0.78	0.02	0.11	727
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.19	0.16	1.47	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	313	313	0.02	0.01	0.59	318
Area	0.45	0.02	0.73	< 0.005	0.05	—	0.05	0.05	—	0.05	6.42	13.3	19.7	0.02	< 0.005	—	20.3
Energy	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.9	93.9	0.01	< 0.005	—	94.3
Water	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Waste	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	0.63	0.20	2.21	< 0.005	0.05	0.11	0.16	0.05	0.02	0.07	11.2	425	436	0.52	0.02	0.66	455
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.03	0.03	0.27	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	51.8	51.8	< 0.005	< 0.005	0.10	52.7
Area	0.08	< 0.005	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	1.06	2.20	3.26	< 0.005	< 0.005	—	3.35
Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.5	15.5	< 0.005	< 0.005	—	15.6
Water	—	—	—	—	—	—	—	—	—	—	0.12	0.79	0.91	0.01	< 0.005	—	1.31

Waste	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.12	0.04	0.40	< 0.005	0.01	0.02	0.03	0.01	< 0.005	0.01	1.85	70.4	72.2	0.09	< 0.005	0.11	75.3

3. Construction Emissions Details

3.1. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	11.5	116	92.7	0.13	5.21	—	5.21	4.79	—	4.79	—	13,780	13,780	0.56	0.11	—	13,827
Dust From Material Movement	—	—	—	—	—	25.6	25.6	—	13.1	13.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.32	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	37.8	37.8	< 0.005	< 0.005	—	37.9
Dust From Material Movement	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—

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Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.25	6.25	< 0.005	< 0.005	—	6.27
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.31	3.47	0.00	0.00	0.65	0.65	0.00	0.15	0.15	—	684	684	0.03	0.02	0.08	692
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.35	26.4	8.92	0.14	0.26	5.69	5.96	0.26	1.52	1.79	—	21,231	21,231	1.17	3.35	1.27	22,260
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.90	1.90	< 0.005	< 0.005	< 0.005	1.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	58.2	58.2	< 0.005	0.01	0.06	61.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.32
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.63	9.63	< 0.005	< 0.005	0.01	10.1

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.20	0.15	1.62	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	340	340	0.02	0.01	1.43	346
Total	0.20	0.15	1.62	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	340	340	0.02	0.01	1.43	346
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.20	0.16	1.51	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	325	325	0.02	0.02	0.04	330
Total	0.20	0.16	1.51	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	325	325	0.02	0.02	0.04	330
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.03	0.03	0.27	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	51.8	51.8	< 0.005	< 0.005	0.10	52.7
Total	0.03	0.03	0.27	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	51.8	51.8	< 0.005	< 0.005	0.10	52.7

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	62.1	62.1	< 0.005	< 0.005	—	62.4
Total	—	—	—	—	—	—	—	—	—	—	—	62.1	62.1	< 0.005	< 0.005	—	62.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	62.1	62.1	< 0.005	< 0.005	—	62.4
Total	—	—	—	—	—	—	—	—	—	—	—	62.1	62.1	< 0.005	< 0.005	—	62.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Total	—	—	—	—	—	—	—	—	—	—	—	10.3	10.3	< 0.005	< 0.005	—	10.3

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Total	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Total	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	31.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.27	5.27	< 0.005	< 0.005	—	5.28
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.27	5.27	< 0.005	< 0.005	—	5.28

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2.61	0.21	5.09	0.01	0.71	—	0.71	0.70	—	0.70	93.7	179	273	0.28	< 0.005	—	281
Consumer Products	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.01	0.56	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.52
Total	2.90	0.21	5.65	0.01	0.71	—	0.71	0.70	—	0.70	93.7	180	274	0.28	< 0.005	—	282

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2.61	0.21	5.09	0.01	0.71	—	0.71	0.70	—	0.70	93.7	179	273	0.28	< 0.005	—	281
Consumer Products	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.84	0.21	5.09	0.01	0.71	—	0.71	0.70	—	0.70	93.7	179	273	0.28	< 0.005	—	281
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.03	< 0.005	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	1.06	2.03	3.09	< 0.005	< 0.005	—	3.18
Consumer Products	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	< 0.005	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.17	0.17	< 0.005	< 0.005	—	0.17
Total	0.08	< 0.005	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	1.06	2.20	3.26	< 0.005	< 0.005	—	3.35

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartment Mid Rise	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Total	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartment ts Mid Rise	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Total	—	—	—	—	—	—	—	—	—	—	0.71	4.80	5.51	0.07	< 0.005	—	7.89
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartment ts Mid Rise	—	—	—	—	—	—	—	—	—	—	0.12	0.79	0.91	0.01	< 0.005	—	1.31
Total	—	—	—	—	—	—	—	—	—	—	0.12	0.79	0.91	0.01	< 0.005	—	1.31

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartment ts Mid Rise	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Total	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Total	—	—	—	—	—	—	—	—	—	—	4.04	0.00	4.04	0.40	0.00	—	14.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34
Total	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.34

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	------	------

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
------------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/3/2023	1/3/2023	5.00	1.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Rubber Tired Dozers	Diesel	Average	10.0	8.00	367	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	50.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	150	40.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
------------	--	--	--	--	-----------------------------

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	—	—	5.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	690	0.05	0.01

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	54.4	49.1	40.9	18,876	404	364	303	140,024

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	1
Gas Fireplaces	9
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	1
Conventional Wood Stoves	0
Catalytic Wood Stoves	1
Non-Catalytic Wood Stoves	1
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
20250	6,750	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	32,835	690	0.0489	0.0069	99,254

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	372,738	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	2.50	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
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Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	12.3	annual days of extreme heat
Extreme Precipitation	6.65	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	1	1	1	2
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The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	59.7
AQ-PM	94.7
AQ-DPM	94.2
Drinking Water	92.5
Lead Risk Housing	84.4
Pesticides	0.00
Toxic Releases	77.5
Traffic	92.5
Effect Indicators	—
CleanUp Sites	95.1
Groundwater	83.8
Haz Waste Facilities/Generators	98.7
Impaired Water Bodies	72.2
Solid Waste	37.6

Sensitive Population	—
Asthma	65.0
Cardio-vascular	24.0
Low Birth Weights	83.8
Socioeconomic Factor Indicators	—
Education	85.3
Housing	91.6
Linguistic	90.6
Poverty	85.3
Unemployment	26.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	9.585525472
Employed	65.58449891
Median HI	7.25009624
Education	—
Bachelor's or higher	38.73989478
High school enrollment	100
Preschool enrollment	60.4901835
Transportation	—
Auto Access	12.42140382
Active commuting	91.06890799
Social	—
2-parent households	56.61491082

Voting	0.795585782
Neighborhood	—
Alcohol availability	4.516874118
Park access	81.35506224
Retail density	87.09097908
Supermarket access	64.42961632
Tree canopy	39.67663288
Housing	—
Homeownership	8.443474913
Housing habitability	3.708456307
Low-inc homeowner severe housing cost burden	2.065956628
Low-inc renter severe housing cost burden	15.78339535
Uncrowded housing	18.58077762
Health Outcomes	—
Insured adults	12.03644296
Arthritis	48.2
Asthma ER Admissions	50.6
High Blood Pressure	37.6
Cancer (excluding skin)	82.6
Asthma	32.2
Coronary Heart Disease	21.3
Chronic Obstructive Pulmonary Disease	22.0
Diagnosed Diabetes	8.1
Life Expectancy at Birth	79.3
Cognitively Disabled	18.3
Physically Disabled	14.9
Heart Attack ER Admissions	76.9

Mental Health Not Good	14.3
Chronic Kidney Disease	14.8
Obesity	21.5
Pedestrian Injuries	97.2
Physical Health Not Good	8.7
Stroke	19.7
Health Risk Behaviors	—
Binge Drinking	86.1
Current Smoker	14.6
No Leisure Time for Physical Activity	11.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	37.8
Elderly	48.0
English Speaking	8.3
Foreign-born	90.8
Outdoor Workers	22.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	8.5
Traffic Density	93.9
Traffic Access	87.4
Other Indices	—
Hardship	86.9
Other Decision Support	—
2016 Voting	22.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	97.0
Healthy Places Index Score for Project Location (b)	19.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Grading Scenario 4
Construction: Construction Phases	Grading scenario 4
Construction: Off-Road Equipment	Grading Scenario 4
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CASP Update Existing Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	CASP Update Existing
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	0.50
Precipitation (days)	8.60
Location	1772 N Spring St, Los Angeles, CA 90031, USA
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4031
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Industrial Park	4,050	1000sqft	93.0	4,049,585	0.00	—	—	—
Government Office Building	373	1000sqft	8.56	372,487	0.00	—	—	—
Apartments Mid Rise	2,012	Dwelling Unit	52.9	1,931,520	0.00	—	5,956	—

Strip Mall	899	1000sqft	20.6	898,321	0.00	—	—	—
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1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	281	73.8	326	0.27	1.75	55.8	56.8	1.61	13.5	14.5	—	89,314	89,314	3.69	6.62	313	91,692
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	281	78.8	282	0.27	2.14	55.8	56.8	1.97	13.5	14.5	—	86,635	86,635	3.76	6.62	8.11	88,710
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	169	53.5	195	0.19	1.29	39.7	40.4	1.19	9.59	10.3	—	61,431	61,431	2.64	4.74	90.5	63,001
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	30.9	9.77	35.6	0.04	0.24	7.25	7.38	0.22	1.75	1.87	—	10,171	10,171	0.44	0.78	15.0	10,431

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2021	3.26	31.2	26.5	0.03	1.41	0.20	1.60	1.30	0.05	1.34	—	3,645	3,645	0.15	0.04	1.10	3,660
2022	4.04	40.6	34.0	0.06	1.75	3.85	5.60	1.61	1.49	3.10	—	6,888	6,888	0.28	0.06	1.34	6,916
2023	19.4	73.8	326	0.27	1.59	55.8	56.8	1.47	13.5	14.5	—	89,314	89,314	3.69	6.62	313	91,692
2024	18.2	69.5	302	0.27	0.99	55.8	56.8	0.95	13.5	14.4	—	87,679	87,679	3.61	6.54	293	90,012
2025	17.4	65.0	280	0.27	0.92	55.8	56.7	0.64	13.5	14.1	—	86,056	86,056	3.61	6.54	274	88,370
2026	15.2	61.0	261	0.27	0.87	55.8	56.7	0.59	13.5	14.1	—	84,471	84,471	3.51	6.54	255	86,762
2027	14.7	57.4	244	0.27	0.58	55.8	56.4	0.55	13.5	14.0	—	82,892	82,892	3.51	6.30	234	85,090
2028	13.9	55.2	230	0.27	0.54	55.8	56.3	0.52	13.5	14.0	—	81,271	81,271	1.73	6.27	214	83,398
2029	13.4	51.7	216	0.27	0.52	55.8	56.3	0.50	13.5	14.0	—	79,622	79,622	1.71	6.27	196	81,729
2030	12.9	48.5	204	0.27	0.50	55.8	56.3	0.48	13.5	13.9	—	77,954	77,954	1.71	6.03	178	79,972
2031	10.9	46.8	192	0.27	0.49	55.8	56.3	0.47	13.5	13.9	—	76,269	76,269	1.61	4.58	162	77,836
2032	10.4	43.9	182	0.27	0.47	55.8	56.3	0.45	13.5	13.9	—	74,667	74,667	1.61	4.33	148	76,146
2033	10.1	42.5	173	0.27	0.45	55.8	56.2	0.43	13.5	13.9	—	73,116	73,116	1.61	4.33	134	74,582
2034	9.70	39.7	164	0.27	0.44	55.8	56.2	0.42	13.5	13.9	—	71,657	71,657	1.36	4.09	122	73,032
2035	9.45	38.7	157	0.27	0.42	55.8	56.2	0.41	13.5	13.9	—	70,299	70,299	1.26	4.09	81.3	71,631
2036	281	1.90	26.2	< 0.005	0.01	9.30	9.30	< 0.005	2.18	2.18	—	8,475	8,475	0.07	0.05	9.54	8,500
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2021	4.48	46.2	39.1	0.05	2.14	7.89	10.0	1.97	3.99	5.97	—	5,535	5,535	0.23	0.05	0.03	5,556
2022	4.29	43.5	38.0	0.06	1.99	7.89	9.88	1.83	3.99	5.82	—	6,873	6,873	0.28	0.06	0.03	6,899
2023	19.1	78.8	282	0.27	1.59	55.8	56.8	1.47	13.5	14.5	—	86,635	86,635	3.76	6.62	8.11	88,710
2024	18.0	74.3	261	0.27	0.99	55.8	56.8	0.95	13.5	14.4	—	85,070	85,070	3.69	6.62	7.61	87,143
2025	17.2	68.4	242	0.27	0.92	55.8	56.7	0.64	13.5	14.1	—	83,509	83,509	3.69	6.62	7.12	85,581
2026	15.1	64.4	227	0.27	0.87	55.8	56.7	0.59	13.5	14.1	—	81,983	81,983	3.58	6.54	6.61	84,028
2027	14.4	61.9	211	0.27	0.58	55.8	56.4	0.55	13.5	14.0	—	80,456	80,456	2.13	6.30	6.07	82,392

2028	13.8	58.3	200	0.27	0.54	55.8	56.3	0.52	13.5	14.0	—	78,883	78,883	1.81	6.30	5.55	80,810
2029	13.2	54.7	188	0.27	0.52	55.8	56.3	0.50	13.5	14.0	—	77,280	77,280	1.79	6.30	5.08	79,206
2030	12.7	51.6	177	0.27	0.50	55.8	56.3	0.48	13.5	13.9	—	75,655	75,655	1.71	6.03	4.63	77,499
2031	10.7	49.9	167	0.27	0.49	55.8	56.3	0.47	13.5	13.9	—	74,010	74,010	1.68	6.03	4.21	75,853
2032	10.3	46.7	158	0.27	0.47	55.8	56.3	0.45	13.5	13.9	—	72,441	72,441	1.68	4.33	3.82	73,779
2033	9.90	43.9	151	0.27	0.45	55.8	56.2	0.43	13.5	13.9	—	70,924	70,924	1.61	4.33	3.48	72,259
2034	9.57	42.6	143	0.27	0.44	55.8	56.2	0.42	13.5	13.9	—	69,493	69,493	1.36	4.09	3.18	70,748
2035	9.32	41.5	138	0.27	0.42	55.8	56.2	0.41	13.5	13.9	—	68,160	68,160	1.34	4.09	2.11	69,414
2036	281	5.65	22.4	0.01	0.14	9.30	9.30	0.13	2.18	2.18	—	8,046	8,046	0.08	0.05	0.25	8,063
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2021	2.52	24.7	20.9	0.03	1.12	1.40	2.53	1.03	0.68	1.72	—	2,903	2,903	0.12	0.03	0.35	2,914
2022	2.93	29.5	24.9	0.04	1.29	3.42	4.71	1.19	1.48	2.67	—	4,690	4,690	0.19	0.04	0.40	4,708
2023	8.96	43.8	131	0.13	0.91	24.0	24.9	0.85	5.95	6.81	—	37,984	37,984	1.63	2.74	55.7	38,897
2024	12.8	53.5	195	0.19	0.71	39.7	40.4	0.68	9.59	10.3	—	61,431	61,431	2.64	4.74	90.5	63,001
2025	12.2	50.0	180	0.19	0.66	39.6	40.3	0.46	9.56	10.0	—	60,136	60,136	2.63	4.67	84.8	61,679
2026	10.7	47.1	169	0.19	0.62	39.6	40.3	0.42	9.56	9.99	—	59,033	59,033	2.56	4.67	78.6	60,568
2027	10.3	44.4	157	0.19	0.42	39.6	40.0	0.40	9.56	9.96	—	57,933	57,933	1.52	4.50	72.1	59,383
2028	9.84	41.9	149	0.19	0.39	39.7	40.1	0.37	9.59	9.96	—	56,957	56,957	1.30	4.51	66.3	58,399
2029	9.38	39.2	140	0.19	0.37	39.6	40.0	0.36	9.56	9.92	—	55,646	55,646	1.28	4.48	60.4	57,074
2030	9.01	36.9	132	0.19	0.36	39.6	40.0	0.35	9.56	9.91	—	54,477	54,477	1.22	4.31	54.9	55,846
2031	7.68	35.6	124	0.19	0.35	39.6	40.0	0.33	9.56	9.90	—	53,295	53,295	1.20	4.31	50.1	54,658
2032	7.35	33.4	118	0.19	0.34	39.7	40.1	0.32	9.59	9.91	—	52,310	52,310	1.21	4.14	45.6	53,620
2033	7.09	32.4	112	0.19	0.32	39.6	40.0	0.31	9.56	9.87	—	51,077	51,077	1.15	3.10	41.4	52,069
2034	6.80	30.4	106	0.19	0.31	39.6	39.9	0.30	9.56	9.87	—	50,049	50,049	0.97	2.92	37.8	50,982
2035	2.35	12.0	36.6	0.07	0.17	12.4	12.5	0.16	2.98	3.14	—	16,028	16,028	0.33	0.91	7.79	16,315
2036	169	1.80	15.3	< 0.005	0.02	5.59	5.61	0.02	1.31	1.33	—	5,107	5,107	0.06	0.03	2.49	5,120
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2021	0.46	4.51	3.81	< 0.005	0.21	0.26	0.46	0.19	0.12	0.31	—	481	481	0.02	< 0.005	0.06	483
2022	0.53	5.38	4.54	0.01	0.24	0.62	0.86	0.22	0.27	0.49	—	776	776	0.03	0.01	0.07	779
2023	1.64	7.99	23.8	0.02	0.17	4.37	4.54	0.16	1.09	1.24	—	6,289	6,289	0.27	0.45	9.23	6,440
2024	2.34	9.77	35.6	0.04	0.13	7.25	7.38	0.12	1.75	1.87	—	10,171	10,171	0.44	0.78	15.0	10,431
2025	2.23	9.13	32.9	0.03	0.12	7.23	7.35	0.08	1.75	1.83	—	9,956	9,956	0.44	0.77	14.0	10,212
2026	1.96	8.60	30.8	0.03	0.11	7.23	7.35	0.08	1.75	1.82	—	9,774	9,774	0.42	0.77	13.0	10,028
2027	1.88	8.10	28.7	0.03	0.08	7.23	7.31	0.07	1.75	1.82	—	9,591	9,591	0.25	0.74	11.9	9,832
2028	1.80	7.64	27.1	0.04	0.07	7.25	7.32	0.07	1.75	1.82	—	9,430	9,430	0.21	0.75	11.0	9,669
2029	1.71	7.16	25.5	0.03	0.07	7.23	7.30	0.06	1.75	1.81	—	9,213	9,213	0.21	0.74	10.0	9,449
2030	1.64	6.73	24.1	0.03	0.07	7.23	7.30	0.06	1.75	1.81	—	9,019	9,019	0.20	0.71	9.10	9,246
2031	1.40	6.49	22.7	0.03	0.06	7.23	7.30	0.06	1.75	1.81	—	8,824	8,824	0.20	0.71	8.29	9,049
2032	1.34	6.09	21.5	0.04	0.06	7.25	7.31	0.06	1.75	1.81	—	8,661	8,661	0.20	0.69	7.55	8,877
2033	1.29	5.91	20.5	0.03	0.06	7.23	7.29	0.06	1.75	1.80	—	8,456	8,456	0.19	0.51	6.86	8,621
2034	1.24	5.54	19.3	0.03	0.06	7.23	7.29	0.05	1.75	1.80	—	8,286	8,286	0.16	0.48	6.26	8,441
2035	0.43	2.19	6.68	0.01	0.03	2.26	2.29	0.03	0.54	0.57	—	2,654	2,654	0.05	0.15	1.29	2,701
2036	30.9	0.33	2.79	< 0.005	< 0.005	1.02	1.02	< 0.005	0.24	0.24	—	845	845	0.01	0.01	0.41	848

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	390	205	1,824	3.07	7.17	86.9	94.0	7.15	15.5	22.6	6,666	526,875	533,541	511	19.1	2,405	554,428
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	338	216	1,370	2.94	6.80	86.9	93.7	6.66	15.5	22.1	6,666	513,750	520,416	512	19.8	1,109	540,234

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	369	192	1,628	2.80	4.79	86.9	91.7	4.73	15.5	20.2	6,666	482,302	488,968	511	19.8	1,649	509,303
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	67.4	35.1	297	0.51	0.87	15.9	16.7	0.86	2.82	3.69	1,104	79,851	80,954	84.7	3.28	273	84,321

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	166	142	1,444	2.68	2.06	86.9	88.9	1.92	15.5	17.4	—	273,716	273,716	15.8	11.8	1,330	278,961
Area	223	33.2	357	0.21	2.80	—	2.80	2.91	—	2.91	0.00	39,385	39,385	0.77	0.08	—	39,429
Energy	1.67	30.1	23.2	0.18	2.31	—	2.31	2.31	—	2.31	—	198,940	198,940	14.7	1.69	—	199,813
Water	—	—	—	—	—	—	—	—	—	—	2,462	14,833	17,295	60.0	5.53	—	20,441
Waste	—	—	—	—	—	—	—	—	—	—	4,204	0.00	4,204	420	0.00	—	14,709
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,074	1,074
Total	390	205	1,824	3.07	7.17	86.9	94.0	7.15	15.5	22.6	6,666	526,875	533,541	511	19.1	2,405	554,428
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	162	156	1,334	2.56	2.06	86.9	88.9	1.92	15.5	17.4	—	261,848	261,848	16.6	12.5	34.5	266,029
Area	174	30.0	12.8	0.19	2.43	—	2.43	2.43	—	2.43	0.00	38,128	38,128	0.72	0.07	—	38,167
Energy	1.67	30.1	23.2	0.18	2.31	—	2.31	2.31	—	2.31	—	198,940	198,940	14.7	1.69	—	199,813
Water	—	—	—	—	—	—	—	—	—	—	2,462	14,833	17,295	60.0	5.53	—	20,441
Waste	—	—	—	—	—	—	—	—	—	—	4,204	0.00	4,204	420	0.00	—	14,709
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,074	1,074

Total	338	216	1,370	2.94	6.80	86.9	93.7	6.66	15.5	22.1	6,666	513,750	520,416	512	19.8	1,109	540,234
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	162	158	1,368	2.59	2.06	86.9	88.9	1.92	15.5	17.4	—	265,056	265,056	16.5	12.6	574	269,787
Area	206	4.23	236	0.03	0.42	—	0.42	0.50	—	0.50	0.00	3,472	3,472	0.09	0.01	—	3,478
Energy	1.67	30.1	23.2	0.18	2.31	—	2.31	2.31	—	2.31	—	198,940	198,940	14.7	1.69	—	199,813
Water	—	—	—	—	—	—	—	—	—	—	2,462	14,833	17,295	60.0	5.53	—	20,441
Waste	—	—	—	—	—	—	—	—	—	—	4,204	0.00	4,204	420	0.00	—	14,709
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,074	1,074
Total	369	192	1,628	2.80	4.79	86.9	91.7	4.73	15.5	20.2	6,666	482,302	488,968	511	19.8	1,649	509,303
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	29.5	28.8	250	0.47	0.38	15.9	16.2	0.35	2.82	3.17	—	43,883	43,883	2.73	2.08	95.1	44,666
Area	37.6	0.77	43.1	< 0.005	0.08	—	0.08	0.09	—	0.09	0.00	575	575	0.01	< 0.005	—	576
Energy	0.31	5.49	4.23	0.03	0.42	—	0.42	0.42	—	0.42	—	32,937	32,937	2.44	0.28	—	33,081
Water	—	—	—	—	—	—	—	—	—	—	408	2,456	2,863	9.93	0.91	—	3,384
Waste	—	—	—	—	—	—	—	—	—	—	696	0.00	696	69.6	0.00	—	2,435
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	178	178
Total	67.4	35.1	297	0.51	0.87	15.9	16.7	0.86	2.82	3.69	1,104	79,851	80,954	84.7	3.28	273	84,321

3. Construction Emissions Details

3.1. Demolition (2021) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	3.18	31.1	25.1	0.03	1.41	—	1.41	1.30	—	1.30	—	3,420	3,420	0.14	0.03	—	3,431
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.18	31.1	25.1	0.03	1.41	—	1.41	1.30	—	1.30	—	3,420	3,420	0.14	0.03	—	3,431
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.74	17.0	13.7	0.02	0.77	—	0.77	0.71	—	0.71	—	1,874	1,874	0.08	0.02	—	1,880
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	3.11	2.51	< 0.005	0.14	—	0.14	0.13	—	0.13	—	310	310	0.01	< 0.005	—	311
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.08	0.10	1.45	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	225	225	0.01	0.01	1.10	229
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.11	1.24	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	213	213	0.01	0.01	0.03	216
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.06	0.71	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	119	119	0.01	< 0.005	0.26	120
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.13	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.7	19.7	< 0.005	< 0.005	0.04	19.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Site Preparation (2021) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	4.39	46.1	37.6	0.05	2.14	—	2.14	1.97	—	1.97	—	5,286	5,286	0.21	0.04	—	5,304
Dust From Material Movement	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	7.58	6.18	0.01	0.35	—	0.35	0.32	—	0.32	—	869	869	0.04	0.01	—	872
Dust From Material Movement	—	—	—	—	—	1.26	1.26	—	0.65	0.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.38	1.13	< 0.005	0.06	—	0.06	0.06	—	0.06	—	144	144	0.01	< 0.005	—	144
Dust From Material Movement	—	—	—	—	—	0.23	0.23	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.13	1.44	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	249	249	0.01	0.01	0.03	252

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.25	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.6	41.6	< 0.005	< 0.005	0.09	42.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.88	6.88	< 0.005	< 0.005	0.02	6.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Site Preparation (2022) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.20	43.4	36.7	0.05	1.99	—	1.99	1.83	—	1.83	—	5,291	5,291	0.21	0.04	—	5,309
Dust From Material Movement	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70	7.21	6.11	0.01	0.33	—	0.33	0.30	—	0.30	—	880	880	0.04	0.01	—	883
Dust From Material Movement	—	—	—	—	—	1.28	1.28	—	0.66	0.66	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.32	1.11	< 0.005	0.06	—	0.06	0.06	—	0.06	—	146	146	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	0.23	0.23	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.12	1.33	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	244	244	0.01	0.01	0.03	247
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.23	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.3	41.3	< 0.005	< 0.005	0.08	41.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.83	6.83	< 0.005	< 0.005	0.01	6.92
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Grading (2022) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.93	40.5	32.3	0.06	1.75	—	1.75	1.61	—	1.61	—	6,594	6,594	0.27	0.05	—	6,616
Dust From Material Movement	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.93	40.5	32.3	0.06	1.75	—	1.75	1.61	—	1.61	—	6,594	6,594	0.27	0.05	—	6,616
Dust From Material Movement	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.16	22.2	17.7	0.03	0.96	—	0.96	0.88	—	0.88	—	3,613	3,613	0.15	0.03	—	3,625
Dust From Material Movement	—	—	—	—	—	1.97	1.97	—	0.78	0.78	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	4.05	3.23	0.01	0.18	—	0.18	0.16	—	0.16	—	598	598	0.02	< 0.005	—	600
Dust From Material Movement	—	—	—	—	—	0.36	0.36	—	0.14	0.14	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.12	1.78	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	295	295	0.01	0.01	1.34	299
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.13	1.52	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	279	279	0.01	0.01	0.03	283
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.08	0.87	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	155	155	0.01	0.01	0.32	157
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.16	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.7	25.7	< 0.005	< 0.005	0.05	26.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.72	37.3	31.4	0.06	1.59	—	1.59	1.47	—	1.47	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.72	37.3	31.4	0.06	1.59	—	1.59	1.47	—	1.47	—	6,598	6,598	0.27	0.05	—	6,621

Dust From Material Movement	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	11.3	9.53	0.02	0.48	—	0.48	0.44	—	0.44	—	2,001	2,001	0.08	0.02	—	2,008
Dust From Material Movement	—	—	—	—	—	1.09	1.09	—	0.43	0.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	2.06	1.74	< 0.005	0.09	—	0.09	0.08	—	0.08	—	331	331	0.01	< 0.005	—	332
Dust From Material Movement	—	—	—	—	—	0.20	0.20	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.10	1.63	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	289	289	0.01	0.01	1.22	293
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.09	0.12	1.39	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	274	274	0.01	0.01	0.03	277
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.04	0.44	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	84.2	84.2	< 0.005	< 0.005	0.16	85.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.9	13.9	< 0.005	< 0.005	0.03	14.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	4.85	5.41	0.01	0.23	—	0.23	0.21	—	0.21	—	985	985	0.04	0.01	—	989
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.89	0.99	< 0.005	0.04	—	0.04	0.04	—	0.04	—	163	163	0.01	< 0.005	—	164
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	16.7	18.6	291	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	51,341	51,341	2.16	1.76	218	52,138
Vendor	1.36	43.4	21.8	0.24	0.49	9.30	9.79	0.49	2.57	3.06	—	35,576	35,576	1.43	4.84	95.1	37,148
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	16.5	21.8	247	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	48,649	48,649	2.23	1.76	5.64	49,236
Vendor	1.31	45.2	22.1	0.24	0.49	9.30	9.79	0.49	2.57	3.06	—	35,589	35,589	1.43	4.84	2.47	37,069
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.75	8.91	106	0.00	0.00	19.0	19.0	0.00	4.45	4.45	—	20,291	20,291	0.92	0.72	38.6	20,568
Vendor	0.54	18.7	8.98	0.10	0.20	3.80	4.01	0.20	1.05	1.25	—	14,622	14,622	0.59	1.99	17.0	15,246
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	1.23	1.63	19.4	0.00	0.00	3.47	3.47	0.00	0.81	0.81	—	3,359	3,359	0.15	0.12	6.39	3,405
Vendor	0.10	3.41	1.64	0.02	0.04	0.69	0.73	0.04	0.19	0.23	—	2,421	2,421	0.10	0.33	2.81	2,524
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86	8.04	9.39	0.02	0.36	—	0.36	0.33	—	0.33	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	1.47	1.71	< 0.005	0.07	—	0.07	0.06	—	0.06	—	284	284	0.01	< 0.005	—	285

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	16.0	17.0	268	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	50,211	50,211	2.08	1.69	198	50,963
Vendor	1.06	41.3	20.3	0.24	0.49	9.30	9.79	0.49	2.57	3.06	—	35,071	35,071	1.43	4.84	95.1	36,643
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	15.7	20.1	227	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	47,587	47,587	2.16	1.76	5.14	48,172
Vendor	1.04	42.9	20.7	0.24	0.49	9.30	9.79	0.49	2.57	3.06	—	35,086	35,086	1.43	4.84	2.46	36,565
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	11.2	14.4	171	0.00	0.00	33.1	33.1	0.00	7.76	7.76	—	34,590	34,590	1.54	1.26	61.2	35,067
Vendor	0.76	31.1	14.7	0.18	0.35	6.63	6.98	0.35	1.83	2.18	—	25,124	25,124	1.03	3.46	29.3	26,211
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.04	2.62	31.2	0.00	0.00	6.04	6.04	0.00	1.42	1.42	—	5,727	5,727	0.26	0.21	10.1	5,806
Vendor	0.14	5.68	2.68	0.03	0.06	1.21	1.27	0.06	0.33	0.40	—	4,160	4,160	0.17	0.57	4.85	4,340
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.46	9.31	0.02	0.31	—	0.31	0.28	—	0.28	—	1,713	1,713	0.07	0.01	—	1,719
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.36	1.70	< 0.005	0.06	—	0.06	0.05	—	0.05	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	15.2	15.4	247	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	49,169	49,169	2.08	1.69	180	49,904
Vendor	1.02	39.2	19.2	0.24	0.49	9.30	9.79	0.24	2.57	2.81	—	34,489	34,489	1.43	4.84	94.4	36,061
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	15.1	17.1	210	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	46,606	46,606	2.16	1.76	4.67	47,190
Vendor	0.99	40.9	19.4	0.24	0.49	9.30	9.79	0.24	2.57	2.81	—	34,505	34,505	1.43	4.84	2.45	35,985
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	10.7	13.2	157	0.00	0.00	33.0	33.0	0.00	7.74	7.74	—	33,784	33,784	1.54	1.20	55.6	34,236
Vendor	0.71	29.4	13.7	0.17	0.35	6.61	6.96	0.17	1.83	2.00	—	24,640	24,640	1.02	3.45	29.2	25,724
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.96	2.41	28.7	0.00	0.00	6.03	6.03	0.00	1.41	1.41	—	5,593	5,593	0.25	0.20	9.20	5,668
Vendor	0.13	5.36	2.50	0.03	0.06	1.21	1.27	0.03	0.33	0.37	—	4,079	4,079	0.17	0.57	4.84	4,259
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	7.04	9.26	0.02	0.27	—	0.27	0.25	—	0.25	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.28	1.69	< 0.005	0.05	—	0.05	0.05	—	0.05	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	13.1	13.8	230	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	48,181	48,181	2.00	1.69	163	48,896
Vendor	1.02	37.4	18.1	0.24	0.49	9.30	9.79	0.24	2.57	2.81	—	33,893	33,893	1.41	4.84	91.6	35,461
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	13.0	15.5	196	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	45,676	45,676	2.08	1.69	4.23	46,234
Vendor	0.97	39.1	18.5	0.24	0.49	9.30	9.79	0.24	2.57	2.81	—	33,910	33,910	1.41	4.84	2.38	35,389
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	9.24	12.0	147	0.00	0.00	33.0	33.0	0.00	7.74	7.74	—	33,107	33,107	1.48	1.20	50.4	33,553
Vendor	0.71	28.1	13.1	0.17	0.35	6.61	6.96	0.17	1.83	2.00	—	24,214	24,214	1.01	3.45	28.2	25,297

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.69	2.20	26.7	0.00	0.00	6.03	6.03	0.00	1.41	1.41	—	5,481	5,481	0.25	0.20	8.34	5,555
Vendor	0.13	5.12	2.39	0.03	0.06	1.21	1.27	0.03	0.33	0.37	—	4,009	4,009	0.17	0.57	4.67	4,188
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	6.71	9.24	0.02	0.24	—	0.24	0.22	—	0.22	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.13	1.22	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	12.6	12.3	214	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	47,258	47,258	2.00	1.69	147	47,958
Vendor	1.02	35.8	17.0	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	33,237	33,237	1.41	4.59	86.7	34,727
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	12.4	15.3	181	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	44,804	44,804	0.63	1.69	3.82	45,325
Vendor	0.97	37.2	17.4	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	33,255	33,255	1.41	4.59	2.25	34,661
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.85	10.9	136	0.00	0.00	33.0	33.0	0.00	7.74	7.74	—	32,475	32,475	0.45	1.20	45.3	32,890
Vendor	0.71	26.7	12.3	0.17	0.17	6.61	6.79	0.17	1.83	2.00	—	23,746	23,746	1.01	3.28	26.7	24,775
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.61	2.00	24.8	0.00	0.00	6.03	6.03	0.00	1.41	1.41	—	5,377	5,377	0.07	0.20	7.51	5,445
Vendor	0.13	4.88	2.25	0.03	0.03	1.21	1.24	0.03	0.33	0.37	—	3,931	3,931	0.17	0.54	4.42	4,102
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71	6.39	9.26	0.02	0.22	—	0.22	0.20	—	0.20	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.17	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	12.2	12.1	201	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	46,413	46,413	0.47	1.69	132	47,059
Vendor	0.77	34.1	16.5	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	32,461	32,461	1.16	4.57	82.1	33,934
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	12.1	13.8	171	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	44,005	44,005	0.55	1.69	3.42	44,524
Vendor	0.72	35.6	16.6	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	32,481	32,481	1.16	4.59	2.13	33,880
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.59	9.83	128	0.00	0.00	33.1	33.1	0.00	7.76	7.76	—	31,983	31,983	0.39	1.21	41.0	32,394
Vendor	0.54	25.6	11.8	0.18	0.18	6.63	6.81	0.18	1.83	2.01	—	23,256	23,256	0.83	3.29	25.3	24,282
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.57	1.79	23.3	0.00	0.00	6.04	6.04	0.00	1.42	1.42	—	5,295	5,295	0.07	0.20	6.79	5,363
Vendor	0.10	4.68	2.15	0.03	0.03	1.21	1.24	0.03	0.33	0.37	—	3,850	3,850	0.14	0.54	4.19	4,020
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.69	6.13	9.22	0.02	0.20	—	0.20	0.18	—	0.18	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.12	1.68	< 0.005	0.04	—	0.04	0.03	—	0.03	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	11.7	10.6	188	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	45,622	45,622	0.47	1.69	118	46,255
Vendor	0.75	32.5	15.7	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	31,602	31,602	1.14	4.57	77.3	33,069
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	11.5	12.2	159	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	43,261	43,261	0.55	1.69	3.07	43,780
Vendor	0.70	34.0	16.0	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	31,622	31,622	1.14	4.59	2.01	33,021
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.18	8.71	119	0.00	0.00	33.0	33.0	0.00	7.74	7.74	—	31,355	31,355	0.39	1.20	36.6	31,760
Vendor	0.52	24.4	11.3	0.17	0.17	6.61	6.79	0.17	1.83	2.00	—	22,579	22,579	0.81	3.26	23.8	23,596

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.49	1.59	21.7	0.00	0.00	6.03	6.03	0.00	1.41	1.41	—	5,191	5,191	0.06	0.20	6.06	5,258
Vendor	0.09	4.45	2.06	0.03	0.03	1.21	1.24	0.03	0.33	0.37	—	3,738	3,738	0.13	0.54	3.95	3,907
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.25. Building Construction (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.94	8.39	12.9	0.02	0.26	—	0.26	0.24	—	0.24	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.94	8.39	12.9	0.02	0.26	—	0.26	0.24	—	0.24	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	5.99	9.20	0.02	0.19	—	0.19	0.17	—	0.17	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.12	1.09	1.68	< 0.005	0.03	—	0.03	0.03	—	0.03	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	11.2	9.06	176	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	44,882	44,882	0.47	1.69	105	45,502
Vendor	0.72	31.1	15.1	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	30,675	30,675	1.14	4.32	73.1	32,065
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	11.1	10.7	148	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	42,562	42,562	0.47	1.69	2.74	43,079
Vendor	0.68	32.6	15.5	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	30,696	30,696	1.14	4.32	1.89	32,015
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	7.84	7.62	112	0.00	0.00	33.0	33.0	0.00	7.74	7.74	—	30,848	30,848	0.34	1.20	32.4	31,248
Vendor	0.50	23.2	10.9	0.17	0.17	6.61	6.79	0.17	1.83	2.00	—	21,917	21,917	0.81	3.09	22.5	22,880
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.43	1.39	20.4	0.00	0.00	6.03	6.03	0.00	1.41	1.41	—	5,107	5,107	0.06	0.20	5.37	5,173
Vendor	0.09	4.24	1.99	0.03	0.03	1.21	1.24	0.03	0.33	0.37	—	3,629	3,629	0.13	0.51	3.72	3,788
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.27. Building Construction (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	8.12	12.8	0.02	0.24	—	0.24	0.22	—	0.22	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	8.12	12.8	0.02	0.24	—	0.24	0.22	—	0.22	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	5.80	9.18	0.02	0.17	—	0.17	0.16	—	0.16	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.06	1.67	< 0.005	0.03	—	0.03	0.03	—	0.03	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	9.21	8.98	165	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	44,202	44,202	0.39	0.24	93.5	44,376
Vendor	0.72	29.7	14.6	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	29,670	29,670	1.12	4.32	68.9	31,055
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	9.13	10.6	140	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	41,922	41,922	0.47	1.69	2.43	42,438
Vendor	0.68	31.2	14.7	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	29,691	29,691	1.12	4.32	1.78	31,009
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.52	7.50	104	0.00	0.00	33.0	33.0	0.00	7.74	7.74	—	30,384	30,384	0.34	1.20	28.9	30,780
Vendor	0.50	22.3	10.5	0.17	0.17	6.61	6.79	0.17	1.83	2.00	—	21,199	21,199	0.80	3.09	21.2	22,161
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.19	1.37	19.1	0.00	0.00	6.03	6.03	0.00	1.41	1.41	—	5,030	5,030	0.06	0.20	4.78	5,096
Vendor	0.09	4.06	1.92	0.03	0.03	1.21	1.24	0.03	0.33	0.37	—	3,510	3,510	0.13	0.51	3.51	3,669
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.29. Building Construction (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90	7.87	12.8	0.02	0.22	—	0.22	0.21	—	0.21	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.90	7.87	12.8	0.02	0.22	—	0.22	0.21	—	0.21	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	5.64	9.16	0.02	0.16	—	0.16	0.15	—	0.15	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.03	1.67	< 0.005	0.03	—	0.03	0.03	—	0.03	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.82	7.45	155	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	43,604	43,604	0.39	0.24	82.5	43,767
Vendor	0.72	28.6	14.0	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	28,666	28,666	1.12	4.08	65.0	29,974
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.74	9.06	131	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	41,357	41,357	0.47	0.24	2.14	41,441
Vendor	0.68	29.8	14.4	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	28,688	28,688	1.12	4.08	1.68	29,933
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.20	6.43	98.6	0.00	0.00	33.1	33.1	0.00	7.76	7.76	—	30,055	30,055	0.34	1.21	25.6	30,449
Vendor	0.50	21.3	10.2	0.18	0.18	6.63	6.81	0.18	1.83	2.01	—	20,538	20,538	0.80	2.92	20.1	21,449

