

Appendix C
Air Quality and Noise Report

**Air Quality & Noise Analyses
Los Lirios Mixed-Use Project
119, 121, 113 S. Soto Street &
2316, 2322 E. 1st Street
Los Angeles, California 90033**

Prepared by:



**Contact: Brett Pomeroy
25101 The Old Road, Suite 246
Santa Clarita, California 91381
T: (661) 388-2422
www.pomeroyes.com**

April 2019

TABLE OF CONTENTS

1.0 INTRODUCTION 1
2.0 PROJECT OVERVIEW 1
3.0 AIR QUALITY ANALYSIS 4
4.0 NOISE ANALYSIS 13
5.0 CONCLUSION 26

List of Figures

Figure 1 Aerial Photograph of the Project Site 2
Figure 2 Project Site Plan 3

List of Tables

Table 1 Attainment Status for the South Coast Air Basin 6
Table 2 SCAQMD Thresholds of Significance 7
Table 3 Estimated Peak Daily Construction Emissions 8
Table 4 Estimated Daily Operational Emissions 9
Table 5 Localized On-Site Peak Daily Construction Emissions 11
Table 6 Noise Range of Typical Construction Equipment 14
Table 7 Estimated Project Construction Noise Levels 15
Table 8 Existing Ambient Daytime Noise Levels 16
Table 9 Community Noise Exposure 19
Table 10 Vibration Source Levels for Construction Equipment 23

Appendices

Appendix A: Air Quality Data
Appendix B: Noise Monitoring Data

1.0 INTRODUCTION

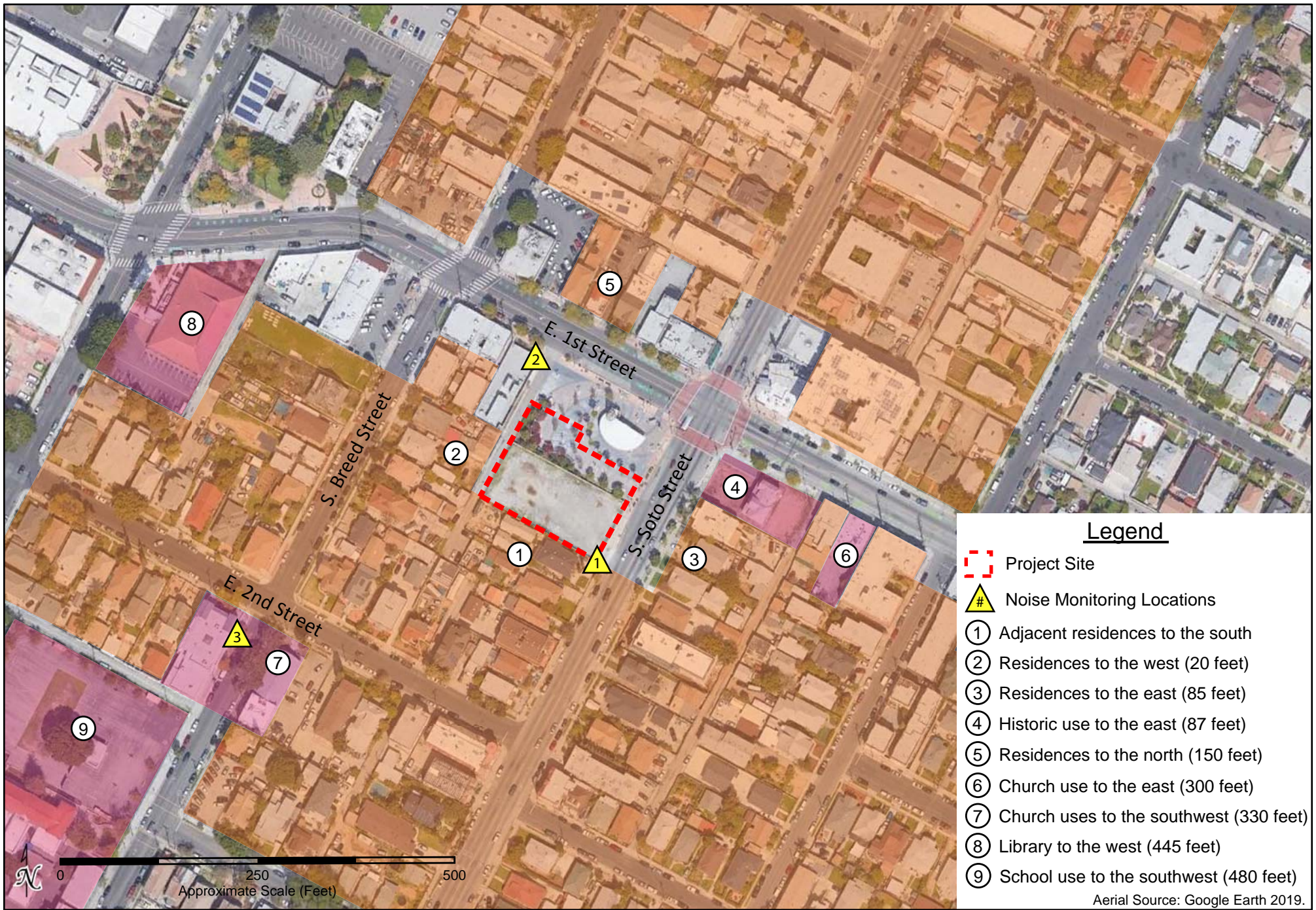
The purpose of this report is to examine the degree to which the Project may result in significant environmental impacts with respect to air quality emissions and noise and vibration. Both short-term construction emissions occurring from activities such as site grading and haul truck trips, and operational emissions of the Project are discussed in this report. The potential for the Project to conflict with or obstruct implementation of the applicable air quality plan, to violate an adopted 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 Project region is designated to be in non-attainment, to expose sensitive receptors to substantial pollutant concentrations, or to create objectionable odors affecting a substantial number of people are discussed herein. Additionally, this report includes an evaluation of potential impacts associated with substantial temporary and permanent increases in ambient noise levels in the vicinity of the Project Site; exposure of people in the vicinity of the Project Site to excessive noise or groundborne vibration levels; and whether exposure is in excess of standards established in the City. This report can be attached to or kept on file for CEQA documentation.

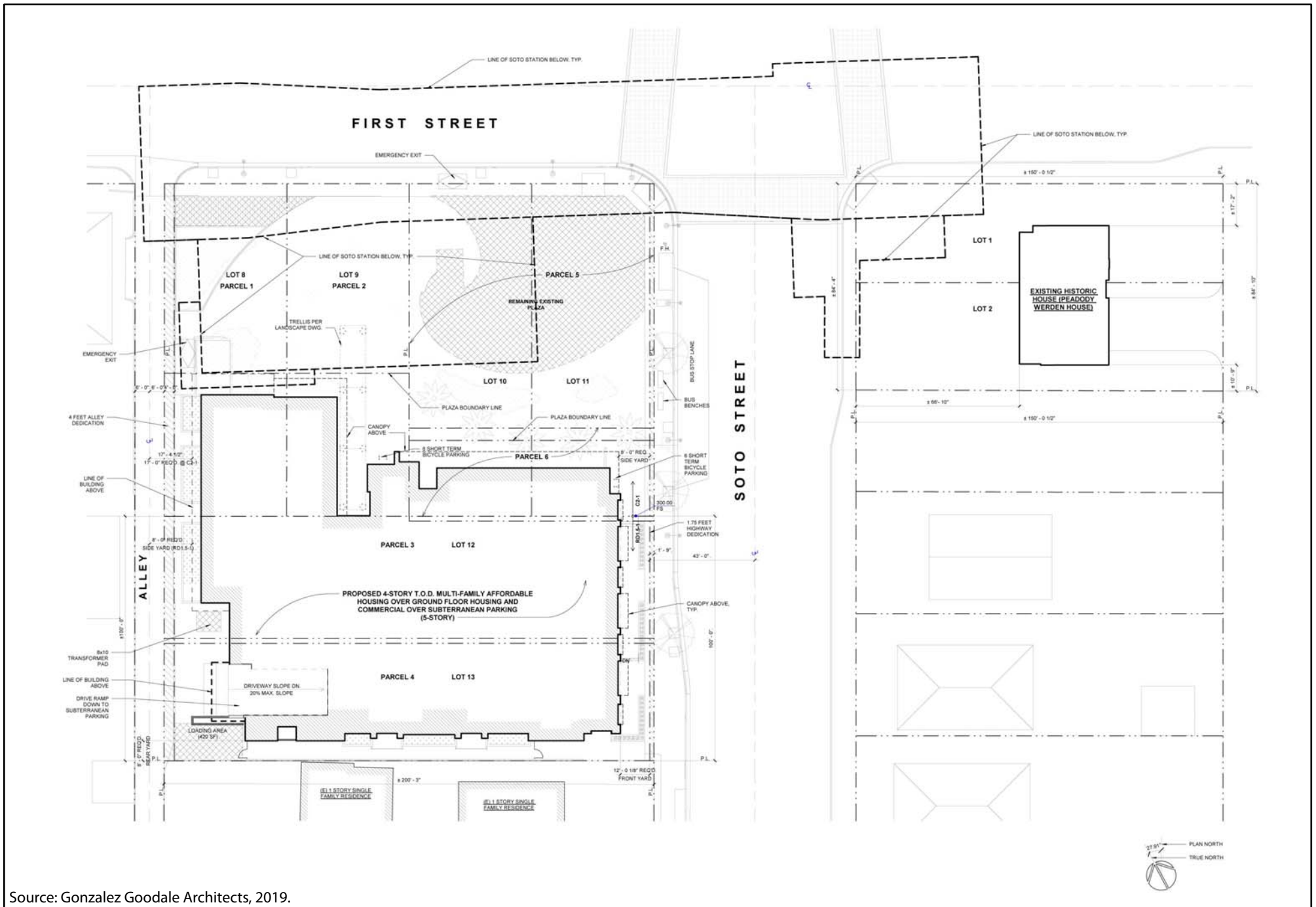
2.0 PROJECT OVERVIEW

The Project Site is located at 113, 119 and 121 S. Soto Street, and 2316 and 2322 E. 1st Street in the Boyle Heights Community Plan area of the City. The Project Site is 48,656 square feet (1.06 acres) in size and does not contain any existing structures. However, part of the Project Site is within the Metro Soto Station Plaza. See Figure 1, Aerial Photograph of the Project Site. The Project proposes the development of a 5-story mixed-use affordable housing building including 64¹ residential units, 4,265 square feet of ground floor commercial uses, and 56 parking spaces and one loading space in one level of subterranean parking. See Figure 2, Project Site Plan. Approximately 12,908 cubic yards of soil and debris will be exported. This analysis assumes the Project will be operational in 2021.

The Project Site is near the S. Soto Street and E. 1st Street intersection. The site is zoned C2-1-CUGU and RD1.5-1-CUGU and has a General Plan Designation of “Low Medium II Residential” and “Highway Oriented and Limited Commercial.” Developments within the vicinity of the Project Site consist primarily of single-family and multi-family residences, and commercial uses along E. 1st Street. The Project is served by Metro bus lines 251, 252, 605, 751, and 30/330 and would be incorporated into the Metro Soto Station Plaza which provides service for the Metro Gold Line.

¹ The Project originally proposed 66 dwelling units, which was analyzed in the Project’s Transportation Impact Study (Linscott Law & Greenspan, July 2018). Accordingly, this Air Quality and Noise Report reflects the data from the Project’s Transportation Impact Study. It should also be noted that the reduction of two units compared to what is analyzed herein, would result in slightly reduced impacts. Thus, this analysis represents a worst-case scenario.





Source: Gonzalez Goodale Architects, 2019.

3.0 AIR QUALITY ANALYSIS

Consistent with Appendix G of the State CEQA Guidelines, a significant impact may occur if a project would:

- a) Conflict with or obstruct implementation of the applicable air quality plan;
- b) 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;
- c) Expose sensitive receptors to substantial pollutant concentrations; and/or
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

a) A significant air quality impact may occur if a project is not consistent with the applicable Air Quality Management Plan (AQMP), or would in some way represent a substantial hindrance to employing the policies, or obtaining the goals, of that plan.

The South Coast Air Quality Management District SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources to meet federal and State ambient air quality standards. It has responded to this requirement by preparing a series of Air Quality Management Plans (AQMPs). The most recent of these was adopted by the Governing Board of the SCAQMD on March 3, 2017. This AQMP, referred to as the 2016 AQMP, was prepared to comply with the federal and State Clean Air Acts and amendments, to accommodate growth, to reduce the high levels of pollutants in the Basin, to meet federal and State air quality standards, and to minimize the fiscal impact that pollution control measures have on the local economy. The 2016 AQMP identifies the control measures that will be implemented over a 15-year horizon to reduce major sources of pollutants. Implementation of control measures established in the previous AQMPs has substantially decreased the population's exposure to unhealthful levels of pollutants, even while substantial population growth has occurred within the Basin. The future air quality levels projected in the 2016 AQMP are based on several assumptions. For example, the SCAQMD assumes that general new development within the Basin will occur in accordance with population growth and transportation projections identified by the Southern California Association of Governments (SCAG) in its most current version of the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which was adopted April 7, 2016. The 2016 AQMP also assumes that general development projects will include strategies (mitigation measures) to reduce emissions generated during construction and operation in accordance with SCAQMD and local jurisdiction regulations, which are designed to address air quality impacts and pollution control measures.

For development projects, SCAQMD recommends that consistency with the current AQMP be determined by comparing the population generated by a project to the population projections used in the development of the AQMP. As mentioned above, the Project is located within the Boyle Heights

Community Plan area. As part of the City's General Plan, the Boyle Heights Community Plan (Community Plan) was adopted in 1998 and sets forth goals, objectives, policies, and implementation programs that pertain to the Boyle Heights. The Community Plan offers projections for population, housing, and employment for the area up to the year 2010. Since the Project is expected to become operational in 2021 this report analyzes compliance with the AQMP through SCAG's population estimates in the 2016 RTP/SCS as they are the most current estimates. Projects that are consistent with SCAG's applicable growth projections would not interfere with air quality attainment because this growth is included in the projections used in the formulation of the 2016 AQMP. As such, projects, land uses, and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP. The Project would comply with all SCAQMD rules and regulations that are applicable to the Project; the Project Applicant is not requesting any exemptions from the currently adopted or proposed SCAQMD rules.