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.13	1.17	18.0	0.00	0.00	6.04	6.04	0.00	1.42	1.42	—	4,976	4,976	0.06	0.20	4.23	5,041
Vendor	0.09	3.89	1.86	0.03	0.03	1.21	1.24	0.03	0.33	0.37	—	3,400	3,400	0.13	0.48	3.32	3,551
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.31. Building Construction (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	7.67	12.8	0.02	0.20	—	0.20	0.19	—	0.19	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	7.67	12.8	0.02	0.20	—	0.20	0.19	—	0.19	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	5.48	9.13	0.02	0.15	—	0.15	0.13	—	0.13	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.11	1.00	1.67	< 0.005	0.03	—	0.03	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.51	7.37	147	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	43,026	43,026	0.39	0.24	72.6	43,178
Vendor	0.72	27.5	13.5	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	27,693	27,693	1.12	4.08	61.9	28,998
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.35	7.53	124	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	40,812	40,812	0.39	0.24	1.88	40,893
Vendor	0.68	28.7	13.8	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	27,715	27,715	1.12	4.08	1.60	28,960
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.96	6.41	93.4	0.00	0.00	33.0	33.0	0.00	7.74	7.74	—	29,577	29,577	0.28	0.17	22.4	29,657
Vendor	0.50	20.5	9.74	0.17	0.17	6.61	6.79	0.17	1.83	2.00	—	19,787	19,787	0.80	2.91	19.1	20,695
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.09	1.17	17.1	0.00	0.00	6.03	6.03	0.00	1.41	1.41	—	4,897	4,897	0.05	0.03	3.70	4,910
Vendor	0.09	3.74	1.78	0.03	0.03	1.21	1.24	0.03	0.33	0.37	—	3,276	3,276	0.13	0.48	3.15	3,426
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.33. Building Construction (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86	7.52	12.8	0.02	0.19	—	0.19	0.18	—	0.18	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86	7.52	12.8	0.02	0.19	—	0.19	0.18	—	0.18	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	5.37	9.12	0.02	0.14	—	0.14	0.13	—	0.13	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.98	1.66	< 0.005	0.03	—	0.03	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.11	5.84	139	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	42,521	42,521	0.39	0.24	63.3	42,664
Vendor	0.72	26.4	13.0	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	26,739	26,739	0.87	3.83	59.1	27,963
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.04	7.45	117	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	40,334	40,334	0.39	0.24	1.64	40,415
Vendor	0.68	27.6	13.3	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	26,762	26,762	0.87	3.83	1.54	27,928
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.68	5.32	87.5	0.00	0.00	33.0	33.0	0.00	7.74	7.74	—	29,231	29,231	0.28	0.17	19.6	29,307
Vendor	0.50	19.7	9.37	0.17	0.17	6.61	6.79	0.17	1.83	2.00	—	19,106	19,106	0.62	2.74	18.3	19,957
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.04	0.97	16.0	0.00	0.00	6.03	6.03	0.00	1.41	1.41	—	4,839	4,839	0.05	0.03	3.24	4,852
Vendor	0.09	3.59	1.71	0.03	0.03	1.21	1.24	0.03	0.33	0.37	—	3,163	3,163	0.10	0.45	3.03	3,304
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.35. Building Construction (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85	7.34	12.7	0.02	0.18	—	0.18	0.17	—	0.17	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.85	7.34	12.7	0.02	0.18	—	0.18	0.17	—	0.17	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.62	2.81	0.01	0.04	—	0.04	0.04	—	0.04	—	530	530	0.02	< 0.005	—	532
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.30	0.51	< 0.005	0.01	—	0.01	0.01	—	0.01	—	87.8	87.8	< 0.005	< 0.005	—	88.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	7.88	5.84	132	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	42,073	42,073	0.31	0.24	55.0	42,206
Vendor	0.72	25.5	12.7	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	25,829	25,829	0.85	3.83	26.3	27,020
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	7.80	7.45	112	0.00	0.00	46.5	46.5	0.00	10.9	10.9	—	39,910	39,910	0.39	0.24	1.42	39,991
Vendor	0.68	26.8	13.0	0.24	0.24	9.30	9.55	0.24	2.57	2.81	—	25,853	25,853	0.85	3.83	0.68	27,017
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.73	1.63	25.9	0.00	0.00	10.2	10.2	0.00	2.40	2.40	—	8,955	8,955	0.09	0.05	5.23	8,977
Vendor	0.15	5.90	2.84	0.05	0.05	2.05	2.10	0.05	0.57	0.62	—	5,714	5,714	0.19	0.85	2.51	5,974

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.31	0.30	4.73	0.00	0.00	1.87	1.87	0.00	0.44	0.44	—	1,483	1,483	0.01	0.01	0.87	1,486
Vendor	0.03	1.08	0.52	0.01	0.01	0.37	0.38	0.01	0.10	0.11	—	946	946	0.03	0.14	0.42	989
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.37. Paving (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	5.73	9.80	0.01	0.15	—	0.15	0.14	—	0.14	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	5.73	9.80	0.01	0.15	—	0.15	0.14	—	0.14	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	2.82	4.83	0.01	0.07	—	0.07	0.07	—	0.07	—	745	745	0.03	0.01	—	748
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.52	0.88	< 0.005	0.01	—	0.01	0.01	—	0.01	—	123	123	0.01	< 0.005	—	124
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.56	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	177	177	< 0.005	< 0.005	0.23	178
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.47	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	168	168	< 0.005	< 0.005	0.01	169
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.24	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	84.2	84.2	< 0.005	< 0.005	0.05	84.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	13.9	13.9	< 0.005	< 0.005	0.01	14.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.39. Paving (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	5.62	9.78	0.01	0.14	—	0.14	0.13	—	0.13	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.63	1.09	< 0.005	0.02	—	0.02	0.01	—	0.01	—	169	169	0.01	< 0.005	—	169
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.11	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.9	27.9	< 0.005	< 0.005	—	28.0
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.45	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	167	167	< 0.005	< 0.005	0.01	167
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	18.9	18.9	< 0.005	< 0.005	0.01	18.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.13	3.13	< 0.005	< 0.005	< 0.005	3.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.41. Architectural Coating (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.75	1.10	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	279	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.75	1.10	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	279	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.45	0.66	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	80.5	80.5	< 0.005	< 0.005	—	80.8
Architectural Coatings	168	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.3	13.3	< 0.005	< 0.005	—	13.4
Architectural Coatings	30.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.54	1.15	25.1	0.00	0.00	9.30	9.30	0.00	2.18	2.18	—	8,341	8,341	0.06	0.05	9.54	8,366
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.54	1.18	21.3	0.00	0.00	9.30	9.30	0.00	2.18	2.18	—	7,913	7,913	0.08	0.05	0.25	7,929
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.92	0.71	13.5	0.00	0.00	5.57	5.57	0.00	1.31	1.31	—	4,839	4,839	0.05	0.03	2.48	4,851
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.13	2.46	0.00	0.00	1.02	1.02	0.00	0.24	0.24	—	801	801	0.01	< 0.005	0.41	803
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	122,011	122,011	8.64	1.22	—	122,591
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	11,223	11,223	0.79	0.11	—	11,276
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	12,496	12,496	0.89	0.12	—	12,555
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	16,918	16,918	1.20	0.17	—	16,998
Total	—	—	—	—	—	—	—	—	—	—	—	162,648	162,648	11.5	1.63	—	163,421
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	122,011	122,011	8.64	1.22	—	122,591
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	11,223	11,223	0.79	0.11	—	11,276
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	12,496	12,496	0.89	0.12	—	12,555
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	16,918	16,918	1.20	0.17	—	16,998
Total	—	—	—	—	—	—	—	—	—	—	—	162,648	162,648	11.5	1.63	—	163,421
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	20,200	20,200	1.43	0.20	—	20,296
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	1,858	1,858	0.13	0.02	—	1,867

Apartment Mid Rise	—	—	—	—	—	—	—	—	—	—	—	2,069	2,069	0.15	0.02	—	2,079
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	2,801	2,801	0.20	0.03	—	2,814
Total	—	—	—	—	—	—	—	—	—	—	—	26,928	26,928	1.91	0.27	—	27,056

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	1.20	21.9	18.4	0.13	1.66	—	1.66	1.66	—	1.66	—	26,076	26,076	2.31	0.05	—	26,148
Government Office Building	0.11	2.01	1.69	0.01	0.15	—	0.15	0.15	—	0.15	—	2,398	2,398	0.21	< 0.005	—	2,405
Apartments Mid Rise	0.30	5.04	2.15	0.03	0.41	—	0.41	0.41	—	0.41	—	6,400	6,400	0.57	0.01	—	6,418
Strip Mall	0.07	1.19	1.00	0.01	0.09	—	0.09	0.09	—	0.09	—	1,418	1,418	0.13	< 0.005	—	1,422
Total	1.67	30.1	23.2	0.18	2.31	—	2.31	2.31	—	2.31	—	36,292	36,292	3.21	0.07	—	36,393
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	1.20	21.9	18.4	0.13	1.66	—	1.66	1.66	—	1.66	—	26,076	26,076	2.31	0.05	—	26,148
Government Office Building	0.11	2.01	1.69	0.01	0.15	—	0.15	0.15	—	0.15	—	2,398	2,398	0.21	< 0.005	—	2,405
Apartments Mid Rise	0.30	5.04	2.15	0.03	0.41	—	0.41	0.41	—	0.41	—	6,400	6,400	0.57	0.01	—	6,418

Strip Mall	0.07	1.19	1.00	0.01	0.09	—	0.09	0.09	—	0.09	—	1,418	1,418	0.13	< 0.005	—	1,422
Total	1.67	30.1	23.2	0.18	2.31	—	2.31	2.31	—	2.31	—	36,292	36,292	3.21	0.07	—	36,393
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.22	3.99	3.35	0.02	0.30	—	0.30	0.30	—	0.30	—	4,317	4,317	0.38	0.01	—	4,329
Government Office Building	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	397	397	0.04	< 0.005	—	398
Apartments Mid Rise	0.05	0.92	0.39	0.01	0.07	—	0.07	0.07	—	0.07	—	1,060	1,060	0.09	< 0.005	—	1,063
Strip Mall	0.01	0.22	0.18	< 0.005	0.02	—	0.02	0.02	—	0.02	—	235	235	0.02	< 0.005	—	235
Total	0.31	5.49	4.23	0.03	0.42	—	0.42	0.42	—	0.42	—	6,009	6,009	0.53	0.01	—	6,025

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.76	30.0	12.8	0.19	2.43	—	2.43	2.43	—	2.43	0.00	38,128	38,128	0.72	0.07	—	38,167
Consumer Products	155	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	16.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscap e Equipme nt	49.3	3.18	344	0.02	0.37	—	0.37	0.49	—	0.49	—	1,257	1,257	0.05	0.01	—	1,261
Total	223	33.2	357	0.21	2.80	—	2.80	2.91	—	2.91	0.00	39,385	39,385	0.77	0.08	—	39,429
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.76	30.0	12.8	0.19	2.43	—	2.43	2.43	—	2.43	0.00	38,128	38,128	0.72	0.07	—	38,167
Consum er Products	155	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	16.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	174	30.0	12.8	0.19	2.43	—	2.43	2.43	—	2.43	0.00	38,128	38,128	0.72	0.07	—	38,167
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.02	0.38	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	432	432	0.01	< 0.005	—	433
Consum er Products	28.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	3.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscap e Equipme nt	6.16	0.40	43.0	< 0.005	0.05	—	0.05	0.06	—	0.06	—	143	143	0.01	< 0.005	—	143
Total	37.6	0.77	43.1	< 0.005	0.08	—	0.08	0.09	—	0.09	0.00	575	575	0.01	< 0.005	—	576

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	2,001	12,056	14,057	48.7	4.49	—	16,614
Government Office Building	—	—	—	—	—	—	—	—	—	—	158	954	1,112	3.86	0.36	—	1,315
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	160	966	1,126	3.90	0.36	—	1,331
Strip Mall	—	—	—	—	—	—	—	—	—	—	142	857	1,000	3.47	0.32	—	1,182
Total	—	—	—	—	—	—	—	—	—	—	2,462	14,833	17,295	60.0	5.53	—	20,441
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	2,001	12,056	14,057	48.7	4.49	—	16,614
Government Office Building	—	—	—	—	—	—	—	—	—	—	158	954	1,112	3.86	0.36	—	1,315
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	160	966	1,126	3.90	0.36	—	1,331
Strip Mall	—	—	—	—	—	—	—	—	—	—	142	857	1,000	3.47	0.32	—	1,182
Total	—	—	—	—	—	—	—	—	—	—	2,462	14,833	17,295	60.0	5.53	—	20,441
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	331	1,996	2,327	8.07	0.74	—	2,751

Government	—	—	—	—	—	—	—	—	—	—	26.2	158	184	0.64	0.06	—	218
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	26.5	160	186	0.65	0.06	—	220
Strip Mall	—	—	—	—	—	—	—	—	—	—	23.6	142	166	0.57	0.05	—	196
Total	—	—	—	—	—	—	—	—	—	—	408	2,456	2,863	9.93	0.91	—	3,384

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	2,707	0.00	2,707	271	0.00	—	9,469
Government Office Building	—	—	—	—	—	—	—	—	—	—	187	0.00	187	18.7	0.00	—	654
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	802	0.00	802	80.1	0.00	—	2,806
Strip Mall	—	—	—	—	—	—	—	—	—	—	509	0.00	509	50.8	0.00	—	1,780
Total	—	—	—	—	—	—	—	—	—	—	4,204	0.00	4,204	420	0.00	—	14,709
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	2,707	0.00	2,707	271	0.00	—	9,469

Government	—	—	—	—	—	—	—	—	—	—	187	0.00	187	18.7	0.00	—	654
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	802	0.00	802	80.1	0.00	—	2,806
Strip Mall	—	—	—	—	—	—	—	—	—	—	509	0.00	509	50.8	0.00	—	1,780
Total	—	—	—	—	—	—	—	—	—	—	4,204	0.00	4,204	420	0.00	—	14,709
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	448	0.00	448	44.8	0.00	—	1,568
Government Office Building	—	—	—	—	—	—	—	—	—	—	31.0	0.00	31.0	3.09	0.00	—	108
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	133	0.00	133	13.3	0.00	—	464
Strip Mall	—	—	—	—	—	—	—	—	—	—	84.2	0.00	84.2	8.42	0.00	—	295
Total	—	—	—	—	—	—	—	—	—	—	696	0.00	696	69.6	0.00	—	2,435

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,054	1,054

Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.91	0.91
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.8	13.8
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.59	5.59
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,074	1,074
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,054	1,054
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.91	0.91
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.8	13.8
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.59	5.59
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,074	1,074
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	175	175
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.15
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.29	2.29
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.93	0.93
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	178	178

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequeste	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequeste red	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequeste red	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2021	10/8/2021	5.00	200	—
Site Preparation	Site Preparation	10/9/2021	3/26/2022	5.00	120	—
Grading	Grading	3/27/2022	6/4/2023	5.00	310	—
Building Construction	Building Construction	6/5/2023	4/23/2035	5.00	3,100	—
Paving	Paving	4/24/2035	2/26/2036	5.00	220	—
Architectural Coating	Architectural Coating	2/27/2036	12/31/2036	5.00	220	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20

Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

Building Construction	—	—	—	—
Building Construction	Worker	3,556	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	1,087	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	711	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	3,911,328	1,303,776	7,980,590	2,660,197	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	180	0.00	—
Grading	—	—	930	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Industrial Park	0.00	0%
Government Office Building	0.00	0%
Apartments Mid Rise	—	0%
Strip Mall	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2021	0.00	690	0.05	0.01
2022	0.00	690	0.05	0.01
2023	0.00	690	0.05	0.01
2024	0.00	690	0.05	0.01

2025	0.00	690	0.05	0.01
2026	0.00	690	0.05	0.01
2027	0.00	690	0.05	0.01
2028	0.00	690	0.05	0.01
2029	0.00	690	0.05	0.01
2030	0.00	690	0.05	0.01
2031	0.00	690	0.05	0.01
2032	0.00	690	0.05	0.01
2033	0.00	690	0.05	0.01
2034	0.00	690	0.05	0.01
2035	0.00	690	0.05	0.01
2036	0.00	690	0.05	0.01

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	39,285	39,285	39,285	14,339,081	312,242	312,242	312,242	113,968,333

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	1811

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	201
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
3911328	1,303,776	7,980,590	2,660,197	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Industrial Park	64,504,827	690	0.0489	0.0069	81,363,690
Government Office Building	5,933,252	690	0.0489	0.0069	7,483,956
Apartments Mid Rise	6,606,389	690	0.0489	0.0069	19,969,822
Strip Mall	8,944,165	690	0.0489	0.0069	4,423,460

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Industrial Park	936,331,250	0.00
Government Office Building	74,100,063	0.00
Apartments Mid Rise	74,994,886	0.00
Strip Mall	66,591,197	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Industrial Park	5,022	0.00
Government Office Building	347	0.00
Apartments Mid Rise	503	0.00
Strip Mall	944	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0
Government Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Government Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00

Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	12.3	annual days of extreme heat
Extreme Precipitation	6.65	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A

Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	59.7
AQ-PM	94.7
AQ-DPM	94.2
Drinking Water	92.5
Lead Risk Housing	84.4
Pesticides	0.00
Toxic Releases	77.5
Traffic	92.5
Effect Indicators	—

CleanUp Sites	95.1
Groundwater	83.8
Haz Waste Facilities/Generators	98.7
Impaired Water Bodies	72.2
Solid Waste	37.6
Sensitive Population	—
Asthma	65.0
Cardio-vascular	24.0
Low Birth Weights	83.8
Socioeconomic Factor Indicators	—
Education	85.3
Housing	91.6
Linguistic	90.6
Poverty	85.3
Unemployment	26.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	9.585525472
Employed	65.58449891
Median HI	7.25009624
Education	—
Bachelor's or higher	38.73989478
High school enrollment	100
Preschool enrollment	60.4901835

Transportation	—
Auto Access	12.42140382
Active commuting	91.06890799
Social	—
2-parent households	56.61491082
Voting	0.795585782
Neighborhood	—
Alcohol availability	4.516874118
Park access	81.35506224
Retail density	87.09097908
Supermarket access	64.42961632
Tree canopy	39.67663288
Housing	—
Homeownership	8.443474913
Housing habitability	3.708456307
Low-inc homeowner severe housing cost burden	2.065956628
Low-inc renter severe housing cost burden	15.78339535
Uncrowded housing	18.58077762
Health Outcomes	—
Insured adults	12.03644296
Arthritis	48.2
Asthma ER Admissions	50.6
High Blood Pressure	37.6
Cancer (excluding skin)	82.6
Asthma	32.2
Coronary Heart Disease	21.3
Chronic Obstructive Pulmonary Disease	22.0

Diagnosed Diabetes	8.1
Life Expectancy at Birth	79.3
Cognitively Disabled	18.3
Physically Disabled	14.9
Heart Attack ER Admissions	76.9
Mental Health Not Good	14.3
Chronic Kidney Disease	14.8
Obesity	21.5
Pedestrian Injuries	97.2
Physical Health Not Good	8.7
Stroke	19.7
Health Risk Behaviors	—
Binge Drinking	86.1
Current Smoker	14.6
No Leisure Time for Physical Activity	11.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	37.8
Elderly	48.0
English Speaking	8.3
Foreign-born	90.8
Outdoor Workers	22.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	8.5
Traffic Density	93.9
Traffic Access	87.4

Other Indices	—
Hardship	86.9
Other Decision Support	—
2016 Voting	22.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	97.0
Healthy Places Index Score for Project Location (b)	19.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Based on applicant provided information
Operations: Hearths	Based on SCAQMD Rule 445
Operations: Water and Waste Water	No septic tank onsite.

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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	CASP Update Operational No Project 2040
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	0.50
Precipitation (days)	8.60
Location	34.07091146379966, -118.22325217004024
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4031
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	12,773	Dwelling Unit	336	12,262,080	0.00	—	37,808	—
Strip Mall	3,878	1000sqft	89.0	3,877,426	0.00	—	—	—
Industrial Park	8,557	1000sqft	196	8,556,485	0.00	—	—	—

Government Office Building	487	1000sqft	11.2	846,246	0.00	—	—	—
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1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	40.3	141	723	0.82	1.37	217	218	1.26	52.2	53.2	—	276,840	276,840	5.31	15.1	601	282,059
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	39.9	152	623	0.82	1.37	217	218	1.26	52.2	53.2	—	267,739	267,739	5.63	20.9	15.6	274,119
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	27.2	101	439	0.59	0.89	155	155	0.82	37.2	37.9	—	189,510	189,510	4.03	14.4	168	194,066
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.97	18.4	80.1	0.11	0.16	28.2	28.4	0.15	6.78	6.91	—	31,375	31,375	0.67	2.38	27.8	32,130

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.91	27.4	24.7	0.03	1.20	0.20	1.40	1.10	0.05	1.15	—	3,642	3,642	0.15	0.04	0.92	3,657
2024	2.68	25.0	22.9	0.03	1.06	0.20	1.26	0.98	0.05	1.02	—	3,637	3,637	0.15	0.03	0.84	3,652
2025	3.39	31.7	31.4	0.05	1.37	19.9	21.3	1.26	10.2	11.4	—	5,537	5,537	0.23	0.05	0.89	5,559
2026	3.21	29.2	29.9	0.05	1.24	19.9	21.1	1.14	10.2	11.3	—	5,535	5,535	0.22	0.05	0.80	5,557
2027	3.11	28.0	29.3	0.06	1.17	19.9	21.1	1.08	10.2	11.2	—	6,864	6,864	0.28	0.06	0.83	6,890
2028	2.95	24.4	28.3	0.06	0.99	9.47	10.5	0.91	3.72	4.62	—	6,859	6,859	0.27	0.06	0.74	6,886
2029	2.86	22.8	27.9	0.06	0.92	9.47	10.4	0.84	3.72	4.56	—	6,853	6,853	0.27	0.06	0.67	6,879
2030	2.78	21.7	27.8	0.06	0.88	9.47	10.3	0.81	3.72	4.53	—	6,848	6,848	0.27	0.06	0.59	6,875
2031	40.3	141	723	0.82	1.04	217	218	1.02	52.2	53.2	—	276,840	276,840	5.31	15.1	601	282,059
2032	38.7	131	682	0.82	1.02	217	218	1.00	52.2	53.2	—	271,163	271,163	5.31	14.3	544	276,088
2033	37.4	127	647	0.82	1.00	217	218	0.98	52.2	53.2	—	265,667	265,667	5.31	14.3	494	270,542
2034	35.9	117	613	0.82	0.99	217	218	0.97	52.2	53.2	—	260,528	260,528	4.52	13.5	447	265,099
2035	34.9	114	585	0.82	0.98	217	218	0.96	52.2	53.2	—	255,763	255,763	4.12	13.5	307	260,184
2036	34.2	111	558	0.82	0.97	217	218	0.95	52.2	53.1	—	251,513	251,513	4.12	12.7	264	255,654
2037	32.9	109	537	0.82	0.95	217	218	0.94	52.2	53.1	—	247,619	247,619	4.12	12.7	225	251,720
2038	31.9	106	522	0.82	0.95	217	218	0.94	52.2	53.1	—	244,361	244,361	4.04	11.9	191	248,189
2039	31.3	98.4	507	0.82	0.94	217	218	0.93	52.2	53.1	—	241,266	241,266	4.04	11.9	162	245,066
2040	30.0	97.3	494	0.82	0.94	217	218	0.93	52.2	53.1	—	238,511	238,511	3.73	11.9	137	242,277
2041	23.3	95.1	480	0.82	0.93	217	218	0.92	52.2	53.1	—	236,075	236,075	3.65	11.6	115	239,724
2042	22.7	94.1	466	0.82	0.93	217	218	0.92	52.2	53.1	—	233,923	233,923	3.65	10.8	97.7	237,317
2043	22.1	93.1	459	0.82	0.93	217	218	0.92	52.2	53.1	—	232,031	232,031	3.65	10.8	82.7	235,410
2044	22.1	91.7	452	0.82	0.92	217	218	0.91	52.2	53.1	—	230,390	230,390	3.65	10.8	70.2	233,757
2045	21.0	90.8	451	0.82	0.92	217	218	0.91	52.2	53.1	—	228,955	228,955	2.78	10.8	59.6	232,289
2046	20.7	90.7	444	0.82	0.91	217	218	0.90	52.2	53.1	—	227,719	227,719	2.78	10.8	50.7	231,044
2047	20.4	89.7	444	0.82	0.91	217	218	0.90	52.2	53.1	—	226,663	226,663	2.78	10.8	43.2	229,981

2048	20.3	89.6	443	0.82	0.91	217	218	0.90	52.2	53.1	—	225,782	225,782	2.70	10.8	37.2	229,092
2049	20.3	89.5	442	0.82	0.91	217	218	0.90	52.2	53.1	—	225,037	225,037	2.70	10.8	32.1	228,341
2050	20.3	88.7	442	0.82	0.90	217	218	0.90	52.2	53.1	—	224,407	224,407	2.70	9.96	27.9	227,470
2051	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2052	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2053	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2054	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2055	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2056	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2057	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2058	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2059	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2060	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2061	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2062	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2063	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2064	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2065	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2066	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2067	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2068	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2069	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2070	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2071	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2072	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2073	0.00	—	—	—	—	0.18	0.18	—	0.05	0.05	—	0.00	0.00	0.00	0.00	—	0.00
2074	0.00	—	—	—	—	0.18	0.18	—	0.05	0.05	—	0.00	0.00	0.00	0.00	—	0.00

2075	0.00	—	—	—	—	0.18	0.18	—	0.05	0.05	—	0.00	0.00	0.00	0.00	—	0.00
2076	0.00	—	—	—	—	35.1	35.1	—	8.76	8.76	—	0.00	0.00	0.00	0.00	—	0.00
2077	0.00	—	—	—	—	35.1	35.1	—	8.76	8.76	—	0.00	0.00	0.00	0.00	—	0.00
2078	0.00	—	—	—	—	35.1	35.1	—	8.76	8.76	—	0.00	0.00	0.00	0.00	—	0.00
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.91	27.4	24.5	0.03	1.20	0.20	1.40	1.10	0.05	1.15	—	3,630	3,630	0.15	0.04	0.02	3,645
2024	2.68	25.0	22.7	0.03	1.06	0.20	1.26	0.98	0.05	1.02	—	3,626	3,626	0.15	0.04	0.02	3,640
2025	3.38	31.7	31.2	0.05	1.37	19.9	21.3	1.26	10.2	11.4	—	5,525	5,525	0.23	0.05	0.02	5,546
2026	3.21	29.2	29.8	0.05	1.24	19.9	21.1	1.14	10.2	11.3	—	5,523	5,523	0.23	0.05	0.02	5,544
2027	3.11	28.0	29.2	0.06	1.17	19.9	21.1	1.08	10.2	11.2	—	6,850	6,850	0.27	0.06	0.02	6,876
2028	2.95	24.4	28.1	0.06	0.99	9.47	10.5	0.91	3.72	4.62	—	6,846	6,846	0.27	0.06	0.02	6,871
2029	2.86	22.8	27.8	0.06	0.92	9.47	10.4	0.84	3.72	4.56	—	6,839	6,839	0.27	0.06	0.02	6,865
2030	2.78	21.7	27.7	0.06	0.88	9.47	10.3	0.81	3.72	4.53	—	6,835	6,835	0.27	0.06	0.02	6,861
2031	39.9	152	623	0.82	1.04	217	218	1.02	52.2	53.2	—	267,739	267,739	5.63	20.9	15.6	274,119
2032	38.3	141	587	0.82	1.02	217	218	1.00	52.2	53.2	—	262,197	262,197	5.63	14.3	14.1	266,600
2033	36.7	131	557	0.82	1.00	217	218	0.98	52.2	53.2	—	256,835	256,835	5.31	14.3	12.8	261,229
2034	35.4	127	527	0.82	0.99	217	218	0.97	52.2	53.2	—	251,807	251,807	4.52	13.5	11.6	255,943
2035	34.4	124	505	0.82	0.98	217	218	0.96	52.2	53.2	—	247,141	247,141	4.44	13.5	7.95	251,271
2036	34.1	115	483	0.82	0.97	217	218	0.95	52.2	53.1	—	242,979	242,979	4.44	12.7	6.82	246,870
2037	33.1	113	462	0.82	0.95	217	218	0.94	52.2	53.1	—	239,159	239,159	4.12	12.7	5.83	243,041
2038	32.1	110	446	0.82	0.95	217	218	0.94	52.2	53.1	—	235,954	235,954	4.04	11.9	4.96	239,596
2039	31.1	108	431	0.82	0.94	217	218	0.93	52.2	53.1	—	232,919	232,919	4.04	11.9	4.19	236,560
2040	29.6	107	423	0.82	0.94	217	218	0.93	52.2	53.1	—	230,222	230,222	4.04	11.9	3.53	233,863
2041	23.1	99.2	415	0.82	0.93	217	218	0.92	52.2	53.1	—	227,833	227,833	3.97	11.9	2.99	231,472
2042	22.1	98.2	401	0.82	0.93	217	218	0.92	52.2	53.1	—	225,722	225,722	3.97	11.1	2.54	229,123
2043	22.2	96.9	394	0.82	0.93	217	218	0.92	52.2	53.1	—	223,871	223,871	3.97	11.1	2.15	227,271

2044	21.6	96.0	392	0.82	0.92	217	218	0.91	52.2	53.1	—	222,261	222,261	3.57	11.1	1.82	225,651
2045	20.9	95.0	385	0.82	0.92	217	218	0.91	52.2	53.1	—	220,855	220,855	2.78	11.1	1.54	224,225
2046	20.5	94.8	384	0.82	0.91	217	218	0.90	52.2	53.1	—	219,643	219,643	2.78	11.1	1.31	223,013
2047	20.5	93.7	383	0.82	0.91	217	218	0.90	52.2	53.1	—	218,611	218,611	2.78	11.1	1.12	221,980
2048	20.1	93.5	376	0.82	0.91	217	218	0.90	52.2	53.1	—	217,748	217,748	2.70	11.1	0.96	221,115
2049	20.1	93.5	376	0.82	0.91	217	218	0.90	52.2	53.1	—	217,015	217,015	2.70	11.1	0.83	220,382
2050	20.1	92.7	376	0.82	0.90	217	218	0.90	52.2	53.1	—	216,398	216,398	2.70	10.3	0.72	219,527
2051	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2052	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2053	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2054	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2055	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2056	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2057	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2058	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2059	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2060	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2061	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2062	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2063	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2064	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2065	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2066	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2067	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2068	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2069	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2070	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00

2071	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2072	—	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2073	0.00	—	—	—	—	199	199	—	49.8	49.8	—	0.00	0.00	0.00	0.00	—	0.00
2074	0.00	—	—	—	—	0.18	0.18	—	0.05	0.05	—	0.00	0.00	0.00	0.00	—	0.00
2075	0.00	—	—	—	—	0.18	0.18	—	0.05	0.05	—	0.00	0.00	0.00	0.00	—	0.00
2076	0.00	—	—	—	—	35.1	35.1	—	8.76	8.76	—	0.00	0.00	0.00	0.00	—	0.00
2077	0.00	—	—	—	—	35.1	35.1	—	8.76	8.76	—	0.00	0.00	0.00	0.00	—	0.00
2078	0.00	—	—	—	—	35.1	35.1	—	8.76	8.76	—	0.00	0.00	0.00	0.00	—	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.08	19.6	17.6	0.02	0.86	0.14	1.00	0.79	0.03	0.82	—	2,595	2,595	0.11	0.03	0.28	2,606
2024	1.92	17.9	16.3	0.02	0.76	0.14	0.90	0.70	0.03	0.73	—	2,599	2,599	0.11	0.03	0.26	2,610
2025	1.97	18.0	17.2	0.03	0.76	4.57	5.33	0.70	2.31	3.00	—	3,017	3,017	0.12	0.03	0.25	3,029
2026	2.29	20.9	21.3	0.03	0.89	14.2	15.1	0.82	7.25	8.07	—	3,947	3,947	0.16	0.04	0.25	3,962
2027	2.17	18.8	20.4	0.04	0.77	8.98	9.76	0.71	4.03	4.74	—	4,611	4,611	0.18	0.04	0.25	4,629
2028	2.11	17.5	20.2	0.04	0.71	6.78	7.48	0.65	2.66	3.31	—	4,906	4,906	0.19	0.05	0.23	4,924
2029	2.04	16.3	19.9	0.04	0.65	6.76	7.41	0.60	2.65	3.26	—	4,888	4,888	0.19	0.04	0.21	4,906
2030	1.99	15.5	19.8	0.04	0.63	6.76	7.39	0.58	2.65	3.23	—	4,885	4,885	0.19	0.04	0.18	4,903
2031	16.3	65.4	259	0.34	0.68	86.4	87.1	0.65	21.2	21.9	—	106,404	106,404	2.26	8.07	100	108,966
2032	27.2	101	439	0.59	0.73	155	155	0.72	37.2	37.9	—	189,510	189,510	4.03	14.4	168	194,066
2033	26.2	98.0	417	0.59	0.71	154	155	0.70	37.1	37.8	—	185,137	185,137	3.79	10.2	152	188,418
2034	25.1	90.9	391	0.59	0.71	154	155	0.70	37.1	37.8	—	181,524	181,524	3.23	9.61	138	184,608
2035	24.6	88.5	375	0.59	0.70	154	155	0.69	37.1	37.8	—	178,174	178,174	3.17	9.61	94.4	181,212
2036	24.2	82.5	361	0.59	0.69	155	155	0.68	37.2	37.9	—	175,660	175,660	3.18	9.07	81.5	178,523
2037	23.4	80.6	345	0.59	0.68	154	155	0.67	37.1	37.7	—	172,439	172,439	2.94	9.05	69.3	175,277
2038	22.8	78.6	333	0.59	0.68	154	155	0.67	37.1	37.7	—	170,141	170,141	2.89	8.48	59.0	172,798
2039	22.1	77.5	323	0.59	0.67	154	155	0.66	37.1	37.7	—	167,956	167,956	2.89	8.48	49.8	170,604
2040	21.2	76.4	318	0.59	0.67	155	155	0.66	37.2	37.8	—	166,476	166,476	2.90	8.50	42.2	169,123

2041	16.4	70.6	307	0.59	0.67	154	155	0.66	37.1	37.7	—	164,306	164,306	2.83	8.48	35.6	166,938
2042	15.9	69.7	302	0.59	0.66	154	155	0.66	37.1	37.7	—	162,789	162,789	2.83	7.91	30.1	165,247
2043	15.9	69.0	296	0.59	0.66	154	155	0.65	37.1	37.7	—	161,459	161,459	2.61	7.91	25.5	163,906
2044	15.5	68.5	292	0.59	0.66	155	155	0.65	37.2	37.8	—	160,743	160,743	2.62	7.93	21.7	163,193
2045	15.0	67.4	290	0.59	0.65	154	155	0.65	37.1	37.7	—	159,295	159,295	1.98	7.91	18.4	161,720
2046	14.7	67.3	285	0.59	0.65	154	155	0.65	37.1	37.7	—	158,425	158,425	1.98	7.91	15.6	160,847
2047	14.5	66.6	285	0.59	0.65	154	155	0.64	37.1	37.7	—	157,679	157,679	1.98	7.68	13.3	160,031
2048	14.5	66.7	285	0.59	0.65	155	155	0.64	37.2	37.8	—	157,493	157,493	1.93	7.70	11.5	159,848
2049	14.4	66.5	284	0.59	0.65	154	155	0.64	37.1	37.7	—	156,534	156,534	1.93	7.68	9.92	158,882
2050	14.4	65.9	284	0.59	0.65	154	155	0.64	37.1	37.7	—	156,093	156,093	1.93	7.11	8.57	158,270
2051	—	—	—	—	—	141	141	—	35.4	35.4	—	0.00	0.00	0.00	0.00	—	0.00
2052	—	—	—	—	—	142	142	—	35.5	35.5	—	0.00	0.00	0.00	0.00	—	0.00
2053	—	—	—	—	—	141	141	—	35.4	35.4	—	0.00	0.00	0.00	0.00	—	0.00
2054	—	—	—	—	—	141	141	—	35.4	35.4	—	0.00	0.00	0.00	0.00	—	0.00
2055	—	—	—	—	—	141	141	—	35.4	35.4	—	0.00	0.00	0.00	0.00	—	0.00
2056	—	—	—	—	—	142	142	—	35.5	35.5	—	0.00	0.00	0.00	0.00	—	0.00
2057	—	—	—	—	—	141	141	—	35.4	35.4	—	0.00	0.00	0.00	0.00	—	0.00
2058	—	—	—	—	—	141	141	—	35.4	35.4	—	0.00	0.00	0.00	0.00	—	0.00
2059	—	—	—	—	—	141	141	—	35.4	35.4	—	0.00	0.00	0.00	0.00	—	0.00
2060	—	—	—	—	—	142	142	—	35.5	35.5	—	0.00	0.00	0.00	0.00	—	0.00
2061	—	—	—	—	—	141	141	—	35.4	35.4	—	0.00	0.00	0.00	0.00	—	0.00
2062	—	—	—	—	—	141	141	—	35.4	35.4	—	0.00	0.00	0.00	0.00	—	0.00
2063	—	—	—	—	—	141	141	—	35.4	35.4	—	0.00	0.00	0.00	0.00	—	0.00
2064	—	—	—	—	—	142	142	—	35.5	35.5	—	0.00	0.00	0.00	0.00	—	0.00
2065	—	—	—	—	—	141	141	—	35.4	35.4	—	0.00	0.00	0.00	0.00	—	0.00
2066	—	—	—	—	—	141	141	—	35.4	35.4	—	0.00	0.00	0.00	0.00	—	0.00
2067	—	—	—	—	—	141	141	—	35.4	35.4	—	0.00	0.00	0.00	0.00	—	0.00

2068	—	—	—	—	—	142	142	—	35.5	35.5	—	0.00	0.00	0.00	0.00	—	0.00
2069	—	—	—	—	—	141	141	—	35.4	35.4	—	0.00	0.00	0.00	0.00	—	0.00
2070	—	—	—	—	—	141	141	—	35.4	35.4	—	0.00	0.00	0.00	0.00	—	0.00
2071	—	—	—	—	—	141	141	—	35.4	35.4	—	0.00	0.00	0.00	0.00	—	0.00
2072	—	—	—	—	—	142	142	—	35.5	35.5	—	0.00	0.00	0.00	0.00	—	0.00
2073	0.00	—	—	—	—	7.10	7.10	—	1.77	1.77	—	0.00	0.00	0.00	0.00	—	0.00
2074	0.00	—	—	—	—	0.13	0.13	—	0.03	0.03	—	0.00	0.00	0.00	0.00	—	0.00
2075	0.00	—	—	—	—	0.13	0.13	—	0.03	0.03	—	0.00	0.00	0.00	0.00	—	0.00
2076	0.00	—	—	—	—	24.8	24.8	—	6.21	6.21	—	0.00	0.00	0.00	0.00	—	0.00
2077	0.00	—	—	—	—	24.9	24.9	—	6.22	6.22	—	0.00	0.00	0.00	0.00	—	0.00
2078	0.00	—	—	—	—	23.9	23.9	—	5.97	5.97	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.38	3.58	3.20	< 0.005	0.16	0.03	0.18	0.14	0.01	0.15	—	430	430	0.02	< 0.005	0.05	431
2024	0.35	3.26	2.97	< 0.005	0.14	0.03	0.16	0.13	0.01	0.13	—	430	430	0.02	< 0.005	0.04	432
2025	0.36	3.29	3.15	< 0.005	0.14	0.83	0.97	0.13	0.42	0.55	—	500	500	0.02	< 0.005	0.04	502
2026	0.42	3.81	3.89	0.01	0.16	2.59	2.75	0.15	1.32	1.47	—	653	653	0.03	0.01	0.04	656
2027	0.40	3.44	3.73	0.01	0.14	1.64	1.78	0.13	0.73	0.86	—	763	763	0.03	0.01	0.04	766
2028	0.39	3.19	3.68	0.01	0.13	1.24	1.37	0.12	0.49	0.60	—	812	812	0.03	0.01	0.04	815
2029	0.37	2.97	3.62	0.01	0.12	1.23	1.35	0.11	0.48	0.59	—	809	809	0.03	0.01	0.03	812
2030	0.36	2.83	3.61	0.01	0.12	1.23	1.35	0.11	0.48	0.59	—	809	809	0.03	0.01	0.03	812
2031	2.97	11.9	47.3	0.06	0.12	15.8	15.9	0.12	3.87	3.99	—	17,616	17,616	0.37	1.34	16.6	18,041
2032	4.97	18.4	80.1	0.11	0.13	28.2	28.4	0.13	6.78	6.91	—	31,375	31,375	0.67	2.38	27.8	32,130
2033	4.79	17.9	76.0	0.11	0.13	28.2	28.3	0.13	6.77	6.89	—	30,651	30,651	0.63	1.69	25.2	31,195
2034	4.58	16.6	71.4	0.11	0.13	28.2	28.3	0.13	6.77	6.89	—	30,053	30,053	0.53	1.59	22.9	30,564
2035	4.50	16.2	68.5	0.11	0.13	28.2	28.3	0.13	6.77	6.89	—	29,499	29,499	0.52	1.59	15.6	30,002
2036	4.43	15.1	65.9	0.11	0.13	28.2	28.4	0.12	6.78	6.91	—	29,082	29,082	0.53	1.50	13.5	29,557
2037	4.28	14.7	62.9	0.11	0.12	28.2	28.3	0.12	6.77	6.89	—	28,549	28,549	0.49	1.50	11.5	29,019

2038	4.15	14.3	60.9	0.11	0.12	28.2	28.3	0.12	6.77	6.89	—	28,169	28,169	0.48	1.40	9.76	28,609
2039	4.03	14.2	58.9	0.11	0.12	28.2	28.3	0.12	6.77	6.89	—	27,807	27,807	0.48	1.40	8.25	28,245
2040	3.87	13.9	58.1	0.11	0.12	28.2	28.4	0.12	6.78	6.90	—	27,562	27,562	0.48	1.41	6.99	28,000
2041	2.99	12.9	56.1	0.11	0.12	28.2	28.3	0.12	6.77	6.89	—	27,203	27,203	0.47	1.40	5.89	27,639
2042	2.91	12.7	55.0	0.11	0.12	28.2	28.3	0.12	6.77	6.89	—	26,952	26,952	0.47	1.31	4.99	27,358
2043	2.91	12.6	54.1	0.11	0.12	28.2	28.3	0.12	6.77	6.88	—	26,731	26,731	0.43	1.31	4.23	27,136
2044	2.83	12.5	53.2	0.11	0.12	28.2	28.4	0.12	6.78	6.90	—	26,613	26,613	0.43	1.31	3.59	27,018
2045	2.73	12.3	53.0	0.11	0.12	28.2	28.3	0.12	6.77	6.88	—	26,373	26,373	0.33	1.31	3.04	26,775
2046	2.69	12.3	52.0	0.11	0.12	28.2	28.3	0.12	6.77	6.88	—	26,229	26,229	0.33	1.31	2.59	26,630
2047	2.65	12.2	52.0	0.11	0.12	28.2	28.3	0.12	6.77	6.88	—	26,106	26,106	0.33	1.27	2.20	26,495
2048	2.64	12.2	52.0	0.11	0.12	28.2	28.4	0.12	6.78	6.90	—	26,075	26,075	0.32	1.28	1.90	26,465
2049	2.64	12.1	51.8	0.11	0.12	28.2	28.3	0.12	6.77	6.88	—	25,916	25,916	0.32	1.27	1.64	26,305
2050	2.64	12.0	51.8	0.11	0.12	28.2	28.3	0.12	6.77	6.88	—	25,843	25,843	0.32	1.18	1.42	26,203
2051	—	—	—	—	—	25.8	25.8	—	6.45	6.45	—	0.00	0.00	0.00	0.00	—	0.00
2052	—	—	—	—	—	25.9	25.9	—	6.47	6.47	—	0.00	0.00	0.00	0.00	—	0.00
2053	—	—	—	—	—	25.8	25.8	—	6.45	6.45	—	0.00	0.00	0.00	0.00	—	0.00
2054	—	—	—	—	—	25.8	25.8	—	6.45	6.45	—	0.00	0.00	0.00	0.00	—	0.00
2055	—	—	—	—	—	25.8	25.8	—	6.45	6.45	—	0.00	0.00	0.00	0.00	—	0.00
2056	—	—	—	—	—	25.9	25.9	—	6.47	6.47	—	0.00	0.00	0.00	0.00	—	0.00
2057	—	—	—	—	—	25.8	25.8	—	6.45	6.45	—	0.00	0.00	0.00	0.00	—	0.00
2058	—	—	—	—	—	25.8	25.8	—	6.45	6.45	—	0.00	0.00	0.00	0.00	—	0.00
2059	—	—	—	—	—	25.8	25.8	—	6.45	6.45	—	0.00	0.00	0.00	0.00	—	0.00
2060	—	—	—	—	—	25.9	25.9	—	6.47	6.47	—	0.00	0.00	0.00	0.00	—	0.00
2061	—	—	—	—	—	25.8	25.8	—	6.45	6.45	—	0.00	0.00	0.00	0.00	—	0.00
2062	—	—	—	—	—	25.8	25.8	—	6.45	6.45	—	0.00	0.00	0.00	0.00	—	0.00
2063	—	—	—	—	—	25.8	25.8	—	6.45	6.45	—	0.00	0.00	0.00	0.00	—	0.00
2064	—	—	—	—	—	25.9	25.9	—	6.47	6.47	—	0.00	0.00	0.00	0.00	—	0.00

2065	—	—	—	—	—	25.8	25.8	—	6.45	6.45	—	0.00	0.00	0.00	0.00	—	0.00
2066	—	—	—	—	—	25.8	25.8	—	6.45	6.45	—	0.00	0.00	0.00	0.00	—	0.00
2067	—	—	—	—	—	25.8	25.8	—	6.45	6.45	—	0.00	0.00	0.00	0.00	—	0.00
2068	—	—	—	—	—	25.9	25.9	—	6.47	6.47	—	0.00	0.00	0.00	0.00	—	0.00
2069	—	—	—	—	—	25.8	25.8	—	6.45	6.45	—	0.00	0.00	0.00	0.00	—	0.00
2070	—	—	—	—	—	25.8	25.8	—	6.45	6.45	—	0.00	0.00	0.00	0.00	—	0.00
2071	—	—	—	—	—	25.8	25.8	—	6.45	6.45	—	0.00	0.00	0.00	0.00	—	0.00
2072	—	—	—	—	—	25.9	25.9	—	6.47	6.47	—	0.00	0.00	0.00	0.00	—	0.00
2073	0.00	—	—	—	—	1.30	1.30	—	0.32	0.32	—	0.00	0.00	0.00	0.00	—	0.00
2074	0.00	—	—	—	—	0.02	0.02	—	0.01	0.01	—	0.00	0.00	0.00	0.00	—	0.00
2075	0.00	—	—	—	—	0.02	0.02	—	0.01	0.01	—	0.00	0.00	0.00	0.00	—	0.00
2076	0.00	—	—	—	—	4.53	4.53	—	1.13	1.13	—	0.00	0.00	0.00	0.00	—	0.00
2077	0.00	—	—	—	—	4.54	4.54	—	1.14	1.14	—	0.00	0.00	0.00	0.00	—	0.00
2078	0.00	—	—	—	—	4.36	4.36	—	1.09	1.09	—	0.00	0.00	0.00	0.00	—	0.00

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1,037	544	3,436	7.72	34.2	223	257	34.4	39.7	74.1	19,685	1,497,212	1,516,897	1,550	40.2	2,629	1,570,254
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	879	546	1,998	7.44	33.2	223	256	33.1	39.7	72.8	19,685	1,471,156	1,490,841	1,551	41.1	2,349	1,544,215
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	968	276	2,814	5.77	11.4	223	234	11.5	39.7	51.2	19,685	1,126,273	1,145,958	1,544	40.5	2,466	1,199,096
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	177	50.3	514	1.05	2.08	40.7	42.8	2.09	7.25	9.34	3,259	186,467	189,726	256	6.71	408	198,524

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	256	146	1,942	5.21	2.19	223	225	2.04	39.7	41.8	—	531,475	531,475	21.6	20.4	288	538,389
Area	777	311	1,433	1.98	25.2	—	25.2	25.5	—	25.5	0.00	384,001	384,001	7.33	0.75	—	384,408
Energy	4.95	87.9	60.6	0.54	6.83	—	6.83	6.83	—	6.83	—	542,946	542,946	40.4	4.56	—	545,312
Water	—	—	—	—	—	—	—	—	—	—	6,438	38,790	45,228	157	14.5	—	53,455
Waste	—	—	—	—	—	—	—	—	—	—	13,247	0.00	13,247	1,324	0.00	—	46,348
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,341	2,341
Total	1,037	544	3,436	7.72	34.2	223	257	34.4	39.7	74.1	19,685	1,497,212	1,516,897	1,550	40.2	2,629	1,570,254
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	255	159	1,810	4.99	2.19	223	225	2.05	39.7	41.8	—	509,732	509,732	22.4	21.4	7.47	516,678
Area	619	299	127	1.91	24.2	—	24.2	24.2	—	24.2	0.00	379,688	379,688	7.15	0.71	—	380,080
Energy	4.95	87.9	60.6	0.54	6.83	—	6.83	6.83	—	6.83	—	542,946	542,946	40.4	4.56	—	545,312
Water	—	—	—	—	—	—	—	—	—	—	6,438	38,790	45,228	157	14.5	—	53,455
Waste	—	—	—	—	—	—	—	—	—	—	13,247	0.00	13,247	1,324	0.00	—	46,348
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,341	2,341
Total	879	546	1,998	7.44	33.2	223	256	33.1	39.7	72.8	19,685	1,471,156	1,490,841	1,551	41.1	2,349	1,544,215

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	253	159	1,851	5.05	2.19	223	225	2.04	39.7	41.8	—	515,577	515,577	22.3	21.4	124	522,642
Area	711	28.4	903	0.18	2.36	—	2.36	2.58	—	2.58	0.00	28,960	28,960	0.61	0.07	—	28,997
Energy	4.95	87.9	60.6	0.54	6.83	—	6.83	6.83	—	6.83	—	542,946	542,946	40.4	4.56	—	545,312
Water	—	—	—	—	—	—	—	—	—	—	6,438	38,790	45,228	157	14.5	—	53,455
Waste	—	—	—	—	—	—	—	—	—	—	13,247	0.00	13,247	1,324	0.00	—	46,348
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,341	2,341
Total	968	276	2,814	5.77	11.4	223	234	11.5	39.7	51.2	19,685	1,126,273	1,145,958	1,544	40.5	2,466	1,199,096
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	46.1	29.1	338	0.92	0.40	40.7	41.1	0.37	7.25	7.62	—	85,360	85,360	3.69	3.55	20.6	86,529
Area	130	5.18	165	0.03	0.43	—	0.43	0.47	—	0.47	0.00	4,795	4,795	0.10	0.01	—	4,801
Energy	0.90	16.0	11.1	0.10	1.25	—	1.25	1.25	—	1.25	—	89,891	89,891	6.68	0.75	—	90,283
Water	—	—	—	—	—	—	—	—	—	—	1,066	6,422	7,488	26.0	2.39	—	8,850
Waste	—	—	—	—	—	—	—	—	—	—	2,193	0.00	2,193	219	0.00	—	7,674
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	388	388
Total	177	50.3	514	1.05	2.08	40.7	42.8	2.09	7.25	9.34	3,259	186,467	189,726	256	6.71	408	198,524

3. Construction Emissions Details

3.1. Demolition (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.84	27.3	23.5	0.03	1.20	—	1.20	1.10	—	1.10	—	3,425	3,425	0.14	0.03	—	3,437

Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.84	27.3	23.5	0.03	1.20	—	1.20	1.10	—	1.10	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.03	19.5	16.8	0.02	0.86	—	0.86	0.79	—	0.79	—	2,447	2,447	0.10	0.02	—	2,455
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	3.56	3.06	< 0.005	0.16	—	0.16	0.14	—	0.14	—	405	405	0.02	< 0.005	—	406
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.08	1.23	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	217	217	0.01	0.01	0.92	220
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.09	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	205	205	0.01	0.01	0.02	208
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.07	0.78	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	149	149	0.01	0.01	0.28	151
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	24.6	24.6	< 0.005	< 0.005	0.05	25.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.87	17.8	15.6	0.02	0.76	—	0.76	0.70	—	0.70	—	2,453	2,453	0.10	0.02	—	2,462
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	3.25	2.84	< 0.005	0.14	—	0.14	0.13	—	0.13	—	406	406	0.02	< 0.005	—	408
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	1.13	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	212	212	0.01	0.01	0.84	215
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.08	0.96	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	201	201	0.01	0.01	0.02	203
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.06	0.72	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	146	146	0.01	0.01	0.26	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	24.2	24.2	< 0.005	< 0.005	0.04	24.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.17	10.9	9.75	0.02	0.45	—	0.45	0.41	—	0.41	—	1,676	1,676	0.07	0.01	—	1,681
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	1.98	1.78	< 0.005	0.08	—	0.08	0.08	—	0.08	—	277	277	0.01	< 0.005	—	278
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	207	207	0.01	0.01	0.76	210
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	197	197	0.01	0.01	0.02	199
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.04	0.45	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	97.6	97.6	< 0.005	< 0.005	0.16	98.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.2	16.2	< 0.005	< 0.005	0.03	16.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	7.12	6.79	0.01	0.31	—	0.31	0.28	—	0.28	—	1,192	1,192	0.05	0.01	—	1,196
Dust From Material Movement	—	—	—	—	—	4.42	4.42	—	2.27	2.27	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.30	1.24	< 0.005	0.06	—	0.06	0.05	—	0.05	—	197	197	0.01	< 0.005	—	198
Dust From Material Movement	—	—	—	—	—	0.81	0.81	—	0.41	0.41	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	1.22	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	242	242	0.01	0.01	0.89	246

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.08	1.03	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	229	229	0.01	0.01	0.02	232
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.24	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	52.4	52.4	< 0.005	< 0.005	0.09	53.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.67	8.67	< 0.005	< 0.005	0.01	8.79
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316

Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.25	20.8	20.6	0.03	0.89	—	0.89	0.82	—	0.82	—	3,784	3,784	0.15	0.03	—	3,797
Dust From Material Movement	—	—	—	—	—	14.0	14.0	—	7.22	7.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41	3.80	3.76	0.01	0.16	—	0.16	0.15	—	0.15	—	627	627	0.03	0.01	—	629
Dust From Material Movement	—	—	—	—	—	2.56	2.56	—	1.32	1.32	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	1.13	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	237	237	0.01	0.01	0.80	241
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.08	0.96	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	225	225	0.01	0.01	0.02	228
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.06	0.72	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	163	163	0.01	0.01	0.25	165
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.0	27.0	< 0.005	< 0.005	0.04	27.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Site Preparation (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	3.05	28.0	28.3	0.05	1.17	—	1.17	1.08	—	1.08	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.05	28.0	28.3	0.05	1.17	—	1.17	1.08	—	1.08	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	5.97	6.03	0.01	0.25	—	0.25	0.23	—	0.23	—	1,130	1,130	0.05	0.01	—	1,134
Dust From Material Movement	—	—	—	—	—	4.19	4.19	—	2.15	2.15	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.09	1.10	< 0.005	0.05	—	0.05	0.04	—	0.04	—	187	187	0.01	< 0.005	—	188
Dust From Material Movement	—	—	—	—	—	0.77	0.77	—	0.39	0.39	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	1.05	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	233	233	0.01	0.01	0.72	236
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.08	0.89	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	220	220	< 0.005	0.01	0.02	223
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.02	0.20	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	47.7	47.7	< 0.005	< 0.005	0.07	48.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.90	7.90	< 0.005	< 0.005	0.01	8.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Grading (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.95	25.6	27.3	0.06	1.04	—	1.04	0.96	—	0.96	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.95	25.6	27.3	0.06	1.04	—	1.04	0.96	—	0.96	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.48	12.8	13.7	0.03	0.52	—	0.52	0.48	—	0.48	—	3,305	3,305	0.13	0.03	—	3,317
Dust From Material Movement	—	—	—	—	—	4.61	4.61	—	1.83	1.83	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	2.34	2.49	0.01	0.10	—	0.10	0.09	—	0.09	—	547	547	0.02	< 0.005	—	549

Dust From Material Movement	—	—	—	—	—	0.84	0.84	—	0.33	0.33	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	1.20	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	266	266	0.01	0.01	0.83	270
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.09	1.02	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	252	252	< 0.005	0.01	0.02	255
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.04	0.54	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	128	128	< 0.005	< 0.005	0.18	130
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.2	21.2	< 0.005	< 0.005	0.03	21.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Grading (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.88	24.3	27.2	0.06	0.99	—	0.99	0.91	—	0.91	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.88	24.3	27.2	0.06	0.99	—	0.99	0.91	—	0.91	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.06	17.4	19.5	0.04	0.71	—	0.71	0.65	—	0.65	—	4,726	4,726	0.19	0.04	—	4,742
Dust From Material Movement	—	—	—	—	—	6.59	6.59	—	2.62	2.62	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	3.18	3.55	0.01	0.13	—	0.13	0.12	—	0.12	—	782	782	0.03	0.01	—	785
Dust From Material Movement	—	—	—	—	—	1.20	1.20	—	0.48	0.48	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	1.13	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	261	261	< 0.005	0.01	0.74	265
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.08	0.96	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	247	247	< 0.005	0.01	0.02	250
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.06	0.72	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	180	180	< 0.005	0.01	0.23	182
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.8	29.8	< 0.005	< 0.005	0.04	30.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Grading (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.79	22.7	26.9	0.06	0.92	—	0.92	0.84	—	0.84	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.79	22.7	26.9	0.06	0.92	—	0.92	0.84	—	0.84	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.99	16.2	19.2	0.04	0.65	—	0.65	0.60	—	0.60	—	4,712	4,712	0.19	0.04	—	4,728
Dust From Material Movement	—	—	—	—	—	6.57	6.57	—	2.61	2.61	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	2.96	3.50	0.01	0.12	—	0.12	0.11	—	0.11	—	780	780	0.03	0.01	—	783
Dust From Material Movement	—	—	—	—	—	1.20	1.20	—	0.48	0.48	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	1.05	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	257	257	< 0.005	0.01	0.67	260
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	0.89	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	243	243	< 0.005	0.01	0.02	246
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.67	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	176	176	< 0.005	0.01	0.21	179
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.2	29.2	< 0.005	< 0.005	0.03	29.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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3.19. Grading (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.72	21.7	26.9	0.06	0.88	—	0.88	0.81	—	0.81	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.72	21.7	26.9	0.06	0.88	—	0.88	0.81	—	0.81	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.94	15.5	19.2	0.04	0.63	—	0.63	0.58	—	0.58	—	4,711	4,711	0.19	0.04	—	4,728

Dust From Material Movement	—	—	—	—	—	6.57	6.57	—	2.61	2.61	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	2.82	3.50	0.01	0.12	—	0.12	0.11	—	0.11	—	780	780	0.03	0.01	—	783
Dust From Material Movement	—	—	—	—	—	1.20	1.20	—	0.48	0.48	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.99	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	252	252	< 0.005	0.01	0.59	256
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.84	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	239	239	< 0.005	0.01	0.02	242
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.63	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	173	173	< 0.005	0.01	0.18	176
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.7	28.7	< 0.005	< 0.005	0.03	29.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Grading (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.66	20.6	26.6	0.06	0.86	—	0.86	0.79	—	0.79	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.66	20.6	26.6	0.06	0.86	—	0.86	0.79	—	0.79	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.87	6.79	8.74	0.02	0.28	—	0.28	0.26	—	0.26	—	2,169	2,169	0.09	0.02	—	2,176
Dust From Material Movement	—	—	—	—	—	3.03	3.03	—	1.20	1.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	1.24	1.60	< 0.005	0.05	—	0.05	0.05	—	0.05	—	359	359	0.01	< 0.005	—	360
Dust From Material Movement	—	—	—	—	—	0.55	0.55	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.93	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	249	249	< 0.005	< 0.005	0.53	250
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.06	0.79	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	236	236	< 0.005	0.01	0.01	239
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.27	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	78.7	78.7	< 0.005	< 0.005	0.07	79.7

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.01	13.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Building Construction (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	8.12	12.8	0.02	0.24	—	0.24	0.22	—	0.22	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	8.12	12.8	0.02	0.24	—	0.24	0.22	—	0.22	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	3.13	4.95	0.01	0.09	—	0.09	0.09	—	0.09	—	924	924	0.04	0.01	—	927
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.57	0.90	< 0.005	0.02	—	0.02	0.02	—	0.02	—	153	153	0.01	< 0.005	—	154
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	37.0	36.1	663	0.00	0.00	187	187	0.00	43.8	43.8	—	177,770	177,770	1.58	0.95	376	178,468
Vendor	2.36	96.8	47.4	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	96,673	96,673	3.64	14.1	224	101,186
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	36.7	42.6	562	0.00	0.00	187	187	0.00	43.8	43.8	—	168,600	168,600	1.89	6.78	9.76	170,677
Vendor	2.20	102	47.7	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	96,742	96,742	3.64	14.1	5.81	101,037
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	14.2	16.3	227	0.00	0.00	71.7	71.7	0.00	16.8	16.8	—	65,952	65,952	0.73	2.61	62.7	66,812
Vendor	0.88	39.2	18.5	0.31	0.31	11.6	11.9	0.31	3.21	3.52	—	37,280	37,280	1.40	5.43	37.3	38,971
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.58	2.97	41.4	0.00	0.00	13.1	13.1	0.00	3.06	3.06	—	10,919	10,919	0.12	0.43	10.4	11,061
Vendor	0.16	7.15	3.38	0.06	0.06	2.12	2.18	0.06	0.59	0.64	—	6,172	6,172	0.23	0.90	6.17	6,452
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.25. Building Construction (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90	7.87	12.8	0.02	0.22	—	0.22	0.21	—	0.21	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90	7.87	12.8	0.02	0.22	—	0.22	0.21	—	0.21	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	5.64	9.16	0.02	0.16	—	0.16	0.15	—	0.15	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.03	1.67	< 0.005	0.03	—	0.03	0.03	—	0.03	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	35.5	30.0	624	0.00	0.00	187	187	0.00	43.8	43.8	—	175,365	175,365	1.58	0.95	332	176,018
Vendor	2.36	93.1	45.6	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	93,402	93,402	3.64	13.3	212	97,665

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	35.2	36.4	528	0.00	0.00	187	187	0.00	43.8	43.8	—	166,327	166,327	1.89	0.95	8.59	166,665
Vendor	2.20	97.2	46.8	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	93,472	93,472	3.64	13.3	5.49	97,529
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	25.0	25.9	397	0.00	0.00	133	133	0.00	31.2	31.2	—	120,874	120,874	1.35	4.86	103	122,457
Vendor	1.63	69.5	33.1	0.57	0.57	21.6	22.2	0.57	5.97	6.54	—	66,919	66,919	2.61	9.52	65.4	69,887
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.55	4.72	72.4	0.00	0.00	24.3	24.3	0.00	5.69	5.69	—	20,012	20,012	0.22	0.80	17.0	20,274
Vendor	0.30	12.7	6.04	0.10	0.10	3.94	4.05	0.10	1.09	1.19	—	11,079	11,079	0.43	1.58	10.8	11,571
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.27. Building Construction (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	7.67	12.8	0.02	0.20	—	0.20	0.19	—	0.19	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	7.67	12.8	0.02	0.20	—	0.20	0.19	—	0.19	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	5.48	9.13	0.02	0.15	—	0.15	0.13	—	0.13	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	1.00	1.67	< 0.005	0.03	—	0.03	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	34.2	29.6	591	0.00	0.00	187	187	0.00	43.8	43.8	—	173,039	173,039	1.58	0.95	292	173,653
Vendor	2.36	89.5	43.9	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	90,231	90,231	3.64	13.3	202	94,484
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	33.6	30.3	499	0.00	0.00	187	187	0.00	43.8	43.8	—	164,134	164,134	1.58	0.95	7.56	164,463
Vendor	2.20	93.5	45.0	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	90,304	90,304	3.64	13.3	5.23	94,361
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	24.0	25.8	376	0.00	0.00	133	133	0.00	31.1	31.1	—	118,952	118,952	1.13	0.68	90.0	119,271
Vendor	1.63	66.7	31.7	0.57	0.57	21.5	22.1	0.57	5.96	6.52	—	64,473	64,473	2.60	9.49	62.1	67,429
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.38	4.71	68.6	0.00	0.00	24.2	24.2	0.00	5.68	5.68	—	19,694	19,694	0.19	0.11	14.9	19,747
Vendor	0.30	12.2	5.79	0.10	0.10	3.93	4.04	0.10	1.09	1.19	—	10,674	10,674	0.43	1.57	10.3	11,164
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.29. Building Construction (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86	7.52	12.8	0.02	0.19	—	0.19	0.18	—	0.18	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86	7.52	12.8	0.02	0.19	—	0.19	0.18	—	0.18	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	5.37	9.12	0.02	0.14	—	0.14	0.13	—	0.13	—	1,712	1,712	0.07	0.01	—	1,718

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.98	1.66	< 0.005	0.03	—	0.03	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	32.6	23.5	558	0.00	0.00	187	187	0.00	43.8	43.8	—	171,008	171,008	1.58	0.95	254	171,583
Vendor	2.36	85.9	42.2	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	87,124	87,124	2.84	12.5	192	91,111
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	32.3	30.0	471	0.00	0.00	187	187	0.00	43.8	43.8	—	162,212	162,212	1.58	0.95	6.60	162,539
Vendor	2.20	90.0	43.3	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	87,199	87,199	2.84	12.5	5.01	90,998
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	22.9	21.4	352	0.00	0.00	133	133	0.00	31.1	31.1	—	117,558	117,558	1.13	0.68	78.6	117,866
Vendor	1.63	64.1	30.5	0.57	0.57	21.5	22.1	0.57	5.96	6.52	—	62,254	62,254	2.03	8.92	59.6	65,024
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.17	3.90	64.2	0.00	0.00	24.2	24.2	0.00	5.68	5.68	—	19,463	19,463	0.19	0.11	13.0	19,514
Vendor	0.30	11.7	5.57	0.10	0.10	3.93	4.04	0.10	1.09	1.19	—	10,307	10,307	0.34	1.48	9.86	10,765
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.31. Building Construction (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85	7.34	12.7	0.02	0.18	—	0.18	0.17	—	0.17	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85	7.34	12.7	0.02	0.18	—	0.18	0.17	—	0.17	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61	5.24	9.06	0.02	0.13	—	0.13	0.12	—	0.12	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.96	1.65	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	31.7	23.5	531	0.00	0.00	187	187	0.00	43.8	43.8	—	169,207	169,207	1.26	0.95	221	169,741
Vendor	2.36	83.1	41.2	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	84,160	84,160	2.76	12.5	85.8	88,038
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	31.4	30.0	450	0.00	0.00	187	187	0.00	43.8	43.8	—	160,508	160,508	1.58	0.95	5.73	160,835
Vendor	2.20	87.2	42.3	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	84,236	84,236	2.76	12.5	2.22	88,030
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	22.4	21.2	337	0.00	0.00	133	133	0.00	31.1	31.1	—	116,325	116,325	1.13	0.68	67.9	116,622
Vendor	1.63	62.1	29.9	0.57	0.57	21.5	22.1	0.57	5.96	6.52	—	60,137	60,137	1.97	8.92	26.4	62,872
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.09	3.86	61.4	0.00	0.00	24.2	24.2	0.00	5.68	5.68	—	19,259	19,259	0.19	0.11	11.2	19,308
Vendor	0.30	11.3	5.45	0.10	0.10	3.93	4.04	0.10	1.09	1.19	—	9,956	9,956	0.33	1.48	4.38	10,409
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.33. Building Construction (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.83	7.12	12.6	0.02	0.17	—	0.17	0.16	—	0.16	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.83	7.12	12.6	0.02	0.17	—	0.17	0.16	—	0.16	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	5.10	9.03	0.02	0.12	—	0.12	0.11	—	0.11	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.93	1.65	< 0.005	0.02	—	0.02	0.02	—	0.02	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	31.1	23.2	505	0.00	0.00	187	187	0.00	43.8	43.8	—	167,729	167,729	1.26	0.95	192	168,234
Vendor	2.36	80.4	40.4	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	81,388	81,388	2.76	11.7	71.8	85,015
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	31.1	23.8	429	0.00	0.00	187	187	0.00	43.8	43.8	—	159,117	159,117	1.58	0.95	4.96	159,443

Vendor	2.20	84.5	41.4	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	81,465	81,465	2.76	11.7	1.86	85,022
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	22.0	17.1	322	0.00	0.00	133	133	0.00	31.2	31.2	—	115,626	115,626	1.13	0.68	59.3	115,916
Vendor	1.63	60.3	29.3	0.57	0.57	21.6	22.2	0.57	5.97	6.54	—	58,317	58,317	1.98	8.38	22.2	60,885
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.02	3.11	58.9	0.00	0.00	24.3	24.3	0.00	5.69	5.69	—	19,143	19,143	0.19	0.11	9.81	19,191
Vendor	0.30	11.0	5.35	0.10	0.10	3.94	4.05	0.10	1.09	1.19	—	9,655	9,655	0.33	1.39	3.67	10,080
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.35. Building Construction (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	6.99	12.5	0.02	0.16	—	0.16	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	6.99	12.5	0.02	0.16	—	0.16	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	4.99	8.93	0.02	0.11	—	0.11	0.10	—	0.10	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.91	1.63	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	29.8	23.2	485	0.00	0.00	187	187	0.00	43.8	43.8	—	166,307	166,307	1.26	0.95	165	166,785
Vendor	2.28	78.4	39.5	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	78,915	78,915	2.76	11.7	59.5	82,530
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	30.1	23.5	409	0.00	0.00	187	187	0.00	43.8	43.8	—	157,770	157,770	1.26	0.95	4.29	158,087
Vendor	2.20	82.6	40.5	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	78,992	78,992	2.76	11.7	1.54	82,549
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	21.3	16.8	307	0.00	0.00	133	133	0.00	31.1	31.1	—	114,336	114,336	0.90	0.68	51.0	114,610
Vendor	1.57	58.8	28.5	0.57	0.57	21.5	22.1	0.57	5.96	6.52	—	56,391	56,391	1.97	8.36	18.3	58,949
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.88	3.06	56.0	0.00	0.00	24.2	24.2	0.00	5.68	5.68	—	18,930	18,930	0.15	0.11	8.44	18,975

Vendor	0.29	10.7	5.21	0.10	0.10	3.93	4.04	0.10	1.09	1.19	—	9,336	9,336	0.33	1.38	3.03	9,760
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.37. Building Construction (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81	6.89	12.5	0.02	0.15	—	0.15	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81	6.89	12.5	0.02	0.15	—	0.15	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	4.92	8.90	0.02	0.11	—	0.11	0.10	—	0.10	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.90	1.62	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	28.9	22.9	471	0.00	0.00	187	187	0.00	43.8	43.8	—	165,278	165,278	1.26	0.95	143	165,734
Vendor	2.28	76.5	37.8	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	76,686	76,686	2.69	10.9	48.7	80,051
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	29.2	23.5	395	0.00	0.00	187	187	0.00	43.8	43.8	—	156,792	156,792	1.26	0.95	3.70	157,109
Vendor	2.12	79.9	38.8	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	76,765	76,765	2.69	10.9	1.26	80,082
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	20.6	16.8	297	0.00	0.00	133	133	0.00	31.1	31.1	—	113,629	113,629	0.90	0.68	43.9	113,897
Vendor	1.57	56.9	27.4	0.57	0.57	21.5	22.1	0.57	5.96	6.52	—	54,800	54,800	1.92	7.79	15.1	57,183
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.76	3.06	54.2	0.00	0.00	24.2	24.2	0.00	5.68	5.68	—	18,813	18,813	0.15	0.11	7.27	18,857
Vendor	0.29	10.4	4.99	0.10	0.10	3.93	4.04	0.10	1.09	1.19	—	9,073	9,073	0.32	1.29	2.49	9,467
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.39. Building Construction (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.80	6.78	12.4	0.02	0.15	—	0.15	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	6.78	12.4	0.02	0.15	—	0.15	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	4.84	8.86	0.02	0.10	—	0.10	0.10	—	0.10	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.88	1.62	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	28.2	17.0	458	0.00	0.00	187	187	0.00	43.8	43.8	—	164,175	164,175	1.26	0.95	123	164,611
Vendor	2.28	74.6	37.0	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	74,695	74,695	2.69	10.9	39.4	78,050
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	28.2	23.5	381	0.00	0.00	187	187	0.00	43.8	43.8	—	155,747	155,747	1.26	0.95	3.17	156,063

Vendor	2.12	78.0	38.0	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	74,775	74,775	2.69	10.9	1.02	78,092
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	19.9	16.6	287	0.00	0.00	133	133	0.00	31.1	31.1	—	112,866	112,866	0.90	0.68	37.7	113,128
Vendor	1.57	56.1	26.7	0.57	0.57	21.5	22.1	0.57	5.96	6.52	—	53,378	53,378	1.92	7.79	12.1	55,758
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.64	3.02	52.4	0.00	0.00	24.2	24.2	0.00	5.68	5.68	—	18,686	18,686	0.15	0.11	6.24	18,730
Vendor	0.29	10.2	4.88	0.10	0.10	3.93	4.04	0.10	1.09	1.19	—	8,837	8,837	0.32	1.29	2.01	9,231
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.41. Building Construction (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	6.71	12.4	0.02	0.14	—	0.14	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	6.71	12.4	0.02	0.14	—	0.14	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	4.80	8.87	0.02	0.10	—	0.10	0.09	—	0.09	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.88	1.62	< 0.005	0.02	—	0.02	0.02	—	0.02	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	27.0	17.0	445	0.00	0.00	187	187	0.00	43.8	43.8	—	163,202	163,202	0.95	0.95	105	163,613
Vendor	2.28	73.6	37.0	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	72,912	72,912	2.69	10.9	31.4	76,259
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	26.6	23.2	373	0.00	0.00	187	187	0.00	43.8	43.8	—	154,832	154,832	1.26	0.95	2.72	155,148
Vendor	2.12	77.1	37.9	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	72,993	72,993	2.69	10.9	0.82	76,309
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	19.1	16.6	283	0.00	0.00	133	133	0.00	31.2	31.2	—	112,512	112,512	0.90	0.68	32.5	112,769
Vendor	1.58	55.0	26.8	0.57	0.57	21.6	22.2	0.57	5.97	6.54	—	52,247	52,247	1.92	7.81	9.71	54,631
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.48	3.03	51.6	0.00	0.00	24.3	24.3	0.00	5.69	5.69	—	18,628	18,628	0.15	0.11	5.38	18,670

Vendor	0.29	10.0	4.89	0.10	0.10	3.94	4.05	0.10	1.09	1.19	—	8,650	8,650	0.32	1.29	1.61	9,045
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.43. Building Construction (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	6.65	12.3	0.02	0.14	—	0.14	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	6.65	12.3	0.02	0.14	—	0.14	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	4.75	8.81	0.02	0.10	—	0.10	0.09	—	0.09	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.87	1.61	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	20.2	16.7	432	0.00	0.00	187	187	0.00	43.8	43.8	—	162,360	162,360	0.95	0.63	90.1	162,662
Vendor	2.28	71.7	36.1	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	71,318	71,318	2.61	10.9	25.1	74,657
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	20.2	17.3	366	0.00	0.00	187	187	0.00	43.8	43.8	—	154,036	154,036	1.26	0.95	2.34	154,352
Vendor	2.12	75.2	37.0	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	71,400	71,400	2.61	10.9	0.65	74,715
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	14.2	12.4	272	0.00	0.00	133	133	0.00	31.1	31.1	—	111,628	111,628	0.90	0.68	27.8	111,879
Vendor	1.63	53.5	26.0	0.57	0.57	21.5	22.1	0.57	5.96	6.52	—	50,966	50,966	1.86	7.79	7.74	53,341
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.59	2.26	49.7	0.00	0.00	24.2	24.2	0.00	5.68	5.68	—	18,481	18,481	0.15	0.11	4.61	18,523
Vendor	0.30	9.76	4.75	0.10	0.10	3.93	4.04	0.10	1.09	1.19	—	8,438	8,438	0.31	1.29	1.28	8,831
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.45. Building Construction (2042) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.79	6.60	12.3	0.02	0.13	—	0.13	0.12	—	0.12	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79	6.60	12.3	0.02	0.13	—	0.13	0.12	—	0.12	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	4.72	8.81	0.02	0.10	—	0.10	0.09	—	0.09	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.86	1.61	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	19.5	16.7	419	0.00	0.00	187	187	0.00	43.8	43.8	—	161,613	161,613	0.95	0.63	77.4	161,902
Vendor	2.36	70.7	35.3	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	69,913	69,913	2.61	10.1	20.3	73,010
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	19.2	17.3	352	0.00	0.00	187	187	0.00	43.8	43.8	—	153,329	153,329	1.26	0.95	2.01	153,645

Vendor	2.12	74.2	36.1	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	69,996	69,996	2.61	10.1	0.53	73,073
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	13.7	12.2	267	0.00	0.00	133	133	0.00	31.1	31.1	—	111,114	111,114	0.90	0.68	23.9	111,362
Vendor	1.63	52.8	25.5	0.57	0.57	21.5	22.1	0.57	5.96	6.52	—	49,963	49,963	1.86	7.22	6.26	52,167
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.51	2.22	48.8	0.00	0.00	24.2	24.2	0.00	5.68	5.68	—	18,396	18,396	0.15	0.11	3.96	18,437
Vendor	0.30	9.64	4.65	0.10	0.10	3.93	4.04	0.10	1.09	1.19	—	8,272	8,272	0.31	1.19	1.04	8,637
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.47. Building Construction (2043) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79	6.55	12.3	0.02	0.13	—	0.13	0.12	—	0.12	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79	6.55	12.3	0.02	0.13	—	0.13	0.12	—	0.12	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	4.68	8.77	0.02	0.09	—	0.09	0.09	—	0.09	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.85	1.60	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	18.9	16.7	412	0.00	0.00	187	187	0.00	43.8	43.8	—	160,949	160,949	0.95	0.63	66.2	161,227
Vendor	2.36	69.8	35.2	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	68,685	68,685	2.61	10.1	16.5	71,778
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	19.2	17.0	345	0.00	0.00	187	187	0.00	43.8	43.8	—	152,705	152,705	1.26	0.95	1.72	153,021
Vendor	2.20	73.3	36.1	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	68,769	68,769	2.61	10.1	0.43	71,845
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	13.7	12.2	262	0.00	0.00	133	133	0.00	31.1	31.1	—	110,661	110,661	0.68	0.68	20.4	110,899
Vendor	1.63	52.2	25.5	0.57	0.57	21.5	22.1	0.57	5.96	6.52	—	49,086	49,086	1.86	7.22	5.10	51,288
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.51	2.22	47.8	0.00	0.00	24.2	24.2	0.00	5.68	5.68	—	18,321	18,321	0.11	0.11	3.38	18,361

Vendor	0.30	9.52	4.65	0.10	0.10	3.93	4.04	0.10	1.09	1.19	—	8,127	8,127	0.31	1.19	0.84	8,491
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.49. Building Construction (2044) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	6.48	12.2	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	6.48	12.2	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	4.64	8.76	0.02	0.09	—	0.09	0.08	—	0.08	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.85	1.60	< 0.005	0.02	—	0.02	0.01	—	0.01	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	18.9	16.4	405	0.00	0.00	187	187	0.00	43.8	43.8	—	160,386	160,386	0.95	0.63	56.8	160,654
Vendor	2.36	68.8	34.4	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	67,608	67,608	2.61	10.1	13.4	70,698
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	18.6	17.0	344	0.00	0.00	187	187	0.00	43.8	43.8	—	152,171	152,171	0.95	0.95	1.48	152,478
Vendor	2.20	72.5	35.3	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	67,692	67,692	2.53	10.1	0.35	70,767
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	13.3	12.2	258	0.00	0.00	133	133	0.00	31.2	31.2	—	110,577	110,577	0.68	0.68	17.6	110,814
Vendor	1.63	51.6	24.9	0.57	0.57	21.6	22.2	0.57	5.97	6.54	—	48,449	48,449	1.87	7.24	4.14	50,657
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.43	2.23	47.1	0.00	0.00	24.3	24.3	0.00	5.69	5.69	—	18,307	18,307	0.11	0.11	2.91	18,346
Vendor	0.30	9.42	4.54	0.10	0.10	3.94	4.05	0.10	1.09	1.19	—	8,021	8,021	0.31	1.20	0.69	8,387
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.51. Building Construction (2045) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.77	6.42	12.2	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	6.42	12.2	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	4.59	8.68	0.02	0.09	—	0.09	0.08	—	0.08	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.84	1.58	< 0.005	0.02	—	0.02	0.01	—	0.01	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	18.0	16.4	405	0.00	0.00	187	187	0.00	43.8	43.8	—	159,882	159,882	0.95	0.63	48.7	160,142
Vendor	2.28	68.0	34.4	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	66,676	66,676	1.73	10.1	10.9	69,742
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	18.0	17.0	338	0.00	0.00	187	187	0.00	43.8	43.8	—	151,697	151,697	0.95	0.95	1.26	152,003