The Project proposes the development of a 5-story mixed-use affordable housing building including 64 residential units, 4,265 square feet of ground floor commercial uses, and 56 parking spaces and one loading space in one level of subterranean parking. As part of its comprehensive planning process for the Southern California region, SCAG has divided its jurisdiction into 14 subregions. The Project Site is located within the City of Los Angeles subregion, which includes all areas within the boundaries of the City of Los Angeles. SCAG's 2012 housing estimates for the City are 1,325,500 total housing units and estimates the housing of the City will increase to 1,690,300 housing units by 2040, a 27.5 percent increase.² The Project's addition of 64 housing units would account for less than 0.02 percent of the total growth from 2012 to 2040. Thus, the Project's relatively small increase in housing would not have the potential to conflict with the regional growth projections for the Los Angeles subregion. In addition, and further discussed herein, the Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Thus, the Project would not impair implementation of the AQMP, and this impact would be less than significant.

b) A significant impact may occur if a project would add a considerable cumulative contribution to federal or State non-attainment pollutant. Measurements of ambient concentrations of the criteria pollutants are used by the U.S. EPA and the California Air Resources Board (ARB) 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 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." Attainment

² Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategies, Demographics and Growth Forecast Appendix, Adopted April 2016, website: http://scagrtpscscs.net/Documents/2016/final/f2016RTPSCS_DemographicsGrowthForecast.pdf, page 24 accessed: April 2019.

status of the Basin with regard to the national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS) are shown in Table 1, Attainment Status for the South Coast Air Basin. As shown, the Basin is in nonattainment for ozone, PM₁₀ and PM_{2.5}.

Table 1
Attainment Status for the South Coast Air Basin

Pollutant	Attainment Status	
	NAAQS	CAAQS
Ozone (1-Hour)	Non-Attainment (Extreme)	Non-Attainment
Ozone (8-Hour)	Pending – Expect Non-Attainment (Extreme)	Non-Attainment
Carbon Monoxide (1- & 8-hour)	Attainment (Maintenance)	Attainment
Nitrogen Dioxide (1-Hour)	Unclassifiable/Attainment	Attainment
Nitrogen Dioxide (Annual)	Attainment (Maintenance)	Attainment
Sulfur Dioxide (1-Hour)	Designations Pending (expect Unclassified/Attainment)	Attainment
Sulfur Dioxide (24-Hour & Annual)	Unclassified/Attainment	attainment
PM ₁₀ (24-Hour)	Attainment (Maintenance)	Non-Attainment
PM ₁₀ (Annual)	N/A	Non-Attainment
PM _{2.5} (24-Hour)	Non-Attainment (Serious)	N/A
PM _{2.5} (Annual)	Non-Attainment (Moderate)	Non-Attainment
Lead	Non-Attainment (Partial)	Attainment
<i>Source: SCAQMD, Air Quality Management Plan Appendix II website: http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/appendix-ii.pdf?sfvrsn=4, accessed: April 2019.</i>		

Because the South Coast Air Basin is currently in nonattainment for ozone, PM₁₀ and PM_{2.5}, related projects may exceed an air quality standard or contribute to an existing or projected air quality exceedance. With respect to determining the significance of the Project contribution, the SCAQMD neither recommends quantified analyses of construction and/or operational emissions from multiple development projects nor provides methodologies or thresholds of significance to be used to assess the cumulative emissions generated by multiple cumulative projects. Instead, the SCAQMD recommends that a project’s potential contribution to cumulative impacts be assessed utilizing the same significance criteria as those for project specific impacts. Furthermore, the SCAQMD states that if an individual development project generates less-than-significant construction or operational emissions impacts, then the development project would not contribute to a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.³

A project may have a significant impact if project-related emissions would exceed federal, state, or regional standards or thresholds, or if project-related emissions would substantially contribute to an

³ South Coast Air Quality Management District, *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution, Appendix A, August 2003.*

existing or projected air quality violation. The Project Site is located in the South Coast Air Basin (Basin). The South Coast Air Quality Management District (SCAQMD) is the air pollution control agency for the Basin. To address potential impacts from construction and operational activities, the SCAQMD currently recommends that impacts from projects with mass daily emissions that exceed any of the thresholds outlined in Table 2, SCAQMD Thresholds of Significance, be considered significant. The City defers to these thresholds for the evaluation of construction and operational air quality impacts.

Table 2
SCAQMD Thresholds of Significance

Pollutant	Construction Thresholds (lbs/day)	Operational Thresholds (lbs/day)
Volatile Organic Compounds (VOC)	75	55
Nitrogen Oxides (NO _x)	100	55
Carbon Monoxide (CO)	550	550
Sulfur Oxides (SO _x)	150	150
Particulate Matter (PM ₁₀)	150	150
Fine Particulate Matter (PM _{2.5})	55	55
<i>Note: lbs = pounds. Source: SCAQMD CEQA Handbook (SCAQMD, 1993), SCAQMD Air Quality Significance Thresholds, website: http://aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2; accessed: April 2019.</i>		

Regional Construction Emissions

For purposes of analyzing impacts associated with air quality, this analysis assumes a construction schedule of approximately 20 months, which is a conservative estimate and yields the maximum daily impacts. Shoring, excavation and site preparation would occur for approximately 1 month with an export of approximately 12,908 cubic yards of soil. Building construction would occur for approximately 19 months. This phase would include the construction of the proposed structure, connection of utilities, laying irrigation for landscaping, architectural coatings, and landscaping the Project Site.

These construction activities would temporarily create emissions of dusts, fumes, equipment exhaust, and other air contaminants. Construction activities involving grading and site preparation would primarily generate PM_{2.5} and PM₁₀ emissions. Mobile sources (such as diesel-fueled equipment onsite and traveling to and from the Project Site) would primarily generate NO_x emissions. The application of architectural coatings would primarily result in the release of ROG emissions. The amount of emissions generated on a daily basis would vary, depending on the amount and types of construction activities occurring at the same time. The analysis of daily construction emissions has been prepared utilizing the California Emissions Estimator Model (CalEEMod 2016.3.2) recommended by the SCAQMD to quantify the estimated daily emissions associated with Project construction. The results are presented in Table 3, Estimated Peak Daily Construction Emissions, which identifies daily emissions that are estimated to occur on peak construction days for each construction phase.

Table 3
Estimated Peak Daily Construction Emissions

Emissions Source	Emissions in Pounds per Day					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Shoring/Excavation/Site Preparation Phase						
Fugitive Dust	--	--	--	--	2.09	1.12
Off-Road Diesel Equipment	1.35	15.09	6.45	0.01	0.68	0.63
On-Road Diesel (Hauling)	0.66	21.37	4.97	0.06	1.35	0.42
Worker Trips	0.04	0.03	0.32	0.01	0.09	0.02
Total Emissions	2.05	36.49	11.74	0.08	4.21	2.19
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00	55.00
Significant Impact?	No	No	No	No	No	No
Building Construction Phase						
Building Construction Off-Road Diesel Equipment	2.03	14.79	13.19	0.02	0.80	0.77
Building Construction Vendor Trips	0.04	1.28	0.37	0.01	0.08	0.03
Building Construction Worker Trips	0.30	0.21	2.37	0.01	0.67	0.18
Architectural Coatings	11.09	--	--	--	--	--
Architectural Coating Off-Road Diesel Equipment	0.22	1.53	1.82	0.01	0.09	0.09
Architectural Coatings Worker Trips	0.06	0.04	0.44	0.01	0.14	0.04
Total Emissions	13.74	17.85	18.19	0.06	1.78	1.11
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00	55.00
Significant Impact?	No	No	No	No	No	No
<i>Note: Calculations assume compliance with SCAQMD Rule 403 – Fugitive Dust. Calculation sheets are provided in Appendix A to this report.</i>						

These calculations assume compliance with SCAQMD Rule 1113 – Architectural Coatings and appropriate dust control measures would be implemented as part of the Project during each phase of development as required by SCAQMD Rule 403 – Fugitive Dust. Specific Rule 403 control requirements include, but are not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes (at least two times per day), 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. As shown in Table 3, construction-related daily emissions associated with the Project would not exceed any regional SCAQMD significance thresholds for criteria pollutants during the construction phases. Therefore, regional construction impacts are considered to be less than significant. Localized air quality emissions are addressed under Question 3(d) below.

Regional Operational Emissions

The Project proposes the development of a 5-story mixed-use affordable housing building including 64 residential units, 4,265 square feet of ground floor commercial uses, and 56 parking spaces and one loading space in one level of subterranean parking. Operational emissions generated by area sources, motor vehicles and energy demand would result from normal day-to-day activities of the Project. The analysis of daily operational emissions associated with the Project has been prepared utilizing CalEEMod 2016.3.2 recommended by the SCAQMD. The results of these calculations are presented in Table 4, Estimated Daily Operational Emissions. As shown, the operational emissions generated by the Project would not exceed the regional thresholds of significance set by the SCAQMD. Therefore, impacts associated with regional operational emissions from the Project would be less than significant. Localized air quality emissions are addressed under Question 3(d) below.

**Table 4
Estimated Daily Operational Emissions**

Emissions Source	Emissions in Pounds per Day					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Summertime (Smog Season) Emissions						
Area Sources	1.98	1.05	5.88	<0.01	0.11	0.11
Energy Demand	0.04	0.34	0.21	<0.01	0.03	0.03
Mobile (Motor Vehicles)	0.85	3.82	10.26	0.03	2.70	0.74
Total Project Emissions	2.87	5.21	16.35	0.04	2.83	0.88
SCAQMD Thresholds	55.00	55.00	550.00	150.00	150.00	55.00
Potentially Significant Impact?	No	No	No	No	No	No
Wintertime (Non-Smog Season) Emissions						
Area Sources	1.98	1.05	5.88	<0.01	0.11	0.11
Energy Demand	0.04	0.34	0.21	<0.01	0.03	0.03
Mobile (Motor Vehicles)	0.82	3.90	9.86	0.03	2.70	0.74
Total Project Emissions	2.85	5.28	15.95	0.04	2.83	0.88
SCAQMD Thresholds	55.00	55.00	550.00	150.00	150.00	55.00
Potentially Significant Impact?	No	No	No	No	No	No
<i>Note: Column totals may not add due to rounding from the model results. Calculation sheets provided in Appendix A to this report.</i>						

As discussed above, the mass daily construction and operational emissions generated by the Project would not exceed any of the thresholds of significance recommended by the SCAQMD. In addition, as discussed under threshold question a), the Project would not exceed SCAG projections for the City population and is therefore consistent with the AQMP. Also, as discussed below, localized emissions generated by the Project would not exceed the SCAQMD’s Localized Significance Thresholds (LSTs). Therefore, the Project would not contribute a cumulatively considerable increase in emissions for the pollutants which the Basin is in nonattainment. Thus, cumulative air quality impacts associated with the Project would be less than significant.

c) A significant impact may occur if a project were to generate pollutant concentrations to a degree that would significantly affect sensitive receptors. Land uses that are considered more sensitive to changes in air quality than others are referred to as sensitive receptors. Land uses such as primary and secondary schools, hospitals, and convalescent homes are considered to be sensitive to poor air quality because the very young, the old, and the infirm are more susceptible to respiratory infections and other air quality-related health problems than the general public. Residential uses are considered sensitive because people in residential areas are often at home for extended periods of time, so they could be exposed to pollutants for extended periods. Recreational areas are considered moderately sensitive to poor air quality because vigorous exercise associated with recreation places a high demand on the human respiratory function. The nearest air quality sensitive receptors to the Project Site are:

- adjacent residences to the south;
- residences to the west (20 feet);
- residences to the east (85 feet);
- residences to the north (150 feet); and
- school use to the southwest (480 feet).

Localized Emissions

Emissions from construction activities have the potential to generate localized emissions that may expose sensitive receptors to harmful pollutant concentrations. The SCAQMD has developed localized significance threshold (LST) look-up tables for project sites that are one, two, and five acres in size to simplify the evaluation of localized emissions at small sites. LSTs are provided for each Source Receptor Area (SRA) and various distances from the source of emissions.

In the case of this analysis, the Project Site is located within SRA 1 covering the Central Los Angeles area. The nearest sensitive receptors to the Project Site are residential uses within 25 meters. The closest receptor distance in the SCAQMD's mass rate look-up tables is 25 meters. Projects that are located closer than 25 meters to the nearest receptor are directed to use the LSTs for receptors located within 25 meters. As mentioned previously, the Project Site is 1.06 acres in size. Therefore, consistent with SCAQMD recommendations, the LSTs for a one-acre site in SRA 1 with receptors located within 25 meters have been used to address the potential localized NO_x, CO, PM₁₀, and PM_{2.5} emissions to the area surrounding the Project Site.

As shown in Table 5, Localized On-Site Peak Daily Construction Emissions, peak daily emissions generated within the Project Site during construction activities for each phase would not exceed the applicable construction LSTs for a one-acre site in SRA 1. Therefore, localized air quality impacts from Project construction activities on the off-site sensitive receptors would be less than significant.

Table 5
Localized On-Site Peak Daily Construction Emissions

Construction Phase ^a	Total On-site Emissions (Pounds per Day)			
	NO _x ^b	CO	PM ₁₀	PM _{2.5}
Shoring/ Site Preparation Emissions	15.09	6.45	2.77	1.75
SCAQMD Localized Thresholds	74.00	680.00	5.00	3.00
Potentially Significant Impact?	No	No	No	No
Building Construction Emissions	16.32	15.01	0.89	0.86
SCAQMD Localized Thresholds	74.00	680.00	5.00	3.00
Potentially Significant Impact?	No	No	No	No
<i>Note: Calculations assume compliance with SCAQMD Rule 403 – Fugitive Dust. Building construction emissions include architectural coatings.</i>				
<i>^a The Project Site is 1.06 acres. Consistent with SCAQMD recommendations, the localized thresholds for all phases are based on a one-acre site with a receptor distance of 25 meters (82 feet) in SCAQMD’s SRA 1.</i>				
<i>^b The localized thresholds listed for NO_x in this table takes into consideration the gradual conversion of NO_x to NO₂, and are provided in the mass rate look-up tables in the “Final Localized Significance Threshold Methodology” document prepared by the SCAQMD. As discussed previously, the analysis of localized air quality impacts associated with NO_x emissions is focused on NO₂ levels as they are associated with adverse health effects.</i>				
<i>Calculation sheets are provided in Appendix A to this report.</i>				

With regard to localized emissions from motor vehicle travel, traffic congested roadways and intersections have the potential to generate localized high levels of carbon monoxide (CO). The SCAQMD suggests conducting a CO hotspots analysis for any intersection where a project would worsen the Level of Service (LOS) from A-C to any level below C, and for any intersection rated D or worse where the project would increase the V/C ratio by two percent or more. Based on the Project’s Traffic Report,⁴ the Project is not anticipated to have significant traffic impacts at any of the 5 study intersections. Thus, the Project would not have the potential to cause or contribute to an exceedance of the California one-hour or eight-hour CO standards of 20 or 9.0 ppm, respectively; or generate an incremental increase equal to or greater than 1.0 ppm for the California one-hour CO standard, or 0.45 ppm for the eight-hour CO standard at any local intersection. Therefore, impacts with respect to localized CO concentrations would be less than significant.

Toxic Air Contaminants (TAC)

As the Project consists of residential and commercial uses, the Project would not include any land uses that would involve the use, storage, or processing of carcinogenic or non-carcinogenic toxic air contaminants and no toxic airborne emissions would typically result from Project implementation. In addition, construction activities associated with the Project would be typical of other development projects in the City, and would be subject to the regulations and laws relating to toxic air pollutants at the regional, State, and federal level that would protect sensitive receptors from substantial concentrations

⁴ Linscott, Law & Greenspan, Engineers, Transportation Impact Study, Los Lirios Mixed-Use Project, City of Los Angeles, California, July 18, 2018.

of these emissions. In addition, construction activity would not result in long-term substantial sources of diesel particulate matter or other TAC emissions (i.e., 30 or 70 years) and would therefore not have the potential to generate significant health risks. Therefore, impacts associated with the release of toxic air contaminants would be less than significant.

d) A project-related significant adverse effect could occur if construction or operation of the proposed Project would result in generation of odors that would be perceptible in adjacent sensitive areas. 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. The Project involves the construction and operation of residential and commercial uses, which are not typically associated with odor complaints. Potential sources that may emit odors during construction activities include equipment exhaust. Odors from these sources would be localized and generally confined to the immediate area surrounding the Project. The Project would use typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. As mentioned previously, the Project would be consistent with SCAQMD Rule 1113 – Architectural Coatings. As the Project involves no operational elements related to industrial projects, no long-term operational objectionable odors are anticipated. Therefore, potential impacts associated with objectionable odors would be less than significant.

4.0 NOISE ANALYSIS

Consistent with Appendix G of the State CEQA Guidelines, a significant impact may occur if a project would:

- a) 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;
- b) Generate excessive groundborne vibration or groundborne noise levels; or
- c) 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 airstrip, expose people residing or working in the project area to excessive noise levels;

a) A significant impact may occur if the Project would generate excess noise that would cause the ambient noise environment at the Project Site to fail to comply with noise level standards set forth in the City of Los Angeles General Plan Noise Element (Noise Element) and the City of Los Angeles Noise Ordinance (Noise Ordinance) (Section 111.00 through Section 116.01 of the LAMC). Implementation of the Project would result in an increase in ambient noise levels during both construction and operations, as discussed in detail below.

Construction Noise

Construction-related noise impacts would be significant if, as indicated in LAMC Section 112.05, noise from construction equipment within 500 feet of a residential zone exceeds 75 dBA at a distance of 50 feet from the noise source. However, the above noise limitation does not apply where compliance is technically infeasible. Technically infeasible means that the above noise limitation cannot be complied with despite the use of mufflers, shields, sound barriers and/or any other noise reduction device or techniques during the operation of the equipment.

Construction of the Project would require the use of heavy equipment for grading foundation preparation, the installation of utilities, and building construction. During each construction phase there would be a different mix of equipment operating and noise levels would vary based on the amount of equipment in operation and the location of each activity.

The U.S. Environmental Protection Agency (EPA) has compiled data regarding the noise generating characteristics of specific types of construction equipment and typical construction activities. The data pertaining to the types of construction equipment and activities that would occur at the Project Site are presented in Table 6, Noise Range of Typical Construction Equipment, and Table 7, Estimated Project Construction Noise Levels, respectively, at a distance of 50 feet from the noise source (i.e., reference distance).

The noise levels shown in Table 7 represent composite noise levels associated with the construction activities that will be carried out by the Project, which take into account both the number of pieces and spacing of heavy construction equipment that are typically used during each phase of construction in a development such as the Project. As shown in Table 7, construction noise during the heavier initial periods of construction is presented as 86 dBA Leq when measured at a reference distance of 50 feet from the center of construction activity. These noise levels would diminish rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance. For example, a noise level of 84 dBA Leq measured at 50 feet from the noise source to the receptor would reduce to 78 dBA Leq at 100 feet from the source to the receptor, and reduce by another 6 dBA Leq to 72 dBA Leq at 200 feet from the source to the receptor.

Table 6
Noise Range of Typical Construction Equipment

Construction Equipment	Noise Level in dBA Leq at 50 Feet ^a
Front Loader	73-86
Trucks	82-95
Cranes (moveable)	75-88
Cranes (derrick)	86-89
Vibrator	68-82
Saws	72-82
Pneumatic Impact Equipment	83-88
Jackhammers	81-98
Pumps	68-72
Generators	71-83
Compressors	75-87
Concrete Mixers	75-88
Concrete Pumps	81-85
Back Hoe	73-95
Tractor	77-98
Scraper/Grader	80-93
Paver	85-88

^a Machinery equipped with noise control devices or other noise-reducing design features does not generate the same level of noise emissions as that shown in this table.
 Source: United States Environmental Protection Agency, *Noise from Construction Equipment and Operations, Building Equipment and Home Appliances*, PB 206717, 1971.

Table 7
Estimated Project Construction Noise Levels

Construction Phase	Noise Levels at 50 Feet with Mufflers (dBA Leq)	Noise Levels at 60 Feet with Mufflers (dBA Leq)	Noise Levels at 100 Feet with Mufflers (dBA Leq)	Noise Levels at 200 Feet with Mufflers (dBA Leq)
Ground Clearing	82	80	76	70
Excavation, Grading	86	84	80	74
Foundations	77	75	71	65
Structural	83	81	77	71
Finishing	86	84	80	74

Source: United States Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.

To identify the existing ambient noise levels in the general vicinity of the Project Site, noise measurements were taken with a 3M SoundPro SP DL-1 sound level meter, which conforms to industry standards set forth in ANSI S1.4-1983 (R2006) – Specification for Sound Level Meters/Type 1.⁵ The measured noise levels are shown in Table 8, Existing Ambient Daytime Noise Levels. See Figure 1, previously, for the locations of the noise measurements and nearest sensitive receptors. The nearest noise sensitive receptors to the Project Site are:

- adjacent residences to the south;
- residences to the west (20 feet);
- residences to the east (85 feet);
- historic use to the east (87 feet);
- residences to the north (150 feet);
- church use to the east (300 feet);
- church use to the southwest (330 feet);
- library to the west (445 feet);and
- school use to the southwest (480 feet).

⁵ This noise meter meets the requirement specified in LAMC Section 111.01(l) that the instruments be “Type S2A” standard instruments or better. This instrument was calibrated and operated according to the manufacturer’s written specifications. At the measurement sites, the microphone was placed at a height of approximately five feet above grade.

Table 8
Existing Ambient Daytime Noise Levels

No.	Location	Primary Noise Sources	Noise Levels ^a		
			Leq	L _{max}	L _{min}
1	East frontage of the Project Site along S. Soto Street, near residential receptors.	Traffic, pedestrian, and residential activity along S. Soto Street.	68.8	81.4	53.7
2	North of the Project Site along E. 1 st Street.	Traffic and pedestrian activity along E 1 st Street.	66.7	75.8	57.2
2	Southwest from the Project Site along S. Breed Street, near church and school sensitive receptors.	Traffic, pedestrian, residential, and school activity along Breed Street.	61.0	79.1	49.2

^a Noise measurements were taken on April 3, 2019 at each location for a duration of 15 minutes. See Appendix B to this report for noise data.
Source: Pomeroy Environmental Services, 2019.

Due to the use of construction equipment during the construction phase, the Project would expose surrounding off-site receptors to increased ambient exterior noise levels comparable to those previously listed above in Table 7. Specifically, based on the data provided in Table 7, construction noise levels at the residences within 50 feet could reach 86 dBA compared to the existing measured noise levels of 68.8, 66.7, dBA and 61.0 dBA for the area. It should be noted, however, that any increase in noise levels at off-site receptors during construction of the Project would be temporary in nature, and would not generate continuously high noise levels, although occasional single-event disturbances from construction are possible. In addition, the construction noise during the heavier initial periods of construction (i.e., foundation work) would typically be reduced in the later construction phases (i.e., interior building construction at the proposed building) as the physical structure of the proposed structure would break the line-of-sight noise transmission from the construction area to the nearby sensitive receptors.

Similar to other development projects in the City, the Project would comply with the City’s existing noise regulations to ensure noise impacts would be less than significant. LAMC Section 41.40 regulates noise from construction activities. Exterior construction activities that generate noise are prohibited between the hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, and between 6:00 P.M. and 8:00 A.M. on Saturday.⁶ The construction activities associated with the Project would comply with these LAMC requirements. In addition, pursuant to LAMC Section 112.05, compliance with construction noise standards is achieved if all technically feasible noise reduction measures are implemented. According to the LAMC, technically infeasible means that the above noise limitation cannot be complied with despite the use of mufflers, shields, sound barriers and/or any other noise reduction device or techniques during the operation of the equipment.⁷ Although the estimated construction-related noise levels associated with the Project could periodically exceed the numerical noise threshold of 75 dBA at 50 feet from the noise source as outlined in LAMC Section 112.05, the Project would implement all technically feasible

⁶ Los Angeles Municipal Code, Section 41.40.

⁷ Los Angeles Municipal Code, Section 112.05.

reduction measures in compliance with the standards set forth in LAMC Section 112.05 (see RCM-1 through RCM-7 below).

Specifically, the use of barriers such as plywood structures, flexible sound control curtains, or intervening construction trailers, could reduce line-of-sight noise levels by approximately 10 dBA.⁸ And, with the incorporation of the LAMC-required noise reduction techniques, construction noise levels could be reduced by up to approximately 20 dBA.⁹ As previously stated, construction noise levels could reach up to approximately 86 dBA Leq. However, with the reduction of approximately 20 dBA per code-required noise reduction techniques (see RCM-1 through RCM-7, and footnotes 7 and 8 below), the resulting construction noise levels would be reduced to approximately 66 dBA Leq. These noise levels would not exceed the noise threshold of 75 dBA at 50 feet from the noise source as outlined in LAMC Section 112.05. With the code-required reduced construction noise of 66 dBA, the construction noise levels would be substantially similar (and potentially less than), the existing ambient noise in the heavily urbanized location.

Thus, based on the provisions set forth in LAMC 112.05, implementation of the following regulatory compliance measures would ensure the Project be consistent with, and not violate the provisions of, the LAMC. Thus, the Project would comply with the City's existing noise regulations to ensure construction noise impacts would be less than significant. The noise reduction techniques required by LAMC 41.40 and 112.05 would include the following:

RCM-1: The Project shall comply with the City of Los Angeles Noise Ordinance No. 144,331 and 161,574 (see LAMC Section 112.05), and any subsequent ordinances, which prohibit the emission or creation of noise beyond certain levels.

RCM-2: Construction shall be restricted to the hours of 7:00 A.M. to 9:00 P.M. Monday through Friday, and 8:00 A.M. to 6:00 P.M. on Saturday.

RCM-3: Construction activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.

⁸ Based on a review of Table 4 of the FHWA Noise Barrier Design Handbook (July 14, 2011), the design feasibility of a sound barrier that reduces noise by 5 dBA is considered "simple" and a reduction of up to 10 dBA as "attainable." And, reductions of 15 and 20 dBA are considered "very difficult" and "nearly impossible," respectively.

⁹ Estimate based on information from the United States Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971. Per Table V, Noise Control For Construction Equipment therein, use of improved mufflers/silencers would achieve approximately 10 dBA reduction and enclosures/barriers blocking line-of-sight would achieve approximately 10 dBA reduction. While the additional measures would reduce noise, it should be noted that all reductions would not be wholly additive, but would be incremental, and therefore have conservatively not been quantified in the estimated reduction.

RCM-4: Noise-generating equipment operated at the Project Site shall be equipped with the most effective and technologically feasible noise control devices, such as mufflers, lagging (enclosures for exhaust pipes), and/or motor enclosures. All equipment shall be properly maintained to assure that no additional noise, due to worn or improperly maintained parts, would be generated.

RCM-5: Noise and groundborne vibration construction activities whose specific location on the site may be flexible (e.g., operation of compressors and generators, cement mixing, general truck idling) shall be conducted as far as possible from the nearest noise- and vibration-sensitive land uses, and natural and/or manmade barriers (e.g., intervening construction trailers) shall be used to screen propagation of noise from such activities towards these land uses to the maximum extent possible.

RCM-6: Barriers such as, but not limited to, plywood structures or flexible sound control curtains shall be erected around the perimeter of the construction site, and around stationary equipment as feasible (i.e., generators, air compressors, etc.), to minimize the amount of noise during construction on the nearby noise-sensitive uses. Perimeter barriers shall be at least 8 feet in height and constructed of materials achieving a Transmission Loss (TL) value of at least 20 dBA, such as ½ inch plywood.¹⁰

RCM-7: The Project shall comply with the City of Los Angeles Building Regulations Ordinance No. 178,048 (see LAMC Section 91.106.4.8), 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 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.