Vendor	2.12	71.5	35.3	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	66,762	66,762	1.73	10.1	0.28	69,817
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	12.8	11.9	257	0.00	0.00	133	133	0.00	31.1	31.1	—	109,932	109,932	0.68	0.68	15.0	110,165
Vendor	1.57	50.9	24.8	0.57	0.57	21.5	22.1	0.57	5.96	6.52	—	47,652	47,652	1.24	7.22	3.35	49,837
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.34	2.18	46.9	0.00	0.00	24.2	24.2	0.00	5.68	5.68	—	18,200	18,200	0.11	0.11	2.49	18,239
Vendor	0.29	9.28	4.53	0.10	0.10	3.93	4.04	0.10	1.09	1.19	—	7,889	7,889	0.21	1.19	0.55	8,251
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.53. Building Construction (2046) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	6.38	12.1	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	6.38	12.1	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	4.56	8.66	0.02	0.08	—	0.08	0.08	—	0.08	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.83	1.58	< 0.005	0.02	—	0.02	0.01	—	0.01	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	17.7	16.4	399	0.00	0.00	187	187	0.00	43.8	43.8	—	159,450	159,450	0.95	0.63	41.9	159,703
Vendor	2.28	67.9	33.5	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	65,873	65,873	1.73	10.1	8.80	68,936
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	17.7	17.0	338	0.00	0.00	187	187	0.00	43.8	43.8	—	151,287	151,287	0.95	0.95	1.08	151,594
Vendor	2.12	71.4	34.5	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	65,959	65,959	1.73	10.1	0.23	69,014
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	12.6	11.9	252	0.00	0.00	133	133	0.00	31.1	31.1	—	109,635	109,635	0.68	0.68	12.9	109,866
Vendor	1.57	50.8	24.2	0.57	0.57	21.5	22.1	0.57	5.96	6.52	—	47,078	47,078	1.24	7.22	2.72	49,262
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.30	2.18	46.0	0.00	0.00	24.2	24.2	0.00	5.68	5.68	—	18,151	18,151	0.11	0.11	2.14	18,190

Vendor	0.29	9.26	4.42	0.10	0.10	3.93	4.04	0.10	1.09	1.19	—	7,794	7,794	0.21	1.19	0.45	8,156
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.55. Building Construction (2047) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	6.33	12.1	0.02	0.11	—	0.11	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	6.33	12.1	0.02	0.11	—	0.11	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	4.52	8.63	0.02	0.08	—	0.08	0.08	—	0.08	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.83	1.58	< 0.005	0.01	—	0.01	0.01	—	0.01	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	17.3	16.4	398	0.00	0.00	187	187	0.00	43.8	43.8	—	159,082	159,082	0.95	0.63	36.0	159,330
Vendor	2.28	67.0	33.5	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	65,184	65,184	1.73	10.1	7.14	68,246
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	17.7	16.7	337	0.00	0.00	187	187	0.00	43.8	43.8	—	150,943	150,943	0.95	0.95	0.93	151,249
Vendor	2.12	70.6	34.4	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	65,271	65,271	1.73	10.1	0.19	68,326
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	12.4	11.9	252	0.00	0.00	133	133	0.00	31.1	31.1	—	109,381	109,381	0.68	0.45	11.1	109,543
Vendor	1.57	50.2	24.2	0.57	0.57	21.5	22.1	0.57	5.96	6.52	—	46,586	46,586	1.24	7.22	2.20	48,770
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.26	2.18	46.0	0.00	0.00	24.2	24.2	0.00	5.68	5.68	—	18,109	18,109	0.11	0.07	1.83	18,136
Vendor	0.29	9.16	4.42	0.10	0.10	3.93	4.04	0.10	1.09	1.19	—	7,713	7,713	0.21	1.19	0.37	8,074
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.57. Building Construction (2048) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.76	6.26	12.0	0.02	0.11	—	0.11	0.10	—	0.10	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	6.26	12.0	0.02	0.11	—	0.11	0.10	—	0.10	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	4.48	8.56	0.02	0.08	—	0.08	0.07	—	0.07	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.82	1.56	< 0.005	0.01	—	0.01	0.01	—	0.01	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	17.3	16.4	398	0.00	0.00	187	187	0.00	43.8	43.8	—	158,792	158,792	0.95	0.63	31.4	159,035
Vendor	2.20	66.9	32.7	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	64,594	64,594	1.66	10.1	5.80	67,652
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	17.3	16.7	331	0.00	0.00	187	187	0.00	43.8	43.8	—	150,670	150,670	0.95	0.95	0.81	150,976

Vendor	2.05	70.5	33.6	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	64,681	64,681	1.66	10.1	0.15	67,734
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	12.4	12.0	252	0.00	0.00	133	133	0.00	31.2	31.2	—	109,485	109,485	0.68	0.45	9.68	109,646
Vendor	1.52	50.2	23.7	0.57	0.57	21.6	22.2	0.57	5.97	6.54	—	46,291	46,291	1.19	7.24	1.79	48,479
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.27	2.18	46.1	0.00	0.00	24.3	24.3	0.00	5.69	5.69	—	18,126	18,126	0.11	0.07	1.60	18,153
Vendor	0.28	9.16	4.33	0.10	0.10	3.94	4.05	0.10	1.09	1.19	—	7,664	7,664	0.20	1.20	0.30	8,026
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.59. Building Construction (2049) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	6.22	11.9	0.02	0.11	—	0.11	0.10	—	0.10	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	6.22	11.9	0.02	0.11	—	0.11	0.10	—	0.10	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	4.45	8.53	0.02	0.08	—	0.08	0.07	—	0.07	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.81	1.56	< 0.005	0.01	—	0.01	0.01	—	0.01	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	17.3	16.4	398	0.00	0.00	187	187	0.00	43.8	43.8	—	158,549	158,549	0.95	0.63	27.4	158,788
Vendor	2.20	66.9	32.7	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	64,091	64,091	1.66	10.1	4.72	67,148
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	17.3	16.7	330	0.00	0.00	187	187	0.00	43.8	43.8	—	150,438	150,438	0.95	0.95	0.71	150,745
Vendor	2.05	70.6	33.4	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	64,180	64,180	1.66	10.1	0.12	67,232
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	12.4	11.9	252	0.00	0.00	133	133	0.00	31.1	31.1	—	109,016	109,016	0.68	0.45	8.46	109,176
Vendor	1.52	50.1	23.5	0.57	0.57	21.5	22.1	0.57	5.96	6.52	—	45,806	45,806	1.18	7.22	1.46	47,988
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.26	2.18	45.9	0.00	0.00	24.2	24.2	0.00	5.68	5.68	—	18,049	18,049	0.11	0.07	1.40	18,075

Vendor	0.28	9.15	4.30	0.10	0.10	3.93	4.04	0.10	1.09	1.19	—	7,584	7,584	0.20	1.19	0.24	7,945
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.61. Building Construction (2050) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75	6.19	11.9	0.02	0.11	—	0.11	0.10	—	0.10	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75	6.19	11.9	0.02	0.11	—	0.11	0.10	—	0.10	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	4.42	8.53	0.02	0.08	—	0.08	0.07	—	0.07	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.81	1.56	< 0.005	0.01	—	0.01	0.01	—	0.01	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	17.3	16.4	398	0.00	0.00	187	187	0.00	43.8	43.8	—	158,347	158,347	0.95	0.63	24.0	158,583
Vendor	2.20	66.1	32.6	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	63,663	63,663	1.66	9.31	3.84	66,482
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	17.3	16.7	330	0.00	0.00	187	187	0.00	43.8	43.8	—	150,249	150,249	0.95	0.95	0.62	150,555
Vendor	2.05	69.8	33.4	0.80	0.80	30.3	31.1	0.80	8.37	9.17	—	63,752	63,752	1.66	9.31	0.10	66,568
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	12.4	11.9	252	0.00	0.00	133	133	0.00	31.1	31.1	—	108,881	108,881	0.68	0.45	7.39	109,039
Vendor	1.52	49.6	23.5	0.57	0.57	21.5	22.1	0.57	5.96	6.52	—	45,500	45,500	1.18	6.65	1.18	47,512
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.26	2.18	45.9	0.00	0.00	24.2	24.2	0.00	5.68	5.68	—	18,026	18,026	0.11	0.07	1.22	18,053
Vendor	0.28	9.05	4.29	0.10	0.10	3.93	4.04	0.10	1.09	1.19	—	7,533	7,533	0.20	1.10	0.20	7,866
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.63. Building Construction (2051) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	124	124	—	31.1	31.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.25	4.25	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.7	22.7	—	5.68	5.68	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.10	3.10	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.65. Building Construction (2052) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—

Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	125	125	—	31.2	31.2	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.26	4.26	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.8	22.8	—	5.69	5.69	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.11	3.11	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.67. Building Construction (2053) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	124	124	—	31.1	31.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.25	4.25	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.7	22.7	—	5.68	5.68	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.10	3.10	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.69. Building Construction (2054) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—

Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	124	124	—	31.1	31.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.25	4.25	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.7	22.7	—	5.68	5.68	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.10	3.10	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.71. Building Construction (2055) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	124	124	—	31.1	31.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.25	4.25	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.7	22.7	—	5.68	5.68	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.10	3.10	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.73. Building Construction (2056) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	—	—	—	—	—	125	125	—	31.2	31.2	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.26	4.26	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.8	22.8	—	5.69	5.69	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.11	3.11	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.75. Building Construction (2057) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	124	124	—	31.1	31.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.25	4.25	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.7	22.7	—	5.68	5.68	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.10	3.10	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.77. Building Construction (2058) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	124	124	—	31.1	31.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.25	4.25	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.7	22.7	—	5.68	5.68	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.10	3.10	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.79. Building Construction (2059) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—

Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	124	124	—	31.1	31.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.25	4.25	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.7	22.7	—	5.68	5.68	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.10	3.10	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.81. Building Construction (2060) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	125	125	—	31.2	31.2	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.26	4.26	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.8	22.8	—	5.69	5.69	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.11	3.11	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.83. Building Construction (2061) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—

Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	124	124	—	31.1	31.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.25	4.25	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.7	22.7	—	5.68	5.68	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.10	3.10	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.85. Building Construction (2062) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	124	124	—	31.1	31.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.25	4.25	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.7	22.7	—	5.68	5.68	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.10	3.10	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.87. Building Construction (2063) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	—	—	—	—	—	124	124	—	31.1	31.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.25	4.25	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.7	22.7	—	5.68	5.68	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.10	3.10	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.89. Building Construction (2064) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	125	125	—	31.2	31.2	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.26	4.26	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.8	22.8	—	5.69	5.69	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.11	3.11	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.91. Building Construction (2065) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	124	124	—	31.1	31.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.25	4.25	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.7	22.7	—	5.68	5.68	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.10	3.10	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.93. Building Construction (2066) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—

Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	124	124	—	31.1	31.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.25	4.25	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.7	22.7	—	5.68	5.68	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.10	3.10	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.95. Building Construction (2067) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	124	124	—	31.1	31.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.25	4.25	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.7	22.7	—	5.68	5.68	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.10	3.10	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.97. Building Construction (2068) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—

Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	125	125	—	31.2	31.2	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.26	4.26	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.8	22.8	—	5.69	5.69	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.11	3.11	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.99. Building Construction (2069) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	124	124	—	31.1	31.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.25	4.25	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.7	22.7	—	5.68	5.68	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.10	3.10	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.101. Building Construction (2070) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	—	—	—	—	—	124	124	—	31.1	31.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.25	4.25	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.7	22.7	—	5.68	5.68	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.10	3.10	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.103. Building Construction (2071) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	124	124	—	31.1	31.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.25	4.25	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.7	22.7	—	5.68	5.68	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.10	3.10	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.105. Building Construction (2072) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	125	125	—	31.2	31.2	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	17.0	17.0	—	4.26	4.26	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	22.8	22.8	—	5.69	5.69	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.11	3.11	—	0.78	0.78	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.107. Building Construction (2073) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	175	175	—	43.8	43.8	—	—	—	—	—	—	—

Vendor	—	—	—	—	—	23.9	23.9	—	5.98	5.98	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	6.14	6.14	—	1.53	1.53	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.84	0.84	—	0.21	0.21	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	1.12	1.12	—	0.28	0.28	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.15	0.15	—	0.04	0.04	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.109. Paving (2073) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.18	0.18	—	0.05	0.05	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.18	0.18	—	0.05	0.05	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.12	0.12	—	0.03	0.03	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.111. Paving (2074) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.18	0.18	—	0.05	0.05	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.18	0.18	—	0.05	0.05	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.13	0.13	—	0.03	0.03	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.113. Paving (2075) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.18	0.18	—	0.05	0.05	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.18	0.18	—	0.05	0.05	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.13	0.13	—	0.03	0.03	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.115. Paving (2076) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.18	0.18	—	0.05	0.05	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.117. Architectural Coating (2076) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectu Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	35.1	35.1	—	8.76	8.76	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	35.1	35.1	—	8.76	8.76	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	24.8	24.8	—	6.21	6.21	—	—	—	—	—	—	—

Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	4.53	4.53	—	1.13	1.13	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.119. Architectural Coating (2077) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	35.1	35.1	—	8.76	8.76	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	35.1	35.1	—	8.76	8.76	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	24.9	24.9	—	6.22	6.22	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	4.54	4.54	—	1.14	1.14	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.121. Architectural Coating (2078) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	35.1	35.1	—	8.76	8.76	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	35.1	35.1	—	8.76	8.76	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	23.9	23.9	—	5.97	5.97	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	4.36	4.36	—	1.09	1.09	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	79,330	79,330	5.62	0.79	—	79,707
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	73,023	73,023	5.17	0.73	—	73,370
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	257,801	257,801	18.3	2.58	—	259,026
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	25,497	25,497	1.81	0.25	—	25,618
Total	—	—	—	—	—	—	—	—	—	—	—	435,651	435,651	30.9	4.35	—	437,720
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	79,330	79,330	5.62	0.79	—	79,707
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	73,023	73,023	5.17	0.73	—	73,370
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	257,801	257,801	18.3	2.58	—	259,026
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	25,497	25,497	1.81	0.25	—	25,618
Total	—	—	—	—	—	—	—	—	—	—	—	435,651	435,651	30.9	4.35	—	437,720

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	13,134	13,134	0.93	0.13	—	13,196
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	12,090	12,090	0.86	0.12	—	12,147
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	42,682	42,682	3.02	0.43	—	42,885
Governm ent Office Building	—	—	—	—	—	—	—	—	—	—	—	4,221	4,221	0.30	0.04	—	4,241
Total	—	—	—	—	—	—	—	—	—	—	—	72,127	72,127	5.11	0.72	—	72,470

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	1.87	32.0	13.6	0.20	2.59	—	2.59	2.59	—	2.59	—	40,630	40,630	3.60	0.08	—	40,743
Strip Mall	0.28	5.13	4.31	0.03	0.39	—	0.39	0.39	—	0.39	—	6,119	6,119	0.54	0.01	—	6,136
Industrial Park	2.54	46.2	38.8	0.28	3.51	—	3.51	3.51	—	3.51	—	55,096	55,096	4.88	0.10	—	55,249
Governm ent Office Building	0.25	4.57	3.84	0.03	0.35	—	0.35	0.35	—	0.35	—	5,449	5,449	0.48	0.01	—	5,464
Total	4.95	87.9	60.6	0.54	6.83	—	6.83	6.83	—	6.83	—	107,295	107,295	9.50	0.20	—	107,592
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartment Mid Rise	1.87	32.0	13.6	0.20	2.59	—	2.59	2.59	—	2.59	—	40,630	40,630	3.60	0.08	—	40,743
Strip Mall	0.28	5.13	4.31	0.03	0.39	—	0.39	0.39	—	0.39	—	6,119	6,119	0.54	0.01	—	6,136
Industrial Park	2.54	46.2	38.8	0.28	3.51	—	3.51	3.51	—	3.51	—	55,096	55,096	4.88	0.10	—	55,249
Government Office Building	0.25	4.57	3.84	0.03	0.35	—	0.35	0.35	—	0.35	—	5,449	5,449	0.48	0.01	—	5,464
Total	4.95	87.9	60.6	0.54	6.83	—	6.83	6.83	—	6.83	—	107,295	107,295	9.50	0.20	—	107,592
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.34	5.84	2.49	0.04	0.47	—	0.47	0.47	—	0.47	—	6,727	6,727	0.60	0.01	—	6,745
Strip Mall	0.05	0.94	0.79	0.01	0.07	—	0.07	0.07	—	0.07	—	1,013	1,013	0.09	< 0.005	—	1,016
Industrial Park	0.46	8.43	7.08	0.05	0.64	—	0.64	0.64	—	0.64	—	9,122	9,122	0.81	0.02	—	9,147
Government Office Building	0.05	0.83	0.70	0.01	0.06	—	0.06	0.06	—	0.06	—	902	902	0.08	< 0.005	—	905
Total	0.90	16.0	11.1	0.10	1.25	—	1.25	1.25	—	1.25	—	17,764	17,764	1.57	0.03	—	17,813

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	17.5	299	127	1.91	24.2	—	24.2	24.2	—	24.2	0.00	379,688	379,688	7.15	0.71	—	380,080

Consume Products	547	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	54.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscap e Equipme nt	158	11.5	1,306	0.07	1.02	—	1.02	1.35	—	1.35	—	4,313	4,313	0.18	0.04	—	4,328
Total	777	311	1,433	1.98	25.2	—	25.2	25.5	—	25.5	0.00	384,001	384,001	7.33	0.75	—	384,408
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	17.5	299	127	1.91	24.2	—	24.2	24.2	—	24.2	0.00	379,688	379,688	7.15	0.71	—	380,080
Consume r Products	547	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	54.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	619	299	127	1.91	24.2	—	24.2	24.2	—	24.2	0.00	379,688	379,688	7.15	0.71	—	380,080
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.22	3.74	1.59	0.02	0.30	—	0.30	0.30	—	0.30	0.00	4,306	4,306	0.08	0.01	—	4,310
Consume r Products	99.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	9.99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscap e Equipme nt	19.7	1.44	163	0.01	0.13	—	0.13	0.17	—	0.17	—	489	489	0.02	< 0.005	—	491
Total	130	5.18	165	0.03	0.43	—	0.43	0.47	—	0.47	0.00	4,795	4,795	0.10	0.01	—	4,801

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	1,596	9,616	11,212	38.9	3.58	—	13,252
Strip Mall	—	—	—	—	—	—	—	—	—	—	614	3,698	4,311	14.9	1.38	—	5,096
Industrial Park	—	—	—	—	—	—	—	—	—	—	4,228	25,476	29,705	103	9.49	—	35,108
Government Office Building	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	6,438	38,790	45,228	157	14.5	—	53,455
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	1,596	9,616	11,212	38.9	3.58	—	13,252
Strip Mall	—	—	—	—	—	—	—	—	—	—	614	3,698	4,311	14.9	1.38	—	5,096
Industrial Park	—	—	—	—	—	—	—	—	—	—	4,228	25,476	29,705	103	9.49	—	35,108
Government Office Building	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	6,438	38,790	45,228	157	14.5	—	53,455

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	264	1,592	1,856	6.44	0.59	—	2,194
Strip Mall	—	—	—	—	—	—	—	—	—	—	102	612	714	2.47	0.23	—	844
Industrial Park	—	—	—	—	—	—	—	—	—	—	700	4,218	4,918	17.1	1.57	—	5,812
Governm ent Office Building	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	1,066	6,422	7,488	26.0	2.39	—	8,850

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	5,090	0.00	5,090	509	0.00	—	17,810
Strip Mall	—	—	—	—	—	—	—	—	—	—	2,195	0.00	2,195	219	0.00	—	7,678
Industrial Park	—	—	—	—	—	—	—	—	—	—	5,719	0.00	5,719	572	0.00	—	20,007
Governm ent Office Building	—	—	—	—	—	—	—	—	—	—	244	0.00	244	24.4	0.00	—	854
Total	—	—	—	—	—	—	—	—	—	—	13,247	0.00	13,247	1,324	0.00	—	46,348

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	5,090	0.00	5,090	509	0.00	—	17,810
Strip Mall	—	—	—	—	—	—	—	—	—	—	2,195	0.00	2,195	219	0.00	—	7,678
Industrial Park	—	—	—	—	—	—	—	—	—	—	5,719	0.00	5,719	572	0.00	—	20,007
Government Office Building	—	—	—	—	—	—	—	—	—	—	244	0.00	244	24.4	0.00	—	854
Total	—	—	—	—	—	—	—	—	—	—	13,247	0.00	13,247	1,324	0.00	—	46,348
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	843	0.00	843	84.2	0.00	—	2,949
Strip Mall	—	—	—	—	—	—	—	—	—	—	363	0.00	363	36.3	0.00	—	1,271
Industrial Park	—	—	—	—	—	—	—	—	—	—	947	0.00	947	94.6	0.00	—	3,312
Government Office Building	—	—	—	—	—	—	—	—	—	—	40.4	0.00	40.4	4.04	0.00	—	141
Total	—	—	—	—	—	—	—	—	—	—	2,193	0.00	2,193	219	0.00	—	7,674

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	87.8	87.8
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.1	24.1
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,227	2,227
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.06	2.06
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,341	2,341
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	87.8	87.8
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.1	24.1
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,227	2,227
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.06	2.06
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,341	2,341
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14.5	14.5
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.00	4.00
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	369	369

Governm Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.34	0.34
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	388	388

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme nt Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme nt Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
-----------------------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2023	9/7/2025	5.00	700	—
Site Preparation	Site Preparation	9/8/2025	4/19/2027	5.00	420	—
Grading	Grading	4/20/2027	6/17/2031	5.00	1,085	—
Building Construction	Building Construction	6/18/2031	1/18/2073	5.00	10,850	—
Paving	Paving	1/19/2073	1/2/2076	5.00	770	—
Architectural Coating	Architectural Coating	1/3/2076	12/16/2078	5.00	770	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38

Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT

Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	14,302	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	3,542	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	2,860	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	24,830,712	8,276,904	19,920,236	6,640,079	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	630	0.00	—
Grading	—	—	3,255	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Strip Mall	0.00	0%
Industrial Park	0.00	0%
Government Office Building	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
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2023	0.00	690	0.05	0.01
2024	0.00	690	0.05	0.01
2025	0.00	690	0.05	0.01
2026	0.00	690	0.05	0.01
2027	0.00	690	0.05	0.01
2028	0.00	690	0.05	0.01
2029	0.00	690	0.05	0.01
2030	0.00	690	0.05	0.01
2031	0.00	690	0.05	0.01
2032	0.00	690	0.05	0.01
2033	0.00	690	0.05	0.01
2034	0.00	690	0.05	0.01
2035	0.00	690	0.05	0.01
2036	0.00	690	0.05	0.01
2037	0.00	690	0.05	0.01
2038	0.00	690	0.05	0.01
2039	0.00	690	0.05	0.01
2040	0.00	690	0.05	0.01
2041	0.00	690	0.05	0.01
2042	0.00	690	0.05	0.01
2043	0.00	690	0.05	0.01
2044	0.00	690	0.05	0.01
2045	0.00	690	0.05	0.01
2046	0.00	690	0.05	0.01
2047	0.00	690	0.05	0.01
2048	0.00	690	0.05	0.01
2049	0.00	690	0.05	0.01

2050	0.00	690	0.05	0.01
2051	0.00	690	0.05	0.01
2052	0.00	690	0.05	0.01
2053	0.00	690	0.05	0.01
2054	0.00	690	0.05	0.01
2055	0.00	690	0.05	0.01
2056	0.00	690	0.05	0.01
2057	0.00	690	0.05	0.01
2058	0.00	690	0.05	0.01
2059	0.00	690	0.05	0.01
2060	0.00	690	0.05	0.01
2061	0.00	690	0.05	0.01
2062	0.00	690	0.05	0.01
2063	0.00	690	0.05	0.01
2064	0.00	690	0.05	0.01
2065	0.00	690	0.05	0.01
2066	0.00	690	0.05	0.01
2067	0.00	690	0.05	0.01
2068	0.00	690	0.05	0.01
2069	0.00	690	0.05	0.01
2070	0.00	690	0.05	0.01
2071	0.00	690	0.05	0.01
2072	0.00	690	0.05	0.01
2073	0.00	690	0.05	0.01
2074	0.00	690	0.05	0.01
2075	0.00	690	0.05	0.01
2076	0.00	690	0.05	0.01

2077	0.00	690	0.05	0.01
2078	0.00	690	0.05	0.01

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VM/Weekday	VM/Saturday	VM/Sunday	VM/Year
Total all Land Uses	119,442	119,442	119,442	43,596,386	799,848	799,848	799,848	291,944,633

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	18032
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	2004
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
24830712	8,276,904	19,920,236	6,640,079	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	41,940,065	690	0.0489	0.0069	126,776,610
Strip Mall	38,605,730	690	0.0489	0.0069	19,092,997
Industrial Park	136,294,110	690	0.0489	0.0069	171,915,688
Government Office Building	13,479,641	690	0.0489	0.0069	17,002,655

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	746,817,857	0.00
Strip Mall	287,179,166	0.00
Industrial Park	1,978,575,000	0.00
City Park	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	3,191	0.00
Strip Mall	4,072	0.00
Industrial Park	10,611	0.00
Government Office Building	453	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0
Government Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Government Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	12.3	annual days of extreme heat
Extreme Precipitation	6.65	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	59.7
AQ-PM	94.7
AQ-DPM	94.2
Drinking Water	92.5
Lead Risk Housing	84.4
Pesticides	0.00
Toxic Releases	77.5
Traffic	92.5
Effect Indicators	—
CleanUp Sites	95.1
Groundwater	83.8
Haz Waste Facilities/Generators	98.7
Impaired Water Bodies	72.2
Solid Waste	37.6
Sensitive Population	—
Asthma	65.0
Cardio-vascular	24.0

Low Birth Weights	83.8
Socioeconomic Factor Indicators	—
Education	85.3
Housing	91.6
Linguistic	90.6
Poverty	85.3
Unemployment	26.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	9.585525472
Employed	65.58449891
Median HI	7.25009624
Education	—
Bachelor's or higher	38.73989478
High school enrollment	100
Preschool enrollment	60.4901835
Transportation	—
Auto Access	12.42140382
Active commuting	91.06890799
Social	—
2-parent households	56.61491082
Voting	0.795585782
Neighborhood	—
Alcohol availability	4.516874118

Park access	81.35506224
Retail density	87.09097908
Supermarket access	64.42961632
Tree canopy	39.67663288
Housing	—
Homeownership	8.443474913
Housing habitability	3.708456307
Low-inc homeowner severe housing cost burden	2.065956628
Low-inc renter severe housing cost burden	15.78339535
Uncrowded housing	18.58077762
Health Outcomes	—
Insured adults	12.03644296
Arthritis	48.2
Asthma ER Admissions	50.6
High Blood Pressure	37.6
Cancer (excluding skin)	82.6
Asthma	32.2
Coronary Heart Disease	21.3
Chronic Obstructive Pulmonary Disease	22.0
Diagnosed Diabetes	8.1
Life Expectancy at Birth	79.3
Cognitively Disabled	18.3
Physically Disabled	14.9
Heart Attack ER Admissions	76.9
Mental Health Not Good	14.3
Chronic Kidney Disease	14.8
Obesity	21.5

Pedestrian Injuries	97.2
Physical Health Not Good	8.7
Stroke	19.7
Health Risk Behaviors	—
Binge Drinking	86.1
Current Smoker	14.6
No Leisure Time for Physical Activity	11.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	37.8
Elderly	48.0
English Speaking	8.3
Foreign-born	90.8
Outdoor Workers	22.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	8.5
Traffic Density	93.9
Traffic Access	87.4
Other Indices	—
Hardship	86.9
Other Decision Support	—
2016 Voting	22.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	97.0

Healthy Places Index Score for Project Location (b)	19.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Based project applicant data
Operations: Hearths	Based on SCAQMD 445
Operations: Water and Waste Water	No septic tank onsite

CASP Update Operational With Project 2040 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	CASP Update Operational With Project 2040
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	0.50
Precipitation (days)	8.60
Location	34.07087543974394, -118.22338553059626
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4031
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	20,036	Dwelling Unit	527	19,234,560	0.00	—	59,307	—
Strip Mall	3,909	1000sqft	89.7	3,908,109	0.00	—	—	—
Industrial Park	6,147	1000sqft	141	6,146,957	0.00	—	—	—

Government Office Building	608	1000sqft	14.0	607,941	0.00	—	—	—
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1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	49.3	149	867	0.90	1.24	274	276	1.14	65.7	66.8	—	331,223	331,223	6.13	15.8	661	336,756
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	48.7	162	745	0.90	1.24	274	276	1.14	65.7	66.8	—	319,640	319,640	6.53	15.8	17.1	324,539
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	33.4	112	529	0.64	0.87	196	196	0.80	46.8	47.5	—	225,985	225,985	4.38	11.3	184	229,649
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.09	20.4	96.5	0.12	0.16	35.7	35.8	0.15	8.54	8.68	—	37,414	37,414	0.72	1.87	30.5	38,021

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.91	27.4	24.7	0.03	1.20	0.20	1.40	1.10	0.05	1.15	—	3,642	3,642	0.15	0.04	0.92	3,657
2024	2.68	25.0	22.9	0.03	1.06	0.20	1.26	0.98	0.05	1.02	—	3,637	3,637	0.15	0.03	0.84	3,652
2025	2.46	22.3	21.0	0.03	0.92	0.20	1.11	0.84	0.05	0.89	—	3,632	3,632	0.15	0.03	0.76	3,647
2026	3.21	29.2	29.9	0.05	1.24	19.9	21.1	1.14	10.2	11.3	—	5,535	5,535	0.22	0.05	0.80	5,557
2027	3.11	28.0	29.3	0.05	1.17	19.9	21.1	1.08	10.2	11.2	—	5,530	5,530	0.22	0.05	0.72	5,552
2028	2.95	24.4	28.3	0.06	0.99	9.47	10.5	0.91	3.72	4.62	—	6,859	6,859	0.27	0.06	0.74	6,886
2029	2.86	22.8	27.9	0.06	0.92	9.47	10.4	0.84	3.72	4.56	—	6,853	6,853	0.27	0.06	0.67	6,879
2030	2.78	21.7	27.8	0.06	0.88	9.47	10.3	0.81	3.72	4.53	—	6,848	6,848	0.27	0.06	0.59	6,875
2031	2.71	20.7	27.5	0.06	0.86	9.47	10.3	0.79	3.72	4.50	—	6,845	6,845	0.27	0.05	0.53	6,868
2032	49.3	149	867	0.90	1.10	274	276	1.08	65.7	66.8	—	331,223	331,223	6.13	15.8	661	336,756
2033	47.6	144	823	0.90	1.08	274	276	1.06	65.7	66.8	—	324,741	324,741	6.13	15.8	598	330,211
2034	45.6	132	779	0.90	1.07	274	276	1.05	65.7	66.8	—	318,708	318,708	5.25	15.0	540	323,837
2035	44.3	129	743	0.90	1.05	274	276	1.04	65.7	66.8	—	313,129	313,129	4.76	15.0	379	318,085
2036	43.5	125	708	0.90	1.04	274	276	1.03	65.7	66.8	—	308,178	308,178	4.76	14.1	326	312,821
2037	41.8	123	682	0.90	1.03	274	276	1.02	65.7	66.7	—	303,628	303,628	4.76	14.1	278	308,223
2038	40.5	120	662	0.90	1.03	274	275	1.01	65.7	66.7	—	299,853	299,853	4.67	13.2	238	304,144
2039	39.7	111	644	0.90	1.02	274	275	1.01	65.7	66.7	—	296,243	296,243	4.67	13.2	201	300,498
2040	38.1	110	627	0.90	1.02	274	275	1.00	65.7	66.7	—	293,030	293,030	4.27	13.2	170	297,244
2041	29.3	107	609	0.90	1.01	274	275	1.00	65.7	66.7	—	290,194	290,194	4.18	12.8	144	294,258
2042	28.6	106	591	0.90	1.01	274	275	1.00	65.7	66.7	—	287,687	287,687	4.18	11.9	122	291,469
2043	27.8	105	582	0.90	1.00	274	275	0.99	65.7	66.7	—	285,482	285,482	4.18	11.9	104	289,245
2044	27.8	103	573	0.90	1.00	274	275	0.99	65.7	66.7	—	283,572	283,572	4.18	11.9	88.0	287,320
2045	26.5	102	572	0.90	0.99	274	275	0.98	65.7	66.7	—	281,900	281,900	3.22	11.9	74.8	285,610
2046	26.1	102	563	0.90	0.99	274	275	0.98	65.7	66.7	—	280,459	280,459	3.22	11.9	63.7	284,158
2047	25.6	101	563	0.90	0.99	274	275	0.98	65.7	66.7	—	279,229	279,229	3.22	11.9	54.3	282,919

2048	25.6	101	561	0.90	0.99	274	275	0.98	65.7	66.7	—	278,206	278,206	3.14	11.9	46.8	281,886
2049	25.5	101	561	0.90	0.98	274	275	0.97	65.7	66.7	—	277,341	277,341	3.14	11.9	40.5	281,014
2050	25.5	100.0	561	0.90	0.98	274	275	0.97	65.7	66.7	—	276,611	276,611	3.14	11.1	35.2	280,018
2051	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2052	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2053	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2054	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2055	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2056	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2057	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2058	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2059	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2060	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2061	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2062	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2063	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2064	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2065	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2066	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2067	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2068	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2069	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2070	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2071	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2072	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2073	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2074	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00

2075	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2076	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2077	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2078	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2079	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2080	0.00	—	—	—	—	0.18	0.18	—	0.05	0.05	—	0.00	0.00	0.00	0.00	—	0.00
2081	0.00	—	—	—	—	0.18	0.18	—	0.05	0.05	—	0.00	0.00	0.00	0.00	—	0.00
2082	0.00	—	—	—	—	0.18	0.18	—	0.05	0.05	—	0.00	0.00	0.00	0.00	—	0.00
2083	0.00	—	—	—	—	45.2	45.2	—	11.3	11.3	—	0.00	0.00	0.00	0.00	—	0.00
2084	0.00	—	—	—	—	45.2	45.2	—	11.3	11.3	—	0.00	0.00	0.00	0.00	—	0.00
2085	0.00	—	—	—	—	45.2	45.2	—	11.3	11.3	—	0.00	0.00	0.00	0.00	—	0.00
2086	0.00	—	—	—	—	45.2	45.2	—	11.3	11.3	—	0.00	0.00	0.00	0.00	—	0.00
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.91	27.4	24.5	0.03	1.20	0.20	1.40	1.10	0.05	1.15	—	3,630	3,630	0.15	0.04	0.02	3,645
2024	2.68	25.0	22.7	0.03	1.06	0.20	1.26	0.98	0.05	1.02	—	3,626	3,626	0.15	0.04	0.02	3,640
2025	2.46	22.3	20.8	0.03	0.92	0.20	1.11	0.84	0.05	0.89	—	3,622	3,622	0.15	0.04	0.02	3,636
2026	3.21	29.2	29.8	0.05	1.24	19.9	21.1	1.14	10.2	11.3	—	5,523	5,523	0.23	0.05	0.02	5,544
2027	3.11	28.0	29.2	0.06	1.17	19.9	21.1	1.08	10.2	11.2	—	6,850	6,850	0.27	0.06	0.02	6,876
2028	2.95	24.4	28.1	0.06	0.99	9.47	10.5	0.91	3.72	4.62	—	6,846	6,846	0.27	0.06	0.02	6,871
2029	2.86	22.8	27.8	0.06	0.92	9.47	10.4	0.84	3.72	4.56	—	6,839	6,839	0.27	0.06	0.02	6,865
2030	2.78	21.7	27.7	0.06	0.88	9.47	10.3	0.81	3.72	4.53	—	6,835	6,835	0.27	0.06	0.02	6,861
2031	2.71	20.7	27.4	0.06	0.86	9.47	10.3	0.79	3.72	4.50	—	6,832	6,832	0.27	0.06	0.01	6,857
2032	48.7	162	745	0.90	1.10	274	276	1.08	65.7	66.8	—	319,640	319,640	6.53	15.8	17.1	324,539
2033	46.6	149	707	0.90	1.08	274	276	1.06	65.7	66.8	—	313,331	313,331	6.13	15.8	15.5	318,219
2034	45.0	145	668	0.90	1.07	274	276	1.05	65.7	66.8	—	307,441	307,441	5.25	15.0	14.0	312,044
2035	43.7	142	640	0.90	1.05	274	276	1.04	65.7	66.8	—	301,989	301,989	5.17	15.0	9.83	306,586

2036	43.3	131	612	0.90	1.04	274	276	1.03	65.7	66.8	—	297,152	297,152	5.17	14.1	8.44	301,487
2037	42.1	128	584	0.90	1.03	274	276	1.02	65.7	66.7	—	292,698	292,698	4.76	14.1	7.22	297,022
2038	40.8	125	564	0.90	1.03	274	275	1.01	65.7	66.7	—	288,991	288,991	4.67	13.2	6.16	293,051
2039	39.5	123	545	0.90	1.02	274	275	1.01	65.7	66.7	—	285,457	285,457	4.67	13.2	5.21	289,516
2040	37.5	121	535	0.90	1.02	274	275	1.00	65.7	66.7	—	282,320	282,320	4.67	13.2	4.40	286,378
2041	29.2	112	525	0.90	1.01	274	275	1.00	65.7	66.7	—	279,544	279,544	4.59	13.2	3.73	283,600
2042	27.9	110	507	0.90	1.01	274	275	1.00	65.7	66.7	—	277,090	277,090	4.59	12.3	3.17	280,884
2043	28.0	109	497	0.90	1.00	274	275	0.99	65.7	66.7	—	274,938	274,938	4.59	12.3	2.69	278,731
2044	27.2	108	495	0.90	1.00	274	275	0.99	65.7	66.7	—	273,067	273,067	4.10	12.3	2.29	276,847
2045	26.3	107	487	0.90	0.99	274	275	0.98	65.7	66.7	—	271,432	271,432	3.22	12.3	1.94	275,191
2046	25.9	107	485	0.90	0.99	274	275	0.98	65.7	66.7	—	270,022	270,022	3.22	12.3	1.65	273,781
2047	25.9	105	485	0.90	0.99	274	275	0.98	65.7	66.7	—	268,823	268,823	3.22	12.3	1.41	272,581
2048	25.4	105	476	0.90	0.99	274	275	0.98	65.7	66.7	—	267,823	267,823	3.14	12.3	1.21	271,578
2049	25.4	105	475	0.90	0.98	274	275	0.97	65.7	66.7	—	266,973	266,973	3.14	12.3	1.05	270,729
2050	25.4	104	475	0.90	0.98	274	275	0.97	65.7	66.7	—	266,259	266,259	3.14	11.5	0.91	269,754
2051	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2052	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2053	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2054	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2055	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2056	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2057	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2058	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2059	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2060	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2061	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2062	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00

2063	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2064	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2065	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2066	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2067	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2068	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2069	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2070	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2071	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2072	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2073	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2074	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2075	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2076	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2077	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2078	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2079	—	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2080	0.00	—	—	—	—	252	252	—	63.1	63.1	—	0.00	0.00	0.00	0.00	—	0.00
2081	0.00	—	—	—	—	0.18	0.18	—	0.05	0.05	—	0.00	0.00	0.00	0.00	—	0.00
2082	0.00	—	—	—	—	0.18	0.18	—	0.05	0.05	—	0.00	0.00	0.00	0.00	—	0.00
2083	0.00	—	—	—	—	45.2	45.2	—	11.3	11.3	—	0.00	0.00	0.00	0.00	—	0.00
2084	0.00	—	—	—	—	45.2	45.2	—	11.3	11.3	—	0.00	0.00	0.00	0.00	—	0.00
2085	0.00	—	—	—	—	45.2	45.2	—	11.3	11.3	—	0.00	0.00	0.00	0.00	—	0.00
2086	0.00	—	—	—	—	45.2	45.2	—	11.3	11.3	—	0.00	0.00	0.00	0.00	—	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.07	19.5	17.5	0.02	0.85	0.14	0.99	0.78	0.03	0.82	—	2,581	2,581	0.11	0.03	0.28	2,591
2024	1.92	17.9	16.3	0.02	0.76	0.14	0.90	0.70	0.03	0.73	—	2,599	2,599	0.11	0.03	0.26	2,610