Operational Noise

A significant impact may occur if the Project were to result in a substantial permanent increase in ambient noise levels above existing ambient noise levels without the Project. A project would normally have a significant impact on noise levels from project operations if the project causes the ambient noise level measured at the property line of affected uses that are shown in Table 9, Community Noise Exposure (CNEL), to increase by 3 dBA in CNEL to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase.

As such, a significant impact would occur if noise levels associated with operation of the Project would increase the ambient noise levels by 3 dBA CNEL at homes where the resulting noise level would be at

¹⁰ Based on the FHWA Noise Barrier Design Handbook (July 14, 2011), see Table 3, Approximate sound transmission loss values for common materials.

least 70 dBA CNEL. In addition, any long-term increase of 5 dBA CNEL or more is considered to cause a significant impact. Generally, in order to achieve a 3 dBA CNEL increase in ambient noise from traffic, the volume on any given roadway would need to double. In addition to analyzing potential impacts in terms of CNEL, the analysis also addresses increases in on-site noise sources per the provisions of the LAMC, which establishes a Leq standard of 5 dBA over ambient conditions as constituting a LAMC violation.

Table 9
Community Noise Exposure

Land Use	Normally Acceptable ^a	Conditionally Acceptable ^b	Normally Unacceptable ^c	Clearly Unacceptable ^d
Single-family, Duplex, Mobile Homes	50 - 60	55 - 70	70 - 75	above 75
Multi-Family Homes	50 - 65	60 - 70	70 - 75	above 75
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	above 80
Transient Lodging – Motels, Hotels	50 - 65	60 - 70	70 - 80	above 75
Auditoriums, Concert Halls, Amphitheaters	---	50 - 70	---	above 70
Sports Arena, Outdoor Spectator Sports	---	50 - 75	---	above 75
Playgrounds, Neighborhood Parks	50 - 70	---	67 - 75	above 75
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	---

^a Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

^b Conditionally Acceptable: 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.

^c Normally Unacceptable: 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.

^d Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: Office of Planning and Research, State of California General Plan Guidelines, October 2003 (in coordination with the California Department of Health Services); City of Los Angeles, General Plan Noise Element, adopted February 1999.

Traffic Noise

In order for a new noise source to be audible, there would need to be a 3 dBA or greater CNEL noise increase. As discussed above, the traffic volume on any given roadway would need to double in order for a 3 dBA increase in ambient noise to occur. According to the L.A. CEQA Thresholds Guide, if a project

would result in traffic that is less than double the existing traffic, then the project's mobile noise impacts are assumed to be less than significant. As detailed in the Traffic Report,¹¹ the Project is estimated to add 496 daily trips, including 48 morning peak hour trips and 41 afternoon peak hour trips to a highly developed area of the City that is already impacted by heavy traffic noise. Moreover, the highest Project-related trip increase would occur at intersection number 3 (S. Soto Street and E. 1st Street) during the AM peak hour with 36 peak hour trips. When compared to the existing 2,837 vehicle trips occurring at intersection number 3 during the AM peak hour, it is clear that the Project would not double the traffic volumes on any roadway segment in the vicinity of the Project Site. As such, the Project would not increase roadway noise levels by 3 dBA and, thus, traffic noise impacts would be less than significant.

Stationary Noise Sources

New stationary sources of noise, such as mechanical HVAC equipment would be installed. The design of this equipment would comply with LAMC Section 112.02, 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 five decibels. Thus, because the noise levels generated by the HVAC equipment serving the Project would not be allowed to exceed the ambient noise level by five decibels on the premises of the adjacent properties, a substantial permanent increase in noise levels would not occur at the nearby sensitive receptors. This impact would be less than significant.

Parking Noise

Noise would be generated by activities within the proposed subterranean parking garage. Sources of noise would include engines accelerating, doors slamming, car alarms, and people talking. Noise levels within the parking area would fluctuate with the amount of automobile and human activity. It is anticipated that parking related noise would be less than the existing street parking noise as the Project proposes enclosed parking which would reduce noise impacts to off-site uses. In addition, parking-related noise generated by motor driven vehicles within and around the Project Site is regulated under the LAMC. Specifically, with regard to motor-driven vehicles, LAMC Section 114.02 prohibits the operation of any motor-driven vehicles upon any property within the City such that the created noise would cause the noise level on the premises of any occupied residential property to exceed the ambient noise level by more than five decibels. As such, noise impacts associated with the Project's parking area would be less than significant.

In addition, on-site residences would not be adversely impacted by elevated ambient urban noise levels because the Project would be constructed to meet and exceed Title 24 insulation standards of the California Code of Regulations for residential buildings, which serves to provide an acceptable interior noise environment for sensitive uses. Specifically, as required by Title 24, the Project would be designed

¹¹ Linscott, Law & Greenspan, Engineers, Transportation Impact Study, Los Lirios Mixed-Use Project, City of Los Angeles, California, July 18, 2018.

and constructed to ensure interior noise levels would be at or below a CNEL of 45 dBA in any habitable room of the project. Given the existing measured noise levels are 68.8, 66.7, dBA and 61.0 dBA for the vicinity, and the approximate 30 dBA exterior-to-interior noise reduction for new residential construction,¹² it is clear that standard construction methods and materials would achieve interior noise levels at or below 45 dBA. As such, impacts associated with interior noise levels at the proposed residences would be less than significant.

b) A significant impact may occur if a project were to generate excessive vibration during construction or operation. Vibration is sound radiated through the ground. Vibration can result from a source (e.g., subway operations, vehicles, machinery equipment, etc.) causing the adjacent ground to move, thereby creating vibration waves that propagate through the soil to the foundations of nearby buildings. This effect is referred to as groundborne vibration. The peak particle velocity (PPV) or the root mean square (RMS) velocity is usually used to describe vibration levels. PPV is defined as the maximum instantaneous peak of the vibration level, while RMS is defined as the square root of the average of the squared amplitude of the level. PPV is typically used for evaluating potential building damage, while RMS velocity in decibels (VdB) is typically more suitable for evaluating human response.

The background vibration velocity level in residential areas is usually around 50 VdB. The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for most people. 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. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

Construction Vibration

Construction activities for the Project have the potential to generate low levels of groundborne vibration. The operation of construction equipment generates vibrations that propagate through the ground and diminishes in intensity with distance from the source. Vibration impacts can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage of buildings at the highest levels. The construction activities associated with the Project could have an adverse impact on both sensitive structures (i.e., building damage) and populations (i.e., annoyance).

¹² Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings requires substantial building insulation and windows which reduces exterior to interior noise transmission.

In terms of construction-related impacts on buildings, the City of Los Angeles has not adopted policies or guidelines relative to groundborne vibration. While the Los Angeles County Code (LACC Section 12.08.350) states a presumed perception threshold of 0.01 inch per second RMS, this threshold applies to groundborne vibrations from long-term operational activities, not construction. Consequently, as both the City of Los Angeles and the County of Los Angeles do not have a significance threshold to assess vibration impacts during construction, the Federal Transit Administration (FTA) and California Department of Transportation's (Caltrans) adopted vibration standards for buildings which are used to evaluate potential impacts related to construction. Based on the FTA and Caltrans criteria, construction impacts relative to groundborne vibration would be considered significant if the following were to occur:¹³

- Project construction activities would cause a PPV groundborne vibration level to exceed 0.5 inches per second at any building that is constructed with reinforced-concrete, steel, or timber;
- Project construction activities would cause a PPV groundborne vibration level to exceed 0.3 inches per second at any engineered concrete and masonry buildings;
- Project construction activities would cause a PPV groundborne vibration level to exceed 0.2 inches per second at any non-engineered timber and masonry buildings; or
- Project construction activities would cause a PPV ground-borne vibration level to exceed 0.12 inches per second at any historical building or building that is extremely susceptible to vibration damage.

In addition, the City of Los Angeles has not adopted any thresholds associated with human annoyance for groundborne vibration impacts. Therefore, this analysis uses the FTA's vibration impact thresholds for human annoyance. These thresholds include 80 VdB at residences and buildings where people normally sleep (e.g., nearby residences) and 83 VdB at institutional buildings, which includes schools and churches. No thresholds have been adopted or recommended for commercial and office uses. Table 10, Vibration Source Levels for Construction Equipment, identifies various PPV and RMS velocity (in VdB) levels for the types of construction equipment that would operate at the Project Site during construction.

¹³ *Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006; and California Department of Transportation, Transportation- and Construction –Induced Vibration Guidance Manual, June 2004.*

Table 10
Vibration Source Levels for Construction Equipment

Equipment	Approximate PPV (in/sec)					Approximate RMS (VdB)				
	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet
Large Bulldozer	0.089	0.031	0.024	0.017	0.011	87	78	76	73	69
Caisson Drilling	0.089	0.031	0.024	0.017	0.011	87	78	76	73	69
Loaded Trucks	0.076	0.027	0.020	0.015	0.010	86	77	75	72	68
Jackhammer	0.035	0.012	0.009	0.007	0.004	79	70	68	65	61
Small Bulldozer	0.003	0.001	0.0008	0.0006	0.0004	58	49	47	44	40
<i>Note: in/sec = inches per second</i> <i>Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, Final Report, 2006.</i>										

With respect to construction vibration impacts upon existing off-site structures, a historic Victorian house (i.e., Peabody Werden Duplex) (Receptor 4) is located 87 feet across from the Project Site along S. Soto Street. According to the FTA, ground vibration from construction activities do not often reach the levels that can damage structures.¹⁴ Per the FTA, there are four general building categories: I. Reinforced-concrete, steel or timber (no plaster), II. Engineered concrete and masonry (no plaster), III. Non-engineered timber and masonry buildings, and IV. Buildings extremely susceptible to vibration damage. This analysis conservatively considers Receptor 4 a Category IV building (buildings extremely susceptible to vibration damage). The FTA identifies a 0.12 PPV (in/sec) construction vibration criteria for Category IV. Based on the reference data provided in Table 10, worst-case construction vibration levels would be less than 0.015 PPV (in/sec) for receptors located farther than 70 feet from the source. As Receptor 4 is located approximately 87 feet from the Project Site, the construction vibration would not have the potential to exceed the FTA’s 0.12 PPV (in/sec) standard for Category IV buildings.

In addition, there are residential uses immediately adjacent to the Project Site. Conservatively, this analysis assumes the adjacent uses best fit under Category III, Non-engineered timber and masonry building. The FTA identifies a 0.20 PPV (in/sec) construction vibration criteria for Category III. Based on the reference data provided in Table 10, worst-case construction vibration levels at adjacent locations could have the potential to exceed the FTA’s 0.20 PPV (inches per second) construction vibration criteria for Category III. (Non-engineered timber and masonry building). The Project would comply with the City’s existing construction vibration regulations. The Project would implement RCM-8 (below), which would ensure all construction work would be performed in accordance with Section 91.3307.1 (Protection Required) of the LAMC. Specifically, Section 91.3307.1 (Protection Required) states adjoining public and private property shall be protected from damage during construction, remodeling and demolition work.¹⁵

¹⁴ FTA, *Transit Noise and Vibration Impact Assessment, Final Report, 2006*, see page 12-10.

¹⁵ *Los Angeles Municipal Code, Section 91.3307.1.*

Protection must be provided for footings, foundations, party (i.e., shared) walls, chimneys, skylights, and roofs. Provisions shall be made to control water runoff and erosion during construction activities. For excavations, adjacent property shall be protected as set forth in Section 832 of the Civil Code of California. Prior to the issuance of any permit, which authorizes an excavation where the excavation is to be of a greater depth than are the walls or foundation of any adjoining building or structure and located closer to the property line than the depth of the excavation, the owner of the site shall provide the Department of Building and Safety with evidence that the adjacent property owner or owners have been given a 30-day written notice of the intent to excavate. This notice shall state the depth to which the excavation is intended to be made and when the excavation will commence. This notice shall be by certified mail, return receipt requested.

The Project would implement RCM-8 (incorporating a structure monitoring program), ensuring the Project would comply with all regulatory requirements (i.e., Section 91.3307.1 of the LAMC and Section 832 of the Civil Code of California).

RCM-8: All construction work shall be performed in accordance with Section 91.3307.1 (Protection Required) of the LAMC and Section 832 of the Civil Code of California. Compliance with these standards will ensure all adjacent property shall be protected from damage during construction. The Project Applicant shall complete a structural monitoring program for the adjacent uses during construction including the following steps and procedures:

- Prior to start of construction, the Applicant shall retain the services of a structural engineer to visit the adjacent uses to inspect and document the apparent physical condition of the buildings, including but not limited to the building structure, interior walls, and ceiling finishes. In addition, the structural engineer shall establish baseline structural conditions of the buildings and prepare a shoring design.
- The Applicant shall retain the services of a qualified acoustical engineer to review proposed construction equipment and develop and implement a vibration monitoring program capable of documenting the construction-related ground vibration levels at the building during construction. The vibration monitoring system shall measure and continuously store the peak particle velocity (PPV) in inch/second. Vibration data shall be stored on a one-second interval. The system shall also be programmed for two preset velocity levels: a warning level of 0.17 inch/second (PPV), and a regulatory level of 0.20 inch/second (PPV). The system shall also provide real-time alert when the vibration levels exceed the two preset levels.
- In the event the warning levels above are triggered, the contractor shall identify the source of vibration generation and provide feasible steps to reduce the vibration level, including but not limited to halting/staggering concurrent activities and utilizing lower vibratory techniques.
- In the event the regulatory levels above are triggered, the contractor shall halt the construction activities in the vicinity of the building and visually inspect the building for any damage. Results of the inspection must be logged. The contractor shall identify the source

of vibration generation and provide feasible steps to reduce the vibration level. Construction activities may then restart.

- In the event damage occurs to an adjacent use due to construction vibration, such materials shall be repaired and restored to previous condition as feasible.

With respect to human annoyance resulting from vibration generated during construction, the sensitive receptors located in the vicinity of the Project Site could be exposed to increased vibration levels. Based on the data provided in Table 10, the adjacent residences could experience vibration levels of 87 VdB. As such, the 80 VdB residential annoyance threshold could be exceeded at these off-site locations during worst-case construction activity. However, it should be noted that vibration levels experienced in the Project vicinity would be temporary and intermittent, and would be reduced when the construction activities are located toward the center of the Project Site. As stated previously, the Project would comply with the City's existing construction LAMC regulations, which would protect adjacent uses from damage. Furthermore, consistent with the requirements of LAMC Section 112.05, construction activities would be compliant with the LAMC standards if all technically feasible noise reduction measures are implemented. The construction noise RCMs listed previously would also serve to reduce construction vibration levels to the maximum extent feasible. As such, human annoyance impacts with respect to construction vibration would be less than significant.

Operational Vibration

The Project involves the construction and operation of residential and commercial uses and would not involve the use of stationary equipment that would result in high vibration levels, which are more typical for large manufacturing and industrial projects. Groundborne vibrations at the Project Site and immediate vicinity currently result from heavy-duty vehicular travel (e.g., refuse trucks and transit buses) on the nearby local roadways, and the proposed land uses at the Project Site would not result in a substantive increase of these heavy-duty vehicles on the public roadways. While refuse trucks would be used for the removal of solid waste at the Project Site, these trips would typically only occur once a week and would not be any different than those presently occurring on-site and in the vicinity of the Project Site. As such, vibration impacts associated with operation of the Project would be less than significant.

c) The Project Site is not located in the vicinity of a private airstrip. The Hawthorne Municipal Airport is the closest airport to the Project Site, located approximately 10.2 miles to the south. In addition, the Project Site is not located within an airport land use plan. As such, the Project would not expose people to excessive aircraft noise levels. Therefore, no impact would occur.

5.0 CONCLUSION

As outlined in the preceding sections herein, the Project would not have the potential to result in any significant effects relating to air quality emissions and noise and vibration. The implementation of RCMs 1-8 would ensure the Project's consistency with all LAMC regulatory requirements.

Appendix A
Air Quality Data

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

119 S. Soto Avenue Project
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	66.00	Dwelling Unit	0.43	73,789.00	189
Regional Shopping Center	2.50	1000sqft	0.06	2,500.00	0
High Turnover (Sit Down Restaurant)	2.50	1000sqft	0.06	2,500.00	0
Enclosed Parking with Elevator	57.00	Space	0.51	22,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	12			Operational Year	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

Project Characteristics -

Land Use - Project Site is 1.06 ac.

Construction Phase - Estimated construction schedule.

Grading - Project Site is 1.06 ac.

Architectural Coating - Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.

Vehicle Trips - Per traffic study.

Area Coating - Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation - Project compliance with the LA Green Building Code results in a 20% reduction in both indoor and outdoor water use.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
tblConstructionPhase	NumDays	10.00	44.00
tblConstructionPhase	NumDays	200.00	418.00
tblConstructionPhase	NumDays	4.00	22.00
tblConstructionPhase	PhaseEndDate	12/9/2020	9/7/2021
tblConstructionPhase	PhaseEndDate	11/11/2020	9/7/2021
tblConstructionPhase	PhaseEndDate	2/5/2020	1/30/2020
tblConstructionPhase	PhaseStartDate	11/26/2020	7/8/2021
tblConstructionPhase	PhaseStartDate	2/6/2020	1/31/2020

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

tblConstructionPhase	PhaseStartDate	1/31/2020	1/1/2020
tblGrading	AcresOfGrading	8.25	1.06
tblGrading	MaterialExported	0.00	12,908.00
tblLandUse	LandUseSquareFeet	66,000.00	73,789.00
tblLandUse	LotAcreage	1.74	0.43
tblVehicleTrips	ST_TR	6.39	4.03
tblVehicleTrips	ST_TR	158.37	76.00
tblVehicleTrips	ST_TR	49.97	16.00
tblVehicleTrips	SU_TR	5.86	4.03
tblVehicleTrips	SU_TR	131.84	76.00
tblVehicleTrips	SU_TR	25.24	16.00
tblVehicleTrips	WD_TR	6.65	4.03
tblVehicleTrips	WD_TR	127.15	76.00
tblVehicleTrips	WD_TR	42.70	16.00

2.0 Emissions Summary

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	19.1621	1.4324	39.0277	0.0859		5.0717	5.0717		5.0717	5.0717	618.2166	1,197.8180	1,816.0346	1.8532	0.0420	1,874.8682
Energy	0.0386	0.3390	0.2089	2.1000e-003		0.0267	0.0267		0.0267	0.0267		420.8090	420.8090	8.0700e-003	7.7100e-003	423.3096
Mobile	0.8237	3.8966	9.8569	0.0326	2.6673	0.0287	2.6960	0.7138	0.0268	0.7407		3,319.6460	3,319.6460	0.1872		3,324.3248
Total	20.0244	5.6681	49.0935	0.1206	2.6673	5.1271	7.7944	0.7138	5.1252	5.8390	618.2166	4,938.2730	5,556.4896	2.0484	0.0497	5,622.5027

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.9831	1.0484	5.8826	6.5800e-003		0.1098	0.1098		0.1098	0.1098	0.0000	1,267.7004	1,267.7004	0.0337	0.0231	1,275.4138
Energy	0.0386	0.3390	0.2089	2.1000e-003		0.0267	0.0267		0.0267	0.0267		420.8090	420.8090	8.0700e-003	7.7100e-003	423.3096
Mobile	0.8237	3.8966	9.8569	0.0326	2.6673	0.0287	2.6960	0.7138	0.0268	0.7407		3,319.6460	3,319.6460	0.1872		3,324.3248
Total	2.8453	5.2840	15.9484	0.0413	2.6673	0.1652	2.8324	0.7138	0.1633	0.8771	0.0000	5,008.1554	5,008.1554	0.2289	0.0308	5,023.0482

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	85.79	6.78	67.51	65.76	0.00	96.78	63.66	0.00	96.81	84.98	100.00	-1.42	9.87	88.83	38.05	10.66

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2020	1/30/2020	5	22	
2	Building Construction	Building Construction	1/31/2020	9/7/2021	5	418	
3	Architectural Coating	Architectural Coating	7/8/2021	9/7/2021	5	44	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.06

Acres of Paving: 0.51

Residential Indoor: 149,423; Residential Outdoor: 49,808; Non-Residential Indoor: 7,500; Non-Residential Outdoor: 2,500; Striped Parking Area: 1,368 (Architectural Coating – sqft)

OffRoad Equipment

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	3	8.00	0.00	1,614.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	59.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

3.2 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.6340	0.0000	4.6340	2.4982	0.0000	2.4982			0.0000			0.0000
Off-Road	1.3498	15.0854	6.4543	0.0141		0.6844	0.6844		0.6296	0.6296		1,365.718 3	1,365.718 3	0.4417		1,376.760 9
Total	1.3498	15.0854	6.4543	0.0141	4.6340	0.6844	5.3184	2.4982	0.6296	3.1279		1,365.718 3	1,365.718 3	0.4417		1,376.760 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6564	21.3681	4.9678	0.0570	1.2827	0.0684	1.3511	0.3516	0.0654	0.4170		6,170.571 9	6,170.571 9	0.4429		6,181.644 6
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0409	0.0290	0.3208	8.9000e-004	0.0894	7.5000e-004	0.0902	0.0237	6.9000e-004	0.0244		88.5936	88.5936	2.7900e-003		88.6634
Total	0.6973	21.3971	5.2887	0.0578	1.3722	0.0691	1.4413	0.3753	0.0661	0.4414		6,259.165 6	6,259.165 6	0.4457		6,270.308 0

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

3.2 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0853	0.0000	2.0853	1.1242	0.0000	1.1242			0.0000			0.0000
Off-Road	1.3498	15.0854	6.4543	0.0141		0.6844	0.6844		0.6296	0.6296	0.0000	1,365.718 3	1,365.718 3	0.4417		1,376.760 9
Total	1.3498	15.0854	6.4543	0.0141	2.0853	0.6844	2.7697	1.1242	0.6296	1.7538	0.0000	1,365.718 3	1,365.718 3	0.4417		1,376.760 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6564	21.3681	4.9678	0.0570	1.2827	0.0684	1.3511	0.3516	0.0654	0.4170		6,170.571 9	6,170.571 9	0.4429		6,181.644 6
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0409	0.0290	0.3208	8.9000e-004	0.0894	7.5000e-004	0.0902	0.0237	6.9000e-004	0.0244		88.5936	88.5936	2.7900e-003		88.6634
Total	0.6973	21.3971	5.2887	0.0578	1.3722	0.0691	1.4413	0.3753	0.0661	0.4414		6,259.165 6	6,259.165 6	0.4457		6,270.308 0

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

3.3 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688		2,001.1595	2,001.1595	0.3715		2,010.4467
Total	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688		2,001.1595	2,001.1595	0.3715		2,010.4467

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0446	1.2762	0.3689	3.0300e-003	0.0768	6.1000e-003	0.0829	0.0221	5.8400e-003	0.0280		323.3389	323.3389	0.0216		323.8794
Worker	0.3015	0.2139	2.3660	6.5600e-003	0.6595	5.5100e-003	0.6650	0.1749	5.0800e-003	0.1800		653.3780	653.3780	0.0206		653.8929
Total	0.3461	1.4901	2.7348	9.5900e-003	0.7363	0.0116	0.7479	0.1970	0.0109	0.2079		976.7169	976.7169	0.0422		977.7723

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

3.3 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688	0.0000	2,001.1595	2,001.1595	0.3715		2,010.4467
Total	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688	0.0000	2,001.1595	2,001.1595	0.3715		2,010.4467

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0446	1.2762	0.3689	3.0300e-003	0.0768	6.1000e-003	0.0829	0.0221	5.8400e-003	0.0280		323.3389	323.3389	0.0216		323.8794
Worker	0.3015	0.2139	2.3660	6.5600e-003	0.6595	5.5100e-003	0.6650	0.1749	5.0800e-003	0.1800		653.3780	653.3780	0.0206		653.8929
Total	0.3461	1.4901	2.7348	9.5900e-003	0.7363	0.0116	0.7479	0.1970	0.0109	0.2079		976.7169	976.7169	0.0422		977.7723

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

3.3 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0383	1.1627	0.3369	3.0000e-003	0.0768	2.4600e-003	0.0793	0.0221	2.3500e-003	0.0245		320.8146	320.8146	0.0207		321.3324
Worker	0.2813	0.1924	2.1727	6.3500e-003	0.6595	5.3300e-003	0.6648	0.1749	4.9100e-003	0.1798		632.6281	632.6281	0.0186		633.0935
Total	0.3196	1.3551	2.5096	9.3500e-003	0.7363	7.7900e-003	0.7441	0.1970	7.2600e-003	0.2043		953.4428	953.4428	0.0393		954.4259

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

3.3 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0383	1.1627	0.3369	3.0000e-003	0.0768	2.4600e-003	0.0793	0.0221	2.3500e-003	0.0245		320.8146	320.8146	0.0207		321.3324
Worker	0.2813	0.1924	2.1727	6.3500e-003	0.6595	5.3300e-003	0.6648	0.1749	4.9100e-003	0.1798		632.6281	632.6281	0.0186		633.0935
Total	0.3196	1.3551	2.5096	9.3500e-003	0.7363	7.7900e-003	0.7441	0.1970	7.2600e-003	0.2043		953.4428	953.4428	0.0393		954.4259

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

3.4 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.0924					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	11.3113	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0572	0.0391	0.4419	1.2900e-003	0.1341	1.0800e-003	0.1352	0.0356	1.0000e-003	0.0366		128.6701	128.6701	3.7900e-003		128.7648
Total	0.0572	0.0391	0.4419	1.2900e-003	0.1341	1.0800e-003	0.1352	0.0356	1.0000e-003	0.0366		128.6701	128.6701	3.7900e-003		128.7648

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

3.4 Architectural Coating - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.0924					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	11.3113	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0572	0.0391	0.4419	1.2900e-003	0.1341	1.0800e-003	0.1352	0.0356	1.0000e-003	0.0366		128.6701	128.6701	3.7900e-003		128.7648
Total	0.0572	0.0391	0.4419	1.2900e-003	0.1341	1.0800e-003	0.1352	0.0356	1.0000e-003	0.0366		128.6701	128.6701	3.7900e-003		128.7648

4.0 Operational Detail - Mobile

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.8237	3.8966	9.8569	0.0326	2.6673	0.0287	2.6960	0.7138	0.0268	0.7407		3,319.6460	3,319.6460	0.1872		3,324.3248
Unmitigated	0.8237	3.8966	9.8569	0.0326	2.6673	0.0287	2.6960	0.7138	0.0268	0.7407		3,319.6460	3,319.6460	0.1872		3,324.3248

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	265.98	265.98	265.98	908,894	908,894
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	190.00	190.00	190.00	258,938	258,938
Regional Shopping Center	40.00	40.00	40.00	86,514	86,514
Total	495.98	495.98	495.98	1,254,346	1,254,346

4.3 Trip Type Information

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Enclosed Parking with Elevator	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
High Turnover (Sit Down Restaurant)	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Regional Shopping Center	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0386	0.3390	0.2089	2.1000e-003		0.0267	0.0267		0.0267	0.0267		420.8090	420.8090	8.0700e-003	7.7100e-003	423.3096
NaturalGas Unmitigated	0.0386	0.3390	0.2089	2.1000e-003		0.0267	0.0267		0.0267	0.0267		420.8090	420.8090	8.0700e-003	7.7100e-003	423.3096

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1985.1	0.0214	0.1829	0.0779	1.1700e-003		0.0148	0.0148		0.0148	0.0148		233.5407	233.5407	4.4800e-003	4.2800e-003	234.9285
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	1580.55	0.0171	0.1550	0.1302	9.3000e-004		0.0118	0.0118		0.0118	0.0118		185.9468	185.9468	3.5600e-003	3.4100e-003	187.0518
Regional Shopping Center	11.2329	1.2000e-004	1.1000e-003	9.3000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		1.3215	1.3215	3.0000e-005	2.0000e-005	1.3294
Total		0.0386	0.3390	0.2089	2.1100e-003		0.0267	0.0267		0.0267	0.0267		420.8090	420.8090	8.0700e-003	7.7100e-003	423.3097