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2025	1.76	15.9	14.9	0.02	0.66	0.14	0.79	0.60	0.03	0.64	—	2,589	2,589	0.11	0.02	0.23	2,599
2026	2.25	20.4	20.8	0.03	0.87	13.2	14.0	0.80	6.72	7.52	—	3,847	3,847	0.16	0.04	0.25	3,861
2027	2.22	19.9	20.8	0.04	0.83	13.6	14.4	0.76	6.88	7.64	—	4,022	4,022	0.16	0.04	0.23	4,037
2028	2.11	17.5	20.2	0.04	0.71	6.78	7.48	0.65	2.66	3.31	—	4,906	4,906	0.19	0.05	0.23	4,924
2029	2.04	16.3	19.9	0.04	0.65	6.76	7.41	0.60	2.65	3.26	—	4,888	4,888	0.19	0.04	0.21	4,906
2030	1.99	15.5	19.8	0.04	0.63	6.76	7.39	0.58	2.65	3.23	—	4,885	4,885	0.19	0.04	0.18	4,903
2031	1.94	14.8	19.6	0.04	0.61	6.76	7.37	0.56	2.65	3.22	—	4,882	4,882	0.19	0.04	0.16	4,901
2032	12.6	47.2	196	0.24	0.64	68.7	69.3	0.60	17.1	17.7	—	79,078	79,078	1.66	5.52	67.1	80,830
2033	33.4	112	529	0.64	0.77	195	196	0.76	46.7	47.4	—	225,985	225,985	4.38	11.3	184	229,649
2034	31.9	103	497	0.64	0.76	195	196	0.75	46.7	47.4	—	221,751	221,751	3.75	10.7	167	225,195
2035	31.3	101	476	0.64	0.75	195	196	0.74	46.7	47.4	—	217,835	217,835	3.69	10.7	117	221,228
2036	30.8	93.4	457	0.64	0.75	196	196	0.74	46.8	47.5	—	214,939	214,939	3.70	10.1	101	218,139
2037	29.8	91.2	436	0.64	0.74	195	196	0.73	46.7	47.4	—	211,155	211,155	3.40	10.1	85.9	214,324
2038	28.9	89.0	422	0.64	0.73	195	196	0.72	46.7	47.4	—	208,496	208,496	3.34	9.44	73.2	211,464
2039	28.0	87.9	409	0.64	0.73	195	196	0.72	46.7	47.4	—	205,950	205,950	3.34	9.44	62.0	208,907
2040	26.9	86.6	403	0.64	0.73	196	196	0.72	46.8	47.5	—	204,256	204,256	3.35	9.46	52.6	207,212
2041	20.7	79.5	389	0.64	0.72	195	196	0.71	46.7	47.4	—	201,704	201,704	3.28	9.44	44.4	204,642
2042	20.1	78.4	382	0.64	0.72	195	196	0.71	46.7	47.4	—	199,940	199,940	3.28	8.81	37.7	202,685
2043	20.1	77.7	375	0.64	0.72	195	196	0.71	46.7	47.4	—	198,391	198,391	2.99	8.81	32.0	201,124
2044	19.5	77.1	369	0.64	0.72	196	196	0.71	46.8	47.5	—	197,589	197,589	3.00	8.84	27.2	200,324
2045	18.8	75.8	367	0.64	0.71	195	196	0.70	46.7	47.4	—	195,876	195,876	2.30	8.81	23.1	198,582
2046	18.5	75.7	361	0.64	0.71	195	196	0.70	46.7	47.4	—	194,863	194,863	2.30	8.81	19.7	197,566
2047	18.3	75.0	360	0.64	0.71	195	196	0.70	46.7	47.4	—	193,995	193,995	2.30	8.52	16.7	196,609
2048	18.2	75.1	360	0.64	0.71	196	196	0.70	46.8	47.5	—	193,810	193,810	2.25	8.54	14.5	196,427
2049	18.2	74.9	359	0.64	0.70	195	196	0.70	46.7	47.4	—	192,668	192,668	2.24	8.52	12.5	195,276
2050	18.2	74.2	359	0.64	0.70	195	196	0.70	46.7	47.4	—	192,158	192,158	2.24	7.90	10.8	194,578
2051	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00

2052	—	—	—	—	—	180	180	—	44.9	44.9	—	0.00	0.00	0.00	0.00	—	0.00
2053	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2054	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2055	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2056	—	—	—	—	—	180	180	—	44.9	44.9	—	0.00	0.00	0.00	0.00	—	0.00
2057	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2058	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2059	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2060	—	—	—	—	—	180	180	—	44.9	44.9	—	0.00	0.00	0.00	0.00	—	0.00
2061	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2062	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2063	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2064	—	—	—	—	—	180	180	—	44.9	44.9	—	0.00	0.00	0.00	0.00	—	0.00
2065	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2066	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2067	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2068	—	—	—	—	—	180	180	—	44.9	44.9	—	0.00	0.00	0.00	0.00	—	0.00
2069	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2070	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2071	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2072	—	—	—	—	—	180	180	—	44.9	44.9	—	0.00	0.00	0.00	0.00	—	0.00
2073	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2074	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2075	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2076	—	—	—	—	—	180	180	—	44.9	44.9	—	0.00	0.00	0.00	0.00	—	0.00
2077	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2078	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00

2079	—	—	—	—	—	179	179	—	44.8	44.8	—	0.00	0.00	0.00	0.00	—	0.00
2080	0.00	—	—	—	—	36.9	36.9	—	9.23	9.23	—	0.00	0.00	0.00	0.00	—	0.00
2081	0.00	—	—	—	—	0.13	0.13	—	0.03	0.03	—	0.00	0.00	0.00	0.00	—	0.00
2082	0.00	—	—	—	—	0.13	0.13	—	0.03	0.03	—	0.00	0.00	0.00	0.00	—	0.00
2083	0.00	—	—	—	—	13.5	13.5	—	3.38	3.38	—	0.00	0.00	0.00	0.00	—	0.00
2084	0.00	—	—	—	—	32.2	32.2	—	8.05	8.05	—	0.00	0.00	0.00	0.00	—	0.00
2085	0.00	—	—	—	—	32.1	32.1	—	8.03	8.03	—	0.00	0.00	0.00	0.00	—	0.00
2086	0.00	—	—	—	—	30.7	30.7	—	7.68	7.68	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.38	3.56	3.19	< 0.005	0.16	0.03	0.18	0.14	0.01	0.15	—	427	427	0.02	< 0.005	0.05	429
2024	0.35	3.26	2.97	< 0.005	0.14	0.03	0.16	0.13	0.01	0.13	—	430	430	0.02	< 0.005	0.04	432
2025	0.32	2.90	2.72	< 0.005	0.12	0.03	0.15	0.11	0.01	0.12	—	429	429	0.02	< 0.005	0.04	430
2026	0.41	3.73	3.79	0.01	0.16	2.40	2.56	0.15	1.23	1.37	—	637	637	0.03	0.01	0.04	639
2027	0.40	3.63	3.80	0.01	0.15	2.48	2.63	0.14	1.25	1.39	—	666	666	0.03	0.01	0.04	668
2028	0.39	3.19	3.68	0.01	0.13	1.24	1.37	0.12	0.49	0.60	—	812	812	0.03	0.01	0.04	815
2029	0.37	2.97	3.62	0.01	0.12	1.23	1.35	0.11	0.48	0.59	—	809	809	0.03	0.01	0.03	812
2030	0.36	2.83	3.61	0.01	0.12	1.23	1.35	0.11	0.48	0.59	—	809	809	0.03	0.01	0.03	812
2031	0.35	2.70	3.57	0.01	0.11	1.23	1.35	0.10	0.48	0.59	—	808	808	0.03	0.01	0.03	811
2032	2.30	8.61	35.7	0.04	0.12	12.5	12.6	0.11	3.13	3.24	—	13,092	13,092	0.28	0.91	11.1	13,382
2033	6.09	20.4	96.5	0.12	0.14	35.6	35.7	0.14	8.52	8.66	—	37,414	37,414	0.72	1.87	30.5	38,021
2034	5.82	18.9	90.6	0.12	0.14	35.6	35.7	0.14	8.52	8.66	—	36,713	36,713	0.62	1.77	27.6	37,284
2035	5.71	18.4	86.9	0.12	0.14	35.6	35.7	0.14	8.52	8.66	—	36,065	36,065	0.61	1.77	19.3	36,627
2036	5.62	17.0	83.5	0.12	0.14	35.7	35.8	0.13	8.54	8.68	—	35,586	35,586	0.61	1.67	16.7	36,115
2037	5.43	16.6	79.7	0.12	0.13	35.6	35.7	0.13	8.52	8.65	—	34,959	34,959	0.56	1.67	14.2	35,484
2038	5.27	16.2	77.1	0.12	0.13	35.6	35.7	0.13	8.52	8.65	—	34,519	34,519	0.55	1.56	12.1	35,010
2039	5.11	16.0	74.6	0.12	0.13	35.6	35.7	0.13	8.52	8.65	—	34,097	34,097	0.55	1.56	10.3	34,587
2040	4.91	15.8	73.5	0.12	0.13	35.7	35.8	0.13	8.54	8.67	—	33,817	33,817	0.55	1.57	8.71	34,306

2041	3.77	14.5	70.9	0.12	0.13	35.6	35.7	0.13	8.52	8.65	—	33,394	33,394	0.54	1.56	7.35	33,881
2042	3.66	14.3	69.6	0.12	0.13	35.6	35.7	0.13	8.52	8.65	—	33,102	33,102	0.54	1.46	6.24	33,557
2043	3.66	14.2	68.4	0.12	0.13	35.6	35.7	0.13	8.52	8.65	—	32,846	32,846	0.49	1.46	5.29	33,298
2044	3.57	14.1	67.3	0.12	0.13	35.7	35.8	0.13	8.54	8.67	—	32,713	32,713	0.50	1.46	4.51	33,166
2045	3.44	13.8	67.0	0.12	0.13	35.6	35.7	0.13	8.52	8.65	—	32,430	32,430	0.38	1.46	3.82	32,878
2046	3.39	13.8	65.8	0.12	0.13	35.6	35.7	0.13	8.52	8.65	—	32,262	32,262	0.38	1.46	3.26	32,709
2047	3.33	13.7	65.8	0.12	0.13	35.6	35.7	0.13	8.52	8.65	—	32,118	32,118	0.38	1.41	2.77	32,551
2048	3.33	13.7	65.8	0.12	0.13	35.7	35.8	0.13	8.54	8.67	—	32,088	32,088	0.37	1.41	2.39	32,521
2049	3.32	13.7	65.5	0.12	0.13	35.6	35.7	0.13	8.52	8.65	—	31,898	31,898	0.37	1.41	2.07	32,330
2050	3.32	13.6	65.5	0.12	0.13	35.6	35.7	0.13	8.52	8.65	—	31,814	31,814	0.37	1.31	1.79	32,215
2051	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2052	—	—	—	—	—	32.8	32.8	—	8.20	8.20	—	0.00	0.00	0.00	0.00	—	0.00
2053	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2054	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2055	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2056	—	—	—	—	—	32.8	32.8	—	8.20	8.20	—	0.00	0.00	0.00	0.00	—	0.00
2057	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2058	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2059	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2060	—	—	—	—	—	32.8	32.8	—	8.20	8.20	—	0.00	0.00	0.00	0.00	—	0.00
2061	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2062	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2063	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2064	—	—	—	—	—	32.8	32.8	—	8.20	8.20	—	0.00	0.00	0.00	0.00	—	0.00
2065	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2066	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2067	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00

2068	—	—	—	—	—	32.8	32.8	—	8.20	8.20	—	0.00	0.00	0.00	0.00	—	0.00
2069	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2070	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2071	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2072	—	—	—	—	—	32.8	32.8	—	8.20	8.20	—	0.00	0.00	0.00	0.00	—	0.00
2073	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2074	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2075	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2076	—	—	—	—	—	32.8	32.8	—	8.20	8.20	—	0.00	0.00	0.00	0.00	—	0.00
2077	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2078	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2079	—	—	—	—	—	32.7	32.7	—	8.18	8.18	—	0.00	0.00	0.00	0.00	—	0.00
2080	0.00	—	—	—	—	6.74	6.74	—	1.69	1.69	—	0.00	0.00	0.00	0.00	—	0.00
2081	0.00	—	—	—	—	0.02	0.02	—	0.01	0.01	—	0.00	0.00	0.00	0.00	—	0.00
2082	0.00	—	—	—	—	0.02	0.02	—	0.01	0.01	—	0.00	0.00	0.00	0.00	—	0.00
2083	0.00	—	—	—	—	2.47	2.47	—	0.62	0.62	—	0.00	0.00	0.00	0.00	—	0.00
2084	0.00	—	—	—	—	5.88	5.88	—	1.47	1.47	—	0.00	0.00	0.00	0.00	—	0.00
2085	0.00	—	—	—	—	5.86	5.86	—	1.47	1.47	—	0.00	0.00	0.00	0.00	—	0.00
2086	0.00	—	—	—	—	5.60	5.60	—	1.40	1.40	—	0.00	0.00	0.00	0.00	—	0.00

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1,210	580	4,090	8.66	35.0	261	296	35.1	46.5	81.6	20,120	1,555,551	1,575,671	1,666	41.7	2,100	1,631,842

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1,035	581	2,335	8.33	34.0	261	295	33.8	46.5	80.3	20,120	1,525,189	1,545,309	1,667	42.8	1,772	1,601,510
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1,135	313	3,363	6.67	12.1	261	273	12.2	46.5	58.7	20,120	1,181,727	1,201,846	1,660	42.2	1,909	1,257,831
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	207	57.1	614	1.22	2.22	47.6	49.8	2.23	8.48	10.7	3,331	195,648	198,979	275	6.98	316	208,248

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	313	175	2,300	6.10	2.58	261	263	2.41	46.5	48.9	—	622,761	622,761	25.9	24.3	337	630,992
Area	892	314	1,734	1.99	25.2	—	25.2	25.5	—	25.5	0.00	384,634	384,634	7.36	0.76	—	385,044
Energy	5.23	91.8	56.3	0.57	7.22	—	7.22	7.22	—	7.22	—	514,956	514,956	38.5	4.23	—	517,178
Water	—	—	—	—	—	—	—	—	—	—	5,510	33,199	38,709	134	12.4	—	45,750
Waste	—	—	—	—	—	—	—	—	—	—	14,610	0.00	14,610	1,460	0.00	—	51,114
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,764	1,764
Total	1,210	580	4,090	8.66	35.0	261	296	35.1	46.5	81.6	20,120	1,555,551	1,575,671	1,666	41.7	2,100	1,631,842
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	313	191	2,151	5.85	2.58	261	263	2.41	46.5	48.9	—	597,346	597,346	26.9	25.5	8.73	605,624
Area	717	299	127	1.91	24.2	—	24.2	24.2	—	24.2	0.00	379,688	379,688	7.15	0.71	—	380,080

Energy	5.23	91.8	56.3	0.57	7.22	—	7.22	7.22	—	7.22	—	514,956	514,956	38.5	4.23	—	517,178
Water	—	—	—	—	—	—	—	—	—	—	5,510	33,199	38,709	134	12.4	—	45,750
Waste	—	—	—	—	—	—	—	—	—	—	14,610	0.00	14,610	1,460	0.00	—	51,114
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,764	1,764
Total	1,035	581	2,335	8.33	34.0	261	295	33.8	46.5	80.3	20,120	1,525,189	1,545,309	1,667	42.8	1,772	1,601,510
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	309	191	2,198	5.92	2.58	261	263	2.41	46.5	48.9	—	604,178	604,178	26.8	25.5	145	612,592
Area	821	30.3	1,109	0.18	2.35	—	2.35	2.57	—	2.57	0.00	29,394	29,394	0.63	0.08	—	29,433
Energy	5.23	91.8	56.3	0.57	7.22	—	7.22	7.22	—	7.22	—	514,956	514,956	38.5	4.23	—	517,178
Water	—	—	—	—	—	—	—	—	—	—	5,510	33,199	38,709	134	12.4	—	45,750
Waste	—	—	—	—	—	—	—	—	—	—	14,610	0.00	14,610	1,460	0.00	—	51,114
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,764	1,764
Total	1,135	313	3,363	6.67	12.1	261	273	12.2	46.5	58.7	20,120	1,181,727	1,201,846	1,660	42.2	1,909	1,257,831
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	56.4	34.8	401	1.08	0.47	47.6	48.0	0.44	8.48	8.92	—	100,028	100,028	4.43	4.22	24.1	101,422
Area	150	5.54	202	0.03	0.43	—	0.43	0.47	—	0.47	0.00	4,866	4,866	0.10	0.01	—	4,873
Energy	0.95	16.8	10.3	0.10	1.32	—	1.32	1.32	—	1.32	—	85,257	85,257	6.37	0.70	—	85,625
Water	—	—	—	—	—	—	—	—	—	—	912	5,496	6,409	22.2	2.05	—	7,574
Waste	—	—	—	—	—	—	—	—	—	—	2,419	0.00	2,419	242	0.00	—	8,463
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	292	292
Total	207	57.1	614	1.22	2.22	47.6	49.8	2.23	8.48	10.7	3,331	195,648	198,979	275	6.98	316	208,248

3. Construction Emissions Details

3.1. Demolition (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.84	27.3	23.5	0.03	1.20	—	1.20	1.10	—	1.10	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.84	27.3	23.5	0.03	1.20	—	1.20	1.10	—	1.10	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.02	19.4	16.7	0.02	0.85	—	0.85	0.78	—	0.78	—	2,433	2,433	0.10	0.02	—	2,441
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	3.55	3.05	< 0.005	0.16	—	0.16	0.14	—	0.14	—	403	403	0.02	< 0.005	—	404
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.08	1.23	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	217	217	0.01	0.01	0.92	220
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.09	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	205	205	0.01	0.01	0.02	208
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.06	0.77	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	148	148	0.01	0.01	0.28	150
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	24.5	24.5	< 0.005	< 0.005	0.05	24.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.87	17.8	15.6	0.02	0.76	—	0.76	0.70	—	0.70	—	2,453	2,453	0.10	0.02	—	2,462
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	3.25	2.84	< 0.005	0.14	—	0.14	0.13	—	0.13	—	406	406	0.02	< 0.005	—	408
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	1.13	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	212	212	0.01	0.01	0.84	215
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.08	0.96	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	201	201	0.01	0.01	0.02	203
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.06	0.72	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	146	146	0.01	0.01	0.26	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	24.2	24.2	< 0.005	< 0.005	0.04	24.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.71	15.9	14.2	0.02	0.66	—	0.66	0.60	—	0.60	—	2,446	2,446	0.10	0.02	—	2,455
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	2.89	2.60	< 0.005	0.12	—	0.12	0.11	—	0.11	—	405	405	0.02	< 0.005	—	406
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.06	0.06	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	207	207	0.01	0.01	0.76	210
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	197	197	0.01	0.01	0.02	199
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.06	0.66	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	143	143	0.01	0.01	0.23	144
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	23.6	23.6	< 0.005	< 0.005	0.04	23.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Demolition (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.29	20.7	19.0	0.03	0.84	—	0.84	0.78	—	0.78	—	3,427	3,427	0.14	0.03	—	3,438
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.09	1.00	< 0.005	0.04	—	0.04	0.04	—	0.04	—	181	181	0.01	< 0.005	—	182
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.20	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	30.0	30.0	< 0.005	< 0.005	—	30.1
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	193	193	0.01	0.01	0.02	195
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.3	10.3	< 0.005	< 0.005	0.02	10.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.71	1.71	< 0.005	< 0.005	< 0.005	1.73
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.08	19.3	19.1	0.03	0.82	—	0.82	0.76	—	0.76	—	3,504	3,504	0.14	0.03	—	3,516
Dust From Material Movement	—	—	—	—	—	13.0	13.0	—	6.68	6.68	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	3.52	3.48	0.01	0.15	—	0.15	0.14	—	0.14	—	580	580	0.02	< 0.005	—	582
Dust From Material Movement	—	—	—	—	—	2.37	2.37	—	1.22	1.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	1.13	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	237	237	0.01	0.01	0.80	241
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.08	0.96	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	225	225	0.01	0.01	0.02	228
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.67	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	151	151	0.01	0.01	0.23	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.0	25.0	< 0.005	< 0.005	0.04	25.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Site Preparation (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.05	28.0	28.3	0.05	1.17	—	1.17	1.08	—	1.08	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.05	28.0	28.3	0.05	1.17	—	1.17	1.08	—	1.08	—	5,298	5,298	0.21	0.04	—	5,316

Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.00	18.3	18.5	0.03	0.77	—	0.77	0.71	—	0.71	—	3,473	3,473	0.14	0.03	—	3,485
Dust From Material Movement	—	—	—	—	—	12.9	12.9	—	6.62	6.62	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	3.35	3.38	0.01	0.14	—	0.14	0.13	—	0.13	—	575	575	0.02	< 0.005	—	577
Dust From Material Movement	—	—	—	—	—	2.35	2.35	—	1.21	1.21	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	1.05	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	233	233	0.01	0.01	0.72	236
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.06	0.08	0.89	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	220	220	< 0.005	0.01	0.02	223
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.61	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	147	147	< 0.005	0.01	0.20	149
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	24.3	24.3	< 0.005	< 0.005	0.03	24.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Grading (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.95	25.6	27.3	0.06	1.04	—	1.04	0.96	—	0.96	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	1.50	1.60	< 0.005	0.06	—	0.06	0.06	—	0.06	—	387	387	0.02	< 0.005	—	389
Dust From Material Movement	—	—	—	—	—	0.54	0.54	—	0.21	0.21	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.27	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	64.1	64.1	< 0.005	< 0.005	—	64.4
Dust From Material Movement	—	—	—	—	—	0.10	0.10	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.09	1.02	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	252	252	< 0.005	0.01	0.02	255
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.0	15.0	< 0.005	< 0.005	0.02	15.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.49	2.49	< 0.005	< 0.005	< 0.005	2.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Grading (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.88	24.3	27.2	0.06	0.99	—	0.99	0.91	—	0.91	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.88	24.3	27.2	0.06	0.99	—	0.99	0.91	—	0.91	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.06	17.4	19.5	0.04	0.71	—	0.71	0.65	—	0.65	—	4,726	4,726	0.19	0.04	—	4,742
Dust From Material Movement	—	—	—	—	—	6.59	6.59	—	2.62	2.62	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	3.18	3.55	0.01	0.13	—	0.13	0.12	—	0.12	—	782	782	0.03	0.01	—	785
Dust From Material Movement	—	—	—	—	—	1.20	1.20	—	0.48	0.48	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	1.13	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	261	261	< 0.005	0.01	0.74	265
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.08	0.96	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	247	247	< 0.005	0.01	0.02	250
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.06	0.72	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	180	180	< 0.005	0.01	0.23	182
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.8	29.8	< 0.005	< 0.005	0.04	30.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Grading (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.79	22.7	26.9	0.06	0.92	—	0.92	0.84	—	0.84	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.79	22.7	26.9	0.06	0.92	—	0.92	0.84	—	0.84	—	6,596	6,596	0.27	0.05	—	6,619

Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.99	16.2	19.2	0.04	0.65	—	0.65	0.60	—	0.60	—	4,712	4,712	0.19	0.04	—	4,728
Dust From Material Movement	—	—	—	—	—	6.57	6.57	—	2.61	2.61	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	2.96	3.50	0.01	0.12	—	0.12	0.11	—	0.11	—	780	780	0.03	0.01	—	783
Dust From Material Movement	—	—	—	—	—	1.20	1.20	—	0.48	0.48	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	1.05	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	257	257	< 0.005	0.01	0.67	260
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.06	0.07	0.89	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	243	243	< 0.005	0.01	0.02	246
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.67	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	176	176	< 0.005	0.01	0.21	179
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.2	29.2	< 0.005	< 0.005	0.03	29.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Grading (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.72	21.7	26.9	0.06	0.88	—	0.88	0.81	—	0.81	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.72	21.7	26.9	0.06	0.88	—	0.88	0.81	—	0.81	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.94	15.5	19.2	0.04	0.63	—	0.63	0.58	—	0.58	—	4,711	4,711	0.19	0.04	—	4,728
Dust From Material Movement	—	—	—	—	—	6.57	6.57	—	2.61	2.61	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	2.82	3.50	0.01	0.12	—	0.12	0.11	—	0.11	—	780	780	0.03	0.01	—	783
Dust From Material Movement	—	—	—	—	—	1.20	1.20	—	0.48	0.48	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.99	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	252	252	< 0.005	0.01	0.59	256
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.84	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	239	239	< 0.005	0.01	0.02	242
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.63	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	173	173	< 0.005	0.01	0.18	176
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.7	28.7	< 0.005	< 0.005	0.03	29.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Grading (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.66	20.6	26.6	0.06	0.86	—	0.86	0.79	—	0.79	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.66	20.6	26.6	0.06	0.86	—	0.86	0.79	—	0.79	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.90	14.7	19.0	0.04	0.61	—	0.61	0.56	—	0.56	—	4,711	4,711	0.19	0.04	—	4,728
Dust From Material Movement	—	—	—	—	—	6.57	6.57	—	2.61	2.61	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	2.69	3.47	0.01	0.11	—	0.11	0.10	—	0.10	—	780	780	0.03	0.01	—	783
Dust From Material Movement	—	—	—	—	—	1.20	1.20	—	0.48	0.48	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.93	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	249	249	< 0.005	< 0.005	0.53	250

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.06	0.79	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	236	236	< 0.005	0.01	0.01	239
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.59	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	171	171	< 0.005	0.01	0.16	173
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.3	28.3	< 0.005	< 0.005	0.03	28.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Grading (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.56	19.4	25.8	0.06	0.79	—	0.79	0.73	—	0.73	—	6,596	6,596	0.27	0.05	—	6,619

Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.56	19.4	25.8	0.06	0.79	—	0.79	0.73	—	0.73	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	9.35	12.4	0.03	0.38	—	0.38	0.35	—	0.35	—	3,175	3,175	0.13	0.03	—	3,186
Dust From Material Movement	—	—	—	—	—	4.43	4.43	—	1.76	1.76	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	1.71	2.26	0.01	0.07	—	0.07	0.06	—	0.06	—	526	526	0.02	< 0.005	—	528
Dust From Material Movement	—	—	—	—	—	0.81	0.81	—	0.32	0.32	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.87	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	245	245	< 0.005	< 0.005	0.46	246
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.74	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	233	233	< 0.005	< 0.005	0.01	233
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.37	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	114	114	< 0.005	< 0.005	0.10	115
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	18.8	18.8	< 0.005	< 0.005	0.02	19.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.25. Building Construction (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.90	7.87	12.8	0.02	0.22	—	0.22	0.21	—	0.21	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90	7.87	12.8	0.02	0.22	—	0.22	0.21	—	0.21	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	1.85	3.00	0.01	0.05	—	0.05	0.05	—	0.05	—	563	563	0.02	< 0.005	—	565
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.34	0.55	< 0.005	0.01	—	0.01	0.01	—	0.01	—	93.2	93.2	< 0.005	< 0.005	—	93.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	45.8	38.6	804	0.00	0.00	241	241	0.00	56.5	56.5	—	226,262	226,262	2.03	1.22	428	227,105
Vendor	2.59	102	50.1	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	102,564	102,564	4.00	14.6	233	107,246
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	45.4	47.0	681	0.00	0.00	241	241	0.00	56.5	56.5	—	214,602	214,602	2.44	1.22	11.1	215,038

Vendor	2.42	107	51.4	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	102,642	102,642	4.00	14.6	6.03	107,097
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	10.6	10.9	168	0.00	0.00	56.3	56.3	0.00	13.2	13.2	—	51,133	51,133	0.57	2.05	43.5	51,803
Vendor	0.59	25.0	11.9	0.21	0.21	7.78	7.98	0.21	2.15	2.36	—	24,093	24,093	0.94	3.43	23.6	25,161
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.93	2.00	30.6	0.00	0.00	10.3	10.3	0.00	2.41	2.41	—	8,466	8,466	0.09	0.34	7.20	8,577
Vendor	0.11	4.57	2.18	0.04	0.04	1.42	1.46	0.04	0.39	0.43	—	3,989	3,989	0.16	0.57	3.90	4,166
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.27. Building Construction (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	7.67	12.8	0.02	0.20	—	0.20	0.19	—	0.19	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	7.67	12.8	0.02	0.20	—	0.20	0.19	—	0.19	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	5.48	9.13	0.02	0.15	—	0.15	0.13	—	0.13	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	1.00	1.67	< 0.005	0.03	—	0.03	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	44.1	38.2	762	0.00	0.00	241	241	0.00	56.5	56.5	—	223,262	223,262	2.03	1.22	377	224,053
Vendor	2.59	98.3	48.3	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	99,082	99,082	4.00	14.6	221	103,753
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	43.3	39.1	644	0.00	0.00	241	241	0.00	56.5	56.5	—	211,772	211,772	2.03	1.22	9.75	212,196
Vendor	2.42	103	49.5	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	99,162	99,162	4.00	14.6	5.74	103,617
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	30.9	33.3	485	0.00	0.00	171	171	0.00	40.1	40.1	—	153,476	153,476	1.45	0.87	116	153,888
Vendor	1.79	73.2	34.8	0.62	0.62	23.7	24.3	0.62	6.54	7.16	—	70,797	70,797	2.85	10.4	68.2	74,043
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.65	6.07	88.5	0.00	0.00	31.3	31.3	0.00	7.33	7.33	—	25,410	25,410	0.24	0.14	19.2	25,478

Vendor	0.33	13.4	6.36	0.11	0.11	4.32	4.43	0.11	1.19	1.31	—	11,721	11,721	0.47	1.73	11.3	12,259
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.29. Building Construction (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86	7.52	12.8	0.02	0.19	—	0.19	0.18	—	0.18	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86	7.52	12.8	0.02	0.19	—	0.19	0.18	—	0.18	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	5.37	9.12	0.02	0.14	—	0.14	0.13	—	0.13	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.98	1.66	< 0.005	0.03	—	0.03	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	42.1	30.3	719	0.00	0.00	241	241	0.00	56.5	56.5	—	220,640	220,640	2.03	1.22	328	221,383
Vendor	2.59	94.3	46.3	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	95,671	95,671	3.12	13.7	211	100,049
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	41.7	38.6	608	0.00	0.00	241	241	0.00	56.5	56.5	—	209,291	209,291	2.03	1.22	8.51	209,714
Vendor	2.42	98.9	47.5	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	95,753	95,753	3.12	13.7	5.50	99,925
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	29.5	27.6	454	0.00	0.00	171	171	0.00	40.1	40.1	—	151,678	151,678	1.45	0.87	101	152,075
Vendor	1.79	70.4	33.5	0.62	0.62	23.7	24.3	0.62	6.54	7.16	—	68,361	68,361	2.23	9.80	65.4	71,402
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.38	5.04	82.8	0.00	0.00	31.3	31.3	0.00	7.33	7.33	—	25,112	25,112	0.24	0.14	16.8	25,178
Vendor	0.33	12.9	6.12	0.11	0.11	4.32	4.43	0.11	1.19	1.31	—	11,318	11,318	0.37	1.62	10.8	11,821
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.31. Building Construction (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.85	7.34	12.7	0.02	0.18	—	0.18	0.17	—	0.17	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85	7.34	12.7	0.02	0.18	—	0.18	0.17	—	0.17	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61	5.24	9.06	0.02	0.13	—	0.13	0.12	—	0.12	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.96	1.65	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	40.9	30.3	685	0.00	0.00	241	241	0.00	56.5	56.5	—	218,316	218,316	1.63	1.22	285	219,006
Vendor	2.59	91.2	45.3	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	92,415	92,415	3.04	13.7	94.2	96,674
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	40.5	38.6	581	0.00	0.00	241	241	0.00	56.5	56.5	—	207,094	207,094	2.03	1.22	7.39	207,516

Vendor	2.42	95.7	46.4	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	92,499	92,499	3.04	13.7	2.44	96,666
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	28.9	27.3	434	0.00	0.00	171	171	0.00	40.1	40.1	—	150,087	150,087	1.45	0.87	87.6	150,471
Vendor	1.79	68.2	32.8	0.62	0.62	23.7	24.3	0.62	6.54	7.16	—	66,036	66,036	2.17	9.80	29.0	69,040
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.28	4.98	79.3	0.00	0.00	31.3	31.3	0.00	7.33	7.33	—	24,849	24,849	0.24	0.14	14.5	24,912
Vendor	0.33	12.4	5.98	0.11	0.11	4.32	4.43	0.11	1.19	1.31	—	10,933	10,933	0.36	1.62	4.81	11,430
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.33. Building Construction (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.83	7.12	12.6	0.02	0.17	—	0.17	0.16	—	0.16	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.83	7.12	12.6	0.02	0.17	—	0.17	0.16	—	0.16	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	5.10	9.03	0.02	0.12	—	0.12	0.11	—	0.11	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.93	1.65	< 0.005	0.02	—	0.02	0.02	—	0.02	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	40.1	29.9	652	0.00	0.00	241	241	0.00	56.5	56.5	—	216,410	216,410	1.63	1.22	248	217,062
Vendor	2.59	88.2	44.3	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	89,372	89,372	3.04	12.8	78.8	93,354
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	40.1	30.7	554	0.00	0.00	241	241	0.00	56.5	56.5	—	205,299	205,299	2.03	1.22	6.40	205,719
Vendor	2.42	92.7	45.4	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	89,456	89,456	3.04	12.8	2.04	93,362
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	28.4	22.0	416	0.00	0.00	172	172	0.00	40.3	40.3	—	149,185	149,185	1.46	0.87	76.5	149,559
Vendor	1.79	66.3	32.2	0.63	0.63	23.7	24.4	0.63	6.56	7.18	—	64,037	64,037	2.17	9.20	24.4	66,858
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.18	4.01	75.9	0.00	0.00	31.4	31.4	0.00	7.35	7.35	—	24,699	24,699	0.24	0.14	12.7	24,761

Vendor	0.33	12.1	5.87	0.11	0.11	4.33	4.44	0.11	1.20	1.31	—	10,602	10,602	0.36	1.52	4.03	11,069
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.35. Building Construction (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	6.99	12.5	0.02	0.16	—	0.16	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	6.99	12.5	0.02	0.16	—	0.16	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	4.99	8.93	0.02	0.11	—	0.11	0.10	—	0.10	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.91	1.63	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	38.4	29.9	626	0.00	0.00	241	241	0.00	56.5	56.5	—	214,575	214,575	1.63	1.22	213	215,192
Vendor	2.50	86.1	43.4	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	86,657	86,657	3.04	12.8	65.3	90,626
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	38.9	30.3	527	0.00	0.00	241	241	0.00	56.5	56.5	—	203,560	203,560	1.63	1.22	5.53	203,970
Vendor	2.42	90.7	44.5	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	86,741	86,741	3.04	12.8	1.69	90,647
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	27.5	21.6	396	0.00	0.00	171	171	0.00	40.1	40.1	—	147,520	147,520	1.16	0.87	65.8	147,875
Vendor	1.73	64.6	31.3	0.62	0.62	23.7	24.3	0.62	6.54	7.16	—	61,923	61,923	2.17	9.18	20.1	64,731
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.01	3.95	72.3	0.00	0.00	31.3	31.3	0.00	7.33	7.33	—	24,424	24,424	0.19	0.14	10.9	24,482
Vendor	0.32	11.8	5.72	0.11	0.11	4.32	4.43	0.11	1.19	1.31	—	10,252	10,252	0.36	1.52	3.33	10,717
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.37. Building Construction (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.81	6.89	12.5	0.02	0.15	—	0.15	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81	6.89	12.5	0.02	0.15	—	0.15	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	4.92	8.90	0.02	0.11	—	0.11	0.10	—	0.10	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.90	1.62	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	37.2	29.5	608	0.00	0.00	241	241	0.00	56.5	56.5	—	213,247	213,247	1.63	1.22	184	213,835
Vendor	2.50	84.1	41.5	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	84,209	84,209	2.95	12.0	53.5	87,903
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	37.6	30.3	509	0.00	0.00	241	241	0.00	56.5	56.5	—	202,299	202,299	1.63	1.22	4.77	202,708

Vendor	2.33	87.8	42.7	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	84,296	84,296	2.95	12.0	1.39	87,938
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	26.6	21.6	383	0.00	0.00	171	171	0.00	40.1	40.1	—	146,608	146,608	1.16	0.87	56.7	146,954
Vendor	1.73	62.5	30.0	0.62	0.62	23.7	24.3	0.62	6.54	7.16	—	60,175	60,175	2.11	8.55	16.5	62,793
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.85	3.95	70.0	0.00	0.00	31.3	31.3	0.00	7.33	7.33	—	24,273	24,273	0.19	0.14	9.38	24,330
Vendor	0.32	11.4	5.48	0.11	0.11	4.32	4.43	0.11	1.19	1.31	—	9,963	9,963	0.35	1.42	2.74	10,396
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.39. Building Construction (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	6.78	12.4	0.02	0.15	—	0.15	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	6.78	12.4	0.02	0.15	—	0.15	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	4.84	8.86	0.02	0.10	—	0.10	0.10	—	0.10	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.88	1.62	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	36.4	22.0	591	0.00	0.00	241	241	0.00	56.5	56.5	—	211,824	211,824	1.63	1.22	158	212,387
Vendor	2.50	82.0	40.6	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	82,022	82,022	2.95	12.0	43.3	85,706
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	36.4	30.3	491	0.00	0.00	241	241	0.00	56.5	56.5	—	200,950	200,950	1.63	1.22	4.09	201,359
Vendor	2.33	85.7	41.7	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	82,110	82,110	2.95	12.0	1.12	85,752
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	25.7	21.4	371	0.00	0.00	171	171	0.00	40.1	40.1	—	145,624	145,624	1.16	0.87	48.7	145,961
Vendor	1.73	61.7	29.4	0.62	0.62	23.7	24.3	0.62	6.54	7.16	—	58,614	58,614	2.11	8.55	13.3	61,228
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.69	3.90	67.6	0.00	0.00	31.3	31.3	0.00	7.33	7.33	—	24,110	24,110	0.19	0.14	8.06	24,166

Vendor	0.32	11.3	5.36	0.11	0.11	4.32	4.43	0.11	1.19	1.31	—	9,704	9,704	0.35	1.42	2.20	10,137
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.41. Building Construction (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	6.71	12.4	0.02	0.14	—	0.14	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	6.71	12.4	0.02	0.14	—	0.14	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	4.80	8.87	0.02	0.10	—	0.10	0.09	—	0.09	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.88	1.62	< 0.005	0.02	—	0.02	0.02	—	0.02	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	34.8	22.0	574	0.00	0.00	241	241	0.00	56.5	56.5	—	210,569	210,569	1.22	1.22	136	211,099
Vendor	2.50	80.8	40.6	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	80,064	80,064	2.95	12.0	34.5	83,740
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	34.4	29.9	481	0.00	0.00	241	241	0.00	56.5	56.5	—	199,770	199,770	1.63	1.22	3.51	200,178
Vendor	2.33	84.6	41.6	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	80,153	80,153	2.95	12.0	0.90	83,795
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	24.6	21.4	365	0.00	0.00	172	172	0.00	40.3	40.3	—	145,167	145,167	1.17	0.87	41.9	145,499
Vendor	1.73	60.4	29.4	0.63	0.63	23.7	24.4	0.63	6.56	7.18	—	57,372	57,372	2.11	8.57	10.7	59,991
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.49	3.91	66.5	0.00	0.00	31.4	31.4	0.00	7.35	7.35	—	24,034	24,034	0.19	0.14	6.94	24,089
Vendor	0.32	11.0	5.37	0.11	0.11	4.33	4.44	0.11	1.20	1.31	—	9,499	9,499	0.35	1.42	1.76	9,932
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.43. Building Construction (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.80	6.65	12.3	0.02	0.14	—	0.14	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	6.65	12.3	0.02	0.14	—	0.14	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	4.75	8.81	0.02	0.10	—	0.10	0.09	—	0.09	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.87	1.61	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	26.0	21.6	557	0.00	0.00	241	241	0.00	56.5	56.5	—	209,483	209,483	1.22	0.81	116	209,872
Vendor	2.50	78.7	39.6	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	78,314	78,314	2.86	12.0	27.5	81,981
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	26.0	22.4	472	0.00	0.00	241	241	0.00	56.5	56.5	—	198,743	198,743	1.63	1.22	3.01	199,151

Vendor	2.33	82.5	40.6	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	78,404	78,404	2.86	12.0	0.71	82,044
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	18.3	16.0	351	0.00	0.00	171	171	0.00	40.1	40.1	—	144,026	144,026	1.16	0.87	35.9	144,351
Vendor	1.79	58.7	28.6	0.62	0.62	23.7	24.3	0.62	6.54	7.16	—	55,966	55,966	2.05	8.55	8.50	58,573
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.34	2.92	64.1	0.00	0.00	31.3	31.3	0.00	7.33	7.33	—	23,845	23,845	0.19	0.14	5.94	23,899
Vendor	0.33	10.7	5.22	0.11	0.11	4.32	4.43	0.11	1.19	1.31	—	9,266	9,266	0.34	1.42	1.41	9,698
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.45. Building Construction (2042) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79	6.60	12.3	0.02	0.13	—	0.13	0.12	—	0.12	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79	6.60	12.3	0.02	0.13	—	0.13	0.12	—	0.12	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	4.72	8.81	0.02	0.10	—	0.10	0.09	—	0.09	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.86	1.61	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	25.2	21.6	540	0.00	0.00	241	241	0.00	56.5	56.5	—	208,519	208,519	1.22	0.81	99.9	208,892
Vendor	2.59	77.7	38.7	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	76,771	76,771	2.86	11.1	22.3	80,172
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	24.8	22.4	455	0.00	0.00	241	241	0.00	56.5	56.5	—	197,831	197,831	1.63	1.22	2.59	198,238
Vendor	2.33	81.5	39.7	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	76,862	76,862	2.86	11.1	0.58	80,241
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	17.7	15.7	345	0.00	0.00	171	171	0.00	40.1	40.1	—	143,364	143,364	1.16	0.87	30.8	143,684
Vendor	1.79	58.0	28.0	0.62	0.62	23.7	24.3	0.62	6.54	7.16	—	54,864	54,864	2.05	7.93	6.87	57,284
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.23	2.86	62.9	0.00	0.00	31.3	31.3	0.00	7.33	7.33	—	23,736	23,736	0.19	0.14	5.10	23,788

Vendor	0.33	10.6	5.11	0.11	0.11	4.32	4.43	0.11	1.19	1.31	—	9,083	9,083	0.34	1.31	1.14	9,484
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.47. Building Construction (2043) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79	6.55	12.3	0.02	0.13	—	0.13	0.12	—	0.12	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79	6.55	12.3	0.02	0.13	—	0.13	0.12	—	0.12	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	4.68	8.77	0.02	0.09	—	0.09	0.09	—	0.09	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.85	1.60	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	24.4	21.6	532	0.00	0.00	241	241	0.00	56.5	56.5	—	207,662	207,662	1.22	0.81	85.5	208,021
Vendor	2.59	76.6	38.7	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	75,423	75,423	2.86	11.1	18.1	78,819
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	24.8	22.0	445	0.00	0.00	241	241	0.00	56.5	56.5	—	197,026	197,026	1.63	1.22	2.22	197,433
Vendor	2.42	80.5	39.7	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	75,515	75,515	2.86	11.1	0.47	78,893
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	17.7	15.7	338	0.00	0.00	171	171	0.00	40.1	40.1	—	142,779	142,779	0.87	0.87	26.4	143,086
Vendor	1.79	57.3	28.0	0.62	0.62	23.7	24.3	0.62	6.54	7.16	—	53,901	53,901	2.05	7.93	5.60	56,320
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.23	2.86	61.7	0.00	0.00	31.3	31.3	0.00	7.33	7.33	—	23,639	23,639	0.14	0.14	4.37	23,690
Vendor	0.33	10.5	5.11	0.11	0.11	4.32	4.43	0.11	1.19	1.31	—	8,924	8,924	0.34	1.31	0.93	9,324
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.49. Building Construction (2044) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.78	6.48	12.2	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	6.48	12.2	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	4.64	8.76	0.02	0.09	—	0.09	0.08	—	0.08	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.85	1.60	< 0.005	0.02	—	0.02	0.01	—	0.01	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	24.4	21.2	523	0.00	0.00	241	241	0.00	56.5	56.5	—	206,936	206,936	1.22	0.81	73.3	207,282
Vendor	2.59	75.6	37.8	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	74,240	74,240	2.86	11.1	14.8	77,633
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	24.0	22.0	444	0.00	0.00	241	241	0.00	56.5	56.5	—	196,337	196,337	1.22	1.22	1.90	196,733

Vendor	2.42	79.6	38.8	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	74,333	74,333	2.78	11.1	0.38	77,709
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	17.2	15.7	333	0.00	0.00	172	172	0.00	40.3	40.3	—	142,671	142,671	0.87	0.87	22.7	142,976
Vendor	1.79	56.7	27.3	0.63	0.63	23.7	24.4	0.63	6.56	7.18	—	53,202	53,202	2.05	7.95	4.55	55,626
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.14	2.87	60.8	0.00	0.00	31.4	31.4	0.00	7.35	7.35	—	23,621	23,621	0.14	0.14	3.75	23,671
Vendor	0.33	10.3	4.98	0.11	0.11	4.33	4.44	0.11	1.20	1.31	—	8,808	8,808	0.34	1.32	0.75	9,210
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.51. Building Construction (2045) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	6.42	12.2	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	6.42	12.2	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	4.59	8.68	0.02	0.09	—	0.09	0.08	—	0.08	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.84	1.58	< 0.005	0.02	—	0.02	0.01	—	0.01	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	23.2	21.2	522	0.00	0.00	241	241	0.00	56.5	56.5	—	206,286	206,286	1.22	0.81	62.9	206,622
Vendor	2.50	74.6	37.8	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	73,217	73,217	1.90	11.1	11.9	76,583
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	23.2	22.0	436	0.00	0.00	241	241	0.00	56.5	56.5	—	195,724	195,724	1.22	1.22	1.63	196,120
Vendor	2.33	78.5	38.7	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	73,311	73,311	1.90	11.1	0.31	76,665
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	16.6	15.4	331	0.00	0.00	171	171	0.00	40.1	40.1	—	141,838	141,838	0.87	0.87	19.4	142,139
Vendor	1.73	55.9	27.2	0.62	0.62	23.7	24.3	0.62	6.54	7.16	—	52,326	52,326	1.36	7.93	3.68	54,726
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.02	2.81	60.5	0.00	0.00	31.3	31.3	0.00	7.33	7.33	—	23,483	23,483	0.14	0.14	3.21	23,533

Vendor	0.32	10.2	4.97	0.11	0.11	4.32	4.43	0.11	1.19	1.31	—	8,663	8,663	0.23	1.31	0.61	9,060
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.53. Building Construction (2046) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	6.38	12.1	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	6.38	12.1	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	4.56	8.66	0.02	0.08	—	0.08	0.08	—	0.08	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.83	1.58	< 0.005	0.02	—	0.02	0.01	—	0.01	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	22.8	21.2	514	0.00	0.00	241	241	0.00	56.5	56.5	—	205,728	205,728	1.22	0.81	54.0	206,055
Vendor	2.50	74.6	36.8	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	72,335	72,335	1.90	11.1	9.67	75,699
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	22.8	22.0	435	0.00	0.00	241	241	0.00	56.5	56.5	—	195,196	195,196	1.22	1.22	1.40	195,592
Vendor	2.33	78.4	37.8	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	72,429	72,429	1.90	11.1	0.25	75,784
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	16.3	15.4	325	0.00	0.00	171	171	0.00	40.1	40.1	—	141,455	141,455	0.87	0.87	16.7	141,753
Vendor	1.73	55.7	26.6	0.62	0.62	23.7	24.3	0.62	6.54	7.16	—	51,696	51,696	1.36	7.93	2.98	54,095
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.97	2.81	59.4	0.00	0.00	31.3	31.3	0.00	7.33	7.33	—	23,420	23,420	0.14	0.14	2.76	23,469
Vendor	0.32	10.2	4.86	0.11	0.11	4.32	4.43	0.11	1.19	1.31	—	8,559	8,559	0.23	1.31	0.49	8,956
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.55. Building Construction (2047) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.76	6.33	12.1	0.02	0.11	—	0.11	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	6.33	12.1	0.02	0.11	—	0.11	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	4.52	8.63	0.02	0.08	—	0.08	0.08	—	0.08	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.83	1.58	< 0.005	0.01	—	0.01	0.01	—	0.01	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	22.4	21.2	514	0.00	0.00	241	241	0.00	56.5	56.5	—	205,253	205,253	1.22	0.81	46.5	205,573
Vendor	2.50	73.6	36.8	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	71,579	71,579	1.90	11.1	7.84	74,941
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	22.8	21.6	435	0.00	0.00	241	241	0.00	56.5	56.5	—	194,752	194,752	1.22	1.22	1.21	195,147

Vendor	2.33	77.6	37.8	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	71,674	71,674	1.90	11.1	0.20	75,029
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	16.0	15.4	325	0.00	0.00	171	171	0.00	40.1	40.1	—	141,127	141,127	0.87	0.58	14.3	141,336
Vendor	1.73	55.1	26.6	0.62	0.62	23.7	24.3	0.62	6.54	7.16	—	51,156	51,156	1.36	7.93	2.42	53,555
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.92	2.81	59.3	0.00	0.00	31.3	31.3	0.00	7.33	7.33	—	23,365	23,365	0.14	0.10	2.37	23,400
Vendor	0.32	10.1	4.86	0.11	0.11	4.32	4.43	0.11	1.19	1.31	—	8,470	8,470	0.23	1.31	0.40	8,867
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.57. Building Construction (2048) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	6.26	12.0	0.02	0.11	—	0.11	0.10	—	0.10	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	6.26	12.0	0.02	0.11	—	0.11	0.10	—	0.10	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	4.48	8.56	0.02	0.08	—	0.08	0.07	—	0.07	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.82	1.56	< 0.005	0.01	—	0.01	0.01	—	0.01	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	22.4	21.2	514	0.00	0.00	241	241	0.00	56.5	56.5	—	204,879	204,879	1.22	0.81	40.5	205,192
Vendor	2.42	73.5	35.9	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	70,930	70,930	1.82	11.1	6.37	74,288
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	22.4	21.6	427	0.00	0.00	241	241	0.00	56.5	56.5	—	194,400	194,400	1.22	1.22	1.05	194,795
Vendor	2.25	77.4	36.9	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	71,026	71,026	1.82	11.1	0.17	74,379
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	16.0	15.4	326	0.00	0.00	172	172	0.00	40.3	40.3	—	141,261	141,261	0.87	0.58	12.5	141,469
Vendor	1.67	55.1	26.1	0.63	0.63	23.7	24.4	0.63	6.56	7.18	—	50,832	50,832	1.30	7.95	1.97	53,235
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.92	2.82	59.5	0.00	0.00	31.4	31.4	0.00	7.35	7.35	—	23,387	23,387	0.14	0.10	2.07	23,422

Vendor	0.30	10.1	4.75	0.11	0.11	4.33	4.44	0.11	1.20	1.31	—	8,416	8,416	0.22	1.32	0.33	8,814
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.59. Building Construction (2049) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	6.22	11.9	0.02	0.11	—	0.11	0.10	—	0.10	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	6.22	11.9	0.02	0.11	—	0.11	0.10	—	0.10	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	4.45	8.53	0.02	0.08	—	0.08	0.07	—	0.07	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.81	1.56	< 0.005	0.01	—	0.01	0.01	—	0.01	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	22.4	21.2	513	0.00	0.00	241	241	0.00	56.5	56.5	—	204,565	204,565	1.22	0.81	35.3	204,874
Vendor	2.42	73.4	35.9	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	70,378	70,378	1.82	11.1	5.18	73,735
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	22.4	21.6	426	0.00	0.00	241	241	0.00	56.5	56.5	—	194,101	194,101	1.22	1.22	0.91	194,496
Vendor	2.25	77.5	36.7	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	70,475	70,475	1.82	11.1	0.13	73,827
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	16.0	15.4	325	0.00	0.00	171	171	0.00	40.1	40.1	—	140,657	140,657	0.87	0.58	10.9	140,863
Vendor	1.67	55.1	25.9	0.62	0.62	23.7	24.3	0.62	6.54	7.16	—	50,299	50,299	1.30	7.93	1.60	52,695
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.92	2.81	59.2	0.00	0.00	31.3	31.3	0.00	7.33	7.33	—	23,287	23,287	0.14	0.10	1.81	23,321
Vendor	0.30	10.0	4.72	0.11	0.11	4.32	4.43	0.11	1.19	1.31	—	8,328	8,328	0.21	1.31	0.26	8,724
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.61. Building Construction (2050) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.75	6.19	11.9	0.02	0.11	—	0.11	0.10	—	0.10	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75	6.19	11.9	0.02	0.11	—	0.11	0.10	—	0.10	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	4.42	8.53	0.02	0.08	—	0.08	0.07	—	0.07	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.81	1.56	< 0.005	0.01	—	0.01	0.01	—	0.01	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	22.4	21.2	513	0.00	0.00	241	241	0.00	56.5	56.5	—	204,306	204,306	1.22	0.81	31.0	204,609
Vendor	2.42	72.6	35.8	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	69,908	69,908	1.82	10.2	4.21	73,004
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	22.4	21.6	426	0.00	0.00	241	241	0.00	56.5	56.5	—	193,856	193,856	1.22	1.22	0.80	194,251

Vendor	2.25	76.6	36.6	0.87	0.87	33.3	34.2	0.87	9.19	10.1	—	70,006	70,006	1.82	10.2	0.11	73,098
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	16.0	15.4	325	0.00	0.00	171	171	0.00	40.1	40.1	—	140,482	140,482	0.87	0.58	9.53	140,687
Vendor	1.67	54.4	25.8	0.62	0.62	23.7	24.3	0.62	6.54	7.16	—	49,964	49,964	1.30	7.30	1.30	52,173
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.92	2.81	59.2	0.00	0.00	31.3	31.3	0.00	7.33	7.33	—	23,258	23,258	0.14	0.10	1.58	23,292
Vendor	0.30	9.93	4.71	0.11	0.11	4.32	4.43	0.11	1.19	1.31	—	8,272	8,272	0.21	1.21	0.21	8,638
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.63. Building Construction (2051) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.65. Building Construction (2052) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	—	—	—	—	—	161	161	—	40.3	40.3	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.68	4.68	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.4	29.4	—	7.35	7.35	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.42	3.42	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.67. Building Construction (2053) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.69. Building Construction (2054) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.71. Building Construction (2055) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—

Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.73. Building Construction (2056) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.3	40.3	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.68	4.68	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.4	29.4	—	7.35	7.35	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.42	3.42	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.75. Building Construction (2057) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—

Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.77. Building Construction (2058) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.79. Building Construction (2059) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.81. Building Construction (2060) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.3	40.3	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.68	4.68	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.4	29.4	—	7.35	7.35	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.42	3.42	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.83. Building Construction (2061) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.85. Building Construction (2062) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—

Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.87. Building Construction (2063) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.89. Building Construction (2064) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—

Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.3	40.3	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.68	4.68	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.4	29.4	—	7.35	7.35	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.42	3.42	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.91. Building Construction (2065) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.93. Building Construction (2066) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.95. Building Construction (2067) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.97. Building Construction (2068) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.3	40.3	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.68	4.68	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.4	29.4	—	7.35	7.35	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.42	3.42	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.99. Building Construction (2069) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—

Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.101. Building Construction (2070) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.103. Building Construction (2071) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—

Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.105. Building Construction (2072) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.3	40.3	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.68	4.68	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.4	29.4	—	7.35	7.35	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.42	3.42	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.107. Building Construction (2073) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.109. Building Construction (2074) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.111. Building Construction (2075) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.113. Building Construction (2076) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—

Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.3	40.3	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.68	4.68	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.4	29.4	—	7.35	7.35	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.42	3.42	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.115. Building Construction (2077) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.117. Building Construction (2078) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—

Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.119. Building Construction (2079) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	161	161	—	40.1	40.1	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	18.7	18.7	—	4.67	4.67	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	29.3	29.3	—	7.33	7.33	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.41	3.41	—	0.85	0.85	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.121. Building Construction (2080) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	226	226	—	56.5	56.5	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	26.3	26.3	—	6.57	6.57	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	33.0	33.0	—	8.25	8.25	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	3.83	3.83	—	0.96	0.96	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	—	—	—	—	—	6.02	6.02	—	1.51	1.51	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.70	0.70	—	0.17	0.17	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.123. Paving (2080) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.18	0.18	—	0.05	0.05	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.18	0.18	—	0.05	0.05	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.10	0.10	—	0.03	0.03	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.125. Paving (2081) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.18	0.18	—	0.05	0.05	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.18	0.18	—	0.05	0.05	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	—	—	—	—	—	0.13	0.13	—	0.03	0.03	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.127. Paving (2082) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.18	0.18	—	0.05	0.05	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.18	0.18	—	0.05	0.05	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.13	0.13	—	0.03	0.03	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.129. Paving (2083) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.18	0.18	—	0.05	0.05	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	—	—	—	—	—	0.18	0.18	—	0.05	0.05	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.08	0.08	—	0.02	0.02	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.131. Architectural Coating (2083) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	45.2	45.2	—	11.3	11.3	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	45.2	45.2	—	11.3	11.3	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	13.5	13.5	—	3.37	3.37	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	2.46	2.46	—	0.61	0.61	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.133. Architectural Coating (2084) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	45.2	45.2	—	11.3	11.3	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	45.2	45.2	—	11.3	11.3	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	32.2	32.2	—	8.05	8.05	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	5.88	5.88	—	1.47	1.47	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.135. Architectural Coating (2085) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	45.2	45.2	—	11.3	11.3	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	45.2	45.2	—	11.3	11.3	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	32.1	32.1	—	8.03	8.03	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	5.86	5.86	—	1.47	1.47	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

3.137. Architectural Coating (2086) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectu Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	45.2	45.2	—	11.3	11.3	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	45.2	45.2	—	11.3	11.3	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	30.7	30.7	—	7.68	7.68	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	—	—	—	—	—	5.60	5.60	—	1.40	1.40	—	—	—	—	—	—	—
Vendor	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Hauling	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	124,439	124,439	8.81	1.24	—	125,030
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	73,601	73,601	5.21	0.74	—	73,950
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	185,204	185,204	13.1	1.85	—	186,083
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	18,317	18,317	1.30	0.18	—	18,404
Total	—	—	—	—	—	—	—	—	—	—	—	401,560	401,560	28.4	4.01	—	403,467
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	124,439	124,439	8.81	1.24	—	125,030
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	73,601	73,601	5.21	0.74	—	73,950
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	185,204	185,204	13.1	1.85	—	186,083
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	18,317	18,317	1.30	0.18	—	18,404
Total	—	—	—	—	—	—	—	—	—	—	—	401,560	401,560	28.4	4.01	—	403,467
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	20,602	20,602	1.46	0.21	—	20,700
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	12,185	12,185	0.86	0.12	—	12,243
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	30,663	30,663	2.17	0.31	—	30,808

Government Office Building	—	—	—	—	—	—	—	—	—	—	—	3,033	3,033	0.21	0.03	—	3,047
Total	—	—	—	—	—	—	—	—	—	—	—	66,483	66,483	4.71	0.66	—	66,799

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	2.94	50.2	21.4	0.32	4.06	—	4.06	4.06	—	4.06	—	63,733	63,733	5.64	0.12	—	63,910
Strip Mall	0.28	5.17	4.34	0.03	0.39	—	0.39	0.39	—	0.39	—	6,167	6,167	0.55	0.01	—	6,185
Industrial Park	1.82	33.2	27.9	0.20	2.52	—	2.52	2.52	—	2.52	—	39,581	39,581	3.50	0.07	—	39,691
Government Office Building	0.18	3.28	2.76	0.02	0.25	—	0.25	0.25	—	0.25	—	3,915	3,915	0.35	0.01	—	3,925
Total	5.23	91.8	56.3	0.57	7.22	—	7.22	7.22	—	7.22	—	113,396	113,396	10.0	0.21	—	113,711
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	2.94	50.2	21.4	0.32	4.06	—	4.06	4.06	—	4.06	—	63,733	63,733	5.64	0.12	—	63,910
Strip Mall	0.28	5.17	4.34	0.03	0.39	—	0.39	0.39	—	0.39	—	6,167	6,167	0.55	0.01	—	6,185
Industrial Park	1.82	33.2	27.9	0.20	2.52	—	2.52	2.52	—	2.52	—	39,581	39,581	3.50	0.07	—	39,691

Government Office Building	0.18	3.28	2.76	0.02	0.25	—	0.25	0.25	—	0.25	—	3,915	3,915	0.35	0.01	—	3,925
Total	5.23	91.8	56.3	0.57	7.22	—	7.22	7.22	—	7.22	—	113,396	113,396	10.0	0.21	—	113,711
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.54	9.16	3.90	0.06	0.74	—	0.74	0.74	—	0.74	—	10,552	10,552	0.93	0.02	—	10,581
Strip Mall	0.05	0.94	0.79	0.01	0.07	—	0.07	0.07	—	0.07	—	1,021	1,021	0.09	< 0.005	—	1,024
Industrial Park	0.33	6.05	5.09	0.04	0.46	—	0.46	0.46	—	0.46	—	6,553	6,553	0.58	0.01	—	6,571
Government Office Building	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	648	648	0.06	< 0.005	—	650
Total	0.95	16.8	10.3	0.10	1.32	—	1.32	1.32	—	1.32	—	18,774	18,774	1.66	0.04	—	18,826

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	17.5	299	127	1.91	24.2	—	24.2	24.2	—	24.2	0.00	379,688	379,688	7.15	0.71	—	380,080
Consumer Products	640	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	60.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscap Equipment	175	14.4	1,606	0.08	1.01	—	1.01	1.33	—	1.33	—	4,946	4,946	0.21	0.04	—	4,964
Total	892	314	1,734	1.99	25.2	—	25.2	25.5	—	25.5	0.00	384,634	384,634	7.36	0.76	—	385,044
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	17.5	299	127	1.91	24.2	—	24.2	24.2	—	24.2	0.00	379,688	379,688	7.15	0.71	—	380,080
Consumer Products	640	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	60.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	717	299	127	1.91	24.2	—	24.2	24.2	—	24.2	0.00	379,688	379,688	7.15	0.71	—	380,080
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.22	3.74	1.59	0.02	0.30	—	0.30	0.30	—	0.30	0.00	4,306	4,306	0.08	0.01	—	4,310
Consumer Products	117	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	11.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscap e Equipme nt	21.9	1.80	201	0.01	0.13	—	0.13	0.17	—	0.17	—	561	561	0.02	< 0.005	—	563
Total	150	5.54	202	0.03	0.43	—	0.43	0.47	—	0.47	0.00	4,866	4,866	0.10	0.01	—	4,873

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	1,596	9,616	11,212	38.9	3.58	—	13,252
Strip Mall	—	—	—	—	—	—	—	—	—	—	619	3,727	4,346	15.1	1.39	—	5,136
Industrial Park	—	—	—	—	—	—	—	—	—	—	3,037	18,300	21,338	74.0	6.82	—	25,219
Government Office Building	—	—	—	—	—	—	—	—	—	—	258	1,555	1,813	6.29	0.58	—	2,143
Total	—	—	—	—	—	—	—	—	—	—	5,510	33,199	38,709	134	12.4	—	45,750
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	1,596	9,616	11,212	38.9	3.58	—	13,252
Strip Mall	—	—	—	—	—	—	—	—	—	—	619	3,727	4,346	15.1	1.39	—	5,136
Industrial Park	—	—	—	—	—	—	—	—	—	—	3,037	18,300	21,338	74.0	6.82	—	25,219
Government Office Building	—	—	—	—	—	—	—	—	—	—	258	1,555	1,813	6.29	0.58	—	2,143
Total	—	—	—	—	—	—	—	—	—	—	5,510	33,199	38,709	134	12.4	—	45,750
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	264	1,592	1,856	6.44	0.59	—	2,194
Strip Mall	—	—	—	—	—	—	—	—	—	—	102	617	720	2.49	0.23	—	850
Industrial Park	—	—	—	—	—	—	—	—	—	—	503	3,030	3,533	12.2	1.13	—	4,175

Governm Office Building	—	—	—	—	—	—	—	—	—	—	42.7	257	300	1.04	0.10	—	355
Total	—	—	—	—	—	—	—	—	—	—	912	5,496	6,409	22.2	2.05	—	7,574

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartment Mid Rise	—	—	—	—	—	—	—	—	—	—	7,985	0.00	7,985	798	0.00	—	27,937
Strip Mall	—	—	—	—	—	—	—	—	—	—	2,212	0.00	2,212	221	0.00	—	7,739
Industrial Park	—	—	—	—	—	—	—	—	—	—	4,108	0.00	4,108	411	0.00	—	14,372
Governm ent Office Building	—	—	—	—	—	—	—	—	—	—	305	0.00	305	30.5	0.00	—	1,066
Total	—	—	—	—	—	—	—	—	—	—	14,610	0.00	14,610	1,460	0.00	—	51,114
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartment Mid Rise	—	—	—	—	—	—	—	—	—	—	7,985	0.00	7,985	798	0.00	—	27,937
Strip Mall	—	—	—	—	—	—	—	—	—	—	2,212	0.00	2,212	221	0.00	—	7,739
Industrial Park	—	—	—	—	—	—	—	—	—	—	4,108	0.00	4,108	411	0.00	—	14,372

Government Office Building	—	—	—	—	—	—	—	—	—	—	305	0.00	305	30.5	0.00	—	1,066
Total	—	—	—	—	—	—	—	—	—	—	14,610	0.00	14,610	1,460	0.00	—	51,114
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	1,322	0.00	1,322	132	0.00	—	4,625
Strip Mall	—	—	—	—	—	—	—	—	—	—	366	0.00	366	36.6	0.00	—	1,281
Industrial Park	—	—	—	—	—	—	—	—	—	—	680	0.00	680	68.0	0.00	—	2,379
Government Office Building	—	—	—	—	—	—	—	—	—	—	50.5	0.00	50.5	5.04	0.00	—	177
Total	—	—	—	—	—	—	—	—	—	—	2,419	0.00	2,419	242	0.00	—	8,463

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	138	138
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.3	24.3
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,600	1,600

Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.48	1.48
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,764	1,764
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	138	138
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.3	24.3
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,600	1,600
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.48	1.48
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,764	1,764
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22.8	22.8
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.03	4.03
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	265	265
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	292	292

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/3/2023	1/27/2026	5.00	800	—
Site Preparation	Site Preparation	1/28/2026	12/1/2027	5.00	480	—
Grading	Grading	12/2/2027	9/2/2032	5.00	1,240	—
Building Construction	Building Construction	9/3/2032	3/15/2080	5.00	12,400	—
Paving	Paving	3/16/2080	7/31/2083	5.00	880	—
Architectural Coating	Architectural Coating	8/1/2083	12/15/2086	5.00	880	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20

Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

Building Construction	—	—	—	—
Building Construction	Worker	18,453	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	3,890	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	3,691	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	38,949,984	12,983,328	15,994,511	5,331,504	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	720	0.00	—
Grading	—	—	3,720	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Strip Mall	0.00	0%
Industrial Park	0.00	0%
Government Office Building	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	690	0.05	0.01
2024	0.00	690	0.05	0.01
2025	0.00	690	0.05	0.01
2026	0.00	690	0.05	0.01
2027	0.00	690	0.05	0.01
2028	0.00	690	0.05	0.01
2029	0.00	690	0.05	0.01

2030	0.00	690	0.05	0.01
2031	0.00	690	0.05	0.01
2032	0.00	690	0.05	0.01
2033	0.00	690	0.05	0.01
2034	0.00	690	0.05	0.01
2035	0.00	690	0.05	0.01
2036	0.00	690	0.05	0.01
2037	0.00	690	0.05	0.01
2038	0.00	690	0.05	0.01
2039	0.00	690	0.05	0.01
2040	0.00	690	0.05	0.01
2041	0.00	690	0.05	0.01
2042	0.00	690	0.05	0.01
2043	0.00	690	0.05	0.01
2044	0.00	690	0.05	0.01
2045	0.00	690	0.05	0.01
2046	0.00	690	0.05	0.01
2047	0.00	690	0.05	0.01
2048	0.00	690	0.05	0.01
2049	0.00	690	0.05	0.01
2050	0.00	690	0.05	0.01
2051	0.00	690	0.05	0.01
2052	0.00	690	0.05	0.01
2053	0.00	690	0.05	0.01
2054	0.00	690	0.05	0.01
2055	0.00	690	0.05	0.01
2056	0.00	690	0.05	0.01

2057	0.00	690	0.05	0.01
2058	0.00	690	0.05	0.01
2059	0.00	690	0.05	0.01
2060	0.00	690	0.05	0.01
2061	0.00	690	0.05	0.01
2062	0.00	690	0.05	0.01
2063	0.00	690	0.05	0.01
2064	0.00	690	0.05	0.01
2065	0.00	690	0.05	0.01
2066	0.00	690	0.05	0.01
2067	0.00	690	0.05	0.01
2068	0.00	690	0.05	0.01
2069	0.00	690	0.05	0.01
2070	0.00	690	0.05	0.01
2071	0.00	690	0.05	0.01
2072	0.00	690	0.05	0.01
2073	0.00	690	0.05	0.01
2074	0.00	690	0.05	0.01
2075	0.00	690	0.05	0.01
2076	0.00	690	0.05	0.01
2077	0.00	690	0.05	0.01
2078	0.00	690	0.05	0.01
2079	0.00	690	0.05	0.01
2080	0.00	690	0.05	0.01
2081	0.00	690	0.05	0.01
2082	0.00	690	0.05	0.01
2083	0.00	690	0.05	0.01

2084	0.00	690	0.05	0.01
2085	0.00	690	0.05	0.01
2086	0.00	690	0.05	0.01

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	147,720	147,720	147,720	53,917,901	935,437	935,437	935,437	341,434,467

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	18032
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	2004
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
38949984	12,983,328	15,994,511	5,331,504	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	65,788,079	690	0.0489	0.0069	198,864,491
Strip Mall	38,911,226	690	0.0489	0.0069	19,244,085
Industrial Park	97,913,341	690	0.0489	0.0069	123,503,792
Government Office Building	9,683,740	690	0.0489	0.0069	12,214,665

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	746,817,857	0.00
Strip Mall	289,475,414	0.00
Industrial Park	1,421,262,500	0.00

Government Office Building	120,785,089	0.00
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5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	5,005	0.00
Strip Mall	4,104	0.00
Industrial Park	7,622	0.00
Government Office Building	565	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0
Government Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Government Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
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5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	12.3	annual days of extreme heat
Extreme Precipitation	6.65	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	1	1	1	2
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The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	59.7
AQ-PM	94.7
AQ-DPM	94.2
Drinking Water	92.5
Lead Risk Housing	84.4
Pesticides	0.00
Toxic Releases	77.5
Traffic	92.5
Effect Indicators	—
CleanUp Sites	95.1
Groundwater	83.8
Haz Waste Facilities/Generators	98.7
Impaired Water Bodies	72.2
Solid Waste	37.6

Sensitive Population	—
Asthma	65.0
Cardio-vascular	24.0
Low Birth Weights	83.8
Socioeconomic Factor Indicators	—
Education	85.3
Housing	91.6
Linguistic	90.6
Poverty	85.3
Unemployment	26.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	9.585525472
Employed	65.58449891
Median HI	7.25009624
Education	—
Bachelor's or higher	38.73989478
High school enrollment	100
Preschool enrollment	60.4901835
Transportation	—
Auto Access	12.42140382
Active commuting	91.06890799
Social	—
2-parent households	56.61491082

Voting	0.795585782
Neighborhood	—
Alcohol availability	4.516874118
Park access	81.35506224
Retail density	87.09097908
Supermarket access	64.42961632
Tree canopy	39.67663288
Housing	—
Homeownership	8.443474913
Housing habitability	3.708456307
Low-inc homeowner severe housing cost burden	2.065956628
Low-inc renter severe housing cost burden	15.78339535
Uncrowded housing	18.58077762
Health Outcomes	—
Insured adults	12.03644296
Arthritis	48.2
Asthma ER Admissions	50.6
High Blood Pressure	37.6
Cancer (excluding skin)	82.6
Asthma	32.2
Coronary Heart Disease	21.3
Chronic Obstructive Pulmonary Disease	22.0
Diagnosed Diabetes	8.1
Life Expectancy at Birth	79.3
Cognitively Disabled	18.3
Physically Disabled	14.9
Heart Attack ER Admissions	76.9

Mental Health Not Good	14.3
Chronic Kidney Disease	14.8
Obesity	21.5
Pedestrian Injuries	97.2
Physical Health Not Good	8.7
Stroke	19.7
Health Risk Behaviors	—
Binge Drinking	86.1
Current Smoker	14.6
No Leisure Time for Physical Activity	11.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	37.8
Elderly	48.0
English Speaking	8.3
Foreign-born	90.8
Outdoor Workers	22.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	8.5
Traffic Density	93.9
Traffic Access	87.4
Other Indices	—
Hardship	86.9
Other Decision Support	—
2016 Voting	22.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	97.0
Healthy Places Index Score for Project Location (b)	19.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Based on applicant provided data
Operations: Hearths	Based on SCAQMD 445
Operations: Water and Waste Water	No septic tank onsite

Appendix F

Cultural Resources

California Historical Resource Status Codes

Current as of 3/1/2020

1. Listed in the National Register (NR) or the California Register (CR):

- 1D:** Contributor to a multi-component resource like a district listed in the NR by the Keeper. Listed in the CR.
- 1S:** Individually listed in the NR by the Keeper. Listed in the CR.
- 1CD:** Contributor to a multi-component resource listed in the CR by the State Historical Resources Commission (SHRC).
- 1CS:** Individually listed in the CR by the SHRC.
- 1CL:** State Historical Landmark (CHL) numbered 770 and above, or an earlier CHL reheard by the SHRC and determined that it also meets CR criteria. Listed in the CR.
- 1CP:** State Point of Historical Interest (CPHI) nominated since 1998 that the SHRC also found CR eligible, or an earlier CPHI reheard by the SHRC and determined that it also meets CR criteria. Listed in the CR.

2. Determined Eligible for Listing in National (NR) or California (CR) Registers:

- 2B:** Determined eligible for NR both individually and as a contributor to a NR eligible multi-component resource like a district in a federal regulatory process. Listed in the CR.
- 2D:** Contributor to a multi-component resource determined eligible for NR by the Keeper. Listed in the CR.
- 2D2:** Contributor to a multi-component resource determined eligible for NR by consensus through Section 106 process. Listed in the CR.
- 2D3:** Contributor to a multi-component resource determined eligible for NR by Part 1 Tax Certification. Listed in the CR.
- 2D4:** Contributor to a multi-component resource determined eligible for NR pursuant to Section 106 without review by the State Historic Preservation Office (SHPO). Listed in the CR.
- 2S:** Individually determined eligible for NR by the Keeper. Listed in the CR.
- 2S2:** Individually determined eligible for NR by consensus through Section 106 process. Listed in the CR.
- 2S3:** Individually determined eligible for NR by Part 1 Tax Certification. Listed in the CR.
- 2S4:** Individually determined eligible for NR pursuant to Section 106 without review by SHPO. Listed in the CR.
- 2CB:** Determined eligible for CR both individually and as a contributor to a CR eligible multi-component resource by the State Historical Resources Commission (SHRC).
- 2CD:** Contributor to a multi-component resource determined eligible for CR by the SHRC.
- 2CS:** Individually determined eligible for CR by the SHRC.

3. Appears Eligible for National (NR) or California (CR) Registers:

- 3B:** Appears eligible for NR both individually and as a contributor to a NR eligible multi-component resource like a district through survey evaluation.
- 3D:** Appears eligible for NR as a contributor to a NR eligible multi-component resource through survey evaluation.
- 3S:** Appears eligible for NR individually through survey evaluation.
- 3CB:** Appears eligible for CR both individually and as a contributor to a CR eligible multi-component resource through survey evaluation.
- 3CD:** Appears eligible for CR as a contributor to a CR eligible multi-component resource through survey evaluation.
- 3CS:** Appears eligible for CR individually through survey evaluation.

4. Appears Eligible for National Register or as State Historical Landmark through PRC§ 5024:

- 4CM:** State agency owned resource added to Master List - appears to meet criterion.

5. Recognized as Historically Significant by Local Government:

- 5B:** Locally significant both individually (listed, eligible, or appears eligible) and as contributor to a multi-component resource like a district that is locally listed, designated, determined eligible, or appears eligible through survey evaluation.
- 5D1:** Contributor to a multi-component resource that is listed or designated locally.
- 5D2:** Contributor to a multi-component resource that is eligible for local listing or designation.
- 5D3:** Appears to be a contributor to a multi-component resource that appears eligible for local listing or designation.
- 5S1:** Individually listed or designated locally.
- 5S2:** Individually eligible for local listing or designation.
- 5S3:** Appears to be individually eligible for local listing or designation through survey evaluation.

6. Not Eligible for or Removed from Listing or Designation as Specified:

- 6J:** State Historic Landmark (CHL) or State Point of Historical Interest (CPHI) determined ineligible for or removed by the State Historical Resources Commission (SHRC).
- 6L:** Determined ineligible for local listing or designation through local government review process; may warrant special consideration in local planning.
- 6R:** Resource listed more than once on the National Register (NR) that has had some, but not all listings removed by the Keeper. Still NR listed.
- 6T:** Determined ineligible for NR through Part 1 Tax Certification process.
- 6U:** Determined ineligible for NR pursuant to Section 106 without review by Office of Historic Preservation (OHP).
- 6W:** Removed from NR by the Keeper.

6X: Determined ineligible for NR by the SHRC or the Keeper.

6Y: Determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR or local listing.

6Z: Found ineligible for NR, CR or local designation through survey evaluation.

6CR: Resource listed more than once on the California Register (CR) that has had some, but not all listings removed by the SHRC. Still CR listed.

6CW: Removed from CR by the SHRC.

6CX: Determined ineligible for CR by the SHRC.

6WM: Removed from Master List because no longer state owned.

6XM: Removed from Master List because of historic feature loss or further evaluation.

6YM: State agency owned resource determined ineligible for Master List.

7. Not Evaluated, or Needs Re-evaluation for National (NR) or California (CR) Registers:

7J: Received by Office of Historic Preservation (OHP) for evaluation or action but not yet evaluated.

7K: Submitted to OHP for action but not reevaluated.

7L: State Historical Landmarks 1 through 769 that does not meet CR criteria.

7M: Submitted to OHP but not evaluated - referred to National Park Service.

7N: Needs to be reevaluated - formerly coded as may become NR eligible with specific conditions.

7N1: Needs to be reevaluated (former status code 4) - may become NR eligible with restoration or other specific conditions.

7P: State Point of Historical Interest that does not meet CR criteria.

7R: Identified in Reconnaissance Level Survey or in an Area of Potential Effect (APE): Not evaluated.

7W: Submitted to OHP for action – withdrawn or inactive.

Appendix G

Hazards

Table 4.8-1 GeoTracker and EnviroStor Sites in the CASP Area

FID	SITE_NAME	ADDRESS	CITY	SITE_TYPE	STATUS	GLOBAL_ID	LATITUDE	LONGITUDE
0	1101 N MAIN	1101 NORTH MAIN STREET	LOS ANGELES	VOLUNTARY CLEANUP	NO FURTHER ACTION	60002895	34.063751	-118.23363
1	140-154 N AVENUE 21	140-154 N AVENUE 21	LOS ANGELES	VOLUNTARY CLEANUP	ACTIVE	60002843	34.076085	-118.2204
2	76 STATION #0857	2250 FIGUEROA ST. N.	LOS ANGELES	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603797126	34.083481	-118.222504
3	ALBION DAIRY (FORMER)	1739 ALBION ST	LOS ANGELES	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T10000003600	34.068641	-118.222375
4	ANGELICA TEXTILE SERVICES	451 SAN FERNANDO RD. N.	LOS ANGELES	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T10000001925	34.079109	-118.224778
5	ARCO FACILITY NO. 9663	2251 FIGUEROA ST. N	LOS ANGELES	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603732727	34.08395	-118.223203
6	AVENUE 34	WEST AVENUE 34 AND PASADENA AVENUE	LOS ANGELES	VOLUNTARY CLEANUP	ACTIVE	60003112	34.084843	-118.21474
7	BILL'S AUTOMOTIVE	1796 SPRING ST N	LOS ANGELES	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603700788	34.071394	-118.222542
9	BLOSSOM PLAZA	900 NORTH BROADWAY	LOS ANGELES	VOLUNTARY CLEANUP	CERTIFIED	60001902	34.064254	-118.23663
10	BNSF MISSION TOWER SITE	1430 BOLERO LANE	LOS ANGELES	CLEANUP PROGRAM SITE	COMPLETED - CASE CLOSED	SL204CF2370	34.06234	-118.227442
11	BORTZ OIL	1746 SPRING ST N	LOS ANGELES	CLEANUP PROGRAM SITE	OPEN - INACTIVE	T0603700024	34.070334	-118.224849
12	BORTZ OIL COMPANY	1746 NORTH SPRING STREET	LOS ANGELES	STATE RESPONSE OR NPL	CERTIFIED O&M - LAND USE RESTRICTIONS ONLY	19290289	34.07	-118.22527
13	CANNON ELECTRICAL	3209 HUMBOLDT AVE	LOS ANGELES	CLEANUP PROGRAM SITE	OPEN - INACTIVE	SLT43246244	34.082755	-118.216399
14	CEMEX COMPANY	625 LAMAR	LOS ANGELES	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603797339	34.066386	-118.223244
15	CENTRAL TRAFFIC YARD	1831 PASADENA AVE	LOS ANGELES	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603793073	34.073913	-118.22286
16	CHAMPION BRASS MFG. CO.	1460 NAUD STREET	LOS ANGELES	EVALUATION	REFER: 1248 LOCAL AGENCY	19340795	34.066379	-118.2304
17	COMMERCIAL/INDUSTRIAL PROPERTY	405 N SAN FERNANDO ROAD	LOS ANGELES	CLEANUP PROGRAM SITE	OPEN - SITE ASSESSMENT	T10000011963	34.07839	-118.22395
18	CORNFIELD SITE	1245 N. SPRING STREET	LOS ANGELES	VOLUNTARY CLEANUP	ACTIVE	19400013	34.068055	-118.23222
23	FORMER LINCOLN HEIGHTS JAIL	401 N. AVENUE 19	LOS ANGELES	CLEANUP PROGRAM SITE	OPEN - SITE ASSESSMENT	T10000012614	34.07702	-118.22464
25	HEATH & COMPANY FACILITY	3225 LACY ST	LOS ANGELES	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603700801	34.083656	-118.218243
26	INTERNATIONAL BANK PROPERTY	943 N. MAIN ST	LOS ANGELES	CLEANUP PROGRAM SITE	COMPLETED - CASE CLOSED	SLT43653651	34.062596	-118.233195
27	JAYBEE SITE AT LINCOLN HEIGHTS - LA DWP	301 WEST AVENUE 26	LOS ANGELES	VOLUNTARY CLEANUP	ACTIVE	19490238	34.080748	-118.2181
29	KENNINGTON	3209 HUMBOLDT STREET	LOS ANGELES	VOLUNTARY CLEANUP	ACTIVE	19340739	34.082755	-118.21639
33	LA DEPARTMENT WATER & POWER	1630 N MAIN ST STE 16	LOS ANGELES	CORRECTIVE ACTION	ACTIVE	80001337	34.06596	-118.22891
34	LACY'S STREET DUMP	400 26TH AVENUE	LOS ANGELES	LAND DISPOSAL SITE	COMPLETED - CASE CLOSED	T10000004864	34.082587	-118.219968
35	LAWRY'S CALIFORNIA CENTER	570 AVENUE 26 W	LOS ANGELES	CLEANUP PROGRAM SITE	COMPLETED - CASE CLOSED	T0603701185	34.085447	-118.224951
36	LAWRY'S CENTER	528 SAN FERNANDO RD	LOS ANGELES	CLEANUP PROGRAM SITE	COMPLETED - CASE CLOSED	SL184381421	34.081911	-118.225959
37	LAWRY'S MATTHEW SITE	570 W. 026TH AVE	LOS ANGELES	CLEANUP PROGRAM SITE	COMPLETED - CASE CLOSED	SLT43268266	34.085359	-118.224999
38	LINCOLN HEIGHTS SERVICE DPW	3101 ARTESIAN ST	MONTECITO HEIGHTS	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603700797	34.080635	-118.219346
39	LORETO STREET ELEMENTARY SCHOOL ADDITION	3408 ARROYO SECO AVENUE	LOS ANGELES	SCHOOL	INACTIVE - WITHDRAWN	19820057	34.086742	-118.21638
42	MAIN STREET CENTER	1630 N MAIN ST STE 16	LOS ANGELES	INSPECTION	NO ACTION	3001650	34.06596	-118.22891
43	MAIN STREET DAIRY (FORMER)	1620 SPRING ST N	LOS ANGELES	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603700500	34.068902	-118.228611
46	N E MUNICIPAL BUILDING	401 AVENUE 19 N	MONTECITO HEIGHTS	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603700806	34.076759	-118.224463
47	NASA OIL SERVICE STATION	2001 BROADWAY N	LOS ANGELES	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603700799	34.072621	-118.220265
49	PROPOSED AMCAL MULTI-HOUSING DEVELOPMENT	306-360 W. AVE. 26	LOS ANGELES	EVALUATION	REFER: 1248 LOCAL AGENCY	19950002	34.080653	-118.21979
50	ROSS SWISS DAIRIES	1739 ALBION ST	MONTECITO HEIGHTS	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603700787	34.068409	-118.223124
51	SAGE PROPERTY	1667 N MAIN ST	LOS ANGELES	CLEANUP PROGRAM SITE	COMPLETED - CASE CLOSED	SL204DC2386	34.067563	-118.225024
52	SAN FERNANDO CONSOLIDATED FACILITY	452 SAN FERNANDO RD.	LOS ANGELES	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603797170	34.07934	-118.224328
54	SHELL	2600-2606 FIGUEROA ST N	LOS ANGELES	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603701192	34.08381	-118.222307
55	SMILAND PAINT COMPANY	620 LAMAR STREET	LOS ANGELES	CLEANUP PROGRAM SITE	COMPLETED - CASE CLOSED	T0603770626	34.066012	-118.22533
58	SO CAL GAS/LA MAIN ST MGP	1630 NORTH MAIN STREET	LOS ANGELES	VOLUNTARY CLEANUP	INACTIVE - NEEDS EVALUATION	19490230	34.066944	-118.22722
59	SUPPLY & MAINTENANCE, FIRE SH.	140 AVENUE 19 N	MONTECITO HEIGHTS	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603700805	34.074276	-118.222587
61	THE E.B. MALONE CORPORATION	306-360 AVENUE 26	LOS ANGELES	CLEANUP PROGRAM SITE	COMPLETED - CASE CLOSED	SL0603703528	34.080736	-118.220039
63	TOSCO S.S. #0857	2250 FIGUEROA ST N	LOS ANGELES	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603701194	34.083481	-118.222504
64	TRANSIT MIXED CONCRETE COMPANY	625 LAMAR ST	MONTECITO HEIGHTS	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603700794	34.066358	-118.222762
65	TUNEUP MASTERS SHOP #67	2131 MAIN ST N	LOS ANGELES	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603700803	34.066011	-118.216606
66	UNION PACIFIC RAILROAD - CORNFIELD YARD	1245 NORTH SPRING ST	LOS ANGELES	CLEANUP PROGRAM SITE	OPEN - VERIFICATION MONITORING	SL2047T1683	34.069218	-118.232052
67	UNION PACIFIC/RAILROAD COMPANY	1322 BROADWAY N	LOS ANGELES	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603700512	34.069647	-118.231806
69	UPS MAIN ST. LAMAR HUB	1800 MAIN ST. N.	LOS ANGELES	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603700802	34.064142	-118.221595
70	VICTOR INDUSTRIAL BATTERY	138 N SAN FERNANDO RD	LOS ANGELES	VOLUNTARY CLEANUP	CERTIFIED O&M - LAND USE RESTRICTIONS ONLY	19360528	34.075438	-118.22145
71	WELCH'S UNIFORM FACILITY (FORMER)	3505 PASADENA AVENUE	LOS ANGELES	VOLUNTARY CLEANUP	ACTIVE	60000636	34.0856	-118.21384
72	WELCH'S UNIFORM RENTAL(FORMER)	3505 PASADENA AVE	LOS ANGELES	CLEANUP PROGRAM SITE	OPEN - INACTIVE	T0603700785	34.085852	-118.213191
73	WELCH'S UNIFORM RENTAL SITE (FORMER)	3505 PASADENA AVE	LOS ANGELES	CLEANUP PROGRAM SITE	OPEN - INACTIVE	SL2044P1598	34.085949	-118.212176
74	WETSERN BRASSWORKS	1440 SPRING ST.	LOS ANGELES	LUST CLEANUP SITE	COMPLETED - CASE CLOSED	T0603799555	34.067076	-118.23117
75	WILLIAM MEAD HOMES	1300 CARDINAL STREET	LOS ANGELES	STATE RESPONSE OR NPL	ACTIVE	19290312	34.06318	-118.22989
76	WITCO/ALLIED KELITE DIVISION	1250 NORTH MAIN STREET	LOS ANGELES	VOLUNTARY CLEANUP	NO FURTHER ACTION	19281211	34.062899	-118.23137
77	MAIN STREET CENTER	1630 N MAIN ST STE 16	LOS ANGELES	RCRA	UNDERGOING CLOSURE	19281211	34.062899	-118.23137
78	BROADWAY OIL 176 INC	2001 N BROADWAY	LOS ANGELES	UST		60002895	34.063751	-118.23363
79	CITY OF LA - PW - STREET SERVICES	452 N SAN FERNANDO RD	LOS ANGELES	UST		60002843	34.076085	-118.2204
80	DANNY K. WONG	117 WILHARDT ST	LOS ANGELES	UST		T0603797126	34.083481	-118.222504

FID	SITE_NAME	ADDRESS	CITY	SITE_TYPE	STATUS	GLOBAL_ID	LATITUDE	LONGITUDE
81	G&M OIL CO. #88	2601 N FIGUEROA ST	LOS ANGELES	UST		T10000003600	34.06864	-118.222375
82	GABEL'S COSMETICS INC	126 S AVENUE 18 UN 3	LOS ANGELES	UST		T10000001925	34.079109	-118.224778
83	HANCOR SHELL	2600 N FIGUEROA ST	LOS ANGELES	UST		T0603732727	34.08395	-118.223203
84	LAFD - SUPPLY & MAINTENANCE	140 N AVENUE 19	LOS ANGELES	UST		60003112	34.084843	-118.21474
85	LINCOLN HEIGHTS SERVICE CENTER	3101 ARTESIAN ST	LOS ANGELES	UST		T0603700788	34.071394	-118.222542
86	MAIN STREET CENTER AND RECEIVING STATION A AND DIS	1630 N MAIN ST	LOS ANGELES	UST		SL204CF2370	34.06234	-118.227442
87	MISSION SCHOOL TRANSPORTATION INC.	201 W SOTELLO ST	LOS ANGELES	UST		T0603700024	34.070334	-118.224849
88	TESORO (USA) 63279	2251 N FIGUEROA ST	LOS ANGELES	UST		19290289	34.07	-118.22527
89	UNITED #5605	2250 N FIGUEROA ST	LOS ANGELES	UST			34.0731	-118.22002

Appendix H

Noise

Freq Weight : A
 Time Weight : SLOW
 Level Range : 40-100
 Max dB : 79.0 - 2022/04/19 10:49:32
 Level Range : 40-100
 SEL : 94.1
 Leq : 66.4

No.s	Date Time	(dB)				
1	2022/04/19 10:46:42	60.0	68.5	63.9	60.4	55.7
6	2022/04/19 10:46:57	54.0	53.3	52.9	52.9	52.2
11	2022/04/19 10:47:12	52.2	56.9	64.5	69.4	67.6
16	2022/04/19 10:47:27	72.7	65.2	62.0	59.2	59.5
21	2022/04/19 10:47:42	66.0	65.8	65.9	70.1	69.1
26	2022/04/19 10:47:57	65.9	59.6	56.8	56.3	62.3
31	2022/04/19 10:48:12	68.1	59.3	54.8	53.2	53.1
36	2022/04/19 10:48:27	55.5	63.1	72.1	62.9	61.5
41	2022/04/19 10:48:42	71.8	74.5	68.6	68.7	72.3
46	2022/04/19 10:48:57	62.9	56.8	56.9	56.1	60.6
51	2022/04/19 10:49:12	68.5	60.4	56.9	59.4	75.4
56	2022/04/19 10:49:27	74.5	78.0	69.9	62.9	62.4
61	2022/04/19 10:49:42	63.0	69.3	61.9	58.7	57.4
66	2022/04/19 10:49:57	58.4	71.1	76.1	71.1	64.3
71	2022/04/19 10:50:12	60.4	73.3	67.4	62.2	61.5
76	2022/04/19 10:50:27	64.0	57.8	53.0	52.7	52.8
81	2022/04/19 10:50:42	53.4	54.6	57.8	65.0	70.7
86	2022/04/19 10:50:57	63.3	58.1	54.4	53.8	53.1
91	2022/04/19 10:51:12	53.5	54.4	58.0	74.0	67.2
96	2022/04/19 10:51:27	60.0	54.1	53.8	54.3	55.6
101	2022/04/19 10:51:42	55.5	56.5	62.3	68.3	69.4
106	2022/04/19 10:51:57	63.3	70.6	62.3	59.4	54.9
111	2022/04/19 10:52:12	63.5	65.4	59.6	57.4	54.9
116	2022/04/19 10:52:27	54.4	52.3	53.7	53.2	53.8
121	2022/04/19 10:52:42	53.5	54.8	55.1	55.6	61.1
126	2022/04/19 10:52:57	67.0	59.8	56.1	54.8	54.5
131	2022/04/19 10:53:12	54.9	54.9	54.1	60.1	58.2
136	2022/04/19 10:53:27	57.5	62.6	73.2	65.3	64.4
141	2022/04/19 10:53:42	64.2	69.5	69.4	71.3	70.1
146	2022/04/19 10:53:57	69.1	64.7	63.1	64.0	61.9
151	2022/04/19 10:54:12	61.5	60.6	59.5	59.8	58.5
156	2022/04/19 10:54:27	58.1	61.3	74.2	65.3	60.3
161	2022/04/19 10:54:42	60.4	65.5	66.5	64.1	61.0
166	2022/04/19 10:54:57	70.0	69.3	71.5	71.1	64.7
171	2022/04/19 10:55:12	59.1	56.4	54.7	56.2	59.6
176	2022/04/19 10:55:27	72.9	68.7	62.8	59.8	59.1
181	2022/04/19 10:55:42	71.4	66.0	67.9	68.9	73.9
186	2022/04/19 10:55:57	67.3	71.9	69.4	62.8	58.5
191	2022/04/19 10:56:12	55.9	57.9	59.8	61.7	59.4
196	2022/04/19 10:56:27	53.8	54.3	52.8	53.1	52.9

Freq Weight : A
 Time Weight : SLOW
 Level Range : 40-100
 Max dB : 79.1 - 2022/04/19 11:10:06
 Level Range : 40-100
 SEL : 95.6
 Leq : 67.9

No. s	Date Time	(dB)					
1	2022/04/19 11:06:06	73.0	74.3	67.5	63.3	60.0	
6	2022/04/19 11:06:21	59.4	59.0	58.5	58.2	59.5	
11	2022/04/19 11:06:36	60.1	59.4	59.8	60.0	59.0	
16	2022/04/19 11:06:51	57.9	57.3	57.6	57.8	58.4	
21	2022/04/19 11:07:06	59.4	59.6	58.7	58.5	64.5	
26	2022/04/19 11:07:21	70.9	63.9	59.3	58.8	58.6	
31	2022/04/19 11:07:36	68.5	67.2	76.0	71.4	71.4	
36	2022/04/19 11:07:51	64.0	59.7	58.3	59.2	59.3	
41	2022/04/19 11:08:06	62.5	71.4	69.6	64.7	78.6	
46	2022/04/19 11:08:21	73.3	68.4	71.2	66.0	61.2	
51	2022/04/19 11:08:36	72.3	67.3	73.3	77.3	71.8	
56	2022/04/19 11:08:51	66.7	61.8	60.0	57.4	55.5	
61	2022/04/19 11:09:06	56.2	56.3	57.6	58.1	60.4	
66	2022/04/19 11:09:21	72.7	66.4	61.6	60.1	69.8	
71	2022/04/19 11:09:36	69.4	71.8	71.0	64.1	61.6	
76	2022/04/19 11:09:51	60.8	59.2	59.3	63.6	78.8	
81	2022/04/19 11:10:06	71.5	65.7	59.9	57.6	56.7	
86	2022/04/19 11:10:21	58.6	58.8	58.8	57.8	56.8	
91	2022/04/19 11:10:36	57.6	57.6	59.3	59.6	58.9	
96	2022/04/19 11:10:51	57.2	57.3	56.3	56.3	57.6	
101	2022/04/19 11:11:06	58.9	70.3	68.8	66.3	61.8	
106	2022/04/19 11:11:21	60.4	61.1	60.6	59.8	61.2	
111	2022/04/19 11:11:36	60.1	61.4	65.6	76.2	70.1	
116	2022/04/19 11:11:51	65.4	63.4	74.4	67.5	68.3	
121	2022/04/19 11:12:06	75.1	73.6	66.2	61.2	59.0	
126	2022/04/19 11:12:21	59.6	62.3	70.1	75.4	69.4	
131	2022/04/19 11:12:36	64.9	62.2	60.6	61.5	61.6	
136	2022/04/19 11:12:51	62.2	62.4	65.2	66.9	67.8	
141	2022/04/19 11:13:06	73.6	74.5	72.8	66.3	62.9	
146	2022/04/19 11:13:21	60.8	59.7	59.9	59.8	60.0	
151	2022/04/19 11:13:36	59.4	58.4	58.4	58.3	58.1	
156	2022/04/19 11:13:51	57.2	57.7	56.5	57.0	58.2	
161	2022/04/19 11:14:06	59.3	60.2	66.0	72.3	68.3	
166	2022/04/19 11:14:21	60.9	59.5	58.7	65.6	70.1	
171	2022/04/19 11:14:36	63.6	64.6	69.8	68.5	69.2	
176	2022/04/19 11:14:51	74.9	72.6	73.7	66.9	63.3	
181	2022/04/19 11:15:06	60.6	69.0	67.9	61.5	58.7	
186	2022/04/19 11:15:21	58.5	60.0	72.9	69.6	66.6	
191	2022/04/19 11:15:36	71.1	71.9	66.0	60.7	58.2	
196	2022/04/19 11:15:51	57.5	58.6	59.2	59.0	58.7	

Freq Weight : A
 Time Weight : SLOW
 Level Range : 40-100
 Max dB : 68.9 - 2022/04/19 11:34:06
 Level Range : 40-100
 SEL : 87.5
 Leq : 59.8

No. s	Date Time	(dB)					
1	2022/04/19 11:33:23	58.0	58.3	58.6	58.7	57.2	
6	2022/04/19 11:33:38	57.5	57.2	58.7	58.8	59.6	
11	2022/04/19 11:33:53	59.0	58.7	58.8	60.8	68.1	
16	2022/04/19 11:34:08	60.3	59.3	58.8	59.2	60.0	
21	2022/04/19 11:34:23	59.9	59.5	58.3	58.9	59.4	
26	2022/04/19 11:34:38	59.3	59.1	59.7	60.6	60.5	
31	2022/04/19 11:34:53	59.7	60.3	60.2	60.0	60.1	
36	2022/04/19 11:35:08	60.0	59.8	60.3	60.4	61.3	
41	2022/04/19 11:35:23	60.7	60.1	59.8	60.1	60.6	
46	2022/04/19 11:35:38	60.4	61.0	60.9	60.7	59.8	
51	2022/04/19 11:35:53	60.2	59.4	59.3	59.7	59.1	
56	2022/04/19 11:36:08	59.5	59.1	58.8	59.9	59.2	
61	2022/04/19 11:36:23	58.5	57.8	57.8	57.9	58.3	
66	2022/04/19 11:36:38	59.0	58.6	59.0	59.0	57.9	
71	2022/04/19 11:36:53	58.1	57.5	57.3	58.5	58.6	
76	2022/04/19 11:37:08	58.2	58.3	58.7	59.5	59.8	
81	2022/04/19 11:37:23	59.7	60.1	60.3	62.8	61.1	
86	2022/04/19 11:37:38	61.4	61.3	59.4	59.4	59.8	
91	2022/04/19 11:37:53	59.8	60.2	59.7	60.0	59.9	
96	2022/04/19 11:38:08	59.6	59.6	59.1	58.9	60.5	
101	2022/04/19 11:38:23	59.7	58.8	57.6	58.1	59.6	
106	2022/04/19 11:38:38	60.2	58.3	58.0	56.9	57.5	
111	2022/04/19 11:38:53	57.5	56.3	57.6	59.4	58.5	
116	2022/04/19 11:39:08	58.4	57.7	59.1	59.2	64.5	
121	2022/04/19 11:39:23	60.3	64.7	65.1	60.4	58.7	
126	2022/04/19 11:39:38	58.8	58.7	58.6	58.4	58.4	
131	2022/04/19 11:39:53	58.7	57.8	57.7	59.1	58.7	
136	2022/04/19 11:40:08	59.9	58.9	58.4	58.9	58.9	
141	2022/04/19 11:40:23	58.6	58.7	58.9	59.1	59.7	
146	2022/04/19 11:40:38	58.7	58.6	58.9	58.8	59.2	
151	2022/04/19 11:40:53	59.9	59.9	59.3	59.2	59.4	
156	2022/04/19 11:41:08	58.9	60.1	60.1	59.6	59.5	
161	2022/04/19 11:41:23	60.0	59.9	59.9	59.0	60.0	
166	2022/04/19 11:41:38	60.5	60.3	60.2	60.2	59.8	
171	2022/04/19 11:41:53	59.6	59.4	60.3	60.7	60.4	
176	2022/04/19 11:42:08	60.8	60.0	62.0	61.0	61.0	
181	2022/04/19 11:42:23	61.5	61.4	61.4	61.0	61.1	
186	2022/04/19 11:42:38	61.0	60.8	60.4	59.3	59.5	
191	2022/04/19 11:42:53	61.1	61.1	61.6	60.8	61.6	
196	2022/04/19 11:43:08	62.0	59.3	58.4	58.8	58.8	

Freq Weight : A
 Time Weight : SLOW
 Level Range : 40-100
 Max dB : 78.4 - 2022/04/19 12:25:54
 Level Range : 40-100
 SEL : 95.3
 Leq : 67.6

No. s	Date Time	(dB)					
1	2022/04/19 12:18:56	58.1	57.4	58.4	63.9	59.1	
6	2022/04/19 12:19:11	58.3	60.3	59.5	62.2	59.0	
11	2022/04/19 12:19:26	63.9	58.5	58.0	57.0	58.6	
16	2022/04/19 12:19:41	57.3	55.9	57.1	58.2	57.7	
21	2022/04/19 12:19:56	56.2	55.6	56.4	57.2	54.8	
26	2022/04/19 12:20:11	54.7	56.3	55.1	55.6	55.9	
31	2022/04/19 12:20:26	56.1	55.3	55.2	55.5	55.0	
36	2022/04/19 12:20:41	57.4	57.2	57.3	57.5	58.5	
41	2022/04/19 12:20:56	56.5	55.6	56.7	55.7	55.0	
46	2022/04/19 12:21:11	56.1	56.6	57.0	55.1	55.8	
51	2022/04/19 12:21:26	56.3	56.7	56.6	57.3	59.3	
56	2022/04/19 12:21:41	60.4	62.3	61.1	63.2	65.9	
61	2022/04/19 12:21:56	63.1	61.3	60.3	58.3	58.5	
66	2022/04/19 12:22:11	56.9	56.1	56.0	54.8	55.5	
71	2022/04/19 12:22:26	56.5	57.0	55.5	54.6	54.3	
76	2022/04/19 12:22:41	56.1	57.1	55.9	58.8	61.9	
81	2022/04/19 12:22:56	65.7	67.2	67.5	65.3	64.4	
86	2022/04/19 12:23:11	66.4	67.3	69.8	71.7	73.7	
91	2022/04/19 12:23:26	71.3	70.1	69.2	71.9	68.0	
96	2022/04/19 12:23:41	66.3	68.7	71.1	69.9	68.6	
101	2022/04/19 12:23:56	71.6	69.9	68.9	69.7	67.8	
106	2022/04/19 12:24:11	66.4	67.5	67.1	66.6	66.9	
111	2022/04/19 12:24:26	66.2	69.8	66.1	67.1	65.4	
116	2022/04/19 12:24:41	68.8	68.6	70.4	72.4	72.8	
121	2022/04/19 12:24:56	72.7	70.5	68.5	67.8	67.7	
126	2022/04/19 12:25:11	65.8	66.2	66.6	65.2	67.5	
131	2022/04/19 12:25:26	66.2	63.8	65.1	67.4	70.3	
136	2022/04/19 12:25:41	70.8	70.2	72.8	77.3	76.3	
141	2022/04/19 12:25:56	72.5	71.5	68.3	76.2	69.0	
146	2022/04/19 12:26:11	66.9	70.3	66.1	73.0	74.8	
151	2022/04/19 12:26:26	74.9	71.2	69.2	69.5	66.9	
156	2022/04/19 12:26:41	69.4	68.6	68.9	71.5	72.0	
161	2022/04/19 12:26:56	72.3	70.4	70.5	68.5	68.2	
166	2022/04/19 12:27:11	67.1	66.9	68.5	65.3	66.4	
171	2022/04/19 12:27:26	67.0	67.3	70.3	67.9	66.3	
176	2022/04/19 12:27:41	66.6	67.4	68.4	68.6	68.9	
181	2022/04/19 12:27:56	68.7	69.9	69.7	69.4	69.6	
186	2022/04/19 12:28:11	74.0	70.4	69.5	67.5	66.0	
191	2022/04/19 12:28:26	69.7	66.0	73.9	68.2	64.3	
196	2022/04/19 12:28:41	66.1	65.1	66.5	64.6	64.5	

Freq Weight : A
 Time weight : SLOW
 Level Range : 40-100
 Max dB : 83.3 - 2022/04/19 12:47:29
 Level Range : 40-100
 SEL : 96.4
 Leq : 68.7

No.s	Date Time	(dB)				
1	2022/04/19 12:44:06	58.3	57.5	61.7	59.2	57.3
6	2022/04/19 12:44:21	56.9	58.3	57.9	59.2	57.7
11	2022/04/19 12:44:36	56.7	56.9	59.7	62.7	66.9
16	2022/04/19 12:44:51	62.0	61.4	58.8	58.6	58.6
21	2022/04/19 12:45:06	57.4	55.9	55.5	55.5	55.3
26	2022/04/19 12:45:21	55.3	56.2	56.2	55.7	58.4
31	2022/04/19 12:45:36	67.4	59.8	55.6	54.6	54.9
36	2022/04/19 12:45:51	55.1	55.6	55.8	56.6	56.1
41	2022/04/19 12:46:06	56.0	57.1	55.8	55.2	54.6
46	2022/04/19 12:46:21	54.7	56.4	54.9	54.5	55.1
51	2022/04/19 12:46:36	54.9	55.0	56.6	58.3	57.5
56	2022/04/19 12:46:51	56.2	55.8	55.5	56.5	68.7
61	2022/04/19 12:47:06	63.3	59.2	69.1	58.9	65.2
66	2022/04/19 12:47:21	80.7	80.6	80.4	81.6	70.8
71	2022/04/19 12:47:36	62.0	67.8	64.2	57.3	55.5
76	2022/04/19 12:47:51	56.7	59.0	59.7	59.2	59.4
81	2022/04/19 12:48:06	59.9	59.8	61.3	65.2	67.3
86	2022/04/19 12:48:21	61.8	59.8	59.7	61.8	64.6
91	2022/04/19 12:48:36	71.0	77.2	73.3	73.6	69.1
96	2022/04/19 12:48:51	67.3	69.2	66.4	63.6	65.8
101	2022/04/19 12:49:06	71.7	75.2	71.4	73.6	69.4
106	2022/04/19 12:49:21	69.2	67.8	66.2	64.5	65.0
111	2022/04/19 12:49:36	67.0	67.6	70.0	70.1	72.6
116	2022/04/19 12:49:51	70.7	66.9	65.1	64.3	63.7
121	2022/04/19 12:50:06	64.1	68.7	73.6	69.5	71.2
126	2022/04/19 12:50:21	72.0	65.8	66.2	69.5	66.1
131	2022/04/19 12:50:36	66.0	67.5	66.9	62.9	64.7
136	2022/04/19 12:50:51	67.9	72.3	73.4	70.5	74.6
141	2022/04/19 12:51:06	74.3	74.2	67.9	65.3	63.5
146	2022/04/19 12:51:21	63.2	63.2	68.7	65.2	63.5
151	2022/04/19 12:51:36	64.5	66.7	72.7	70.6	70.6
156	2022/04/19 12:51:51	71.3	69.8	64.4	65.0	66.3
161	2022/04/19 12:52:06	65.5	64.2	63.0	64.9	65.0
166	2022/04/19 12:52:21	62.2	61.5	64.2	67.0	73.5
171	2022/04/19 12:52:36	72.1	68.2	71.9	68.5	68.8
176	2022/04/19 12:52:51	63.8	68.4	64.0	63.9	63.8
181	2022/04/19 12:53:06	64.2	63.4	61.0	65.6	69.5
186	2022/04/19 12:53:21	72.6	70.9	67.9	73.5	72.9
191	2022/04/19 12:53:36	67.5	67.2	66.8	65.0	63.8
196	2022/04/19 12:53:51	62.9	62.5	61.0	63.1	65.8

Freq Weight : A
 Time Weight : SLOW
 Level Range : 40-100
 Max dB : 78.3 - 2022/04/19 13:08:28
 Level Range : 40-100
 SEL : 94.4
 Leq : 66.7

No. s	Date Time	(dB)					
1	2022/04/19 13:05:38	63.4	62.5	69.6	66.5	64.7	
6	2022/04/19 13:05:53	64.8	63.9	64.9	66.0	64.5	
11	2022/04/19 13:06:08	65.4	70.2	71.0	71.5	72.6	
16	2022/04/19 13:06:23	68.2	65.8	63.1	64.1	61.7	
21	2022/04/19 13:06:38	61.9	62.6	66.3	66.2	62.9	
26	2022/04/19 13:06:53	61.7	62.9	62.6	67.5	67.3	
31	2022/04/19 13:07:08	63.2	66.3	68.3	67.9	67.8	
36	2022/04/19 13:07:23	69.0	64.8	63.1	62.9	62.6	
41	2022/04/19 13:07:38	62.3	63.2	63.4	63.3	64.1	
46	2022/04/19 13:07:53	66.8	64.2	66.0	66.0	65.0	
51	2022/04/19 13:08:08	70.9	67.5	67.4	68.1	70.8	
56	2022/04/19 13:08:23	71.2	78.3	71.8	67.1	66.1	
61	2022/04/19 13:08:38	62.3	63.0	63.9	64.9	68.2	
66	2022/04/19 13:08:53	69.0	67.5	69.2	67.3	73.0	
71	2022/04/19 13:09:08	75.8	70.6	68.3	66.0	65.9	
76	2022/04/19 13:09:23	63.5	61.4	61.9	61.2	60.7	
81	2022/04/19 13:09:38	63.9	65.3	68.0	68.8	67.2	
86	2022/04/19 13:09:53	65.7	66.0	66.3	65.8	68.9	
91	2022/04/19 13:10:08	66.9	69.1	68.0	66.4	64.8	
96	2022/04/19 13:10:23	64.1	64.2	65.0	63.4	62.8	
101	2022/04/19 13:10:38	62.2	61.0	63.2	65.0	66.6	
106	2022/04/19 13:10:53	66.5	69.1	68.2	67.5	68.6	
111	2022/04/19 13:11:08	68.1	66.6	63.8	62.6	62.6	
116	2022/04/19 13:11:23	61.1	63.0	68.4	62.5	61.7	
121	2022/04/19 13:11:38	63.2	61.6	63.4	65.5	67.3	
126	2022/04/19 13:11:53	65.8	64.2	62.3	62.2	63.0	
131	2022/04/19 13:12:08	66.1	69.7	71.8	65.6	63.1	
136	2022/04/19 13:12:23	62.9	62.7	63.7	71.1	73.1	
141	2022/04/19 13:12:38	66.6	64.9	65.3	62.6	61.3	
146	2022/04/19 13:12:53	60.8	61.5	60.7	60.8	60.8	
151	2022/04/19 13:13:08	60.4	59.7	61.2	65.2	61.8	
156	2022/04/19 13:13:23	61.6	73.4	67.7	67.1	67.8	
161	2022/04/19 13:13:38	64.2	63.9	62.1	66.0	63.2	
166	2022/04/19 13:13:53	60.4	60.5	60.7	60.1	59.6	
171	2022/04/19 13:14:08	60.4	61.5	65.7	66.4	69.5	
176	2022/04/19 13:14:23	66.2	64.0	66.1	65.1	64.7	
181	2022/04/19 13:14:38	63.1	63.7	63.1	64.2	63.4	
186	2022/04/19 13:14:53	61.7	60.5	59.3	62.6	60.1	
191	2022/04/19 13:15:08	61.0	65.4	66.5	71.6	69.3	
196	2022/04/19 13:15:23	70.1	70.1	68.0	65.8	64.1	

Freq Weight : A
 Time Weight : SLOW
 Level Range : 40-100
 Max dB : 73.0 - 2022/04/19 13:34:46
 Level Range : 40-100
 SEL : 86.6
 Leq : 58.9

No. s	Date Time	(dB)					
1	2022/04/19 13:28:39	53.9	54.0	55.2	53.3	54.6	
6	2022/04/19 13:28:54	56.6	53.8	55.0	53.2	52.0	
11	2022/04/19 13:29:09	53.0	56.1	53.2	51.6	51.4	
16	2022/04/19 13:29:24	50.4	51.2	51.4	51.3	51.0	
21	2022/04/19 13:29:39	50.1	50.0	49.5	50.3	53.3	
26	2022/04/19 13:29:54	52.1	52.8	53.8	51.0	50.3	
31	2022/04/19 13:30:09	51.8	52.6	54.5	53.7	54.8	
36	2022/04/19 13:30:24	55.4	55.5	56.0	56.1	54.0	
41	2022/04/19 13:30:39	54.7	55.3	54.6	52.9	52.3	
46	2022/04/19 13:30:54	51.5	52.0	53.3	52.9	52.1	
51	2022/04/19 13:31:09	52.5	53.5	53.5	52.9	52.1	
56	2022/04/19 13:31:24	51.8	53.1	53.1	53.9	64.6	
61	2022/04/19 13:31:39	59.6	62.3	59.8	65.2	57.5	
66	2022/04/19 13:31:54	54.4	54.4	54.1	54.8	54.4	
71	2022/04/19 13:32:09	53.8	52.3	51.6	52.5	53.7	
76	2022/04/19 13:32:24	52.8	51.9	51.6	51.6	52.2	
81	2022/04/19 13:32:39	52.8	57.8	53.7	51.3	51.2	
86	2022/04/19 13:32:54	51.2	51.2	52.2	52.6	53.1	
91	2022/04/19 13:33:09	52.4	53.1	52.6	53.8	53.9	
96	2022/04/19 13:33:24	55.3	56.5	56.7	58.1	62.9	
101	2022/04/19 13:33:39	61.6	57.6	56.7	56.9	57.9	
106	2022/04/19 13:33:54	58.3	55.6	56.5	59.7	62.6	
111	2022/04/19 13:34:09	62.2	63.5	59.1	58.9	56.6	
116	2022/04/19 13:34:24	57.0	59.5	59.9	60.5	62.4	
121	2022/04/19 13:34:39	65.7	69.6	72.4	72.1	70.3	
126	2022/04/19 13:34:54	69.7	68.5	66.2	63.2	60.4	
131	2022/04/19 13:35:09	58.2	57.5	57.4	56.7	56.7	
136	2022/04/19 13:35:24	54.3	53.5	52.9	53.2	53.5	
141	2022/04/19 13:35:39	53.9	53.3	51.5	55.9	53.6	
146	2022/04/19 13:35:54	54.2	54.7	54.7	53.8	52.6	
151	2022/04/19 13:36:09	51.9	52.6	54.4	54.4	55.2	
156	2022/04/19 13:36:24	57.1	55.8	55.1	61.7	57.9	
161	2022/04/19 13:36:39	55.6	55.1	56.7	56.1	53.9	
166	2022/04/19 13:36:54	53.5	53.1	52.7	53.7	52.1	
171	2022/04/19 13:37:09	51.9	51.9	51.7	51.8	51.9	
176	2022/04/19 13:37:24	51.9	52.2	51.9	53.2	53.0	
181	2022/04/19 13:37:39	51.3	51.8	51.8	53.9	51.9	
186	2022/04/19 13:37:54	52.7	52.3	52.2	53.1	52.9	
191	2022/04/19 13:38:09	51.4	50.5	50.3	50.9	51.1	
196	2022/04/19 13:38:24	51.0	51.1	51.5	51.4	52.0	

Travel Model Report Cornfield Arroyo Seco Specific Plan (CASP 2040)

Prepared for:
City of Los Angeles

July 2023

LA21-3256

FEHR  PEERS

Appendix I

Travel Model Report

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Introduction

In 2016 the City of Los Angeles updated their new Travel Demand Forecasting Model (Los Angeles Model) as part of the Infill and Complete Streets – Capturing VMT Impacts and Benefits to CEQA Project. The citywide model focused on consistency with the latest version of the SCAG regional travel demand model, improving key components of the model process, and meeting or exceeding industry standards for calibration and validation. The details of the updated Los Angeles Model are available as part of the *2016 City of Los Angeles Travel Demand Model, Model Development Report*¹. The City of Los Angeles Model was used to analyze the Base and Future year scenarios for the Cornfield Arroyo Seco Specific Plan (CASP).

The Cornfield Arroyo Seco Travel Demand Forecasting Model (referred to as the CASP Model in the remainder of this report) builds upon the Downtown Travel Demand Forecasting Model (referred to as the Downtown Model in the remainder of this report) that was previously developed to analyze the Downtown Community Plan Area. The Downtown Model refines the level of detail within the Downtown Community Plan Area for improved sensitivity in measuring the effect of land use development and transportation network changes. The Downtown Model was developed using TransCAD Version 7.0 Build 12410. The model utilizes a conventional 4-step process consisting of trip generation, trip distribution, mode split, and assignment. This report focuses on the SED and network inputs included in the 2040 City of Los Angeles Model scenario, as well as the model enhancements made to the Downtown Model to develop the CASP Model, which was developed for the purpose of analyzing both the 2021 Existing Conditions and the 2040 Proposed Plan scenarios.

Model Inputs

Socioeconomic Data

The Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) provided the initial baseline socioeconomic data estimates for the CASP Area. From this baseline set of data, the City of Los Angeles derived 2017 and 2040 estimates for population, households, and employment. Fehr & Peers used these inputs to interpolate 2021 estimates of population, households, and employment in the CASP Area and the City of Los Angeles, as summarized in Table 1. The CASP Area contains less than 1% of the employment within the City of Los Angeles, and less than 1% of the households.

¹ 2016 City of Los Angeles Travel Demand Model, Model Development Report, Fehr & Peers, February 2017.

Table 1. Existing 2021 Socioeconomic Data

Category	CASP Model Area	City of Los Angeles
Population	6,027	4,088,915
Households	2,012	1,455,656
K12 Students	1,474	616,220
College Students	0	277,680
Employees	5,411	1,884,667

Source: Southern California Association of Governments (SCAG), 2016. City of Los Angeles & Fehr & Peers, 2022.

Traffic Analysis Zone System

Socioeconomic data and other information used in the model are contained in geographically defined areas known as Transportation Analysis Zones (TAZs). These zones provide the spatial unit within which travel behavior and trip generation are estimated. The City of Los Angeles model has TAZ system based on the Tier 1 TAZ system used in the 2016 SCAG RTP/SCS model. The custom zone system was created to add more detail within the City of Los Angeles, so that the zonal boundaries are predominantly defined by roadways or other geographic features. This method of subdividing the SCAG Tier 1 zones improves vehicle access to the local street network. The subdivided TAZs better reflect how and where traffic enters and exits the street network and are divided along logical transportation boundaries like major streets and topography.

Figure 1 shows the TAZ system within the CASP Area used by City staff to develop land use estimates for existing conditions and land use forecasts for the future year scenarios.

As part of the process to subdivide the SCAG Tier 1 zones for the citywide model update, the socioeconomic data was modified using geographic area calculations and aerial imagery within GIS software. Residential, school, and employment disaggregation factors were individually developed for each Tier 1 zone.

For the development of the CASP Model, City staff reviewed the socioeconomic data assumptions for the TAZs within the Plan Area and adjusted the distribution of households and employment. These distribution adjustments were based on data from the Los Angeles County Assessor, but maintained the total number of households, population, and jobs within the Plan Areas based on SCAG’s estimates for the model base year.



CASP Boundary

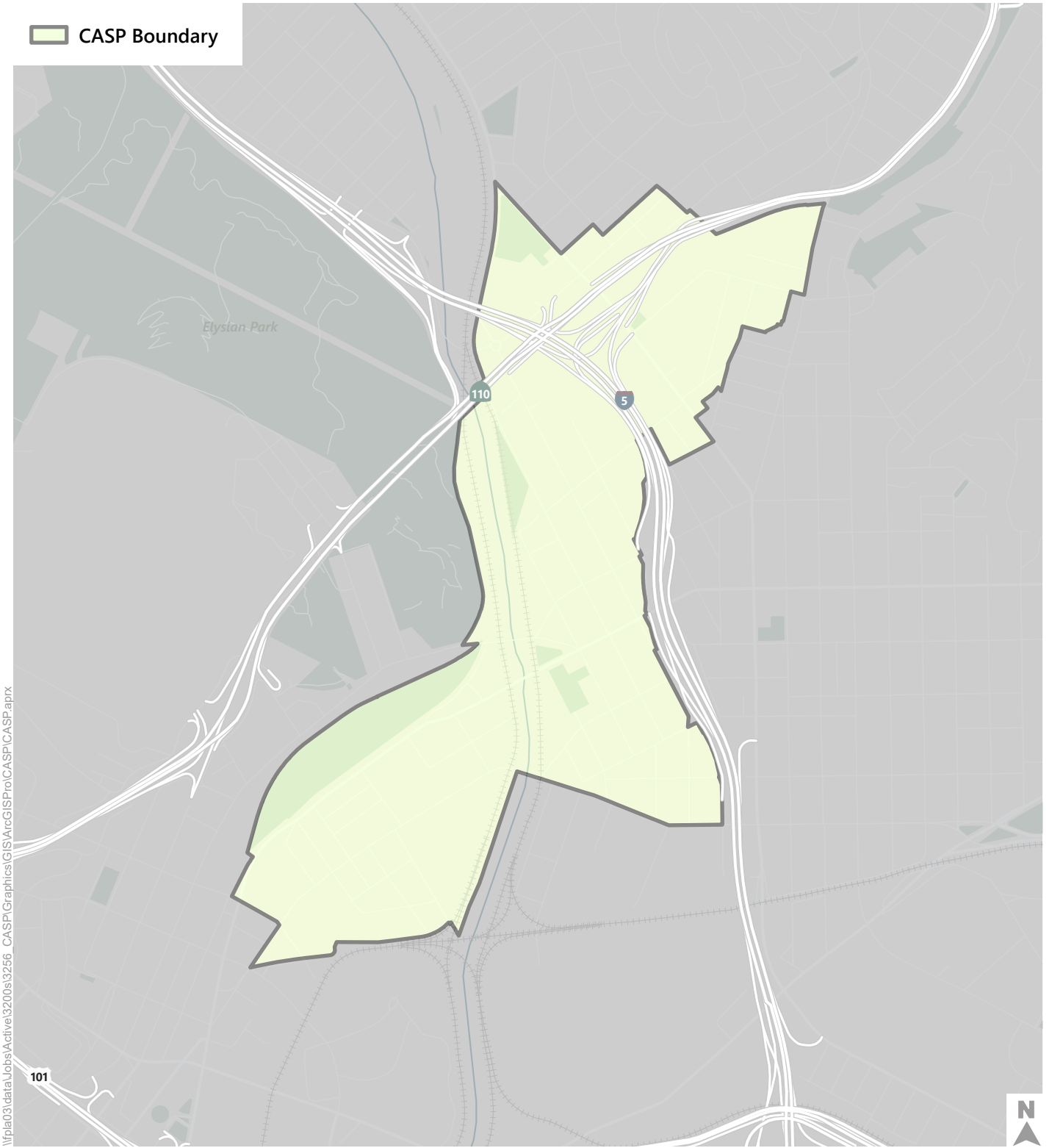


Figure 1



Highway Network

The highway network within the CASP Model is shown in **Figure 2**. The primary attributes of the network links include directionality (1-way versus 2-way), posted speed limit, and number of lanes (by time of day, including parking restrictions). The network inputs also include turning movement restrictions for each model time period at signalized intersections and freeway ramps where appropriate.

The highway network was also reviewed for consistency with the classifications established in the Los Angeles Mobility Plan 2035 to ensure that facilities classified as Boulevards or Avenues within the Plan Area were included in the model.

Transit Network

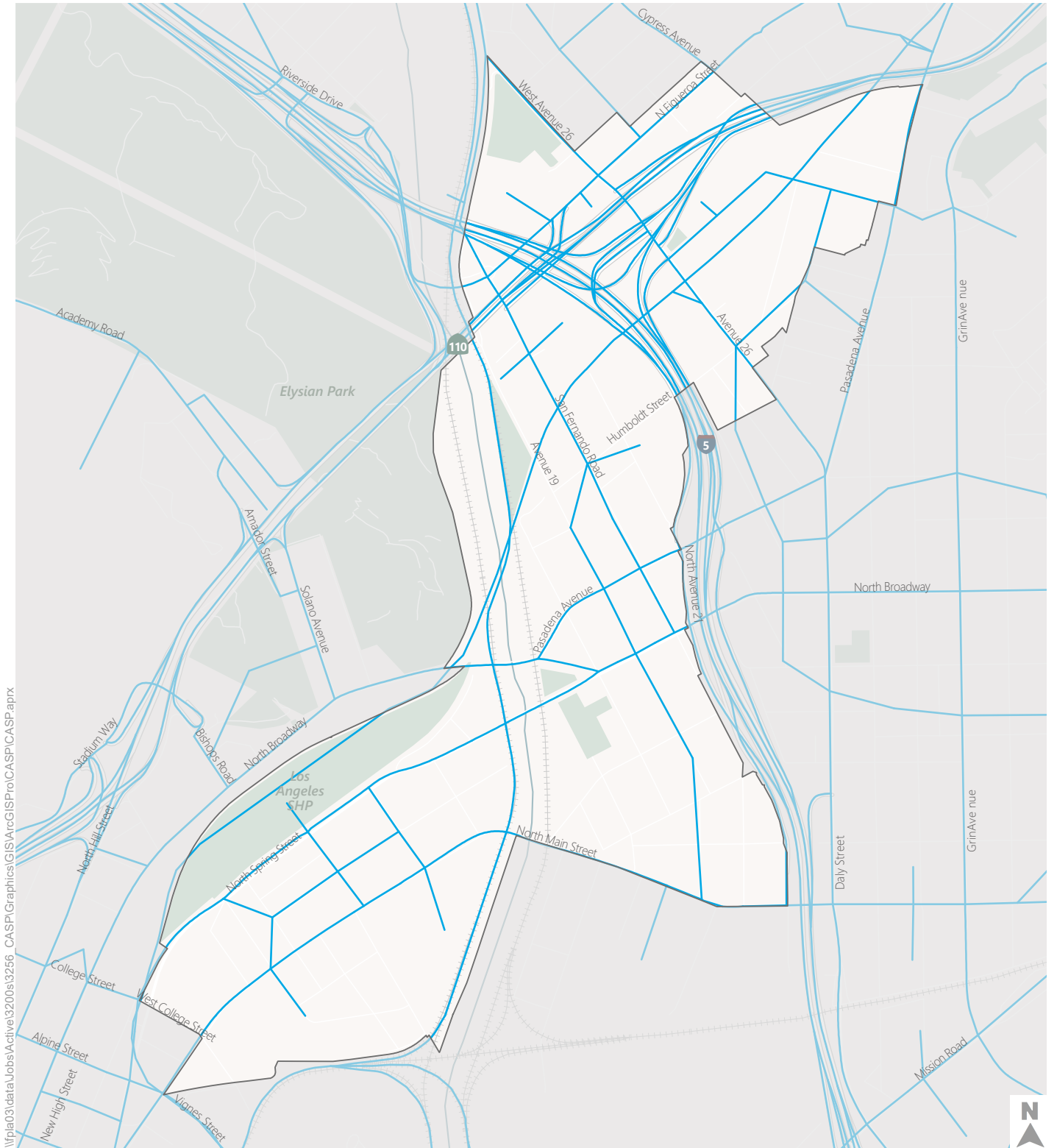
The transit network for the citywide model was updated to include the most recently available route and schedule information from the largest transit providers in Los Angeles County. As part of the Downtown Travel Demand Model, the Metro Expo Phase 2 and Gold Line Foothill light rail extensions were included in the transit network. As such, these changes are also included in the CASP Model.

Transit service in the CASP Area is provided by LADOT and Metro:

- Los Angeles County Metropolitan Transportation Authority (Metro)
 - Gold (L) Line Light Rail
 - Metro Local Lines
 - 45
 - 76
 - 90
 - 94
 - 96
 - 251

- Los Angeles Department of Transportation (LADOT)
 - DASH B (Chinatown, Financial District)
 - Dash Commuter Express
 - 413
 - 419





\\fla03\data\Jobs\Active\3200s\3256_CASP\Graphics\GIS\ArcGISPro\CASP\CASP.aprx

Figure 2

CASP Model Network



Future Year Conditions

The following future year scenarios were analyzed utilizing the Downtown and CASP Models:

- 2040 Future (No Project) Conditions (Downtown Model)
- 2040 Proposed Plan (Project) Conditions (CASP Model)

The socioeconomic data and transportation networks under these analysis scenarios are presented below.

Future 2040 Socioeconomic Data

Future year socioeconomic household, population, and employment data for the 2040 Future (No Project) Plan and 2040 Proposed Plan scenarios were developed by the Los Angeles Department of City Planning and are described below.

2040 Future (No Project) Conditions

The 2040 Future (No Project) Plan scenario was analyzed using the 2040 Downtown Model because it was anticipated at the time the CASP analysis was conducted that the land use, socioeconomic, and transportation network changes envisioned by the Downtown Community Plan will have been implemented by 2040. This assumption was validated in May 2023 when the Los Angeles City Council voted to approve the Downtown Community Plan. The SED and network within the CASP Area were informed by the Downtown Model but adjustments were made within the CASP Area using updated SED inputs provided by the City of Los Angeles. The 2040 Future (No Project) Conditions SED inputs for the CASP Area are summarized in **Table 2**.

Table 2. 2040 Existing Plan (No Project) Conditions SED

Households	Household Growth*	Population	Population Growth*	Employment	Employment Growth*
12,773	10,761	36,021	29,994	10,004	4,593

Source: Southern California Association of Governments (SCAG), 2016. City of Los Angeles, 2022.

* Growth is calculated as the difference between 2040 Future (No Project) Conditions and Existing 2021 Conditions.

2040 Proposed Plan (Project) Conditions

Socioeconomic data for the Proposed Plan reflect reasonably anticipated future development through the Year 2040 including the proposed land use and zoning changes and housing incentive units. The distribution of household and employment growth with the Proposed Plan were determined at the TAZ level based on planned land use and zoning changes. **Table 3** shows the 2040 Proposed Plan socioeconomic data, as prepared by the Los Angeles Department of City Planning. This SED is based on known approved and



pipeline development projects within the Plan Area in addition to growth associated with the Proposed Plan. **Figures 3** and **4** illustrate the growth distribution for Households and Employment, respectively, comparing the 2040 Proposed Plan scenario with the 2040 Downtown Model Future (No Project) scenario.

Detailed SED data, including household categorization by income level and employment categorization by industry, for TAZs within the CASP Area was developed using the total population, household, and employment data described above.

Table 3. 2040 Proposed Plan (Project) Conditions SED

Households	Household Growth*	Population	Population Growth*	Employment	Employment Growth*
20,036	7,623	56,502	20,481	8,263	-1,741

Source: Southern California Association of Governments (SCAG), 2016. City of Los Angeles, 2022.

* Growth is calculated as the difference between 2040 Future (No Project) Conditions and Existing 2021 Conditions.

Future Transportation Network

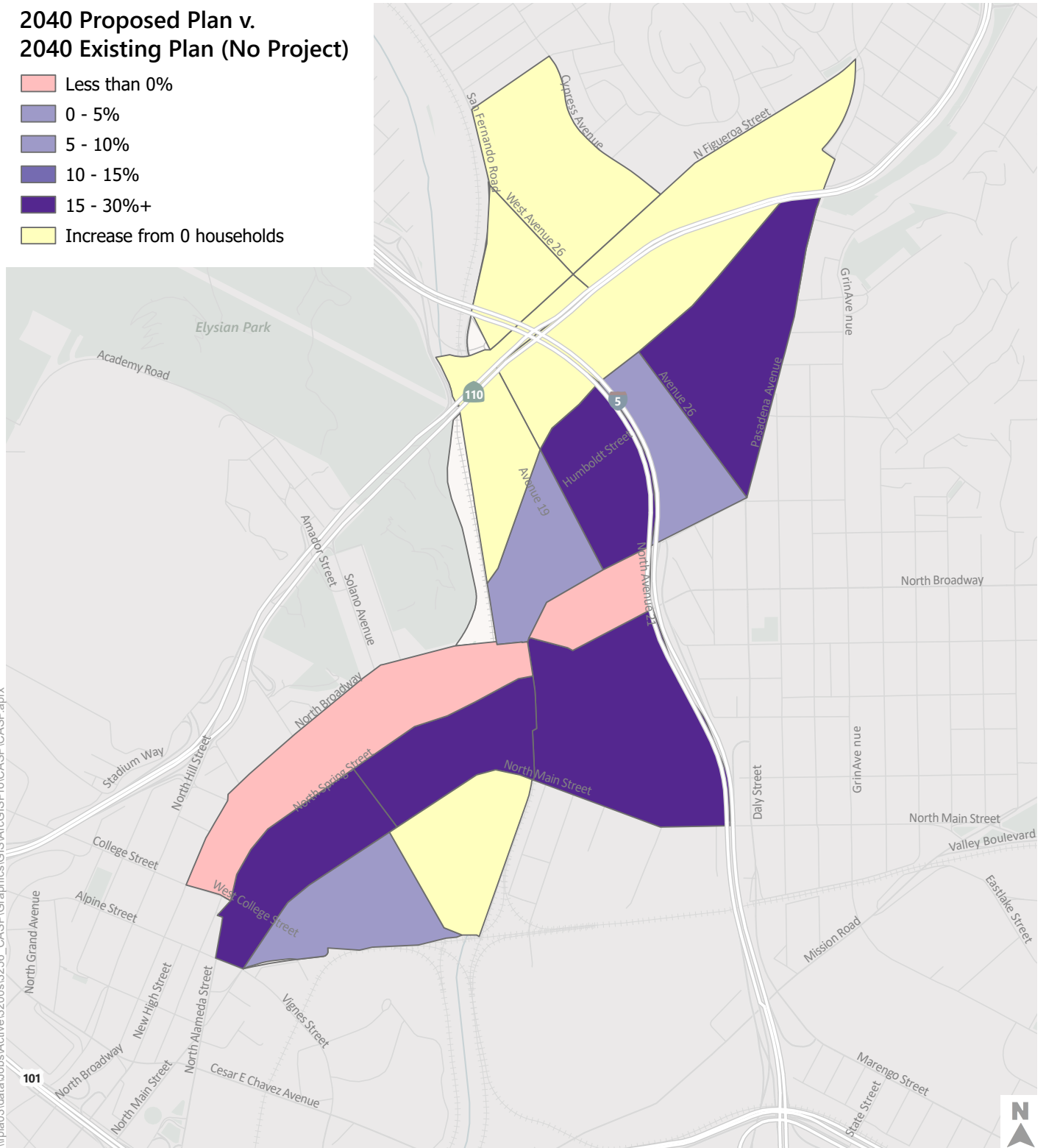
2040 Future (No Project) & Proposed Plan (Project) Conditions

The highway and transit network improvements included in the 2040 Future (No Project) Conditions scenario reflect the 2040 Plan scenario of the 2016 SCAG RTP/SCS and Mobility Plan 2035. Related to the 2016 SCAG RTP/SCS, the improvements selected for the City of Los Angeles model 2040 scenario include those projects that have committed funding on the Federal Transportation Improvement Program (FTIP) in the near-term or are included in the fiscally-constrained Regional Transportation Plan (RTP). For a complete description of projects selected in the 2040 Existing Plan model, refer to the *2016 City of Los Angeles Travel Demand Model, Model Development Report*. No RTP or FTIP highway projects included in the 2040 City of Los Angeles model are located within or adjacent to the CASP Area.

In addition to the City of Los Angeles Travel Demand Model 2040 projects, the 2040 Future (No Project) and Proposed Plan (Project) scenarios of the CASP Model also include projects from Mobility Plan 2035. Mobility Plan 2035 provides the framework for future community plan updates, which take a closer look at the transportation system in specific areas of the City and recommend more detailed implementation strategies to realize Mobility Plan 2035. The Mobility Plan 2035 reflects policies and programs that lay the foundation for safe, accessible, and enjoyable streets for pedestrians, bicyclists, transit users, and vehicles throughout the City of Los Angeles, including the CASP Area. Mobility Plan 2035 was adopted by the City in August 2015 and is compliant with the 2008 Complete Streets Act (AB 1358), which mandates that the circulation element of a city's General Plan be modified to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan.

**2040 Proposed Plan v.
2040 Existing Plan (No Project)**

- Less than 0%
- 0 - 5%
- 5 - 10%
- 10 - 15%
- 15 - 30%+
- Increase from 0 households



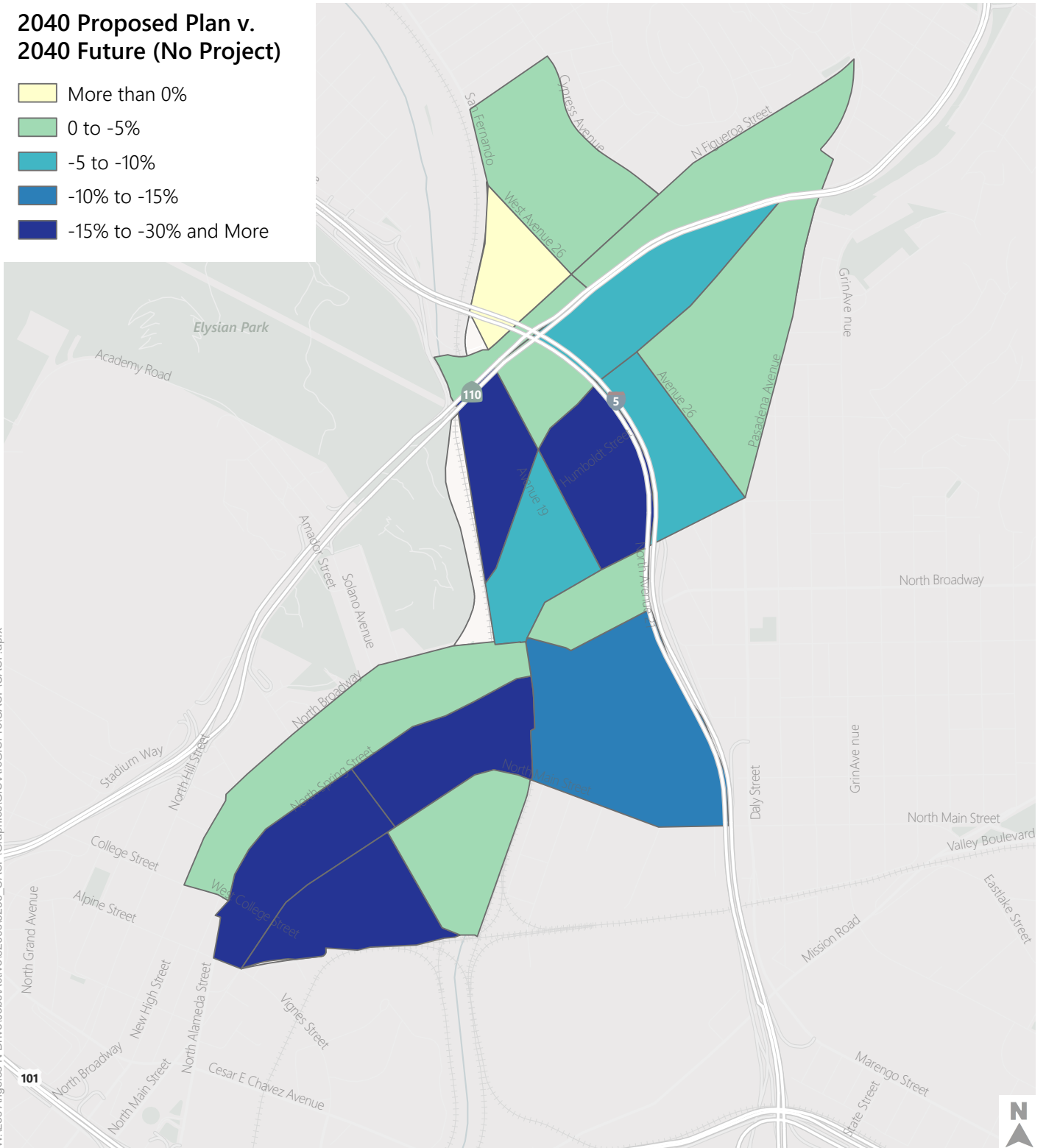
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Figure 3



**2040 Proposed Plan v.
2040 Future (No Project)**

- More than 0%
- 0 to -5%
- 5 to -10%
- 10% to -15%
- 15% to -30% and More



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Figure 4



The Mobility Plan 2035 contains a variety of enhanced network treatments within the CASP Area that are incorporated into the 2040 Future (No Project) and Proposed Plan (Project) scenarios of the model. **Figure 5** shows the following enhanced network treatments for roadways in the Plan Area and the surrounding vicinity:

- Bicycle Enhanced Network (BEN)
- Transit Enhanced Network (TEN)
- Vehicle Enhanced Network (VEN)

Additional Mobility Plan 2035 Considerations

Mobility Plan 2035 represents the best indication of long-term capital planning for transportation infrastructure in Los Angeles, and at the time of Mobility Plan 2035 adoption it was envisioned that the identified networks would be realized by the year 2035. As the officially adopted mobility element of the General Plan, the Plan establishes priority for future investments along the various enhanced networks on a citywide scale.

While the City typically accounts for and assumes projects that are built, underway, or have secured funding as part of the horizon year future, there is evidence of a rapid pace of improvements and funding of the enhanced networks in the Plan Area outlined in Mobility Plan 2035. Recent and ongoing investments and prioritization of first-last mile connectivity demonstrate the commitment to improve this infrastructure regardless of whether the CASP itself is adopted. For this reason, it is reasonable to analyze all future scenarios in this area with the inclusion of Mobility Plan 2035.

For all Future 2040 scenarios of the CASP, transportation network assumptions to be applied to the roadways designated for enhanced network treatments are summarized in **Table 4**.



Table 4. CASP Enhanced Networks Model Assumptions

Enhanced Network	Treatment Level	Model Assumptions
Vehicle-Enhanced Network (VEN)	Moderate	<ul style="list-style-type: none"> Reduce vehicle travel times by 10% Add one vehicular travel lane per direction if all-day parking is available, or convert one off-peak parking lane per direction to a full-time vehicular travel lane
	Comprehensive	<ul style="list-style-type: none"> Reduce vehicle travel times by 10% Add one vehicular travel lane per direction if all-day parking is available, or convert one off-peak parking lane per direction to a full-time vehicular travel lane Increase effective vehicular capacity by 10%
Transit-Enhanced Network (TEN)	Moderate	<ul style="list-style-type: none"> No change to lane configurations Double frequency of bus service
	Moderate Plus	<ul style="list-style-type: none"> Convert one vehicular travel lane per direction to a bus only lane during peak periods Double frequency of bus service
	Comprehensive	<ul style="list-style-type: none"> Convert one vehicular travel lane per direction to a bus only lane for the full day Double frequency of bus service
Bicycle-Enhanced Network (BEN)/Bicycle Lane Network	Bike Lane (Tier 3)	<ul style="list-style-type: none"> No change in lane configuration
	Bike Lane (Tier 2)	<ul style="list-style-type: none"> Remove one vehicular travel lane per direction to accommodate a bicycle lane or buffered bicycle lane
	Protected Bike Lanes (Tier 1)	<ul style="list-style-type: none"> Remove one vehicular travel lane per direction to accommodate a Protected Bike Lane

Source: Mobility Plan 2035 Model Assumptions, Fehr & Peers, City of Los Angeles.

Other model assumptions:

- Tier 1 and Tier 2 bicycle facilities were included as these are facilities planned by the sunset of this plan. Tier 3 was not included as those facilities were not assumed to be implemented by that time.
- In cases where Tier 1 or Tier 2 bicycle facilities, and Moderate Plus or Comprehensive transit enhancements are planned for the same roadway facility, only one vehicle travel lane was removed in each direction of travel as part of the Enhanced Network.
- On roadway facilities with only one general purpose vehicle lane in each direction under existing conditions, no travel lanes were removed from the Enhanced Network.

- For purposes of developing the network in a travel demand model, the Neighborhood Enhanced Networks (NEN) identified in Mobility Plan 2035, while increasing pedestrian safety, will not reduce vehicle capacity and therefore are not included in the transportation analysis.
- On the TEN, Comprehensive and Moderate Plus networks included the conversion of a travel lane, as these enhancements include bus-only lanes at least some of the day. Moderate networks were not modeled, as these are designated for stop enhancements and increases service, with buses operating in mixed flow with vehicles.
- **Table 4** and these assumptions were determined with the project team.

Model Outputs for the Specific Plan

One of the primary uses of the CASP Model is to forecast vehicle miles traveled (VMT) and level of service (LOS) on the roadway network for each analysis scenario. These forecasts help to determine whether a plan would have any environmental impacts. For many years, LOS has been utilized to determine these impacts, but the City of Los Angeles is now using VMT as the primary measurement tool consistent with the California Environmental Quality Act (CEQA). There are two methods for estimating VMT using the travel demand model: the boundary method and the origin-destination (OD) method. Each method is best suited for supporting different types of analysis, such as estimating air pollution and GHG emissions. For purposes of this project, the OD method will be employed.

VMT is a measurement of miles traveled (e.g., private automobiles, trucks and buses) by all land uses (e.g., residential, retail, office) in the Project Area. For this analysis, VMT is reported as Total Daily VMT per Service Population, which equates to all VMT for the Plan Area divided by the number of people living and working within the Plan Area. A reduction in VMT overall and in VMT per capita service population can be used as an indicator of reduced reliance on vehicular travel, primarily by private automobiles. Some VMT metrics focus on VMT per capita and VMT per employee as separate markers of these indications; however, VMT per service population the effects of all vehicular movement in an area. It includes not only trips that are attracted and produced by home and work trips, but those that fit in neither category (i.e. school to grocery store) as well as truck trips. The VMT calculation accounts for internal (II) trips and trips that begin or end (IX or XI) within the Plan Area, as these trips are generated by or attracted to land uses within the CASP Area. The travel behavior effects of land use changes in the CASP Area can be understood by measuring the VMT of trips originating in and/or destined for the Plan Area.



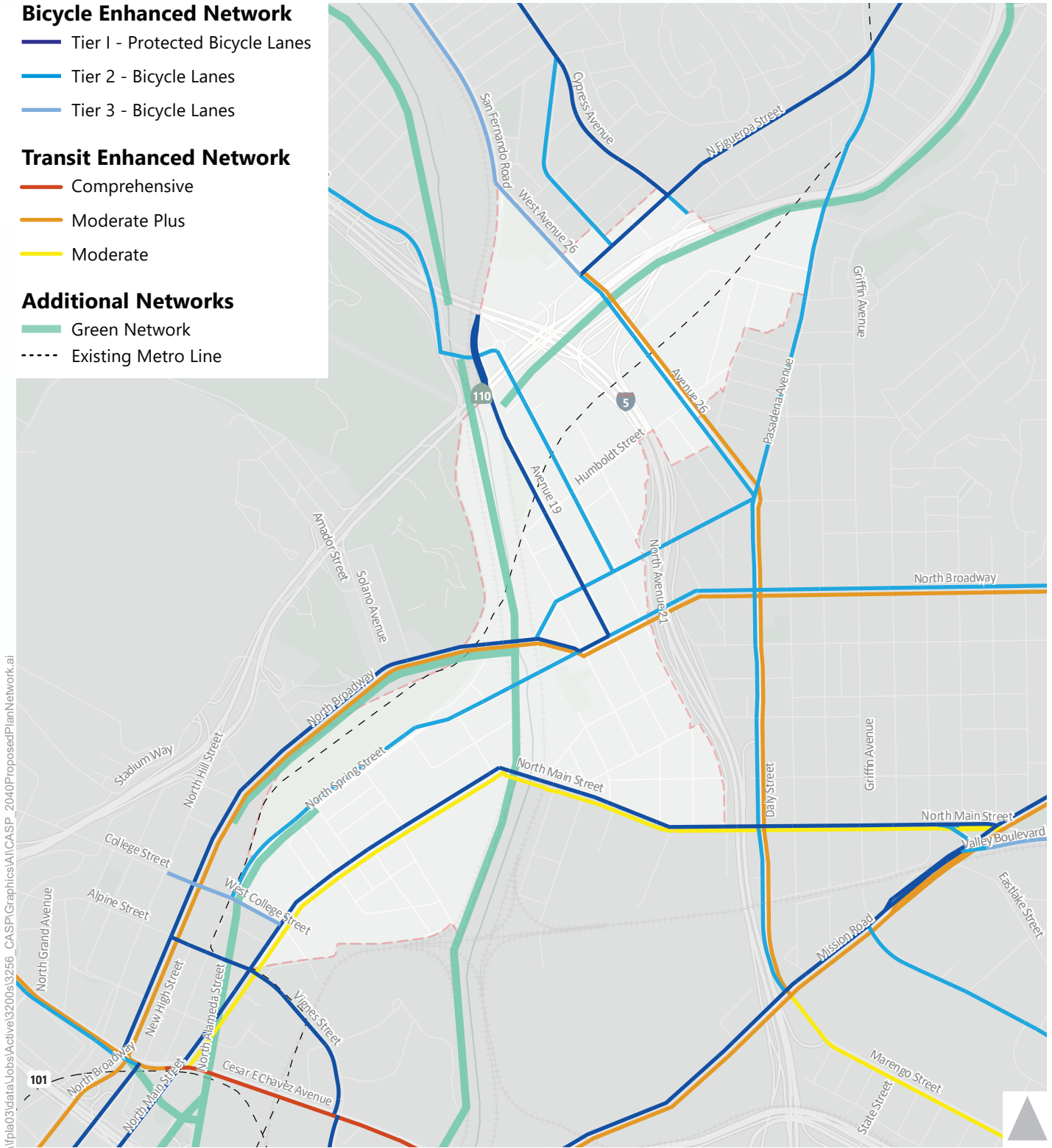


Figure 5



Appendix J

Tribal Correspondence

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VACANT
DEPUTY DIRECTOR

AB 52 TRIBAL CONSULTATION NOTICE

April 7, 2021

Fernandeño Tataviam Band of Mission Indians
Rudy Ortega, Tribal President
1019 2nd Street, Ste. 1
San Fernando, CA 91340

RE: Cornfield Arroyo Seco Specific Plan (CASP) Update
CASE NO.: CPC-2021-2642-SP; ENV-2021-2643-EIR

Dear Tribal Representative,

This letter is to inform you that the Los Angeles Department of City Planning is preparing an Environmental Impact Report ("EIR") for the Cornfield Arroyo Seco Specific Plan (CASP) Update ("Proposed Project") in accordance with the requirements of the California Environmental Quality Act ("CEQA"). This notification is being forwarded to Native American tribes that are understood to be traditionally, culturally, and/or geographically affiliated with the Proposed Project area pursuant to the statutory requirements of Assembly Bill 52 (AB 52). Per AB 52, your tribe has the right to consult on the Proposed Project prior to the release of the related EIR and your tribe has 30 calendar days from receipt of this letter to notify us in writing that it wishes to consult on the Proposed Project. The Proposed Project is a long-range land use plan that does not consist of any proposed development projects, includes no ground disturbing activity or any related construction activity.

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200 N. Spring Street, Room 667
Los Angeles, CA 90012
Phone: (213) 978-1207
Email: clare.kelley@lacity.org

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Sincerely,


Clare Kelley
Attachment: Figure 4

Figure 1. CASP Area Boundaries Map



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Fig 2 Project Location

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VACANT
DEPUTY DIRECTOR

AB 52 TRIBAL CONSULTATION NOTICE

April 7, 2021

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Chairperson
P.O. Box 490
Bellflower, CA 90707

RE: Cornfield Arroyo Seco Specific Plan (CASP) Update
CASE NO.: CPC-2021-2642-SP; ENV-2021-2643-EIR

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Sincerely,



Clare Kelley
Attachment: Figure 4

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Fig. 2 Project Location

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AB 52 TRIBAL CONSULTATION NOTICE

April 7, 2021

Fernandeño Tataviam Band of Mission Indians
Jairo Avila, Tribal Historic and Cultural Preservation
1019 2nd Street, Ste. 1
San Fernando, CA 91340

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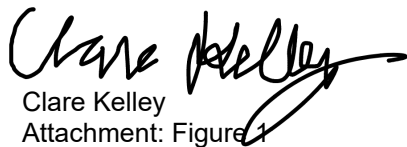

Clare Kelley
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VACANT
DEPUTY DIRECTOR

AB 52 TRIBAL CONSULTATION NOTICE

April 7, 2021

Gabrielino-Tongva Tribe
Attn: Charles Alvarez
23454 Vanowen Street
West Hills, CA 91307

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CASE NO.: CPC-2021-2642-SP; ENV-2021-2643-EIR

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EXECUTIVE OFFICER

SHANA M.M. BONSTIN
DEPUTY DIRECTOR

ARTHI L. VARMA, AICP
DEPUTY DIRECTOR

LISA M. WEBBER, AICP
DEPUTY DIRECTOR

VACANT
DEPUTY DIRECTOR

AB 52 TRIBAL CONSULTATION NOTICE

April 7, 2021

Gabrieleño Band of Mission Indians – Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393
Covina, CA 91723

RE: Cornfield Arroyo Seco Specific Plan (CASP) Update
CASE NO.: CPC-2021-2642-SP; ENV-2021-2643-EIR

Dear Tribal Representative,

This letter is to inform you that the Los Angeles Department of City Planning is preparing an Environmental Impact Report (“EIR”) for the Cornfield Arroyo Seco Specific Plan (CASP) Update (“Proposed Project”) in accordance with the requirements of the California Environmental Quality Act (“CEQA”). This notification is being forwarded to Native American tribes that are understood to be traditionally, culturally, and/or geographically affiliated with the Proposed Project area pursuant to the statutory requirements of Assembly Bill 52 (AB 52). Per AB 52, your tribe has the right to consult on the Proposed Project prior to the release of the related EIR and your tribe has 30 calendar days from receipt of this letter to notify us in writing that it wishes to consult on the Proposed Project. The Proposed Project is a long-range land use plan that does not consist of any proposed development projects, includes no ground disturbing activity or any related construction activity.

PROJECT LOCATION

The Project location is the Cornfield Arroyo Seco Specific Plan Area (“CASP Area” or “Project Area”), a geographically contiguous, approximately 660-acre (1.0 square mile) area located within portions of the Central City North, Northeast Los Angeles, and Silver Lake-Echo Park-Elysian Valley Community Plan Areas. The Project Area encompasses the Los Angeles State Historic Park, segments of the Los Angeles River and Arroyo Seco, segments of Interstate 5 and California State Route 110, and the Lincoln/Cypress Metro L Line station. Approximately 6,201 individuals (1,814 households) reside within the Project Area, which is bordered by the neighborhoods of Chinatown to the west, Lincoln Heights to the east, and Cypress Park to the north. The CASP Area boundaries are shown in Figure 1.

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City of Los Angeles Department of City Planning
Clare Kelley, City Planner
200 N. Spring Street, Room 667
Los Angeles, CA 90012
Phone: (213) 978-1207
Email: clare.kelley@lacity.org

If you have any questions, please contact us at your earliest opportunity.

Sincerely,


Clare Kelley
Attachment: Figure 4

Figure 1. CASP Area Boundaries Map



Imagery provided by Microsoft Bing and its licensors © 2021.

Fig 2 Project Location

**DEPARTMENT OF
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COMMISSION OFFICE
(213) 978-1300

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VICE-PRESIDENT

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CALIFORNIA**



ERIC GARCETTI
MAYOR

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DEPUTY DIRECTOR

VACANT
DEPUTY DIRECTOR

AB 52 TRIBAL CONSULTATION NOTICE

April 7, 2021

San Fernando Band of Mission Indians
Donna Yocum, Chairperson
P.O. Box 221838
Newhall, CA 91322

RE: Cornfield Arroyo Seco Specific Plan (CASP) Update
CASE NO.: CPC-2021-2642-SP; ENV-2021-2643-EIR

Dear Tribal Representative,

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Email: clare.kelley@lacity.org

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Clare Kelley
Attachment: Figure 1

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Fig. 2 Project Location

**DEPARTMENT OF
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(213) 978-1300

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CAROLINE CHOE
VICE-PRESIDENT

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HELEN LEUNG
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ERIC GARCETTI
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DEPUTY DIRECTOR

VACANT
DEPUTY DIRECTOR

AB 52 TRIBAL CONSULTATION NOTICE

April 7, 2021

Gabrielino/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693
San Gabriel, CA 91778

RE: Cornfield Arroyo Seco Specific Plan (CASP) Update
CASE NO.: CPC-2021-2642-SP; ENV-2021-2643-EIR

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DEPUTY DIRECTOR

VACANT
DEPUTY DIRECTOR

AB 52 TRIBAL CONSULTATION NOTICE

April 7, 2021

Soboba Band of Luiseño Indians
Scott Cozart, Chairperson
P.O. Box 487
San Jacinto, CA 92581

RE: Cornfield Arroyo Seco Specific Plan (CASP) Update
CASE NO.: CPC-2021-2642-SP; ENV-2021-2643-EIR

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AB 52 TRIBAL CONSULTATION NOTICE

April 7, 2021

Gabrielino/Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231
Los Angeles, CA 90012

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CASE NO.: CPC-2021-2642-SP; ENV-2021-2643-EIR

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AB 52 TRIBAL CONSULTATION NOTICE

April 7, 2021

Torres Martinez Desert Cahuilla Indians
Thomas Tortez, Chairperson
PO Box 1160
Thermal, CA 92274

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Fig 2 Project Location



Clare Kelley <clare.kelley@lacity.org>

Cornfield Arroyo Seco Specific Plan Update CASE NO: CPC-2021-2642-SP; ENV-2021-2643-EIR

4 messages

Gabrieleno Administration <admin@gabrielenoindians.org>

Fri, Apr 16, 2021 at 10:54 AM

To: clare.kelley@lacity.org

Hello Clare Kelley,

Thank you for your letter dated April 7,2021. Will there be any ground disturbance taken place regarding the above project?

Admin Specialist
 Gabrieleno Band of Mission Indians - Kizh Nation
 PO Box 393
 Covina, CA 91723
 Office: 844-390-0787
 website: www.gabrielenoindians.org



The region where Gabrieleño culture thrived for more than eight centuries encompassed most of Los Angeles County, more than half of Orange County and portions of Riverside and San Bernardino counties. It was the labor of the Gabrieleño who built the missions, ranchos and the pueblos of Los Angeles. They were trained in the trades, and they did the construction and maintenance, as well as the farming and managing of herds of livestock. "The Gabrieleño are the ones who did all this work, and they really are the foundation of the early economy of the Los Angeles area ". "That's a contribution that Los Angeles has not recognized--the fact that in its early decades, without the Gabrieleño, the community simply would not have survived."

Clare Kelley <clare.kelley@lacity.org>

Mon, Apr 19, 2021 at 11:19 AM

To: Valerie Watson <valerie.watson@lacity.org>, Michael Sin <michael.sin@lacity.org>

FYI

[Quoted text hidden]

--

**Clare Kelley**

She, Her, Hers

City Planner

Los Angeles City Planning

200 N. Spring St., Room 667

Los Angeles, CA 90012

Planning4LA.org

T: (213) 978-1207



Clare Kelley <clare.kelley@lacity.org>

Tue, Apr 27, 2021 at 12:53 PM

To: Gabrieleno Administration <admin@gabrielenoindians.org>

Cc: Valerie Watson <valerie.watson@lacity.org>, Michael Sin <michael.sin@lacity.org>

Good afternoon,

Thank you for your inquiry regarding the Cornfield Arroyo Seco Specific Plan Update. The project is a long-range land use plan and does not involve any construction activity or ground disturbance. The project includes rezoning certain properties within the Project boundaries and establishing new or enhanced property development standards and use requirements for said properties with which future development must comply.

Please feel free to contact me with any additional questions or concerns.

Best regards,

[Quoted text hidden]

[Quoted text hidden]

Gabrieleno Administration <admin@gabrielenoindians.org>

Tue, Apr 27, 2021 at 2:20 PM

To: Clare Kelley <clare.kelley@lacity.org>

Hello Clare

Thank you for your response. Since there will not be any type of ground disturbance taking place there will be no need for consultation. We ask that you please notify us if any type of ground disturbance occurs in the future.

Thank you

Admin Specialist

Gabrieleno Band of Mission Indians - Kizh Nation

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Covina, CA 91723

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website: www.gabrielenoindians.org



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