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1.9851	0.0214	0.1829	0.0779	1.1700e-003		0.0148	0.0148		0.0148	0.0148		233.5407	233.5407	4.4800e-003	4.2800e-003	234.9285
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	1.58055	0.0171	0.1550	0.1302	9.3000e-004		0.0118	0.0118		0.0118	0.0118		185.9468	185.9468	3.5600e-003	3.4100e-003	187.0518
Regional Shopping Center	0.0112329	1.2000e-004	1.1000e-003	9.3000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		1.3215	1.3215	3.0000e-005	2.0000e-005	1.3294
Total		0.0386	0.3390	0.2089	2.1100e-003		0.0267	0.0267		0.0267	0.0267		420.8090	420.8090	8.0700e-003	7.7100e-003	423.3097

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- Use only Natural Gas Hearths

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.9831	1.0484	5.8826	6.5800e-003		0.1098	0.1098		0.1098	0.1098	0.0000	1,267.7004	1,267.7004	0.0337	0.0231	1,275.4138
Unmitigated	19.1621	1.4324	39.0277	0.0859		5.0717	5.0717		5.0717	5.0717	618.2166	1,197.8180	1,816.0346	1.8532	0.0420	1,874.8682

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1337					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	17.2944	1.3694	33.5644	0.0856		5.0416	5.0416		5.0416	5.0416	618.2166	1,188.0000	1,806.2166	1.8436	0.0420	1,864.8118
Landscaping	0.1659	0.0631	5.4633	2.9000e-004		0.0301	0.0301		0.0301	0.0301		9.8180	9.8180	9.5400e-003		10.0565
Total	19.1621	1.4324	39.0277	0.0859		5.0717	5.0717		5.0717	5.0717	618.2166	1,197.8180	1,816.0346	1.8532	0.0420	1,874.8682

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1337					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1153	0.9853	0.4193	6.2900e-003		0.0797	0.0797		0.0797	0.0797	0.0000	1,257.8824	1,257.8824	0.0241	0.0231	1,265.3573
Landscaping	0.1659	0.0631	5.4633	2.9000e-004		0.0301	0.0301		0.0301	0.0301		9.8180	9.8180	9.5400e-003		10.0565
Total	1.9831	1.0484	5.8826	6.5800e-003		0.1098	0.1098		0.1098	0.1098	0.0000	1,267.7004	1,267.7004	0.0337	0.0231	1,275.4138

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

119 S. Soto Avenue Project - Los Angeles-South Coast County, Winter

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

119 S. Soto Avenue Project
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	66.00	Dwelling Unit	0.43	73,789.00	189
Regional Shopping Center	2.50	1000sqft	0.06	2,500.00	0
High Turnover (Sit Down Restaurant)	2.50	1000sqft	0.06	2,500.00	0
Enclosed Parking with Elevator	57.00	Space	0.51	22,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	12			Operational Year	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

Project Characteristics -

Land Use - Project Site is 1.06 ac.

Construction Phase - Estimated construction schedule.

Grading - Project Site is 1.06 ac.

Architectural Coating - Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.

Vehicle Trips - Per traffic study.

Area Coating - Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation - Project compliance with the LA Green Building Code results in a 20% reduction in both indoor and outdoor water use.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
tblConstructionPhase	NumDays	10.00	44.00
tblConstructionPhase	NumDays	200.00	418.00
tblConstructionPhase	NumDays	4.00	22.00
tblConstructionPhase	PhaseEndDate	12/9/2020	9/7/2021
tblConstructionPhase	PhaseEndDate	11/11/2020	9/7/2021
tblConstructionPhase	PhaseEndDate	2/5/2020	1/30/2020
tblConstructionPhase	PhaseStartDate	11/26/2020	7/8/2021
tblConstructionPhase	PhaseStartDate	2/6/2020	1/31/2020

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

tblConstructionPhase	PhaseStartDate	1/31/2020	1/1/2020
tblGrading	AcresOfGrading	8.25	1.06
tblGrading	MaterialExported	0.00	12,908.00
tblLandUse	LandUseSquareFeet	66,000.00	73,789.00
tblLandUse	LotAcreage	1.74	0.43
tblVehicleTrips	ST_TR	6.39	4.03
tblVehicleTrips	ST_TR	158.37	76.00
tblVehicleTrips	ST_TR	49.97	16.00
tblVehicleTrips	SU_TR	5.86	4.03
tblVehicleTrips	SU_TR	131.84	76.00
tblVehicleTrips	SU_TR	25.24	16.00
tblVehicleTrips	WD_TR	6.65	4.03
tblVehicleTrips	WD_TR	127.15	76.00
tblVehicleTrips	WD_TR	42.70	16.00

2.0 Emissions Summary

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	19.1621	1.4324	39.0277	0.0859		5.0717	5.0717		5.0717	5.0717	618.2166	1,197.8180	1,816.0346	1.8532	0.0420	1,874.8682
Energy	0.0386	0.3390	0.2089	2.1000e-003		0.0267	0.0267		0.0267	0.0267		420.8090	420.8090	8.0700e-003	7.7100e-003	423.3096
Mobile	0.8481	3.8190	10.2579	0.0343	2.6673	0.0286	2.6958	0.7138	0.0267	0.7405		3,491.3458	3,491.3458	0.1868		3,496.0158
Total	20.0488	5.5904	49.4945	0.1223	2.6673	5.1269	7.7942	0.7138	5.1250	5.8389	618.2166	5,109.9728	5,728.1894	2.0481	0.0497	5,794.1936

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.9831	1.0484	5.8826	6.5800e-003		0.1098	0.1098		0.1098	0.1098	0.0000	1,267.7004	1,267.7004	0.0337	0.0231	1,275.4138
Energy	0.0386	0.3390	0.2089	2.1000e-003		0.0267	0.0267		0.0267	0.0267		420.8090	420.8090	8.0700e-003	7.7100e-003	423.3096
Mobile	0.8481	3.8190	10.2579	0.0343	2.6673	0.0286	2.6958	0.7138	0.0267	0.7405		3,491.3458	3,491.3458	0.1868		3,496.0158
Total	2.8697	5.2064	16.3494	0.0430	2.6673	0.1650	2.8322	0.7138	0.1631	0.8769	0.0000	5,179.8551	5,179.8551	0.2285	0.0308	5,194.7392

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	85.69	6.87	66.97	64.84	0.00	96.78	63.66	0.00	96.82	84.98	100.00	-1.37	9.57	88.84	38.05	10.35

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2020	1/30/2020	5	22	
2	Building Construction	Building Construction	1/31/2020	9/7/2021	5	418	
3	Architectural Coating	Architectural Coating	7/8/2021	9/7/2021	5	44	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.06

Acres of Paving: 0.51

Residential Indoor: 149,423; Residential Outdoor: 49,808; Non-Residential Indoor: 7,500; Non-Residential Outdoor: 2,500; Striped Parking Area: 1,368 (Architectural Coating – sqft)

OffRoad Equipment

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	3	8.00	0.00	1,614.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	59.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

3.2 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.6340	0.0000	4.6340	2.4982	0.0000	2.4982			0.0000			0.0000
Off-Road	1.3498	15.0854	6.4543	0.0141		0.6844	0.6844		0.6296	0.6296		1,365.718 3	1,365.718 3	0.4417		1,376.760 9
Total	1.3498	15.0854	6.4543	0.0141	4.6340	0.6844	5.3184	2.4982	0.6296	3.1279		1,365.718 3	1,365.718 3	0.4417		1,376.760 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6408	21.0950	4.6745	0.0580	1.2827	0.0673	1.3501	0.3516	0.0644	0.4160		6,278.693 4	6,278.693 4	0.4274		6,289.377 6
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0368	0.0262	0.3503	9.4000e-004	0.0894	7.5000e-004	0.0902	0.0237	6.9000e-004	0.0244		94.0890	94.0890	2.9700e-003		94.1632
Total	0.6777	21.1212	5.0247	0.0589	1.3722	0.0681	1.4402	0.3753	0.0651	0.4404		6,372.782 5	6,372.782 5	0.4303		6,383.540 8

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

3.2 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0853	0.0000	2.0853	1.1242	0.0000	1.1242			0.0000			0.0000
Off-Road	1.3498	15.0854	6.4543	0.0141		0.6844	0.6844		0.6296	0.6296	0.0000	1,365.718 3	1,365.718 3	0.4417		1,376.760 9
Total	1.3498	15.0854	6.4543	0.0141	2.0853	0.6844	2.7697	1.1242	0.6296	1.7538	0.0000	1,365.718 3	1,365.718 3	0.4417		1,376.760 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6408	21.0950	4.6745	0.0580	1.2827	0.0673	1.3501	0.3516	0.0644	0.4160		6,278.693 4	6,278.693 4	0.4274		6,289.377 6
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0368	0.0262	0.3503	9.4000e-004	0.0894	7.5000e-004	0.0902	0.0237	6.9000e-004	0.0244		94.0890	94.0890	2.9700e-003		94.1632
Total	0.6777	21.1212	5.0247	0.0589	1.3722	0.0681	1.4402	0.3753	0.0651	0.4404		6,372.782 5	6,372.782 5	0.4303		6,383.540 8

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

3.3 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688		2,001.1595	2,001.1595	0.3715		2,010.4467
Total	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688		2,001.1595	2,001.1595	0.3715		2,010.4467

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0427	1.2765	0.3345	3.1100e-003	0.0768	6.0100e-003	0.0828	0.0221	5.7500e-003	0.0279		332.4296	332.4296	0.0203		332.9368
Worker	0.2715	0.1932	2.5833	6.9700e-003	0.6595	5.5100e-003	0.6650	0.1749	5.0800e-003	0.1800		693.9066	693.9066	0.0219		694.4535
Total	0.3142	1.4696	2.9177	0.0101	0.7363	0.0115	0.7478	0.1970	0.0108	0.2079		1,026.3362	1,026.3362	0.0422		1,027.3903

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

3.3 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688	0.0000	2,001.1595	2,001.1595	0.3715		2,010.4467
Total	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688	0.0000	2,001.1595	2,001.1595	0.3715		2,010.4467

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0427	1.2765	0.3345	3.1100e-003	0.0768	6.0100e-003	0.0828	0.0221	5.7500e-003	0.0279		332.4296	332.4296	0.0203		332.9368
Worker	0.2715	0.1932	2.5833	6.9700e-003	0.6595	5.5100e-003	0.6650	0.1749	5.0800e-003	0.1800		693.9066	693.9066	0.0219		694.4535
Total	0.3142	1.4696	2.9177	0.0101	0.7363	0.0115	0.7478	0.1970	0.0108	0.2079		1,026.3362	1,026.3362	0.0422		1,027.3903

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

3.3 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0365	1.1651	0.3046	3.0900e-003	0.0768	2.3800e-003	0.0792	0.0221	2.2800e-003	0.0244		329.8568	329.8568	0.0194		330.3426
Worker	0.2529	0.1738	2.3764	6.7400e-003	0.6595	5.3300e-003	0.6648	0.1749	4.9100e-003	0.1798		671.8742	671.8742	0.0198		672.3691
Total	0.2894	1.3389	2.6810	9.8300e-003	0.7363	7.7100e-003	0.7440	0.1970	7.1900e-003	0.2042		1,001.7310	1,001.7310	0.0392		1,002.7117

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

3.3 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0365	1.1651	0.3046	3.0900e-003	0.0768	2.3800e-003	0.0792	0.0221	2.2800e-003	0.0244		329.8568	329.8568	0.0194		330.3426
Worker	0.2529	0.1738	2.3764	6.7400e-003	0.6595	5.3300e-003	0.6648	0.1749	4.9100e-003	0.1798		671.8742	671.8742	0.0198		672.3691
Total	0.2894	1.3389	2.6810	9.8300e-003	0.7363	7.7100e-003	0.7440	0.1970	7.1900e-003	0.2042		1,001.7310	1,001.7310	0.0392		1,002.7117

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

3.4 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.0924					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	11.3113	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0514	0.0354	0.4833	1.3700e-003	0.1341	1.0800e-003	0.1352	0.0356	1.0000e-003	0.0366		136.6524	136.6524	4.0300e-003		136.7530
Total	0.0514	0.0354	0.4833	1.3700e-003	0.1341	1.0800e-003	0.1352	0.0356	1.0000e-003	0.0366		136.6524	136.6524	4.0300e-003		136.7530

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

3.4 Architectural Coating - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.0924					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	11.3113	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0514	0.0354	0.4833	1.3700e-003	0.1341	1.0800e-003	0.1352	0.0356	1.0000e-003	0.0366		136.6524	136.6524	4.0300e-003		136.7530
Total	0.0514	0.0354	0.4833	1.3700e-003	0.1341	1.0800e-003	0.1352	0.0356	1.0000e-003	0.0366		136.6524	136.6524	4.0300e-003		136.7530

4.0 Operational Detail - Mobile

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.8481	3.8190	10.2579	0.0343	2.6673	0.0286	2.6958	0.7138	0.0267	0.7405		3,491.3458	3,491.3458	0.1868		3,496.0158
Unmitigated	0.8481	3.8190	10.2579	0.0343	2.6673	0.0286	2.6958	0.7138	0.0267	0.7405		3,491.3458	3,491.3458	0.1868		3,496.0158

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	265.98	265.98	265.98	908,894	908,894
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	190.00	190.00	190.00	258,938	258,938
Regional Shopping Center	40.00	40.00	40.00	86,514	86,514
Total	495.98	495.98	495.98	1,254,346	1,254,346

4.3 Trip Type Information

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Enclosed Parking with Elevator	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
High Turnover (Sit Down Restaurant)	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Regional Shopping Center	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0386	0.3390	0.2089	2.1000e-003		0.0267	0.0267		0.0267	0.0267		420.8090	420.8090	8.0700e-003	7.7100e-003	423.3096
NaturalGas Unmitigated	0.0386	0.3390	0.2089	2.1000e-003		0.0267	0.0267		0.0267	0.0267		420.8090	420.8090	8.0700e-003	7.7100e-003	423.3096

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1985.1	0.0214	0.1829	0.0779	1.1700e-003		0.0148	0.0148		0.0148	0.0148		233.5407	233.5407	4.4800e-003	4.2800e-003	234.9285
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	1580.55	0.0171	0.1550	0.1302	9.3000e-004		0.0118	0.0118		0.0118	0.0118		185.9468	185.9468	3.5600e-003	3.4100e-003	187.0518
Regional Shopping Center	11.2329	1.2000e-004	1.1000e-003	9.3000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		1.3215	1.3215	3.0000e-005	2.0000e-005	1.3294
Total		0.0386	0.3390	0.2089	2.1100e-003		0.0267	0.0267		0.0267	0.0267		420.8090	420.8090	8.0700e-003	7.7100e-003	423.3097

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1.9851	0.0214	0.1829	0.0779	1.1700e-003		0.0148	0.0148		0.0148	0.0148		233.5407	233.5407	4.4800e-003	4.2800e-003	234.9285
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	1.58055	0.0171	0.1550	0.1302	9.3000e-004		0.0118	0.0118		0.0118	0.0118		185.9468	185.9468	3.5600e-003	3.4100e-003	187.0518
Regional Shopping Center	0.0112329	1.2000e-004	1.1000e-003	9.3000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		1.3215	1.3215	3.0000e-005	2.0000e-005	1.3294
Total		0.0386	0.3390	0.2089	2.1100e-003		0.0267	0.0267		0.0267	0.0267		420.8090	420.8090	8.0700e-003	7.7100e-003	423.3097

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- Use only Natural Gas Hearths

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.9831	1.0484	5.8826	6.5800e-003		0.1098	0.1098		0.1098	0.1098	0.0000	1,267.7004	1,267.7004	0.0337	0.0231	1,275.4138
Unmitigated	19.1621	1.4324	39.0277	0.0859		5.0717	5.0717		5.0717	5.0717	618.2166	1,197.8180	1,816.0346	1.8532	0.0420	1,874.8682

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1337					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	17.2944	1.3694	33.5644	0.0856		5.0416	5.0416		5.0416	5.0416	618.2166	1,188.0000	1,806.2166	1.8436	0.0420	1,864.8118
Landscaping	0.1659	0.0631	5.4633	2.9000e-004		0.0301	0.0301		0.0301	0.0301		9.8180	9.8180	9.5400e-003		10.0565
Total	19.1621	1.4324	39.0277	0.0859		5.0717	5.0717		5.0717	5.0717	618.2166	1,197.8180	1,816.0346	1.8532	0.0420	1,874.8682

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1337					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1153	0.9853	0.4193	6.2900e-003		0.0797	0.0797		0.0797	0.0797	0.0000	1,257.8824	1,257.8824	0.0241	0.0231	1,265.3573
Landscaping	0.1659	0.0631	5.4633	2.9000e-004		0.0301	0.0301		0.0301	0.0301		9.8180	9.8180	9.5400e-003		10.0565
Total	1.9831	1.0484	5.8826	6.5800e-003		0.1098	0.1098		0.1098	0.1098	0.0000	1,267.7004	1,267.7004	0.0337	0.0231	1,275.4138

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

119 S. Soto Avenue Project - Los Angeles-South Coast County, Summer

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

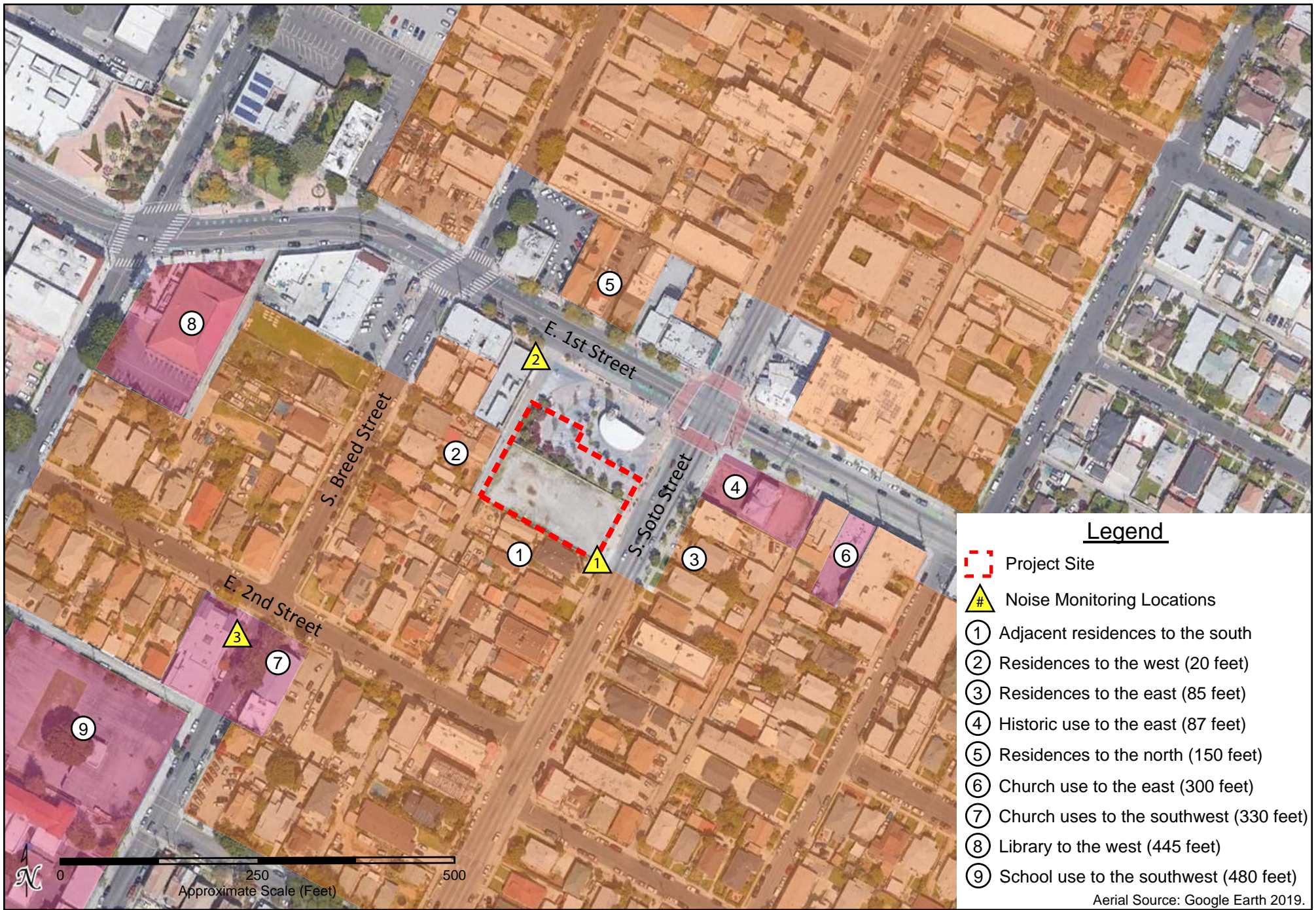
Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Appendix B
Noise Monitoring Data



119 S. Soto St. - Location 1

Information Panel

Name	119 S. Soto St. - Location 1
Start Time	4/3/2019 12:20:43 PM
Stop Time	4/3/2019 12:35:43 PM
Model Type	SoundPro DL
Run Time	00:15:00

Summary Data Panel

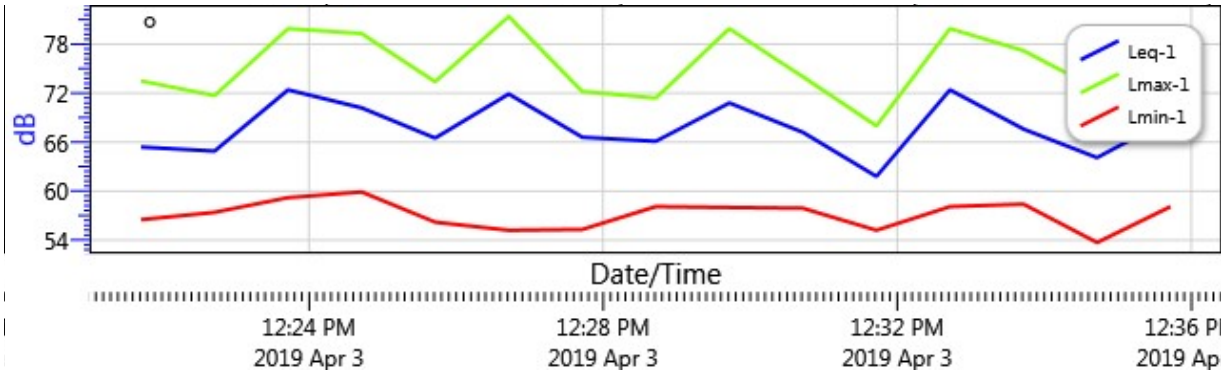
<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Lmin	1	53.7 dB	Lmax	1	81.4 dB
Leq	1	68.8 dB			
Exchange Rate	1	3 dB	Log Rate	1	60 s
Weighting	1	A	Response	1	SLOW

Logged Data Table

<u>Date/Time</u>	<u>Leq-1</u>	<u>Lmax-1</u>	<u>Lmin-1</u>
4/3/2019 12:21:43 PM	65.4	73.5	56.5
12:22:43 PM	64.9	71.7	57.4
12:23:43 PM	72.4	79.9	59.2
12:24:43 PM	70.2	79.3	59.9
12:25:43 PM	66.5	73.4	56.2
12:26:43 PM	71.9	81.4	55.2
12:27:43 PM	66.6	72.2	55.3
12:28:43 PM	66.1	71.4	58.1
12:29:43 PM	70.8	79.9	58
12:30:43 PM	67.2	74	57.9
12:31:43 PM	61.8	68	55.2
12:32:43 PM	72.4	79.9	58.1
12:33:43 PM	67.6	77.2	58.4
12:34:43 PM	64.1	72.5	53.7
12:35:43 PM	68.9	73.5	58.1

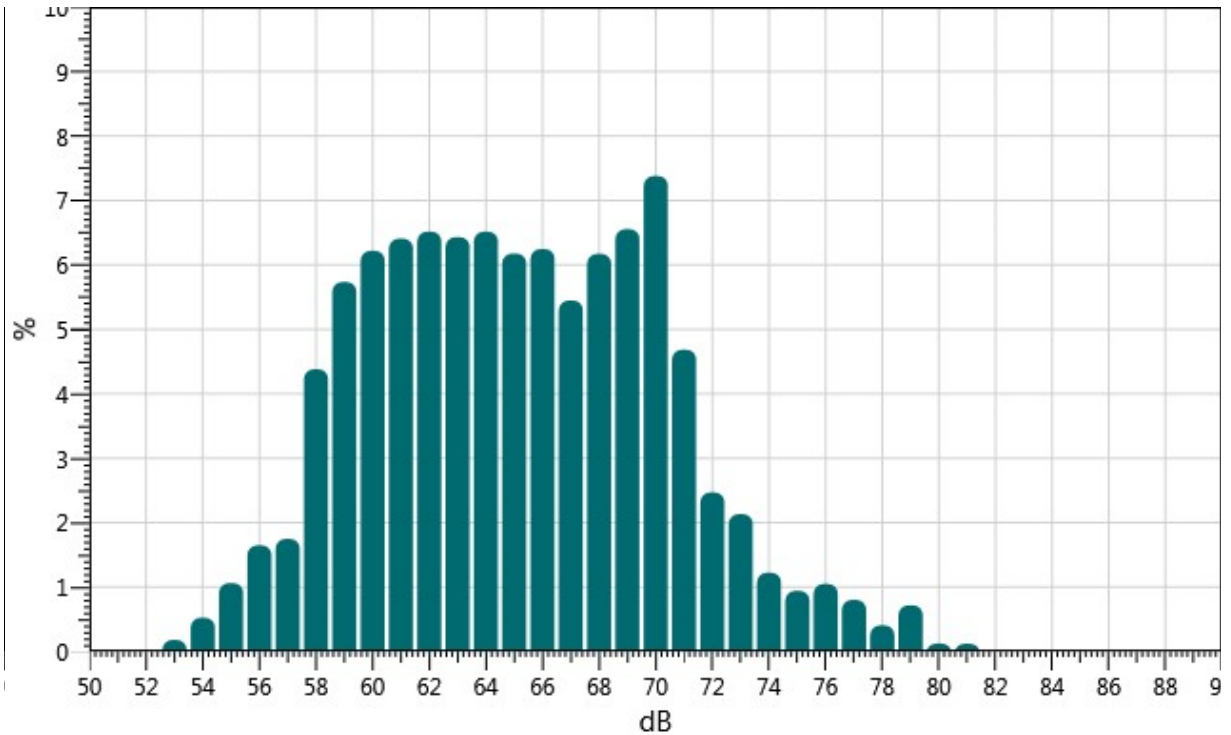
Logged Data Chart

119 S. Soto St. - Location 1: Logged Data Chart



Statistics Chart

119 S. Soto St. - Location 1: Statistics Chart



Calibration History

Date	Calibration Action	Level	Cal. Model Type	Serial Number	Cert. Due Date
4/3/2019 11:55:22 AM	Calibration	114.0			

NOISE MONITORING FIELD REPORT

Site Map

Project Name: Los Lirios Mixed-Use

Monitoring Address: 119 S. Soto Street

Date: 4/3/19 Site Number: 1

Measured By: Holly Galbreath

Weather Conditions: 63°, Mostly Cloudy

Wind Speed: 3 mph Wind Direction: From SSE

Measurement Start Time: 12:20 pm



Measurement End Time: 12:35 pm Total Measurement Time: 15 min

Noise Meter Model: 3M SoundPro SP DL-1 Calibration: 114.0 (dBA)

Meter Setting: A-Weighted Sound Level (SLOW) Session File Name: S008

Primary Noise Sources: Traffic, pedestrian, residential activity - Soto St

Data Summary

Other Noise Sources During Monitoring

Noise Scale	Noise Level (dBA)
Leq	68.8
L _{max}	81.4
L _{min}	53.7

1. _____ Time: _____
2. _____ Time: _____
3. _____ Time: _____
4. _____ Time: _____
5. _____ Time: _____

Additional Notes:

119 S. Soto St. - Location 2

Information Panel

Name	119 S. Soto St. - Location 2
Start Time	4/3/2019 12:00:58 PM
Stop Time	4/3/2019 12:15:58 PM
Model Type	SoundPro DL
Run Time	00:15:00

Summary Data Panel

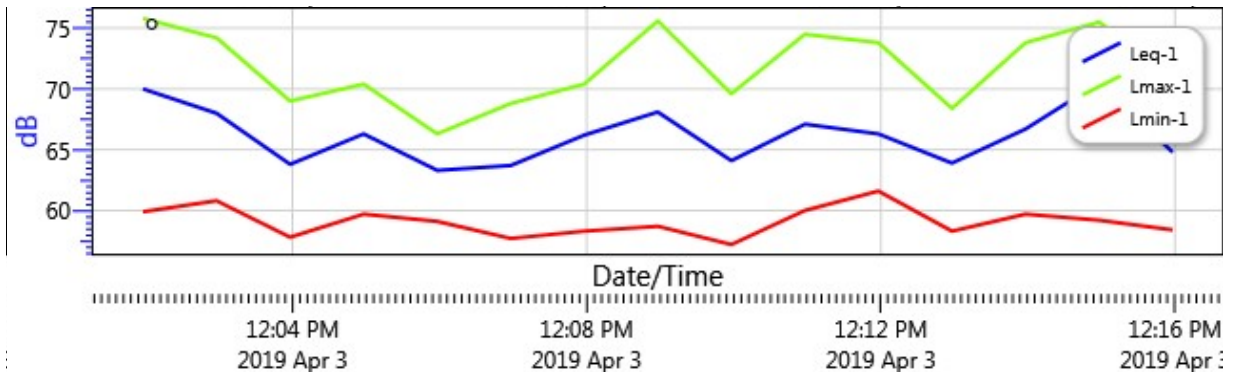
<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Lmin	1	57.2 dB	Lmax	1	75.8 dB
Leq	1	66.7 dB			
Exchange Rate	1	3 dB	Log Rate	1	60 s
Weighting	1	A	Response	1	SLOW

Logged Data Table

<u>Date/Time</u>	<u>Leq-1</u>	<u>Lmax-1</u>	<u>Lmin-1</u>
4/3/2019 12:01:58 PM	70	75.8	59.9
12:02:58 PM	68	74.2	60.8
12:03:58 PM	63.8	69	57.8
12:04:58 PM	66.3	70.4	59.7
12:05:58 PM	63.3	66.3	59.1
12:06:58 PM	63.7	68.8	57.7
12:07:58 PM	66.2	70.4	58.3
12:08:58 PM	68.1	75.6	58.7
12:09:58 PM	64.1	69.6	57.2
12:10:58 PM	67.1	74.5	60
12:11:58 PM	66.3	73.8	61.6
12:12:58 PM	63.9	68.4	58.3
12:13:58 PM	66.7	73.8	59.7
12:14:58 PM	70.5	75.5	59.2
12:15:58 PM	64.8	71.1	58.4

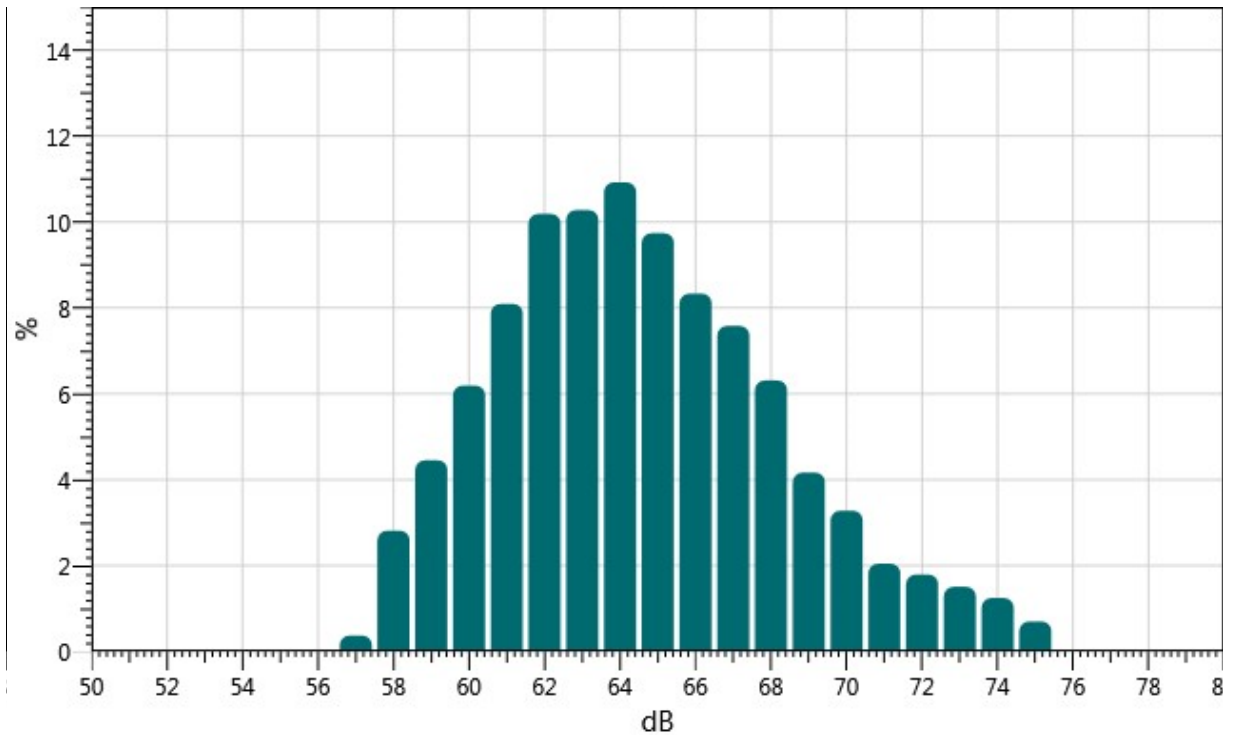
Logged Data Chart

119 S. Soto St. - Location 2: Logged Data Chart



Statistics Chart

119 S. Soto St. - Location 2: Statistics Chart



Calibration History

Date	Calibration Action	Level	Cal. Model Type	Serial Number	Cert. Due Date
4/3/2019 11:55:22 AM	Calibration	114.0			

NOISE MONITORING FIELD REPORT

Site Map

Project Name: Los Lirios Mixed-Use
Monitoring Address: 119 S. Soto Street
Date: 4/3/19 **Site Number:** 2
Measured By: Holly Galbreath
Weather Conditions: 63°, Mostly Cloudy
Wind Speed: 3 mph **Wind Direction:** From SSE
Measurement Start Time: 12:00 pm



Measurement End Time: 12:15 pm **Total Measurement Time:** 15 min

Noise Meter Model: 3M SoundPro SP DL-1 **Calibration:** 114.0 (dBA)

Meter Setting: A-Weighted Sound Level (SLOW) **Session File Name:** S007

Primary Noise Sources: Traffic, pedestrian activity - 1st St

Data Summary

Other Noise Sources During Monitoring

Noise Scale	Noise Level (dBA)
L _{eq}	66.7
L _{max}	75.8
L _{min}	57.2

1. _____ Time: _____
2. _____ Time: _____
3. _____ Time: _____
4. _____ Time: _____
5. _____ Time: _____

Additional Notes:

119 S. Soto St. - Location 3

Information Panel

Name	119 S. Soto St. - Location 3
Start Time	4/3/2019 12:50:21 PM
Stop Time	4/3/2019 1:05:21 PM
Model Type	SoundPro DL
Run Time	00:15:00

Summary Data Panel

<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Lmin	1	49.2 dB	Lmax	1	79.1 dB
Leq	1	61 dB			
Exchange Rate	1	3 dB	Log Rate	1	60 s
Weighting	1	A	Response	1	SLOW

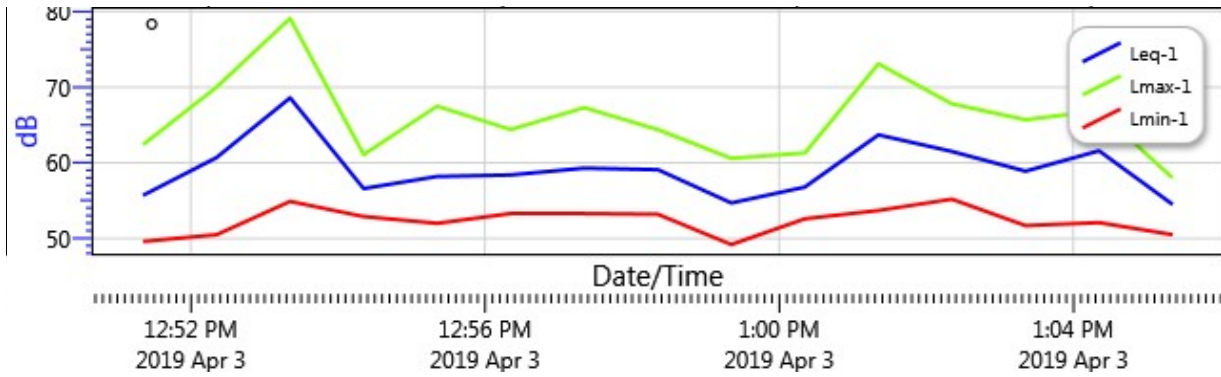
Logged Data Table

<u>Date/Time</u>	<u>Leq-1</u>	<u>Lmax-1</u>	<u>Lmin-1</u>
4/3/2019 12:51:21 PM	55.7	62.4	49.6
12:52:21 PM	60.7	70	50.5
12:53:21 PM	68.6	79.1	54.9
12:54:21 PM	56.6	61.1	52.9
12:55:21 PM	58.2	67.5	52
12:56:21 PM	58.4	64.4	53.3
12:57:21 PM	59.3	67.3	53.3
12:58:21 PM	59.1	64.4	53.2
12:59:21 PM	54.7	60.6	49.2
1:00:21 PM	56.8	61.3	52.6
1:01:21 PM	63.7	73.1	53.7
1:02:21 PM	61.5	67.8	55.2
1:03:21 PM	58.9	65.7	51.7
1:04:21 PM	61.6	66.9	52.1
1:05:21 PM	54.5	58	50.5



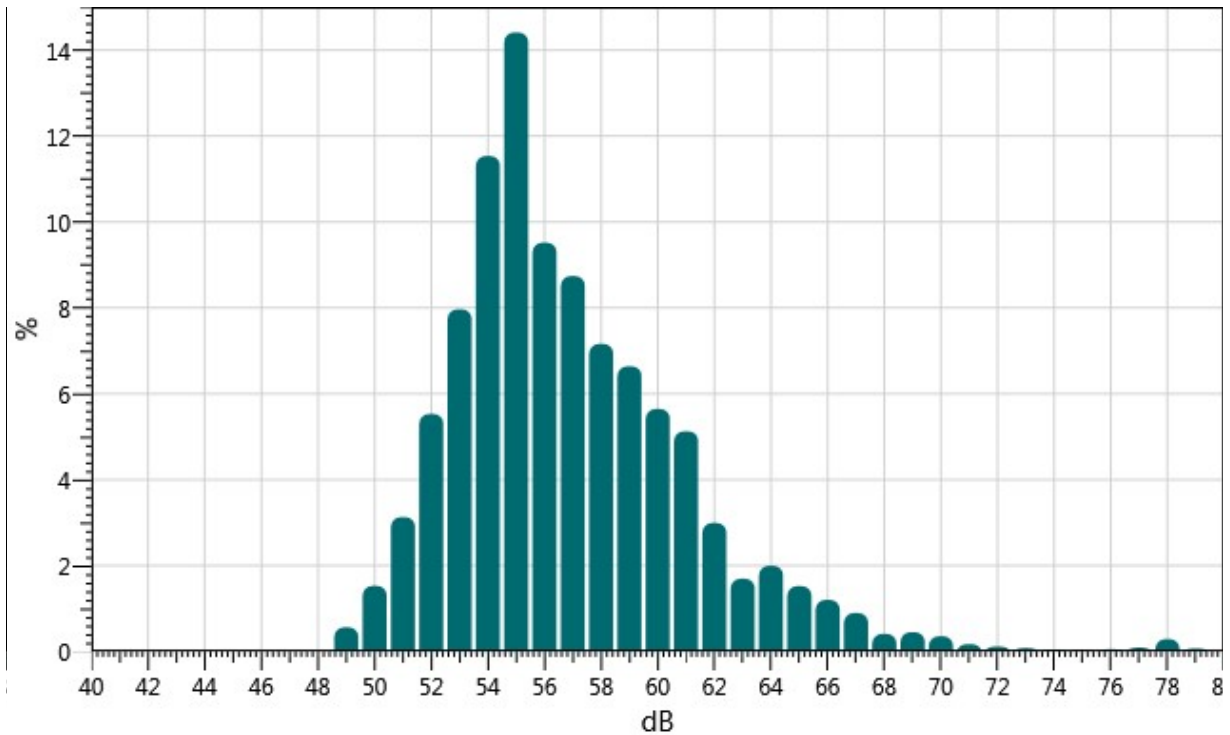
Logged Data Chart

119 S. Soto St. - Location 3: Logged Data Chart



Statistics Chart

119 S. Soto St. - Location 3: Statistics Chart



Calibration History

Date	Calibration Action	Level	Cal. Model Type	Serial Number	Cert. Due Date
4/3/2019 12:43:31 PM	Calibration	114.0			

NOISE MONITORING FIELD REPORT

Site Map

Project Name: Los Lirios Mixed-Use

Monitoring Address: 119 S. Soto Street

Date: 4/3/19 Site Number: 3

Measured By: Holly Galbreath

Weather Conditions: 63°, Mostly Cloudy

Wind Speed: 3 mph Wind Direction: From SSE

Measurement Start Time: 12:50 pm

Measurement End Time: 1:05 pm Total Measurement Time: 15 min

Noise Meter Model: 3M SoundPro SP DL-1 Calibration: 114.0 (dBA)

Meter Setting: A-Weighted Sound Level (SLOW) Session File Name: S009

Primary Noise Sources: Traffic, pedestrian, school activity - Breed St.



Data Summary

Noise Scale	Noise Level (dBA)
L_{eq}	61.0
L_{max}	79.1
L_{min}	49.2

Other Noise Sources During Monitoring

1. _____ Time: _____
2. _____ Time: _____
3. _____ Time: _____
4. _____ Time: _____
5. _____ Time: _____

Additional Notes:
