4.12 TRANSPORTATION AND TRAFFIC

This section provides an overview of transportation and traffic, and evaluates the construction and operational impacts associated with the Proposed Project. Topics addressed in this section include the circulation system; the congestion management plan; emergency access; and public transit, bicycle, and pedestrian facilities.

REGULATORY FRAMEWORK

FEDERAL

Americans with Disabilities (ADA) Act of 1990. Titles I, II, III, and V of the ADA have been codified in Title 42 of the United States Code, beginning at Section 12101. Title III prohibits discrimination based on disability in "places of public accommodation" (businesses and non-profit agencies that serve the public) and "commercial facilities" (other businesses). The regulation includes Appendix A through Part 36 (Standards for Accessible Design), establishing minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility. Examples of key guidelines include detectable warnings for pedestrians entering traffic where there is no curb, a clear zone of 48 inches for the pedestrian travelway, and a vibration-free zone for pedestrians.

STATE

Complete Streets Act. Assembly Bill 1358, the Complete Streets Act (Government Code Sections 65040.2 and 65302), was signed into law by Governor Arnold Schwarzenegger in September 2008. As of January 1, 2011, the law requires cities and counties, when updating the part of a local general plan that addresses roadways and traffic flows, to ensure that those plans account for the needs of all roadway users. Specifically, the legislation requires cities and counties to ensure that local roads and streets adequately accommodate the needs of bicyclists, pedestrians and transit riders, as well as motorists.

Complete Streets Directive. Caltrans enacted Complete Streets: Integrating the Transportation System (Complete Streets Directive; Deputy Directive 64) in October 2008, which required cities to plan for a "balanced, multimodal transportation network that meets the needs of all users of streets."[1] The directive also covers all phases of state highway projects, from planning to construction to maintenance and repair. A complete street is a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truckers, and motorists, appropriate to the function and context of the facility. Every complete street looks different, according to its context, community preferences, the types of road users, and their needs.

Statewide Transportation Improvement Program (STIP). Caltrans administers transportation programming for the state. Transportation programming is the public decision-making process that sets priorities and funds projects envisioned in long-range transportation plans. It commits expected revenues over a multi-year period to transportation projects. The STIP is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the State Highway Account and other funding sources.

[1]Caltrans, *Implementation Policy of Complete Streets: Integrating the Transportation System*, 2008, http://www.dot.ca.gov/hq/tpp/offices/ocp/complete_streets.html, accessed on March 8, 2017.

Congestion Management Program (CMP). To address the increasing public concern that traffic congestion is impacting the quality of life and economic vitality of the state, the CMP was enacted by Proposition 111, passed by voters in 1990. The intent of the CMP is to provide the analytical basis for transportation decisions through the STIP process.

Senate Bill 743 (SB 743). SB 743 directs the Office of Planning and Research (OPR) to develop revisions to the CEQA Guidelines to establish new criteria for determining the significance of transportation impacts and define alternative metrics for traffic level of service (LOS). On September 27, 2013, Governor Jerry Brown signed SB 743 into law and started a process that could fundamentally change transportation impact analysis as part of CEQA compliance. The new methodologies to evaluate transportation impacts under CEQA would promote the State's goals of reducing GHG emissions and traffic-related air pollution, incentivize an appropriate mix of land uses, and facilitate the development of a multimodal transportation system. These changes will include elimination of auto delay, LOS, and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts in many parts of California (if not statewide). Further, parking impacts will not be considered significant impacts on the environment for select development projects within infill areas with nearby frequent transit service. According to the legislative intent contained in SB 743, these changes to current practice were necessary to "…more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions."

On January 20, 2016, the Governor's OPR released the *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA.* Of particular relevance to this project is the text of the proposed new Section 15064.3 that relates to the determination of the significance of transportations impacts, alternatives and mitigation measures. The following key text concerning the analysis of transportation impacts is taken directly from the document:

> *(b) Criteria for Analyzing Transportation Impacts.*
>
> *Lead agencies may use thresholds of significance for vehicle miles traveled recommended by other public agencies or experts provided the threshold is supported by substantial evidence.*
>
> *(1) Vehicle Miles Traveled and Land Use Projects. A development project that results in vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, development projects that locate within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor may be presumed to cause a less than significant transportation impact. Similarly, development projects that decrease vehicle miles traveled in the project area compared to existing conditions may be considered to have a less than significant transportation impact.*
>
> *(2) Induced Vehicle Travel and Transportation Projects. Additional lane miles may induce automobile travel, and vehicle miles traveled, compared to existing conditions. Transportation projects that reduce, or have no impact on, vehicle miles traveled may be presumed to cause a less than significant transportation impact. To the extent that the potential for induced travel has already been adequately analyzed at a programmatic level, a lead agency may incorporate that analysis by reference.*

Assembly Bill 32 (AB 32) and **Senate Bill 375 (SB 375)**. With the passage of AB 32, the Global Warming Solutions Act of 2006, the State of California committed itself to reducing statewide greenhouse gas (GHG) emissions to 1990 levels by 2020. The California Air Resources Board (CARB) is coordinating the response to comply with AB 32.

On December 11, 2008, CARB adopted its Proposed Scoping Plan for AB 32. This scoping plan included the approval of SB 375 as the means for achieving regional transportation-related GHG targets. SB 375 provides guidance on how curbing emissions from cars and light trucks can help the state comply with AB 32. The five major components to SB 375 are as follows:

(1) Regional GHG emissions targets. CARB's Regional Targets Advisory Committee guides the adoption of targets to be met by 2020 and 2035 for each Metropolitan Planning Organization (MPO) in the state. These targets, which MPOs may propose themselves, are updated every eight years in conjunction with the revision schedule of housing and transportation elements.

(2) MPOs are required to prepare a Sustainable Communities Strategy (SCS) that provides a plan for meeting regional targets. The SCS and the Regional Transportation Plan (RTP) must be consistent with each other, including action items and financing decisions. If the SCS does not meet the regional target, the MPO must produce an Alternative Planning Strategy that details an alternative plan to meet the target.

(3) SB 375 requires that regional housing elements and transportation plans be synchronized on 8-year schedules. In addition, Regional Housing Needs Assessment (RHNA) allocation numbers must conform to the SCS. If local jurisdictions are required to rezone land as a result of changes in the housing element, rezoning must take place within three years.

(4) SB 375 provides California Environmental Quality Act (CEQA) streamlining incentives for preferred development types. Certain residential or mixed-use projects qualify if they conform to the SCS. Transit-oriented developments (TODs) also qualify if they (1) are at least 50% residential, (2) meet density requirements, and (3) are within 0.5 mile of a transit stop. The degree of CEQA streamlining is based on the degree of compliance with these development preferences.

(5) MPOs must use transportation and air emissions modeling techniques consistent with guidelines prepared by the California Transportation Commission (CTC). Regional Transportation Planning Agencies, cities, and counties are encouraged, but not required, to use travel demand models consistent with the CTC guidelines.

REGIONAL

A number of regional improvement plans affect transportation in the City of Los Angeles. They include the Southern California Association of Governments' (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Regional Transportation Improvement Plan (RTIP), and Sustainability Planning Grant Program; Los Angeles County Metropolitan Transportation Authority's (Metro) CMP, Long-Range Transportation Plan (LRTP), Short-Range Transportation Plan (SRTP), and Complete Streets Policy; City of Los Angeles' Bicycle Plan, Mobility Plan 2035 (MP 2035), General Plan, and Muncipal Code; Los Angeles Department of Transportation's (LADOT) Great Streets for Los Angeles Strategic Plan; and the Los Angeles Fire Department (LAFD) Strategic Plan.

SCAG 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and Regional Transportation Improvement Plan (RTIP). [2] SCAG adopted the 2012-2035 RTP/SCS in April 2012. The 2012-2035 RTP/SCS is a planning document required under state and federal statute that encompasses the SCAG region, including six counties: Los Angeles, Orange, San Bernardino, Riverside,

[2]During the preparation of this Draft EIR, the 2012-2035 RTP/SCS was the most recent adopted RTP/SCS available. The 2016-2040 RTP/SCS was adopted April 7, 2016, after the analysis in the ECTNP Draft EIR was completed. The 2016-2040 RTP/SCS has been reviewed to determine if there are any substantial differences in policy and/or growth trends associated with the socioeconomic data as compared to the 2012-2035 RTP/SCS. Based on this review it has been determined that the minor refinements in policy and associated updated socioeconomic data in the 2016-2040 RTP/SCS would not substantially affect the analyses or conclusions of this ECTNP EIR. The 2016-2040 RTP/SCS is provided for informational purposes. While the SCAG transportation model itself is still not available, SCAG staff indicates that changes to the network and associated calculations are minor. The 2016-2040 RTP/SCS is discussed for informational purposes.Please see **Appendix K** for a more detailed discussion.

Ventura, and Imperial. The 2012-2035 RTP/SCS forecasts long-term transportation demands and identifies policies, actions, and funding sources to accommodate these demands. The 2012-2035 RTP/SCS consists of the construction of new transportation facilities, transportation systems management strategies, transportation demand management and land use strategies. The RTIP, also prepared by SCAG based on the 2012-2035 RTP/SCS, lists all of the regional funded/programmed improvements over a six-year period.

2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).[3] The 2016-2040 RTP/SCS, adopted in April 2016, presents the transportation and overall land use vision for Los Angeles, Orange, San Bernardino, Imperial, Riverside, and Ventura Counties. The RTP portion of the 2016-2040 RTP/SCS identifies priorities for transportation planning within the Southern California region, sets goals and policies, and identifies performance measures for transportation improvements to ensure that future projects are consistent with other planning goals for the area. Transportation projects being constructed within the SCAG region must be listed in the 2016-2040 RTP/SCS. The SCS portion of the 2016-2040 RTP/SCS presents an overall land use concept for the region with increasing focus on long-term emission reduction strategies for rail and trucks; expanding the region's high-speed and commuter rail systems; expanding active transportation; leveraging technological advances for transportation; addressing further regional reductions in GHG emissions; and making the region more resilient to climate change. The RTP/SCS is intended to aid local jurisdictions in developing local plans and addressing local issues of regional significance.

Sustainability Planning Grant Program. The Sustainability Planning Grant Program, previously known as the Compass Blueprint Growth Grant Program, provides direct technical assistance to SCAG member jurisdictions to complete planning and policy efforts that enable implementation of the regional SCS. Since starting in 2005, 133 projects have been completed through the program, with another 69 projects to be completed by the end of 2016. Grants are available to SCAG member jurisdictions in through categories: integrated land use, active transportation, and green region. The Compass Blueprint Growth Vision was replaced by the RTP/SCS.[4]

Metro Congestion Management Plan (CMP). Metro, the local CMP agency, has established an approach to implement the statutory requirements of the CMP. The Metro Board adopted the 2010 CMP in October 2010. The approach includes designating a highway network that includes all State highways and principal arterials within the County and monitoring the network's congestion. The CMP identifies a system of highways and roadways, with minimum levels of service performance measurements designated at LOS E (unless exceeded in base year conditions) for highway segments and key roadway intersections on this system. For all CMP facilities within the Project Area, a traffic impact analysis (TIA) is required, though mixed-use developments that meet minimum density requirements and that are located within ¼ mile of a fixed rail station are exempt from CMP analysis. The analysis must investigate measures that will mitigate the significant CMP system impacts; develop cost estimates, including the fair share costs to mitigate impacts of the Proposed Project; and indicate the responsible agency. Selection of final mitigation measures is left at the discretion of the local jurisdiction. Once a mitigation program is selected, the jurisdiction self-monitors implementation through the existing mitigation monitoring requirements of CEQA.

[3]During the preparation of this Draft EIR, the 2012-2035 RTP/SCS was the most recent adopted RTP/SCS available. The 2016-2040 RTP/SCS was adopted April 7, 2016, after the analysis in the ECTNP Draft EIR was completed. The 2016-2040 RTP/SCS has been reviewed to determine if there are any substantial differences in policy and/or growth trends associated with the socioeconomic data as compared to the 2012-2035 RTP/SCS. Based on this review it has been determined that the minor refinements in policy and associated updated socioeconomic data in the 2016-2040 RTP/SCS would not substantially affect the analyses or conclusions of this ECTNP EIR. The 2016-2040 RTP/SCS is provided for informational purposes. While the SCAG transportation model itself is still not available, SCAG staff indicates that changes to the network and associated calculations are minor. The 2016-2040 RTP/SCS is discussed for informational purposes.Please see **Appendix K** for a more detailed discussion.

[4]SCAG, *Sustainability Planning Grant*, http://sustain.scag.ca.gov/Pages/Grants%20and%20Local%20Assistance/GrantsLocalAssistance.aspx, accessed March 6, 2017.

Metro 2009 Long Range Transportation Plan (LRTP). The 2009 LRTP includes funding for general categories of improvements, such as Arterial Improvements, Non-motorized Transportation, Rideshare and Other Incentive Programs, Park-and-Ride Lot Expansion, and Intelligent Transportation System (ITS) improvements for which Call for Project Applications can be submitted for projects in Los Angeles County. Metro also has a Short Range Transportation Plan to define the near-term (through year 2024) transportation priorities in Los Angeles County. In addition to the regional transportation plans, Metro has recently adopted a Complete Streets Policy and a First Last Mile Strategic Plan.

Metro Short Range Transportation Plan (SRTP). The 2014 Metro SRTP is a 10-year action plan that guides future Metro programs and projects through 2024 and advances Metro towards the long-term goals identified in the 2009 Metro LRTP. The SRTP identifies the short-term challenges, provides an analysis of financial resources, proposes action plans for the public transportation and highway modes, and includes other project and program initiatives. In addition, it addresses sustainability, future funding strategies, and lastly, measures the Plan's performance.[5]

Metro Complete Streets Policy. Metro's recently adopted Complete Streets Policy reinforces the California Complete Streets Act (AB 1358). Effective January 1, 2017, Metro requires all local jurisdictions within Los Angeles County to adopt a Complete Streets Policy, an adopted city council resolution supporting Complete Streets, or an adopted general plan consistent with the California Complete Streets Act of 2008 in order to be eligible for Metro capital grant funding programs, starting with the 2017 grant cycles.

LOCAL

City of Los Angeles 2010 Bicycle Plan (incorporated into the Mobility Plan (MP) 2035, see below). The City of Los Angeles adopted the 2010 Bicycle Plan on March 1, 2011, as a component of the Transportation Element of the City's General Plan. The purpose of the Bicycle Plan is to increase, improve, and enhance bicycling in the City as a safe, healthy, and enjoyable means of transportation and recreation. It establishes policies and programs to increase the number and type of bicyclists in the City and to make every street in the City a safe place to ride a bicycle.

The City is implementing the bicycle plan in a series of Five-Year Implementation Strategies, monitored, advised, and assisted by the Bicycle Advisory Council and the Bicycle Plan Implementation Team. The First Five-Year Implementation Strategy, started in 2011, prioritizes the first 253 miles of new bikeways for implementation. As the City updates each of its 35 community plans, it can include localized recommendations that address community-specific conditions and are consistent with and complementary to the 2010 Bicycle Plan. As each community plan is updated, future bicycle lanes in that planning area will be analyzed for potential environmental impacts.

The 2010 Bicycle Plan has been incorporated into the MP 2035, in several sections through the document, , reflecting the City's commitment to a holistic and balanced complete street approach that acknowledges the role of multiple modes (pedestrians, bicycles, transit, and vehicles). The former Technical Design Handbook in the Bicycle Plan has been incorporated into the Mobility Plan's Complete Streets Design Guide, including sections on design needs, bicycle paths, bicycle lanes, bicycle routes and neighborhood friendly streets, network gaps, signalized intersections, bicycle parking, bikeway signage, non-standard treatments, and street sections.

City of Los Angeles Mobility Plan (MP 2035). MP 2035 (formerly the Transportation Element of the City of Los Angeles General Plan) is the transportation blueprint for the City of Los Angeles. Adopted in 2015 and amended in 2016, the MP 2035 has been updated to reflect the policies and programs that will give Angelenos a full range of options to meet their mobility needs, including bicycling, carpooling, driving, transit, and walking. MP 2035 lays the policy foundation for safe, accessible and enjoyable streets for pedestrians, bicyclists, transit users, and vehicles alike.

[5]Los Angeles Metropolitan Transportation Authority, *2014 Short Range Transportation Plan, 2014.*

Relevant goals identified in the plan include:

1. Safety First
2. World Class Infrastructure
3. Access for all Angelenos
4. Collaboration, Communication, and Informed Choices
5. Clean Environments for a Healthy Community
6. Smart Investments

MP 2035 was prepared in compliance with the Complete Streets Act (AB 1358), which mandates that the circulation element of the General Plan be modified to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the City's General Plan. Compliance with the Complete Streets Act is expected to result in increased options for mobility; less GHG emissions; more walkable communities; and fewer travel barriers for active transportation and those who cannot drive such as children or people with disabilities. Complete Streets play an important role for those who would choose not to drive if they had an alternative, as well as for those who do not have the option of driving.

City of Los Angeles General Plan Framework and Safety Elements. The Citywide General Plan Framework (Framework), an element of the City of Los Angeles General Plan, is a guide for Community Plans to implement growth and development policies by providing a comprehensive long-range view of the City as a whole. It provides a comprehensive strategy for accommodating long-term growth should it occur as predicted. Chapter 9 Infrastructure and Public Services of the Framework Element addresses fire prevention, fire protection and emergency medical services provided to the City. The Safety Element of the General Plan identifies existing police, fire, and emergency services and the service needs of the City of Los Angeles in the event of a natural disaster. The Safety Element goals, objectives, policies, and programs are broadly stated to reflect the comprehensive scope of the Emergency Operations Organization (EOO), which is the program that implements the Safety Element. The Framework and Safety Elements include goals, objectives, and policies that are applicable to emergency services, as identified in Table 4.11-1 in Section 4.11, Public Services.

Los Angeles City Municipal Code (LAMC). LAMC Section 12.26 contains required Transportation Demand Management (TDM) and Trip Reduction measures as described in the following paragraphs. TDM is defined as the alteration of travel behavior through programs of incentives, services, and policies, including encouraging the use of alternatives to single-occupant vehicles such as public transit, cycling, walking, carpooling/vanpooling and changes in work schedule that move trips out of the peak period or eliminate them altogether (as in the case in telecommuting or compressed work weeks). Trip Reduction is defined as reduction in the number of work-related trips made by single-occupant vehicles. Specific requirements for developments of various sizes are summarized from the code below:

Development in excess of 25,000 square feet (sf) of gross floor area is required to provide a bulletin board, display case, or kiosk (displaying transportation information) where the greatest number of employees are likely to see it. The transportation information displayed includes, but is not limited to: (1) current routes and schedules for public transit serving the site; telephone numbers for referrals on transportation information including numbers for the regional ridesharing agency and local transit operations; (2) ridesharing promotion material supplied by commuter-oriented organizations; (3) regional/local bicycle route and facility information; a listing of on-site services or facilities that are available for carpoolers, vanpoolers, bicyclists, and transit riders.

- Development in excess of 50,000 sf of gross floor area is required to provide the above, plus: (1) a designated parking area for employee carpools and vanpools as close as practical to the main pedestrian

entrance(s) of the building(s); (2) one permanent, clearly identified (signed and striped) carpool/vanpool parking space for the first 50,000 to 100,000 sf of gross floor area and one additional permanent, clearly identified (signed and striped) carpool/vanpool parking space for any development over 100,000 sf of gross floor area; (3) parking spaces clearly identified (signed and striped) shall be provided in the designated carpool/vanpool parking area at any time during the building's occupancy sufficient to meet employee demand for such spaces; (4) no signed and striped parking spaces for carpool/vanpool parking shall displace any handicapped parking; (5) a statement that preferential carpool/vanpool spaces are available on-site and a description of the method for obtaining permission to use such spaces shall be included on the required transportation information board; (6) a minimum vertical clearance of 7 feet 2 inches shall be provided for all parking spaces and accessways used by vanpool vehicles when located within a parking structure; and (7) bicycle parking shall be provided in conformance with Section 12.21A16 of this Code. Absent such demand, parking spaces within the designated carpool/vanpool parking area may be used by other vehicles and other amenities.

- Development in excess of 100,000 sf of gross floor area is required to provide the above, plus (1) a safe and convenient area in which carpool/vanpool vehicles may load and unload passengers other than in their assigned parking area; (2) sidewalks or other designated pathways following direct and safe routes from the external pedestrian circulation system to each building in the development; (3) possible bus stop improvements; and (4) safe and convenient access from the external circulation system to bicycle parking facilities on site.

Great Streets for Los Angeles/Los Angeles Department of Transportation (LADOT) Strategic Plan. In September 2014, the Mayor's Office and LADOT released Great Streets for Los Angeles, LADOT's first strategic plan to turn the City's essential infrastructure -- its streets and sidewalks -- into safer, more livable 21st century public spaces that accommodate everyone who uses them. The plan builds upon Mayor Eric Garcetti's Great Streets Initiative, which looks at Los Angeles's streets as valuable assets that can help revitalize neighborhoods across the City and make it easier for Angelenos to get around whether they walk, bike, drive, or take transit. The plan also stresses the importance of working closely with other City and regional agencies, such as the Bureau of Street Services and Metro, to improve safe, accessible transportation services and infrastructure.

Los Angeles Department of Transportation (LADOT) Review. As part of project review, LADOT evaluates project site plans to ensure that they follow standard engineering practice and City guidelines for vehicular access design. The department's *Traffic Study Policies and Procedures Manual* (2013) includes the requirements related to elements such as driveway design, use of off-street parking, and loading facilities. These design-related requirements are often imposed through zone changes, conditional uses, or the traffic review process. In many cases it in necessary to clear these traffic requirements (i.e., certify that they have been carried out). This is done by LADOT's representative on the Subdivision Committee, who must approve any plans affected by such requirements.

Los Angeles Fire Department (LAFD) Strategic Plan. The Strategic Plan focuses on nine goals and corresponding strategic actions that would guide the LAFD for the next three years. The primary goals that are applicable to the Proposed Project include providing exceptional public safety and emergency service and implementing and capitalizing on advanced technologies. Some of the key priorities associated with these goals include the following:

- Improving response times by utilizing data and metrics to identify gaps in LAFD's response strategies and exploring response time improvements through dialogue, cognitive inquiry, innovation, and follow-up;
- Delivery of emergency medical services by expanding LAFD Emergency Medical Service (EMS) response capabilities for special events and addressing period of high vehicle traffic; and
- Implementing advanced technologies by developing performance metrics, tracking standards, data collection, analysis and reporting procedures (FireStatLA).

The Strategic Plan also focuses on the development of an even more professional workforce and promotion of a positive work environment to address risk management issues and strengthening community relationships to improve preparedness and enhance resiliency during emergency events.

EXISTING SETTING

A comprehensive data collection effort was undertaken to develop a detailed evaluation of existing transportation conditions surrounding the five Expo Line Phase 2 light rail transit (LRT) stations located in the City of Los Angeles that together comprise the ECTNP. The ECTNP Area includes 86 study intersections within West Los Angeles, eastern Santa Monica, and Downtown Culver City, as illustrated in **Figure 4.12-1**.

These study intersections were selected to characterize the flow of traffic through the Project Area and to analyze the Proposed Project's potential impacts. The assessment of existing conditions relevant to this study includes a description of the immediate station and neighborhood area, an inventory of the local street and highway system in the vicinity of the stations, an evaluation of traffic volumes on these facilities, an assessment of operating conditions at selected intersections and current public transit services, bicycle network, and pedestrian facilities.

SPECIFIC PLAN STUDY AREAS

Bundy Station. The Bundy Station is located at the Bundy Drive/Exposition Boulevard intersection in the City of Los Angeles, south of Olympic Boulevard and approximately ¼-mile east of the boundary with the City of Santa Monica, and is served by the second phase of the Expo LRT. The majority of properties within a ½-mile radius of the Bundy Station are largely within the West Los Angeles Community Plan. Some of the properties located to the southeast are within the Palms-Mar Vista-Del Rey Community Plan.

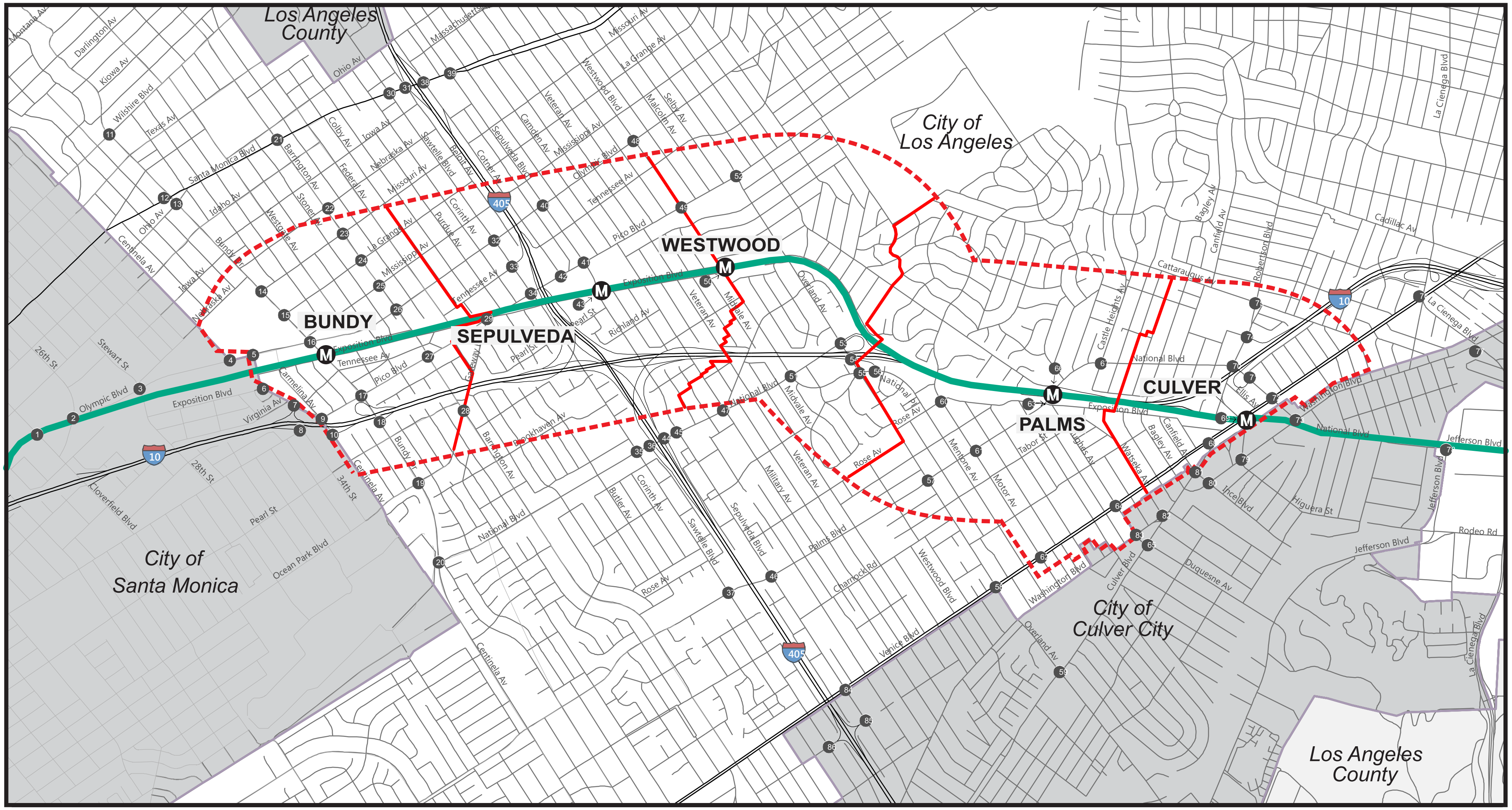
Current land uses adjacent to the Bundy Station are commercial, including a car dealership and several big box retail stores. There is also a strong cluster of creative office uses, such as the Westside Media Center. North of Olympic Boulevard, there are some single- and multi-family residential uses. Directly south of the station is a concentration of single-family homes and limited multi-family and manufacturing zoned parcels. Neighborhood-oriented uses, such as retail and restaurants, are primarily located on Pico Boulevard. Streets in the Bundy Station Area east of Centinela Avenue are under the jurisdiction of the City of Los Angeles, while streets west of Centinela Avenue are under the jurisdiction of the City of Santa Monica. The Santa Monica Freeway (I-10), which runs through the station area, is under the jurisdiction of Caltrans.

Sepulveda Station. The Sepulveda Station is located at the Sepulveda Boulevard/Exposition Boulevard intersection in the City of Los Angeles and is served by Expo LRT. The station study area is bounded by Santa Monica Boulevard to the north, National Boulevard to the south, Overland Avenue to the east, and Bundy Drive to the west. The properties within a ½-mile radius of the station are within the West Los Angeles Community Plan.

Current land uses adjacent to the Sepulveda Station are manufacturing and light industrial uses. There are some single- and multi-family residential uses north of Pico Boulevard, as well as east and west of Sepulveda Boulevard directly south of the station. Neighborhood-oriented uses, such as retail stores and restaurants, are primarily located along Pico Boulevard east of Sepulveda Boulevard. The streets in the Project Area are under the jurisdiction of the City of Los Angeles, while the nearby San Diego Freeway (I-405) and I-10 are under Caltrans' jurisdiction.

Figure 4.12-1 Study Intersections

Los Angeles Department of City Planning



A project partially funded by the Los Angeles County Metropolitan Transportation Authority.

NOT TO SCALE

N

LEGEND:

# Study Intersections	Expo LRT
M Light Rail Station	Station Segment Boundary
	ECTNP Boundary
	Jurisdictional Boundary

LOS ANGELES TRANSIT NEIGHBORHOOD PLAN

SOURCE: City of Los Angeles and Fehr & Peers, 2017.

2012-058

Westwood Station. The Westwood Station is located at the Westwood Boulevard/Exposition Boulevard intersection in the City of Los Angeles and is served by Expo LRT. The station area is bounded by Tennessee Avenue to the north, National Boulevard to the south, Prosser Avenue to the east, and Sepulveda Boulevard to the west. The land uses within a ½-mile radius of the station are within the West Los Angeles Community Plan.

The current land uses adjacent to the Westwood Station are predominantly low-density residential. Community-oriented uses, such as a shopping mall and other retail stores, a cineplex, and restaurants, are primarily located along Pico Boulevard. Light industrial land uses are located in the western portion of the study area along Sepulveda Boulevard. There are also three schools in the station area, including a public elementary school, a private elementary, and a private senior high school. The streets in the station area are under the jurisdiction of the City of Los Angeles, while freeways are under the jurisdiction of Caltrans.

Palms Station. The Palms Station is located at the National Boulevard/Palms Boulevard intersection in the City of Los Angeles and is served by Expo LRT. The station study area covers the area bounded by National Boulevard to the north, Palms Boulevard to the south and the east, and Overland Boulevard to the west. The land uses within a ½-mile radius of the station are within the West Los Angeles Community Plan or the Palms-Mar Vista Del Rey Community Plan.

The current land uses that are adjacent to the Palms Station are predominantly residential uses, with Palms Station having the largest residential population of the five Project Area stations. The northern half of the study area is comprised of single-family homes and limited multi-family residences, while the area south of the station is a large multi-family residential neighborhood with commercial and light industrial businesses along National Boulevard. Along Motor Avenue, there are retail and office uses, as well as a large concentration of neighborhood-serving public facilities, such as Palms Elementary School and the U.S. Post Office. Streets in the station area are under the jurisdiction of the City of Los Angeles, while freeways are under the jurisdiction of Caltrans.

Culver City Station. The Culver City Station is served by Expo LRT. The station area is located on the edge of the City of Culver City and is directly adjacent to the city limits of Los Angeles, where a number of the neighborhoods surrounding the station fall. The City of Los Angeles land uses within a ½-mile radius of the station area are located in the Palms-Mar Vista-Del Rey Community Plan or the West Adams-Baldwin Hills-Leimert Community Plan.

Current land uses adjacent to the Culver City Station, particularly along the north and south sides of Venice Boulevard, are commercial and light industrial. The majority of commercial facilities, such as a shopping center located north of the station anchored by an grocery store, and the mixture of restaurants and creative office spaces in Downtown Culver City to the west of the station, are primarily oriented to serve the local population, as well as nearby film industry and office workers. East of the station is the historic Helms Bakery District, which also includes restaurants, offices, and home furnishing stores. Directly southeast of the station along Washington and La Cienega Boulevards is the Culver City Arts District, which is home to dozens of art galleries. Station Area neighborhoods also include multi-family homes between Washington Place and Venice Boulevard and along other major arterials, as well as single-family homes, which are largely concentrated north of I-10. Streets in the Station Area are under either the jurisdiction of the City of Los Angeles or the City of Culver City, while freeways are under the jurisdiction of Caltrans.

EXISTING HIGHWAY AND STREET SYSTEM

The street pattern in much of the ECTNP is a grid. In the Cheviot Hills neighborhood, located between the Westwood and Palms Station sites, the street pattern is curvilinear in nature due to area topography. The study area also includes portions of the street network in Culver City and Santa Monica that are proximate to the stations.

Roadway Descriptions. Below is a brief description of the types of facilities available in the ECTNP according to definitions included within planning documents for each of the three cities.

City of Los Angeles (MP 2035, Complete Streets Design Guide Manual)[6]

- Boulevard I (Major Highway Class I) – Class I Boulevards are generally defined as having three to four lanes in each direction along with a median turn lane. The width of a Class I Boulevard is usually 100 feet, with a typical sidewalk width of 18 feet and a target operating speed of 35 miles per hour (mph).
- Boulevard II (Major Highway Class II) – Class II Boulevards are generally defined as having two to three lanes in each direction along with a median turn lane. The width of a Class II Boulevard is usually 80 feet, with a typical sidewalk width of 15 feet and a target operating speed of 35 mph.
- Avenue I (Secondary Highway) – Class I Avenues typically have one to two lanes in each direction, a roadway width of 70 feet, and a typical sidewalk width of 15 feet and a target operating speed of 35 mph. An Avenue I typically includes streets with a high amount of retail uses and local destinations.
- Avenue II (Secondary Highway) – Avenue II streets usually have one to two lanes in each direction, with a typical roadway width of 56 feet, a typical sidewalk width of 15 feet and a target operating speed of 30 mph. Such streets are typically located in parts of the City with dense active uses, and a busy pedestrian environment.
- Avenue III (Secondary Highway) – Avenue III streets are defined to have one to two lanes in each direction, with a roadway width of 46 feet, a typical sidewalk width of 15 feet, and a target operating speed of 25 mph. This classification was developed to maintain roadway width in older, more historic parts of the City.
- Collector Street – Collector Streets generally have one travel lane in each direction, with a roadway width of 40 feet and a sidewalk width of 13 feet. The target operating speed for Collector Streets is 25 mph. Such streets are typically intended for vehicle trips that start or end in the immediate vicinity of the street.
- Industrial Collector Street – Industrial Collector Streets vary from normal collector streets in that larger curb returns are incorporated to allow for the wider turning radii of trucks.
- Local Street Standard – Local Street Standard roadways typically have one lane in each direction, a roadway width of 36 feet, sidewalk width of 12 feet, and a target operating speed of 20 mph. Such streets are not designed for through traffic; rather, their focus is to allow access to and from destination points. Unrestricted parking is typically available on both sides of the street.
- Local Street Limited – Local Street Limited roadways typically have one lane in each direction, a roadway width of 30 feet, sidewalk width of 10 feet, and a target operating speed of 15 mph.
- Industrial Local Street – Although similar to normal local streets, Industrial Local Streets differ primarily in width for the purpose of providing adequate space for trucks to maneuver. The typical roadway width for an Industrial Local Street is 44 feet, with 10-foot sidewalks and a target operating speed of 20 mph.

City of Santa Monica (Santa Monica's Land Use and Circulation Element [LUCE])[7]

- Boulevard – Boulevards are regional transportation corridors with continuous mixed uses and commercial land uses. Boulevards in the study area include Wilshire Boulevard, Santa Monica Boulevard and Pico Boulevard.

[6]Complete Streets Design Guide, https://losangeles2b.files.wordpress.com/2015/05/2015_csdg_web-4-22.pdf, adopted August 11, 2015.

[7]City of Santa Monica, *Santa Monica Land Use & Circulation Element*, adopted July 2010, revised July 2015, Page 4.0-18.

- Avenue: Major – These streets serve regional automobile trips and provide access for all modes of transportation. They are designed to discourage regional auto traffic from using Secondary or Minor Avenues. Examples of these Major Avenues include Centinela Avenue (south of Olympic Boulevard), Cloverfield Boulevard (between Santa Monica Boulevard and Pico Boulevard) and 26th Street (between Broadway and Cloverfield Boulevard).
- Avenue: Secondary – These streets distribute auto trips onto Minor Avenues and Neighborhood Streets, often serving regional bicycle trips. Examples of Secondary Avenues in the Project Area include Centinela Avenue (between Wilshire Boulevard and Olympic Boulevard) and 20th Street (between Wilshire Boulevard and Pico Boulevard).
- Avenue: Minor – These streets connect Neighborhood Streets with other avenues. Examples of Minor Avenues include Nebraska Avenue and Stewart Street/28th Street (north of Ocean Park Boulevard).
- Neighborhood Street – These streets primarily serve abutting buildings. An example a Neighborhood Streets is Pennsylvania Avenue (east of Stewart Street).
- Parkway – These streets serve as a linear park incorporating continuous landscaping, recreational bikeways and pedestrian paths. The Parkway in the study area is Olympic Boulevard (Lincoln Boulevard to eastern city limit).

City of Culver City (Culver City's General Plan Circulation Element)[8]

- Freeway – Freeways are specialized arterials with limited access and grade-separated intersections from the city's street system.
- Primary Artery – Primary arteries serve as major cross-town thoroughfares and it is desirable that they have right-of-way widths of 95 feet or more. Ideally, direct access onto primary arteries from private driveways should be limited or prohibited. The number of lanes on primary arteries varies between four and six lanes plus left-turn lanes, and may have raised median islands. Designated primary arteries within the study area include Culver Boulevard, Robertson Boulevard, Venice Boulevard, and Washington Boulevard.
- Secondary Artery – Secondary arteries serve as links between collector streets and primary arteries. They have between two and four travel lanes. Desirable right-of-way widths range from 80 to 94 feet. Designated secondary arteries within the study area include Duquesne Avenue, Higuera Street, and National Boulevard.
- Neighborhood Feeder – Neighborhood feeder streets are generally in residential neighborhoods and provide the commonly used direct route between local residential streets and the adjacent arteries.
- Local Street – Local streets are the bridge by which vehicles travel between private parking and driveways to the larger, non-local streets. Generally, local streets do not exceed 60 feet in right-of-way width and are found mostly in residential neighborhoods.

ROADWAY ACCESS IN ECTNP PROJECT AREA

Freeways. Regional north/south access to and from the ECTNP is provided by the I-405. Regional east/west access is provided by the I-10, which intersects the I-405 adjacent to the Sepulveda Station.

- The San Diego Freeway (I-405) is a major freeway that runs in a north/south direction and extends from the north San Fernando Valley to Orange County. The I-405 provides four to five lanes in each direction plus a High Occupancy Vehicle (HOV) lane in each direction in the vicinity of the ECTNP. The freeway ramps closest to the ECTNP are:
    - National Boulevard (northbound off-ramp, southbound on-ramp)

[8]City of Culver City, *Culver City General Plan: Circulation Element*, July 1996, Page C-10.

  - Cotner Avenue at Tennessee Avenue (northbound on-ramp)
  - Sawtelle Boulevard at Tennessee Avenue (southbound off-ramp)
  - Santa Monica Boulevard (northbound on-/off-ramps and southbound on-/off-ramps)

- The Santa Monica Freeway (I-10) is a major freeway that runs in an east/west direction and extends from the Pacific Ocean eastward through Downtown Los Angeles and beyond. In the vicinity of the ECTNP, the freeway provides three to five lanes in each direction plus parallel auxiliary lanes and/or collector distributor roadways at several sections usually near interchanges. The freeway ramps closest to the specific plan area are:

  - Bundy Drive (eastbound on-ramp and westbound off-ramp)
  - Centinela Avenue (westbound on-/off-ramps)
  - Manning Avenue (eastbound on-ramp)
  - National Boulevard (eastbound on-ramp)
  - National Boulevard (eastbound off-ramp)
  - Overland Avenue (eastbound on-ramp and westbound on-/off-ramps)
  - Pico Boulevard (eastbound off-ramp)
  - Robertson Boulevard (eastbound off-ramp and westbound on-/off-ramps)

Arterials. Key arterials serving the specific plan area include:

- Barrington Avenue is a north/south-oriented Avenue II roadway and is part of the Bicycle Enhanced Network in the MP 2035. Barrington Avenue is located west of the I-405 and provides service between Sunset Boulevard and Federal Avenue, where it becomes McLaughlin Avenue. In the study area, Barrington Avenue provides one travel lane per direction plus left-turn channelization at some intersections and widens to two travel lanes per direction south of Olympic Boulevard. In addition, south of Navy Street, the roadway is re-designated as a Collector Street and is reduced to one travel lane in each direction. On-street parking is generally permitted on both sides of the street. The posted speed limit is 35 mph. Barrington Avenue was a designated Secondary Highway in the previous version of the Transportation Element.

- Bundy Drive is a north/south-oriented Avenue I roadway and is part of the Bicycle Lane Network and the Transit Enhanced Network. The roadway is located directly east of the station and runs between San Vicente Boulevard and National Boulevard, where it becomes Centinela Avenue. Within the Project Area, the roadway generally provides two travel lanes in each direction plus left-turn channelization at key intersections. On-street parking is generally prohibited along the roadway; however, there are a few areas that do allow on-street parking during off-peak periods. The posted speed limit is 35 mph. Bundy Drive was a designated a Secondary Highway between Wilshire Boulevard and Pico Boulevard and a Major Highway South of Pico Boulevard in the previous version of the Transportation Element.

- Motor Avenue is a north/south-oriented Modified Avenue II roadway between Manning Avenue and National Boulevard and is part of the Bicycle Lane Network in the City of Los Angeles that was restriped in 2012. Between National Boulevard and Venice Boulevard, there is one travel lane in each direction, a center turn lane, and a bicycle lane in each direction. On-street parking is permitted on both sides of the street. The posted speed limit is 35 mph. Motor Avenue was a designated Secondary Highway in the previous version of the Transportation Element.

- Overland Avenue is a north/south-oriented roadway between the Westwood and Palms Station areas. The roadway provides connection between Santa Monica Boulevard in the City of Los Angeles and Jefferson Boulevard in the City of Culver City. Within the Project Area, there are typically two travel lanes in each direction and left-turn channelization at most key intersections. Throughout most of its length, Overland Avenue is designated a Boulevard II and is part of the Bicycle Lane Network, the Transit Enhanced Network, and the Bicycle Enhanced Network in the City of Los Angeles but is reduced to Modified Collector Street status between Santa Monica Boulevard and Pico Boulevard, where it has one lane of travel in each direction. In Culver City, Overland Avenue is designated as a Primary

Arterial. On-street parking is permitted on both sides of the street in most areas, except along segments near the I-10, which is accessible via eastbound and westbound on-/off-ramps at Overland Avenue and National Place. The posted speed limit is 35 mph, with a 25 mph school zone near Overland Elementary School. Overland Avenue was a designated Major Highway and Secondary Highway in the previous version of the Transportation Element.

- Robertson Boulevard is a north/south-oriented Modified Avenue II roadway in Los Angeles and a Collector Street in Culver City with two travel lanes in each direction. On-street parking is permitted on both sides of the street in most segments in the Project Area; however, portions of the segment between National Boulevard and Washington Boulevard have posted no-stopping-anytime restrictions. Robertson Boulevard provides westbound on-/off-ramps to the I-10. The posted speed limit is 35 mph except in the designated school zone for Alexander Hamilton High School and Everest College, between National Boulevard and Cattaraugus Avenue, where the posted limit drops to 25 mph. Robertson Boulevard was a designated a Secondary Highway in the previous version of the Transportation Element.

- Sawtelle Boulevard is a north/south-oriented Avenue I roadway located west of the Sepulveda Station between Olympic Boulevard and Overland Avenue. The roadway provides two travel lanes in each direction. The Culver City portion is designated a Collector Street. North of Olympic Boulevard, the roadway becomes a Collector Street and provides just one travel lane in each direction. A portion of the roadway is part of the Neighborhood Enhanced Network. In the Project Area, time-limited parking is available on both sides of the roadway between Tennessee Avenue and Olympic Boulevard, while no-stopping-anytime restrictions are posted on both sides of the roadway between Pico Boulevard and Tennessee Avenue. There is access to the roadway from the southbound I-405 via an off-ramp at Tennessee Avenue. The posted speed limit is 35 mph, except in the designated school zone near Daniel Webster Middle School, where the posted speed drops to a 25 mph. Sawtelle Boulevard was a designated a Secondary Highway in the previous version of the Transportation Element.

- Sepulveda Boulevard is a north/south-oriented Boulevard II located directly east of the Sepulveda Station and is part of the Transit Enhanced Network and the Bicycle Lane Network. The roadway runs parallel to the I-405 and serves as an important freeway alternative between Roscoe Boulevard in northern Los Angeles to the Terminal Island State Route 103 in Long Beach. In the Project Area, the facility typically provides two travel lanes in each direction with left-turn channelization at most intersections. On-street parking is generally permitted on both sides of the street except in the southbound direction between Santa Monica Boulevard and Exposition Boulevard. The posted speed limit is 35 mph. Sepulveda Boulevard was designated a Class II Major Highway in the previous version of the Transportation Element.

- Westwood Boulevard is a north/south-oriented roadway located east of the Westwood Station. The roadway begins in the north at Le Conte Avenue in Westwood Village and terminates at National Boulevard, where it becomes National Place. Through most of the Project Area, the roadway is designated a Boulevard II with one to two through travel lanes in each direction, left-turn channelization at most locations, and right-turn only lanes at major intersections. North of Santa Monica Boulevard, the roadway's designation changes to an Avenue II roadway. Portions of the roadway are part of the Transit Enhanced Network and the Bicycle Lane Network. On-street parking is generally permitted on both sides of the street. The posted speed limit is 30 mph. Westwood Boulevard was designated a Class II Secondary Highway and a Class II Major Highway in the previous version of the Transportation Element.

- Culver Boulevard is an east/west-oriented Primary Arterial in Culver City that provides two travel lanes in each direction with left-turn channelization at key intersections and a raised center median bicycle path. In the City of Los Angeles, between the Marina Freeway (State Route 90) and Lincoln Boulevard, Culver Boulevard is designated an Avenue I roadway and widens to provide three eastbound travel lanes and is part of the Bicycle Enhanced Network. On-street parking is generally prohibited west of Braddock Drive and permitted east of it, except adjacent to the I-405. Access to the I-405 is provided via

northbound and southbound ramps located along the roadway in the study area. The posted speed limit is 40 mph. Culver Boulevard was designated a Major Class Highway II in the previous version of the Transportation Element.

- Gateway Boulevard is an east/west-oriented Boulevard II roadway with two lanes in each direction, a raised median, and permitted on-street parking on both sides of the street. The posted speed limit is 35 mph and it is part of the Bicycle Lane Network and the Neighborhood Enhanced Network.

- National Boulevard is an east/west-oriented Avenue I and Avenue II roadway, which roughly parallels the I-10 and is part of the Bicycle Enhanced Network. Within the Project Area, except as noted below, National Boulevard provides two travel lanes per direction with left-turn channelization at key intersections and right-of-way widths ranging from 70 to 95 feet. Portions of the roadway between Overland Avenue and Palms Boulevard and between Castle Heights Avenue and Robertson Boulevard provide just one travel lane in each direction. On-street parking is permitted on both sides of the street between Overland Avenue and Robertson Boulevard, except along small neighborhood segments, such as the segment between the I-10 eastbound off-ramp and Overland Avenue. No parking is allowed along most sections of National Boulevard, except between Robertson Boulevard and Jefferson Boulevard where there are posted no-stopping-anytime restrictions. Freeway access is provided by eastbound and westbound on-/off-ramps at Overland Avenue and a westbound off-ramp at Manning Avenue. The posted speed limit ranges from 35 to 40 mph. National Boulevard was designated a Secondary Highway in the previous version of the Transportation Element.

- Ocean Park Boulevard is an east/west-oriented roadway that provides access between the City of Santa Monica and West Los Angeles. In the City of Santa Monica, Ocean Park Boulevard is designed as a Secondary Avenue in some portion and a Neighborhood Commercial roadway in others. East of Centinela Avenue in West Los Angeles, Ocean Park Boulevard is a Boulevard II roadway. Within the Project Area, the roadway provides two travel lanes and left-turn channelization at most intersections. On-street parking is generally permitted along the roadway, except within the Project Area, where parking is prohibited on the westbound side of the road. The posted speed limit is 35 mph.

- Olympic Boulevard is an east/west-oriented roadway located north of the stations. The roadway provides access between Santa Monica, West Los Angeles, Century City, and eventually downtown Los Angeles and beyond. The designation of the roadway varies from an Arterial Street in Santa Monica with two travel lanes in each direction and a raised median west of Centinela Avenue to a Boulevard II in Los Angeles with typically three travel lanes in each direction east of Centinela Avenue. In Los Angeles, Olympic Boulevard is part of the Vehicle Enhanced Network as well. Left-turn channelization is provided at most Olympic Boulevard intersections. In the Project Area, the roadway has three travel lanes in each direction with the exception of the segment between Cloverfield Boulevard and Centinela Avenue (west), where there are only two lanes in each direction. The segment between Cloverfield Boulevard and Sawtelle Boulevard has various areas that offer time-limited and metered parking, with the exception of the area between Cloverfield Boulevard and Centinela Avenue (east), where parking is prohibited. The posted speed limit is 35 mph. Olympic Boulevard was designated a Major Highway Class II Highway in the previous version of the Transportation Element.

- Palms Boulevard is an east/west-oriented Avenue II and Collector Street roadway with two travel lanes in each direction and is part of the Neighborhood Enhanced Network and the Bicycle Lane Network. On-street parking is permitted on both sides of the street. The posted speed limit is 35 mph. Palms Boulevard was designated a Secondary Highway in the previous version of the Transportation Element.

- Pico Boulevard is an east/west-oriented roadway that runs roughly parallel to the I-10, providing an alternate connection between Santa Monica and Downtown Los Angeles. Pico Boulevard is a designated Avenue I in Los Angeles and is part of the Transit Enhanced Network and the Bicycle Lane Network. The roadway is also an Arterial Street in Santa Monica with two travel lanes in each direction. Morning and evening peak hour parking restrictions provide a third eastbound travel lane between Gateway Boulevard and Sawtelle Boulevard and a third travel lane in each direction between Sawtelle Boulevard

and Sepulveda Boulevard. Left-turn channelization is provided at most intersections. Time-limited and metered parking is available on both sides of the street within the Project Area, except as noted. The posted speed limit is 35 mph. Pico Boulevard was designated a Major Highway Class II Highway in the previous version of the Transportation Element.

- Santa Monica Boulevard is an east/west-oriented Boulevard II roadway, which provides connectivity between Santa Monica, the West Los Angeles area, Beverly Hills, West Hollywood, and Hollywood. Portions of the roadway are part of the Transit Enhanced Network and the Bicycle Lane Network. West of the I-405, the roadway typically has two travel lanes in each direction with left-turn channelization at key intersections. On-street parking is permitted along both sides of the street during unrestricted periods. During critical commute periods, parking is prohibited in order to provide an additional travel lane. From the I-405 east to Beverly Hills, this roadway facility is configured with a raised median dividing three travel lanes in each direction with left-turn and/or right-turn channelization at key intersections. Santa Monica Boulevard was designated a Major Highway Class I Highway in the previous version of the Transportation Element.

- Venice Boulevard is an east/west-oriented Boulevard II roadway with portions designated as Modified and/or Scenic. The roadway is also known as State Route 187, with three travel lanes in each direction and is part of the Bicycle Enhanced Network and the Transit Enhanced Network. Within the Project Area, the roadway provides westbound and eastbound access to the I-405; rights-of-way range from 108 feet to 170 feet. A median of varying widths restricts left-turn access at many minor intersections. Restricted and unrestricted parking is available on both sides of the street. The posted speed limit is 35 mph. Venice Boulevard was designated a Scenic Major Highway Class II Highway in the previous version of the Transportation Element.

- Washington Boulevard is an east/west-oriented Boulevard I with two lanes in each direction, except for the approximately 1,000-foot segment where Washington Boulevard and Culver Boulevard overlap, where there are three travel lanes in each direction. Many Downtown Culver City segments of Washington Boulevard feature landscaped medians of variable widths. Time-limited and/or metered on-street parking is permitted on both sides of the street, except between Overland Avenue and Hughes Avenue on the south side of the street. The posted speed limit is 35 mph. A small portion of Washington Boulevard in the City of Los Angeles is designated a Bicycle Lane Network. Washington Boulevard was designated a Major Highway in the previous version of the Transportation Element.

Collector and Local Streets. The following streets are key collector and local streets serving the Project Area:

- 26th Street is a north/south-oriented roadway located west of the Bundy Station. It provides access between the City of Santa Monica, San Vicente Boulevard, and Cloverfield Boulevard. In the study area, the roadway is designated as a Major Avenue and a Secondary Avenue. The roadway typically provides two travel lanes in each direction and permitted on-street parking, except for the one-way northbound segment between Cloverfield Boulevard and Olympic Boulevard. The posted speed limit is 30 mph.

- Beloit Avenue is a short north/south-oriented Collector Street paralleling the I-405 to the west between Ohio Avenue and Olympic Boulevard. Although the street provides access to adjacent residential and commercial uses, it primarily serves as a frontage street with southbound ramp access to the I-405. Beloit Avenue provides one travel lane southbound, and on-street parking is prohibited adjacent to the I-405 ramps and permitted elsewhere along Beloit Avenue.

- Centinela Avenue is a north/south-oriented Collector Street roadway located west of the Bundy Station. It forms the boundary between the City of Santa Monica and the City of Los Angeles. South of Wilshire Boulevard, the roadway is designated as a local street in Santa Monica and as a collector street in Los Angeles. At the intersection with Olympic Boulevard, the north and south legs of Centinela Avenue are offset by about 500 feet. South of Olympic Boulevard, Centinela Avenue provides one travel lane in each direction, left-turn channelization at major intersections, and limited on-street parking. North of

Olympic Boulevard, Centinela Avenue widens to provide two travel lanes per direction, left-turn channelization, and permitted on-street parking. In the study area, Centinela Avenue provides one to two travel lanes, and parking is limited with time-limited and no-stopping-anytime restrictions posted. The posted speed limit is 30 mph.

- Cotner Avenue is a short north/south-oriented Collector Street paralleling the I-405 to the east between Ohio Avenue and Pico Boulevard. Although the street provides access to adjacent residential and commercial uses, it primarily serves as a frontage street with ramp access to the northbound I-405. North of Nebraska Avenue, Cotner Avenue is one-way and provides a northbound travel lane. Between Nebraska Avenue and Olympic Boulevard, there is one travel lane in each direction and permitted on-street parking. Between Olympic Boulevard and Pico Boulevard, a shared center left-turn lane is provided. Adjacent to the freeway ramp, left- and right-turn channelization is provided, and on-street parking is prohibited.
- Exposition Boulevard is an east/west-oriented Collector Street roadway directly south of the Sepulveda, Westwood,and Bundy stations. The roadway is designated as a Local Street from its western terminus at Stewart Street in Santa Monica to Sepulveda Boulevard, where it transitions to a Collector Street for most of its route in the study area. In the Project Area, the roadway runs parallel to the Union Pacific Rail Road right-of-way with one lane in each direction and permitted on-street parking.
- Ohio Avenue is an east/west-oriented Local Street roadway located north of the Bundy Station. It connects Centinela Avenue on the west with Thayer Street near Century City on the east. In the Project Area, Ohio Avenue is designated as a Local Street between Centinela Avenue and Barrington Avenue and as a Collector Street between Barrington Avenue and Manning Avenue. Typically, Ohio Avenue provides one travel lane in each direction with many intersections providing left- and/or right-turn channelization and permitted on-street parking.

EMERGENCY ACCESS

California state law requires that drivers yield the right-of-way to emergency vehicles and remain stopped until the emergency vehicles have passed. Generally, multi-lane arterial roadways allow the emergency vehicles to travel at higher speeds and permit other traffic to maneuver out of the path of the emergency vehicle. Within the Project Area, arterial roadways running north/south include Barrington Avenue, Bundy Drive, Motor Avenue, Overland Avenue, Robertson Boulevard, Sawtelle Boulevard, Sepulveda Boulevard, and Westwood Boulevard. Arterial roadways running east/west include Culver Boulevard, Gateway Boulevard, National Boulevard, Ocean Park Boulevard, Olympic Boulevard, Pico Boulevard, Santa Monica Boulevard, Palms Boulevard, Venice Boulevard, and Washington Boulevard. Additionally, the I-10 provides rapid emergency access to and from locations within the Project Area.

The LAFD in collaboration with LADOT has developed a Fire Preemption System (FPS), a system that automatically turns traffic lights to green for emergency vehicles travelling on designated streets in the City. Within the Project Area, portions of Sepulveda Boulevard, Santa Monica Boulevard, Olympic Boulevard, and Pico Boulevard currently have FPS.

The City requires that development plans be submitted to the City for review and approval to ensure that new development has adequate access, including driveway access and turning radius in compliance with existing City regulations. The adequacy of emergency service may be influenced by factors such as staffing levels, emergency response times, and technology improvements, management strategies, and mutual aid agreements. On a yearly basis, LAFD assesses its resources and reallocates them based demand and need citywide. The provision of new fire stations varies as a function of not only the geographic distribution of physical structures but access to trucks, ambulances, and other equipment as well as the location of the Project Area and access to reciprocal agreements with neighboring jurisdictions.

EXISTING PUBLIC TRANSIT SERVICE

Public transit service within the Project Area consists primarily of local bus services linking riders to localized businesses and destinations. However, some regional transit opportunities are available via transfers to and from other lines. Services are provided by multiple transit operators, including Metro, Santa Monica Big Blue Bus (BBB), Culver City Bus, and LADOT Commuter Express Bus; services headways can be as frequent as 15 minutes or less. **Figure 4.12-2** shows transit lines in the ECTNP Area at the time of preparation of the Draft EIR. With the opening of the Expo Rail Line, Metro and BBB are expected to modify service to and from the stations. Below are brief descriptions of the various transit operators and the fixed transit lines providing service within the study area.

Los Angeles County Metropolitan Transportation Authority (Metro). Metro is the primary transit operator in Los Angeles County, providing bus, light rail, and subway services. There are two Metro heavy rail lines (Red and Purple), four Metro light rail lines (Blue, Green, Gold, Expo Phase 1) and two bus rapid transit (BRT) lines (i.e., Orange and Silver) operating in exclusive rights-of-way. Bicycles are allowed in designated areas on Metro trains at no extra charge at all times. Metro also operates approximately 180 bus routes in mixed traffic. These bus services vary considerably in speed, frequency and capacity. Most buses are equipped with two bicycle racks at the front of the bus, and bicyclists are allowed to load their bicycles on the rack when there is space available at no extra charge. If the rack is full, bicyclists are asked to wait for the next bus. The following Metro lines currently provide transit service in the study area:

- Metro Line 33 – Line 33 provides local service from Santa Monica via Venice Boulevard to Downtown Los Angeles. This line operates with headways of approximately 15 minutes on weekday peak periods. Off-peak headways are about 20 minutes. The stops along Venice Boulevard at Robertson Boulevard and at National Boulevard are close to the Culver City Station. Connection to the Rapid 733 Line is available at most stops in the study area.
- Metro Line 220 – Line 220 provides local service from the Beverly Center to Culver City via Robertson Boulevard. This line operates with headways of 60 minutes on weekdays only.
- Metro Line 534 – Line 534 provides express service that runs from Malibu through Downtown Santa Monica to the West Los Angeles Transit Center via the Pacific Coast Highway and the I-10. In the study area, this line operates primarily on Venice and Robertson Boulevards. This line operates with headways of approximately 20 minutes during the AM peak hour and 30 minutes during the PM peak hour.
- Metro Line 733 – Line 733 offers rapid service on Venice Boulevard between Santa Monica and Downtown Los Angeles. This line operates with headways of 10 to 15 minutes on weekdays.
- Metro Exposition Line – The Expo Line connects the Westside by rail to Downtown Los Angeles and other rail lines in the Metro system. The Expo Line operates with headways of 6 minutes during weekday peak periods.

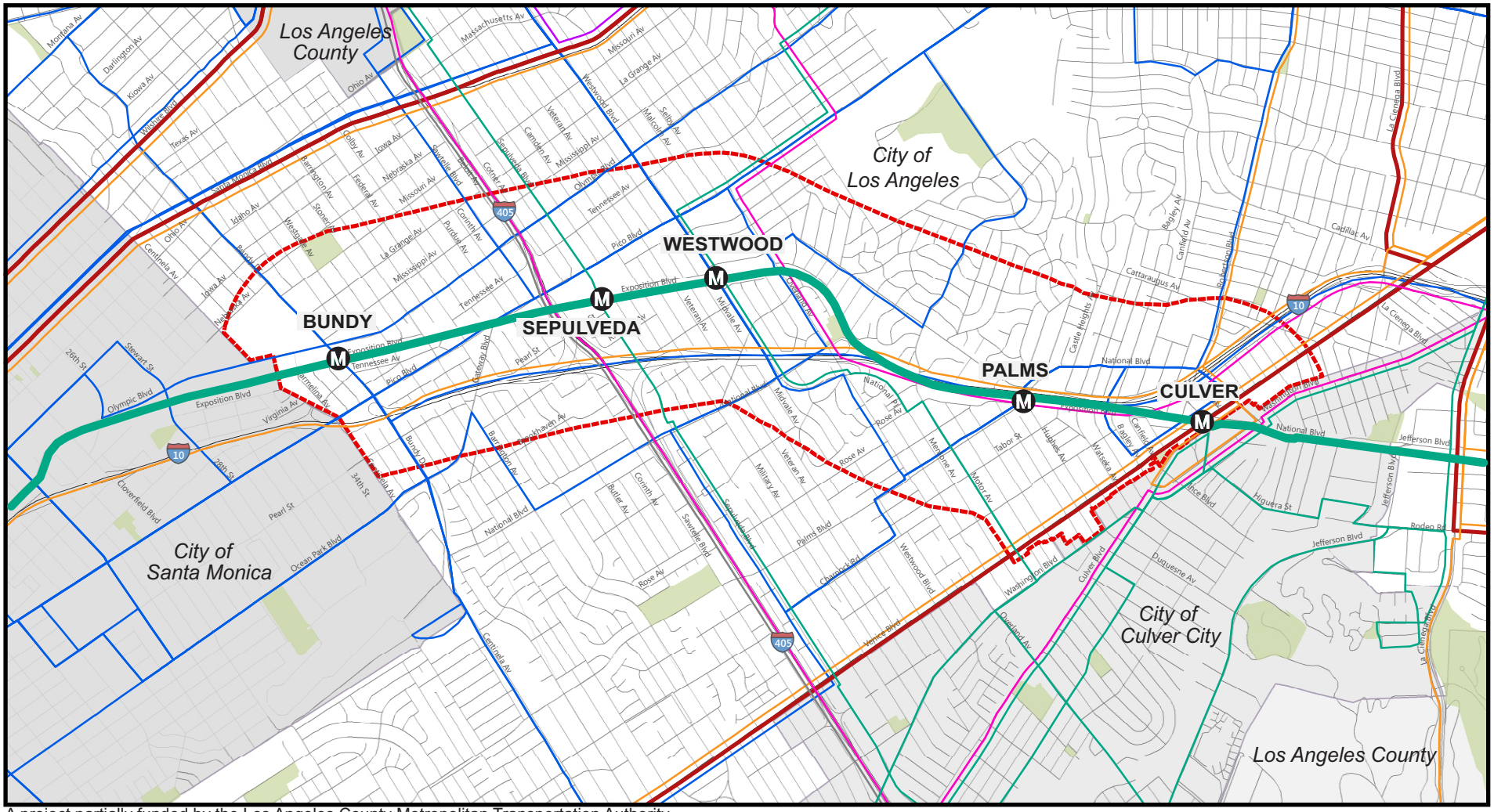
Santa Monica Big Blue Bus (BBB). BBB is the primary transit operator within the Project Area. BBB operates 14 local bus routes, five rapid routes, and two circulator routes. These bus services vary considerably in speed, frequency and capacity. Most buses are equipped with two bicycle racks at the front of the bus, and bicyclists are allowed to load their bicycles on the rack when there is space available at no extra charge. If the rack is full, bicyclists are asked to wait for the next bus. The following BBB lines provided transit service in the study area at the time of preparation of the Draft EIR:

- BBB Line 2 – Line 2 runs from 4th Street in Downtown Santa Monica to Westwood and the UCLA campus via Wilshire Boulevard. Headways are approximately 15 minutes during the weekday peak periods and about 20 minutes during the weekday off-peak periods and on weekends.

Exposition Corridor Transit Neighborhood Plan

Figure 4.12-2 Existing Transit Facilities

Los Angeles Department of City Planning



A project partially funded by the Los Angeles County Metropolitan Transportation Authority.

LEGEND:

- Metro Rapid
- Metro Local/Limited/Express/Circulator
- Culver City Bus
- Santa Monica Big Blue Bus
- LADOT Commuter Express/DASH
- Santa Clara/Torrance & MAX/Antelope/ Beach Cities Transit
- ECTNP Boundary
- Expo LRT
- Light Rail Station
- Jurisdictional Boundary

NOT TO SCALE

N

LOS ANGELES TRANSIT NEIGHBORHOOD PLAN

SOURCE: City of Los Angeles and Fehr & Peers, 2017.

2012-058

- BBB Line 4 – Line 4 runs from Downtown Santa Monica to Brentwood via 4th Street and San Vicente Boulevard via Sawtelle Boulevard, Olympic and Pico Boulevards. Line 4 provides service on Pico Boulevard in the study area with headways of 30 minutes during weekday peak hours and 60 minutes on weekends.
- BBB Line 5 – Line 5 runs from Downtown Santa Monica to Century City and the Culver City Station. Service headways of about 20 minutes are provided during weekday peak periods and about 30 minutes during weekday off-peak periods and on weekends.
- BBB Line 6 – Line 6 provides limited service and runs from the Santa Monica College (SMC) main campus to the SMC Bundy Campus to Palms and loops around National Boulevard and Venice Boulevard to travel back to the SMC campuses. Line 6 services are only available Monday through Thursday only.
- BBB Line 7 – Line 7 provides localized service between Downtown Santa Monica to Rimpau Transit Center and the Mid-City area of Los Angeles via Pico Boulevard. In the study area, Line 7 provides service with 10-minute headways during weekday peak hours and 15-minute headways on weekends.
- BBB Line Rapid 7 – During weekdays, the Rapid 7 line offers limited-stop, express service between Downtown Santa Monica and the Rimpau Transit Center and the Mid-City area of Los Angeles via Pico Boulevard. This line operates with headways of approximately 10 minutes during the peak hours. No service for this line is available on weekends.
- BBB Line 8 – Line 8 provides local service between Downtown Santa Monica in the west and UCLA in the east via Main Street, Ocean Park Boulevard, Barrington Avenue, National Boulevard, and Westwood Boulevard. This line travels through and stops in the Westwood Station area at a number of intersections along Westwood Boulevard. Service hours are from 6:00 a.m. to 11:30 p.m. seven days per week. Peak period headways range from 11 to 25 minutes in the morning and 15 to 20 minutes in the afternoon.
- BBB Line Rapid 10 – Line 10 is a freeway express line that provides service through Downtown Santa Monica via Santa Monica Boulevard west of Bundy Drive and on Bundy Drive between Santa Monica Boulevard and the I-10. This line eventually travels along the I-10 to Downtown Los Angeles and Union Station. Service headways of about 15 to 20 minutes are provided during weekday peak periods and about 30 minutes during weekday off-peak periods and on weekends.
- BBB Line 12 – Line 12 travels from UCLA Hilgard Terminal or UCLA Ackerman Terminal to the Westside Pavilion to the Culver City Station. This line serves the Palms, Culver City, and Westwood areas. Service headways of about 15 minutes are provided during the weekday peak periods and about 30 minutes during weekends. This line travels along National Boulevard, Palms Boulevard, and Venice Boulevard in the study area.
- BBB Line 13 – Line 13 provides weekday peak-hour commuter service between the Rimpau Transit Center (Rimpau) in the east and the Westside Pavilion in the west. Within the study area, this line travels along Pico Boulevard, Overland Avenue, Ashby Avenue, Manning Avenue, Motor Avenue, and Beverly Drive. The line's western terminus is the intersection of Westwood Boulevard and Pico Boulevard in the Westwood Station Area. Morning service from Rimpau to the Westside Pavilion begins at 7:00 a.m., with the last pick-up leaving at 8:30a.m. Headways are 30 to 35 minutes. Afternoon service hours from the Westside Pavilion to Rimpau begin at 2:30 p.m. and end with the last pick-up leaving at 6:00 p.m. Headways are 65 minutes.
- BBB Line Rapid 12 – Rapid 12 line travels from UCLA Hilgard Terminal or UCLA Ackerman Terminal to the Westside Pavilion to the Culver City Station. This line provides faster service to the Palms Station in addition to serving the Palms, Culver City, and Westwood areas. This line travels along National Boulevard, Palms Boulevard, Overland Avenue, and Venice Boulevard in the study area.

- BBB Line 14 – Line 14 provides service to Brentwood Village, Olympic-Bundy Commercial Area, Santa Monica Airport, and Marina del Rey Middle School via Bundy Drive and Centinela Avenue. Service headways of about 13 to 15 minutes are provided during weekday peak periods and about 20 to 30 minutes during weekday off-peak periods and on weekends. This line travels along Bundy Drive in the study area.
- BBB Line 20 – Line 20 provides express service from Downtown Santa Monica to the western terminus of the Expo Line in Culver City. Between Downtown Santa Monica and Culver City Station, the line travels along the I-10 and makes no stops. Weekday eastbound service hours are from 5:30 a.m. to 7:30 a.m., and again from noon to 4:30 p.m.; westbound service hours are from noon to 2:30 p.m. and again from 5:30 p.m. to 9:00 p.m. Eastbound morning peak hour headways range from seven to 33 minutes. Westbound afternoon peak hour headways range from 25 to 35 minutes.

Los Angeles Department of Transportation (LADOT). LADOT provides local and commuter express bus services in the City of Los Angeles. The Downtown Area Short Hop (DASH) operates 32 local routes covering Downtown Los Angeles and many outlying communities within the City. The Commuter Express operates 14 routes, making a limited number of stops and transporting passengers between downtown Los Angeles and other major centers within the City. All Commuter Express routes, except for one, operate during the peak hours only in the peak direction. Most buses are equipped with two bicycle racks at the front of the bus, and bicyclists are allowed to load their bicycles on the rack when there is space available at no extra charge. If the rack is full, bicyclists are asked to wait for the next bus. The following LADOT Commuter Express Lines currently provide transit service in the study area:

- LADOT Commuter Express Line 431 – Line 431 is a north/south commuter express line that travels from Downtown Los Angeles to Westwood. This line also serves Rancho Park and Palms. This line travels on the I-10 in the study area. Line 431 operates on weekdays only.
- LADOT Commuter Express Line 437 – Line 437 is a north/south commuter express line that travels from Downtown Los Angeles to Venice. This line also serves Culver City and Marina del Rey. This line travels along Robertson Boulevard and Culver Boulevard in the study area. Line 437 operates on weekdays only.

Culver City Bus. Culver City Bus operates seven local and one rapid bus service in the City of Culver City and the City of Los Angeles. Most buses are equipped with two bicycle racks at the front of the bus, and bicyclists are allowed to load their bicycles on the rack when there is space available at no extra charge. If the rack is full, bicyclists are asked to wait for the next bus. The following Culver City Bus lines currently provide transit service in the study area:

- Culver City Bus Line 1 – Line 1 is a local east/west line that runs along Washington Boulevard from Venice Beach in the west to Washington Boulevard and Fairfax Avenue in the east. Service headways of about 12 minutes are provided during the weekday peak periods. This line travels along Washington Boulevard in the study area.
- Culver City Bus Line 3 – Line 3 is a local north/south line that runs from Century City in the north to the Culver City Transit Center in the south. In the study area, the line travels along Westwood Boulevard, National Boulevard, and Motor Avenue. Service hours begin at 5:30 a.m. and end at 11:00 p.m. Weekday headways are 20 minutes all day until 8:00 p.m. After 8:00 p.m. and on weekends, headways are 30 minutes.
- Culver City Bus Line 5 – Line 5 is a local east/west line that runs from Blair Hills in the east to Washington and Inglewood Boulevards in the west. This line travels along Washington Boulevard, Culver Boulevard, and Higuera Street within the study area. Line service is available on school days only. In addition to limited service days, Line 5 operates only once in the morning westbound and once in the afternoon.

- Culver City Bus Line 6 – Line 6 provides localized service on Sepulveda Boulevard and Westwood Boulevard between the Metro Green Line Station in Inglewood and UCLA in Westwood. Buses run at 10- to 15-minute headways during the peak weekday hours and approximately 30-minute headways during off-peak periods and weekends.
- Culver City Bus Line Rapid 6 – Line 6 offers limited-stop, express service on Sepulveda Boulevard and Westwood Boulevard between the Metro Green Line Station in Inglewood and UCLA in Westwood. Buses run at 20- to 25-minute headways during the peak weekday hours.
- Culver City Bus Line 7 – Line 7 is a local east/west line that runs from Venice Boulevard and Culver Boulevard in the east to Marina del Rey in the west. Line 7 only operates during weekdays with 30-minute headways. This line travels primarily along Culver Boulevard in the study area.

EXISTING BICYCLE AND PEDESTRIAN FACILITES

Bicycle Facilities. Existing bicycle facilities in the ECTNP are classified based on the following standard typology:

- Bike Paths Class I Bikeways provide a completely separate right-of-way and are designated for the exclusive use of bicycles and pedestrians. Vehicle and pedestrian cross-flow is minimized.
- Bike Lanes Class II Bikeways provide a restricted right-of-way and are designated for bicyclist use through a striped lane on a street or highway. Bicycle lanes are generally five-foot wide, one-way facilities that carry bicyclist traffic in the same direction as the adjacent roadway traffic. Vehicle parking and vehicle/pedestrian cross-flow are permitted.
- Bike Routes Class III Bikeways provide for a right-of-way designated by signs or pavement markings for shared use with pedestrians or motor vehicles. Bike routes provide continuity to other bicycle facilities (usually Class II Bikeways) or designate preferred routes through high demand corridors.
- Separated Class IV Bikeways provide on-street facilities reserved for use by bicyclists, with physical separation between the bikeway and travel lanes.

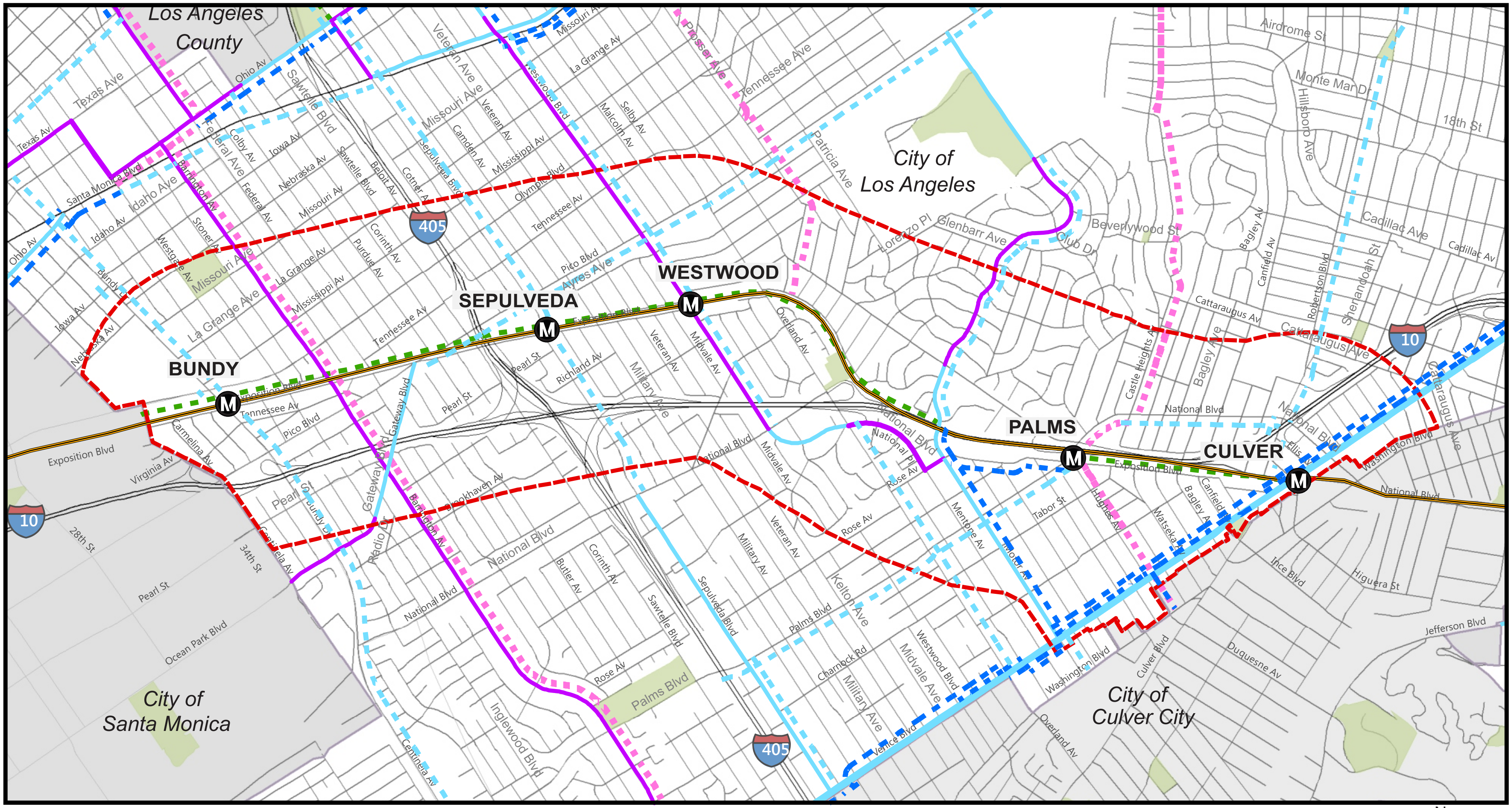
Figure 4.12-3 shows existing and planned bicycle facilities in the Project Area. As illustrated, there are existing bicycle lanes on Venice Boulevard and on portions of Sepulveda Boulevard, Motor Avenue, Ohio Avenue, Gateway Boulevard, National Place, and La Cienega Boulevard. There are existing bicycle routes on Barrington Avenue, Westwood Boulevard, and National Place.

Pedestrian Facilities. A pedestrian network provides safe and convenient access for all users with all abilities. The pedestrian network includes sidewalks, crosswalks, and curb ramps, as well as pedestrian amenities, such as street trees, benches, and buffer zones separating sidewalks from traffic and buildings. The ECTNP Area has an aging network of pedestrian facilities, including sidewalks of varying widths and wide crosswalks at most major intersections. Many areas have pedestrian-friendly features, such as curbside parking and traffic signal modifications, to ensure longer pedestrian crossing times, where warranted. Conditions surrounding each station vary widely in terms of sidewalk condition, pavement marking visibility, and obstructions in the sidewalk realm.

Exposition Corridor Transit Neighborhood Plan

Figure 4.12-3 Bicycle Facilities

Los Angeles Department of City Planning



LEGEND:

EXISTING
- Bicycle Lane
- Bicycle Path
- Bicycle Route

PLANNED
- Bicycle Lane
- Bicycle Path
- Protected Bicycle Lane
- Gap Closure Segments from the Neighborhood Enhanced Network

- Expo LRT
- Light Rail Station
- ECTNP Boundary

- Parks
- Jurisdictional Boundary

Approx. Scale 0 3,200 6,200 FEET

N

LOS ANGELES TRANSIT NEIGHBORHOOD PLAN

SOURCE: City of Los Angeles and Fehr & Peers, 2017.

2012-058

PLANNED TRANSPORTATION NETWORK IMPROVEMENTS

Several key improvements in the study area are funded and assumed to be part of the future baseline. These improvements, the result either of local or regional Capital Improvement Programs or as mitigation for ongoing or entitled projects, would result in capacity changes and/or traffic shifts at various locations throughout the study area. The improvements are reflected in the Future No Project and Future With Project traffic forecasts. Although some of these projects are now complete, they were not included in the existing operating conditions as they were under construction at the time of this analysis.

Following are key planned capital improvements in the study area (as of 2013):

- Extension of the Expo LRT from Culver City to Santa Monica via the Expo rail right-of-way, which includes several aerial grade separations. According to the Expo Corridor Transit Project Phase 2 Final EIR, this line is estimated to generate approximately 15,060 total daily passenger trips among the following four stations in the Project Area by 2030:
    - National/Palms – 1,860 daily passengers[9]
    - Expo/Westwood – 5,240 daily passengers[10]
    - Expo/Sepulveda – 5,100 daily passengers[11]
    - Expo/Bundy – 2,860 daily passengers[12]
- Construction of a Class I and Class II bikeway (3.85 miles) along the Expo Corridor between Venice/Robertson Boulevards and Santa Monica city limits at Centinela Avenue.
- Widen the I-405 between the I-10 and the US-101 in order to add a northbound carpool lane.
- Wilshire Bus Rapid Transit Project extends from Valencia Street to the Santa Monica city limit line and include peak period curbside bus lanes.

Future Bicycle Network (MP 2035). Implementation of future bicycle facilities along key arterials is anticipated to be part of a network providing access to major employment centers, transit stops, and retail, entertainment, and recreational resources. As discussed above in Regulatory Framework, the City of Los Angeles 2010 Bicycle Plan has been incorporated into the recently adopted MP 2035. The programs in the Bicycle Plan are integrated into the MP 2035 Bicycle Enhanced Network and Bicycle Lane Network, which together create a network of arterial streets and other rights-of-way prioritized for bicycle movement. The Bicycle Enhanced Network consists of bicycle paths, protected bicycle lanes, and bicycle facilities on neighborhood-serving streets that provide connections within the protected bicycle lane system. The Bicycle Lane Network consists of bicycle facilities on arterial roadways with striped separation. **Figure 4.12-3** illustrates the facilities that are on either the Bicycle Enhanced Network or the Bicycle Lane Network within the Project Area.

EXISTING TRAFFIC VOLUMES AND OPERATING CONDITIONS

This section presents existing base peak hour traffic volumes, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each, indicating volume-to-capacity (V/C) ratios and LOS. See **Appendix H** for detailed existing traffic volume data.

It should be noted that since traffic volumes are a result of the aggregate travel choices of thousands of individual drivers, variation in the daily and peak period volumes on a ny given facility is both expected and observed. The Federal Highway Administration (FHWA) guidelines recommend traffic models are

[9]Exposition Line Construction Authority. *Exposition Corridor Transit Project Phase 2 FEIR*, December 2009, page 3.2-52.
[10]*Ibid*, p. 3.2-52.
[11]*Ibid*, p. 3.2-66.
[12]*Ibid*, p. 3.2-66.

calibrated to within 7 to 15 percent for freeway and arterial volumes to account for this regular variation.[13] This range is based on studies that show that this range represents the average daily fluctuation in traffic for major roadways.[14] Accordingly, while specific and detailed LOS calculations are provided throughout this document, these estimates of both existing and operating conditions are subject to regular variation due to fluctuations in travel demand.

Existing Traffic Volumes

Weekday AM and PM peak hour turning movement counts were collected at the study intersections listed below. For all analysis locations, AM (7:00 to 10:00 a.m.) and PM (3:00 to 6:00 p.m.) period traffic volumes were counted in 15-minute intervals in May 2013:

1. Cloverfield Boulevard & Olympic Boulevard
2. 26th Street & Olympic Boulevard
3. Stewart Street & Olympic Boulevard
4. Centinela Avenue (West) & Olympic Boulevard
5. Centinela Avenue (East) & Olympic Boulevard
6. Centinela Avenue & Exposition Boulevard
7. Centinela Avenue & I-10 Westbound On- and Off-Ramp
8. I-10 Eastbound Off-Ramp & Pico Boulevard
9. Centinela Avenue & Pico Boulevard
10. Centinela Avenue & I-10 Eastbound On-Ramp
11. Bundy Drive & Wilshire Boulevard
12. Bundy Drive & Santa Monica Boulevard
13. Bundy Drive & Ohio Avenue
14. Bundy Drive & Missouri Avenue
15. Bundy Drive & La Grange Avenue
16. Bundy Drive & Olympic Boulevard
17. Bundy Drive & Pico Boulevard
18. Bundy Drive & I-10 Eastbound On-Ramp
19. Bundy Drive & Ocean Park Boulevard
20. Bundy Drive & National Boulevard
21. Barrington Avenue & Santa Monica Boulevard
22. Barrington Avenue & Nebraska Avenue
23. Barrington Avenue & Missouri Avenue
24. Barrington Avenue & La Grange Avenue
25. Barrington Avenue & Mississippi Avenue
26. Barrington Avenue & Olympic Boulevard
27. Barrington Avenue & Pico Boulevard
28. Barrington Avenue & Gate Boulevard
29. Gateway Boulevard & Pico Boulevard
30. Sawtelle Boulevard & Santa Monica Boulevard
31. Beloit Avenue / I-405 Southbound On- and Off-Ramp & Santa Monica Boulevard
32. Sawtelle Boulevard & Olympic Boulevard
33. Sawtelle Boulevard & I-405 Southbound Off-Ramp
34. Sawtelle Boulevard & Pico Boulevard
35. Sawtelle Boulevard & National Boulevard
36. I-405 Southbound On-Ramp & National Boulevard
37. Sawtelle Boulevard & Palms Boulevard

[13] Per the *FHWA Calibration & Adjustment of System Planning Models* (FHWA, December 1990).
[14] *Variability in Traffic Monitoring Data: Final Summary Report* (US Department of Energy, August 1997).

38. Cotner Avenue / I-405 Northbound On- and Off-Ramp & Santa Monica Boulevard
39. Sepulveda Boulevard & Santa Monica Boulevard
40. Sepulveda Boulevard & Olympic Boulevard
41. Sepulveda Boulevard & Pico Boulevard
42. Cotner Avenue & Pico Boulevard
43. Sepulveda Boulevard & Exposition Boulevard
44. I-405 Northbound Off-Ramp & National Boulevard
45. Sepulveda Boulevard & National Boulevard
46. Sepulveda Boulevard & Palms Boulevard
47. Military Avenue & National Boulevard
48. Westwood Boulevard & Olympic Boulevard
49. Westwood Boulevard & Pico Boulevard
50. Westwood Boulevard & Exposition Boulevard
51. Westwood Boulevard & National Boulevard
52. Overland Avenue & Pico Boulevard
53. Overland Avenue & National Boulevard / I-10 Westbound On- and Off-Ramp
54. Overland Avenue & I-10 Eastbound On-Ramp
55. Overland Avenue & National Place
56. I-10 Westbound Off-Ramp & National Boulevard
57. Overland Avenue & Palms Boulevard
58. Overland Avenue & Venice Avenue
59. Overland Avenue & Culver Boulevard
60. Motor Avenue & National Boulevard
61. Motor Avenue & Palms Boulevard
62. Motor Avenue & Venice Avenue
63. Exposition Boulevard / National Boulevard & Palms Boulevard
64. Hughes Avenue & Venice Boulevard
65. Duquesne Avenue & Culver Boulevard
66. Manning Avenue & I-10 Westbound Off-Ramp
67. Castle Heights Avenue & National Boulevard
68. Culver Boulevard & Venice Boulevard
69. Robertson Boulevard & Venice Boulevard
70. Robertson Boulevard & National Boulevard
71. National Boulevard & I-10 Eastbound On-Ramp
72. National Boulevard & Venice Boulevard
73. National Boulevard & Washington Boulevard
74. Robertson Boulevard & I-10 Westbound Off-Ramp / Kincardine Avenue
75. Robertson Boulevard & Cattaraugus Avenue
76. La Cienega Boulevard & Venice Boulevard
77. La Cienega Boulevard & Washington Boulevard
78. Jefferson Boulevard & National Boulevard
79. Higuera Street & Washington Boulevard
80. Ince Boulevard & Washington Boulevard
81. Ince Boulevard & Culver Boulevard
82. Washington Boulevard / Irving Place / Watseka Avenue & Culver Boulevard
83. Duquesne Avenue & Washington Boulevard
84. Sepulveda Boulevard & Venice Boulevard
85. Sepulveda Boulevard & I-405 Northbound On- and Off-Ramp
86. Sawtelle Boulevard & I-405 Southbound On- and Off-Ramp

Two studied intersections located in the City of Los Angeles are currently unsignalized: Barrington Avenue & Missouri Avenue and Westwood Boulevard & Exposition Boulevard (South). These intersections have been analyzed to determine whether volumes warrant the installation of a traffic signal.

At the time when traffic counts were conducted for this study, the following six study intersections were under construction as part of the Expo LRT Line Phase 2 (Culver City to Santa Monica):

1. National Boulevard & Venice Boulevard
2. Robertson Boulevard & Venice Boulevard
3. National Boulevard / Exposition Boulevard & Palms Boulevard
4. Sepulveda Boulevard & Exposition Boulevard
5. Gateway Boulevard & Pico Boulevard
6. Cloverfield Boulevard & Olympic Boulevard

Manual peak period turning movement counts for the aforementioned study intersections are provided in **Appendix H**.

Existing Levels of Service. The existing year traffic volumes and lane configurations presented in **Appendix H** were analyzed using the required intersection capacity analysis methodology to realistically determine the existing operating conditions at the study intersections. **Table 4.12-1** summarizes the V/C and corresponding LOS results for the aforementioned analyzed periods during a weekday. As indicated, 53 (62 percent) of the 86 analyzed intersections are currently operating at an acceptable level of service (LOS D or better) during one or more analysis periods. The remaining 33 intersections are currently operating at or near capacity (LOS E or F) during one or more analysis periods.

TABLE 4.12-1: EXISTING (2013) INTERSECTION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	V/C or Delay	LOS
1	Cloverfield Blvd. /a/ Olympic Blvd.	Santa Monica	AM	39.6	D
			PM	38.1	D
2	26th St. Olympic Blvd.	Santa Monica	AM	31.1	C
			PM	32.9	C
3	Stewart St. Olympic Blvd.	Santa Monica	AM	43.1	D
			PM	27.0	C
4	Centinela Ave. (West) Olympic Blvd.	Santa Monica	AM	8.1	A
			PM	9.0	A
5	Centinela Ave. (East) Olympic Blvd.	Los Angeles	AM	0.567	A
			PM	0.488	A
		Santa Monica	AM	15.1	B
			PM	9.8	A
6	Centinela Ave. Exposition Blvd. /b/	Los Angeles	AM	26.4	C
			PM	35.9	D
7	Centinela Ave. I-10 WB On-/Off-Ramps	Los Angeles	AM	0.868	D
			PM	0.868	D
		Santa Monica	AM	48.5	D
			PM	52.5	D
8	I-10 EB Off-Ramp/34th St Pico Blvd.	Santa Monica	AM	18.5	B
			PM	10.2	B
9	Centinela Ave. Pico Blvd.	Los Angeles	AM	0.711	C
			PM	0.675	B
		Santa Monica	AM	17.9	B
			PM	14.0	B
10	Centinela Ave. I-10 EB On-Ramp	Los Angeles	AM	0.419	A
			PM	0.423	A
		Santa Monica	AM	9.7	A
			PM	7.2	A

TABLE 4.12-1: EXISTING (2013) INTERSECTION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	V/C or Delay	LOS
11	Bundy Dr. Wilshire Blvd.	Los Angeles	AM	0.682	B
			PM	0.657	B
12	Bundy Dr. Santa Monica Blvd.	Los Angeles	AM	0.568	A
			PM	0.628	B
13	Bundy Dr. Ohio Ave.	Los Angeles	AM	0.533	A
			PM	0.537	A
14	Bundy Dr. Missouri Ave.	Los Angeles	AM	0.437	A
			PM	0.435	A
15	Bundy Dr. La Grange Ave.	Los Angeles	AM	0.479	A
			PM	0.555	A
16	Bundy Dr. Olympic Blvd.	Los Angeles	AM	0.802	D
			PM	0.769	C
17	Bundy Dr. Pico Blvd.	Los Angeles	AM	0.874	D
			PM	0.935	E
18	Bundy Dr. I-10 EB On-Ramp	Los Angeles	AM	0.615	B
			PM	0.628	B
19	Bundy Dr. Ocean Park Blvd.	Los Angeles	AM	0.912	E
			PM	1.019	F
20	Bundy Dr. National Blvd.	Los Angeles	AM	0.835	D
			PM	0.659	B
21	Barrington Ave. Santa Monica Blvd.	Los Angeles	AM	1.048	F
			PM	1.166	F
22	Barrington Ave. Nebraska Ave.	Los Angeles	AM	0.544	A
			PM	0.582	A
24	Barrington Ave. La Grange Ave.	Los Angeles	AM	0.593	A
			PM	0.701	C
25	Barrington Ave. Mississippi Ave.	Los Angeles	AM	0.623	B
			PM	0.861	D
26	Barrington Ave. Olympic Blvd.	Los Angeles	AM	0.830	D
			PM	0.760	C
27	Barrington Ave. Pico Blvd.	Los Angeles	AM	0.989	E
			PM	1.121	F
28	Barrington Ave. Gateway Rd.	Los Angeles	AM	0.729	C
			PM	0.809	D
29	Gateway Blvd. /a/ Pico Blvd.	Los Angeles	AM	0.678	B
			PM	0.826	D
30	Sawtelle Blvd. Santa Monica Blvd.	Los Angeles	AM	0.790	C
			PM	0.748	C
31	Beloit Ave./I-405 SB Off-Ramp Santa Monica Blvd.	Los Angeles	AM	1.093	F
			PM	1.294	F
32	Sawtelle Blvd. Olympic Blvd.	Los Angeles	AM	1.015	F
			PM	1.299	F
33	Sawtelle Blvd. I-405 SB Off-Ramp	Los Angeles	AM	0.480	A
			PM	0.788	C
34	Sawtelle Blvd. Pico Blvd.	Los Angeles	AM	1.093	F
			PM	1.195	F
35	Sawtelle Blvd. National Blvd.	Los Angeles	AM	0.912	E
			PM	0.853	D
36	I-405 SB On-Ramp National Blvd.	Los Angeles	AM	0.380	A
			PM	0.592	A
37	Sawtelle Blvd. Palms Blvd.	Los Angeles	AM	0.703	C
			PM	0.755	C
38	Cotner Ave/I-405 NB On-/Off-Ramps Santa Monica Blvd.	Los Angeles	AM	1.030	F
			PM	1.099	F

TABLE 4.12-1: EXISTING (2013) INTERSECTION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	V/C or Delay	LOS
39	Sepulveda Blvd. Santa Monica Blvd.	Los Angeles	AM	1.085	F
			PM	1.195	F
40	Sepulveda Blvd. Olympic Blvd.	Los Angeles	AM	1.052	F
			PM	1.166	F
41	Sepulveda Blvd. Pico Blvd.	Los Angeles	AM	0.979	E
			PM	1.290	F
42	Cotner Ave. /a/ Pico Blvd.	Los Angeles	AM	0.713	C
			PM	0.544	A
43	Sepulveda Blvd. /a/ Exposition Blvd.	Los Angeles	AM	0.553	A
			PM	0.685	B
44	I-405 NB Off-Ramp National Blvd.	Los Angeles	AM	0.635	B
			PM	0.541	A
45	Sepulveda Blvd. National Blvd.	Los Angeles	AM	0.890	D
			PM	0.987	E
46	Sepulveda Blvd. Palms Blvd.	Los Angeles	AM	0.816	D
			PM	0.945	E
47	Military Ave. National Blvd.	Los Angeles	AM	0.557	A
			PM	0.733	C
48	Westwood Blvd. Olympic Blvd.	Los Angeles	AM	0.962	E
			PM	0.875	D
49	Westwood Blvd. Pico Blvd.	Los Angeles	AM	0.728	C
			PM	0.800	C
51	Westwood Blvd. National Blvd.	Los Angeles	AM	0.608	B
			PM	0.759	C
52	Overland Ave. Pico Blvd.	Los Angeles	AM	0.856	D
			PM	0.920	E
53	Overland Ave. National Blvd./I-10 WB On-/Off-Ramps	Los Angeles	AM	0.961	E
			PM	1.104	F
54	Overland Ave. I-10 EB On-Ramp	Los Angeles	AM	0.538	A
			PM	0.452	A
55	Overland Ave. National Pl.	Los Angeles	AM	0.717	C
			PM	0.817	D
56	I-10 WB Off-Ramp National Blvd.	Los Angeles	AM	0.577	A
			PM	0.371	A
57	Overland Ave. Palms Blvd.	Los Angeles	AM	0.887	D
			PM	1.001	F
58	Overland Ave. Venice Blvd.	Los Angeles	AM	0.819	D
			PM	0.795	C
59	Overland Ave. Culver Blvd.	Culver City	AM	0.971	E
			PM	0.935	E
60	Motor Ave. National Blvd.	Los Angeles	AM	0.579	A
			PM	0.641	B
61	Motor Ave. Palms Blvd.	Los Angeles	AM	0.734	C
			PM	0.853	D
62	Motor Ave. Venice Blvd.	Los Angeles	AM	0.616	B
			PM	0.595	A
63	National Blvd./ Exposition Blvd. /a/ Palms Blvd.	Los Angeles	AM	0.845	D
			PM	0.989	E
64	Hughes Ave. Venice Blvd.	Los Angeles	AM	0.556	A
			PM	0.547	A
65	Duquesne Ave. Culver Blvd.	Culver City	AM	0.724	C
			PM	0.725	C
66	Manning Ave./ I-10 EB Off-Ramp /a/ National Blvd.	Los Angeles	AM	0.901	E
			PM	0.781	C

TABLE 4.12-1: EXISTING (2013) INTERSECTION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	V/C or Delay	LOS
67	Castle Heights Ave. National Blvd.	Los Angeles	AM	0.927	E
			PM	0.769	C
68	Culver Blvd. Venice Blvd.	Los Angeles	AM	0.637	B
			PM	0.665	B
69	Robertson Blvd. /a/ Venice Blvd.	Los Angeles	AM	1.194	F
			PM	1.133	F
70	Robertson Blvd. National Blvd.	Los Angeles	AM	1.176	F
			PM	1.011	F
71	National Blvd. I-10 EB On-Ramp	Los Angeles	AM	0.427	A
			PM	0.476	A
72	National Blvd. /a/ Venice Blvd.	Los Angeles	AM	0.961	E
			PM	0.985	E
73	National Blvd. Washington Blvd.	Culver City	AM	0.729	C
			PM	0.901	E
74	Robertson Blvd. I-10 WB Off-Ramp/ Kincardine Ave.	Los Angeles	AM	0.593	A
			PM	0.784	C
75	Robertson Blvd. Cattaraugus Ave.	Los Angeles	AM	0.705	C
			PM	0.689	B
76	La Cienega Blvd. Venice Blvd.	Los Angeles	AM	0.801	D
			PM	0.817	D
77	La Cienega Blvd. Washington Blvd.	Culver City	AM	0.920	E
			PM	0.875	D
78	Jefferson Blvd. National Blvd.	Los Angeles	AM	0.904	E
			PM	0.745	C
79	Higuera St. Washington Blvd.	Culver City	AM	0.777	C
			PM	0.698	B
80	Ince Blvd. Washington Blvd.	Culver City	AM	0.640	B
			PM	0.662	B
81	Ince Blvd. Culver Blvd.	Culver City	AM	0.844	D
			PM	0.763	C
82	Washington Blvd./Irving Pl./Watseka Ave. Culver Blvd.	Culver City	AM	0.898	D
			PM	0.938	E
83	Duquesne Ave. Washington Blvd.	Culver City	AM	0.676	B
			PM	0.741	C
		Los Angeles	AM	0.514	A
			PM	0.583	A
84	Sepulveda Blvd. Venice Blvd.	Culver City	AM	0.907	E
			PM	0.933	E
		Los Angeles	AM	0.839	D
			PM	0.869	D
85	Sepulveda Blvd. I-405 NB On-/Off-Ramps	Culver City	AM	0.838	D
			PM	0.940	E
86	Sawtelle Blvd. I-405 SB On-/Off-Ramps	Culver City	AM	1.114	F
			PM	0.962	E

CMA/ICU methodology uses a V/C ratio, while Highway Capacity Manual methodology uses seconds of delay. The City of Santa Monica uses Highway Capacity Manual Methodology. City of Los Angeles uses CMA methodology. Culver City uses ICU methodology. Unsignalized intersections use Highway Capacity Manual methodology.
/a/ Intersection geometry altered due to construction.
/b/ Unsignalized intersection; City of Santa Monica uses Highway Capacity Manual methodology. (City of Los Angeles does not require impact analysis of unsignalized intersections.)
SOURCE: Fehr & Peers, 2015.

Existing Transit Ridership. This section presents the available data for bus transit boardings and alightings in the study area. In 2013, there were more than 28,000 average daily transit boardings and alightings on Metro and BBB routes within ½ mile of each of the five station areas. Data on Metro and BBB existing average daily transit boardings and alightings near each station site are presented in **Table 4.12-2**. Because the ½-mile buffers around some stations overlap, some boardings and alightings are counted in two station areas.

TABLE 4.12-2: AVERAGE DAILY BUS BOARDINGS AND ALIGHTINGS WITHIN ½ MILE OF THE EXPO STATIONS

Station Area	Boardings	Alightings	Total
Bundy	2,702	2,744	5,446
Sepulveda	2,394	2,644	5,058
Westwood	1,582	1,766	3,348
Palms	7,89	9,59	1,748
Culver City	6,419	6,124	12,543

SOURCE: Metro & Big Blue Bus, 2013.

THRESHOLDS OF SIGNIFICANCE

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

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access; and/or
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The above thresholds are general in nature and address a broad range of projects and are supplemented by the more specific thresholds adopted by each of the jurisdictions in which the study intersections are located. For purposes of this analysis, adopted LOS thresholds are used to determine the significance of impacts. As noted above, the Governor's OPR has circulated suggested (preliminary discussion draft) changes to these thresholds to remove automobile delay as a significant impact under CEQA and to focus on VMT and the potential to induce more traffic into an area. These changes are currently being circulated for comment and are, therefore, not used in this document as a threshold of significance. However, evaluation of VMT and other metrics is included in this chapter for informational purposes but VMT analysis is not relied upon for the purposes of determining impact.

CITY OF LOS ANGELES CEQA THRESHOLDS GUIDELINES

The 2006 Los Angeles CEQA Threshold Guidelines (Threshold Guidelines) provides thresholds of significance for intersection capacity, street segment capacity, freeway capacity, neighborhood intrusion, project access, transit system capacity, parking, and in-street construction impacts.

CITY OF LOS ANGELES CEQA THRESHOLDS AS APPLIED TO THE PROPOSED PROJECT

The Thresholds Guidelines were applied to specifically address the ECTNP as follows:

- The methodology and thresholds for intersection capacity are incorporated in the Circulation System threshold used in this EIR as described below.
- Thresholds for street segments are not used because the intersection capacity analysis incorporated in the Circulation System threshold is more refined than street segment analysis, and thus can characterize the flow of traffic and to analyze potential impacts in the Project Area.
- The methodology and thresholds for freeway capacity are incorporated in the Congestion Management Program – Freeway Segment Analysis threshold used in this EIR as described below.
- The methodology and thresholds for neighborhood intrusion impacts are included in the Neighborhood Intrusion Impacts threshold used in this EIR as described below.
- The methodology and thresholds for project access are incorporated in the Safety, Emergency Access, and Consistency with Plans thresholds used in this EIR as described below.
- The methodology and thresholds for transit system capacity are incorporated in the Congestion Management Program – Transit Impact Review threshold used in this EIR as described below.
- Parking has been removed as a threshold under CEQA as described below.
- This EIR evaluates the thresholds for in-street construction impacts qualitatively because the study represents a specific plan area relating to the build out of multiple parcels. There is currently no specific project or detailed information regarding a particular site.

CIRCULATION SYSTEM

The Proposed Project would have a significant impact to the circulation system if it would exceed the applicable thresholds established by each jurisdiction as identified below.

LADOT Threshold Guidelines for Intersections. Based on the criteria set forth in the City of Los Angeles Department of Transportation *Traffic Study Policies and Procedures*, June 2013, the Critical Movement Analysis (CMA) method is used to determine the LOS grade for signalized intersections within the City of Los Angeles. Changes in V/C are assessed by comparing conditions with and without the addition of the Proposed Project. Near term and future year analysis horizons are defined by LADOT staff in the Proposed Project scoping process.

The transportation analysis used the thresholds described below to determine the significance of the Proposed Project impacts.

***Signalized Intersections*.** In accordance with LADOT criteria defined in their *Traffic Study Policy and Procedures*, an impact is considered to be significant if one of the following V/C thresholds is exceeded:

- The LOS is C, its final V/C ratio is 0.701 to 0.80, and the Project-related increase in V/C is 0.040 or greater, or
- The LOS is D, its final V/C ratio is 0.801 to 0.90, and the Project-related increase in V/C is 0.020 or greater, or
- The LOS is E or F, its final V/C ratio is 0.901 or greater, and the Project-related increase in V/C is 0.010 or greater.

Intersections operating at LOS A or B after the addition of the Proposed Project traffic are not considered significantly impacted regardless of the increase in V/C ratio.

***Unsignalized Intersections*.** The City of Los Angeles traffic analysis methodology and significance criteria are for signalized intersections only. The City does not provide impact thresholds for unsignalized intersections. The LADOT *Traffic Study Policies and Procedures* states, "unsignalized intersections should

be evaluated solely to determine the need for the installation of a traffic signal or other traffic control device."

Traffic volumes and lane configurations, as presented in **Appendices H** were used to prepare signal warrant analyses at the unsignalized intersections under 2015 No Project, 2015 With Project, 2035 No Project, and 2035 With Project conditions. The warrant analyses were conducted in accordance with the procedures described in Chapter 4C of the *California Manual on Uniform Traffic Control Devices 2012* (MUTCD 2012). The warrant for a traffic signal is met if a plotted point representing the vehicles per hour on the major street (for both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for one hour lies above the applicable curve in Figure 4C-3 in the MUTCD 2012 for the combination of approach lanes. If the combined volume of the major approaches and the corresponding conflicting volumes are greater than the threshold determined by the intersection configuration, then a traffic signal could be warranted.

City of Santa Monica Significance Criteria for Intersections. The City of Santa Monica has established criteria for assessing whether project-related traffic increases result in significant impacts on intersection operating conditions. The adopted significance criteria, summarized below, depend on the classification of the streets at the intersection and the operating conditions of the intersection. The potential significance of a project's impact is measured either by the change in average vehicular delay or by a change in the intersection operating conditions to unacceptable conditions. If the projected LOS is F, however, significance is defined in terms of a change in V/C ratio (as calculated by the Highway Capacity Manual's Operational Analysis method), since the average vehicular delay cannot be calculated using the Highway Capacity Manual operational method if the intersection exhibits oversaturated traffic conditions.

In accordance with Santa Monica criteria, an impact is considered to be significant if one of the following thresholds is exceeded with the addition of the Proposed Project:

- If LOS equals A, B or C and is a collector street intersection and the average vehicle delay increase is greater than or equal to 15 seconds or LOS becomes D, E or F
- If LOS equals A, B or C and is an arterial street intersection and the average vehicle delay increase is greater than or equal to 15 seconds or LOS becomes E or F
- If LOS equals D and is a collector street intersection and there is any net increase in average seconds of delay per vehicle
- If LOS equals D and is an arterial street intersection and the average vehicle delay increase is greater than or equal to 15 seconds or LOS becomes E or F
- If LOS equals E and is a collector or arterial intersection and there is any net increase in average seconds of delay per vehicle
- If LOS equals F and is a collector or arterial intersection and the Highway Capacity Manual V/C ratio net increase is greater than or equal to 0.005

City of Culver City Significance Criteria for Intersections. The City of Culver City has established threshold criteria used to determine if a project has a significant traffic impact at a signalized intersection under the City of Culver City jurisdiction. According to the City of Culver City criteria, a Project impact would be considered significant if the following conditions are met:

Intersection Conditions with Project Traffic		Project-related Increase in V/C Ratio
LOS	V/C Ratio	
C	0.701 to 0.800	Equal to or greater than 0.050
D	0.801 to 0.900	Equal to or greater than 0.040
E, F	0.901 or more	Equal to or greater than 0.020

CONGESTION MANAGEMENT PROGRAM (CMP)

Freeway Segment Analysis. The Proposed Project would have a significant impact related to the CMP if it would exceed the established threshold. CMP mainline freeway monitoring locations where the Proposed Project could add 150 or more trips in either direction during either the AM or PM weekday peak hours are subject to CMP analysis. The CMP traffic impact analysis guidelines indicate that a significant Project impact occurs when the following threshold is exceeded:

- The Proposed Project increases traffic demand on a CMP facility by two percent of capacity (V/C ≥0.02), causing LOS F (V/C > 1.00)

If the facility is already at LOS F, a significant impact occurs when the Proposed Project increases traffic demand on a CMP facility by two percent of capacity (V/C ≥ 0.02).

The required CMP methodology compares the typical lane capacity for a freeway mainline segment to the number of vehicles traveling on the segment during the peak hour. Due to bottlenecks in the freeway network, vehicle demand can often exceed vehicle throughput resulting in significant reductions in travel speeds and extensive vehicle queuing. When this situation occurs, the number of vehicles passing a CMP monitoring location may be substantially lower than the actual vehicle demand for that location. This results in an artificially low traffic count at the CMP monitoring station, that when compared to the typical lane capacity, can show better operations (i.e., a lower V/C) than experienced by drivers.

Arterial Intersection Analysis. CMP arterial monitoring intersections, including monitored freeway on-ramps or off-ramps, where the Proposed Project will add 50 or more trips during either the AM or PM weekday peak hours are subject to CMP analysis. The CMP exempts from analysis residential and mixed use projects within ¼ mile of fixed rail passenger stations. Although some portions of the Project and study intersections would qualify for this exemption, all CMP intersections in the study area were evaluated.

The Proposed Project would have a significant impact related to the CMP if it would exceed the established threshold. The *Congestion Management Program for Los Angeles County* traffic impact analysis guidelines indicate that a significant Project impact occurs when the following threshold is exceeded:

- The Proposed Project increases traffic demand on a CMP facility by 2 percent of capacity (V/C ≥0.02), causing LOS F (V/C > 1.00)

If the facility is already at LOS F, a significant impact occurs when the Proposed Project increases traffic demand on a CMP facility by 2 percent of capacity (V/C ≥ 0.02).

Transit Impact Review. The Proposed Project would have a significant impact related to the CMP Transit system if it would substantially impact transit service.

NEIGHBORHOOD INTRUSION

The Proposed Project would have a significant impact related to neighborhood intrusion if it increase the average daily traffic (ADT) volume on a local residential street in an amount equal to or greater than the following:

- ADT increase ≥ 16% if final ADT < 1,000
- ADT increase ≥ 12% if final ADT ≥ 1,000 and < 2,000
- ADT increase ≥ 10% if final ADT ≥ 2,000 and < 3,000
- ADT increase ≥ 8% if final ADT ≥ 3,000

Final ADT is defined as total projected future daily volume including Proposed Project, ambient, and related project growth.

Because the routing of traffic to local residential streets depends on the locations of site access points for each development site and those access points cannot be known at this time, the Proposed Project is assessed qualitatively against these thresholds for purposes of this EIR.

SAFETY

The Proposed Project would have a significant impact if it would substantially change transportation safety. No specific methodologies or quantitative thresholds for safety have been defined by the three jurisdictions in the Study Area. CEQA Guidelines broadly define a safety impact threshold as "substantially increase hazards due to a design feature (sharp curves or dangerous intersections) or incompatible land uses (farm equipment)." The Threshold Guidelines include significance thresholds for Bicycle, Pedestrian, and Vehicular Safety. According to those guidelines, the determination of significance shall consider the following factors:

- The amount of pedestrian activity at project access points.
- Design features/physical configurations that affect visibility of cars to pedestrians and bicyclists.
- The type of bicycle facility that the project driveway(s) crosses and level of utilization.
- The physical conditions of the site and the surrounding area, such as curves, slopes, walls, landscaping or other barriers, that could result in vehicle/pedestrian, vehicle/bicycle, or vehicle/vehicle impacts.

The Proposed Project does not include specific design features at this time that would be known to increase hazards, so the Proposed Project is assessed qualitatively against these thresholds for purposes of this EIR.

EMERGENCY ACCESS

The CEQA Guidelines and the Thresholds Guide both state that the Proposed Project would have a significant impact if it would result in inadequate emergency access.[15,16] The Thresholds Guide provides screening criteria and thresholds of significance for evaluating emergency access in terms of two impacts: impacts to project access and impacts to emergency services.

The City's guidelines for analyzing project access impacts are best suited for evaluating *local* project access where design details are available and are not directly applicable to the evaluation of a Specific Plan. The City guidelines provide the following screening criteria for determining whether project access impacts, including emergency access, need to be studied in an EIR:

> *Would the Proposed Project generate 500 or more daily trips or 43 or more vehicle trips during either the a.m. or p.m. peak hours? If yes, would any of the following occur?*
>
> > *Is a project driveway proposed on a major or secondary highway within 150 feet of an intersection with another major or secondary highway? Would a project driveway intersect an on-street bicycle lane or cross a sidewalk in an area of high pedestrian activity? Can it be readily perceived that there are access risks or deficiencies associated with the adjoining street system due to curves, slopes, walls or other barriers to adequate lines of site?*
>
> *A "no" response to the first question and all of the following questions indicates that there would normally be no significant Project Access impacts from the proposed project.*

Since the Proposed Project does not include design-level details (such as driveway design and location) this criterion for evaluating project access is not used to evaluate emergency access of the ECTNP. As noted above the required City review of site plans addresses adequacy of access.

[15]CEQA Guidelines, Appendix G.
[16]City of L.A. Thresholds Guide, 2006, page 28.

The more suitable analysis for determining the emergency access impacts of the Proposed Project is provided in the *Threshold Guide's* discussion of impacts to fire and emergency medical services. The relevant CEQA threshold for significance for public services is as follows:

> *Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the above public services: i) Fire protection? ii) Police protection?*[17]

The City's screening criteria for whether fire service impacts need to be studied more, including whether there will be an increased number of intersections with LOS E or F (other screening criteria include: project distance to fire station, brush fire hazards, fire hydrant services, storage of combustible materials).[18] It is important to note that this is not the threshold of significance. This criteria simply informs whether further study is required, including possibly an EIR. The adopted threshold of significance in the City's threshold guidelines is that a project would normally have a significant impact on fire protection if it requires the addition of a new fire station or the expansion, consolidation or relocation of an existing facility to maintain service.

This is the threshold used in this EIR for determining the Proposed Project's emergency access impact.[19]

PUBLIC TRANSIT, BICYCLE, OR PEDESTRIAN FACILITIES

The Proposed Project would have a significant impact if it would disrupt existing public transit, bicycle, or pedestrian facilities or interfere with planned facilities, or create conflicts or inconsistencies with adopted public transit, bicycle, or pedestrian system plans, guidelines, policies, or standards. No other specific LOS methodologies or quantitative thresholds for performance have been defined by the three jurisdictions in the Study Area.

CONSISTENCY WITH PUBLIC TRANSIT/BICYCLE/PEDESTRIAN POLICIES OR PLANS

The Proposed Project would have a significant impact related to transportation if it would conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

PARKING

Parking deficits are considered to be socioeconomic effects, rather than impacts on the physical environment as defined by CEQA, but there may be secondary physical environmental impacts, such as increased traffic congestion at intersections, neighborhood intrusion, air quality impacts, safety impacts, noise impacts caused by congestion, or land use impacts. According to SB 743, parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area is not considered a significant impact. A transit priority area is defined as an area within ½ mile of a major transit stop that is existing or planned; the majority of the Project Area is within a transit priority area for the respective Expo Line stations. The Proposed Project would have a significant impact if secondary effects related to parking

[17] City of L.A. Thresholds Guide, 2006, page 26.

[18] *Ibid*, K.2-2.

[19] The City rejects the use of a threshold of significance for fire and emergency response services in this EIR that is directly tied to response times based on LOS as has been advocated by commentators on other City EIRs. The City is rejecting this threshold on the basis that, as discussed further in Impact 4.12-5, it is not supported by substantial evidence. There is no evidence, including substantial evidence, that has been provided to the City or that the City (including its traffic and environmental consultants) is aware of, or has found with reasonable diligence and inquiry, including searching the relevant academic and trade literature and other agency's EIRs prepared across the State, that can demonstrate to the City's satisfaction that there is a correlation between decreased LOS and decreased response times of fire and emergency response services, or that there is any method to connect LOS and response times for purposes of analyzing a plan adoption or update that covers an area the size of the Project Area.

contribute to impacts described by the other significance thresholds. These other significance thresholds are addressed in the relevant sections (noise, air quality, etc.).

CONSTRUCTION

The Proposed Project would have a significant impact if it would require construction activities to take place within a major or secondary highway right-of-way that would necessitate temporary lane, alley, or street closures for more than one day; require construction activities to take place within a collector or local street right-of-way that would necessitate temporary lane, alley, or street closures for more than seven days; result in the loss of regular vehicular or pedestrian access to an existing land use for more than one day; or result in the temporary loss for more than one day of an existing bus stop or rerouting of a bus route that serves the Proposed Project site.

OTHER METRICS FOR CUMULATIVE ANALYSIS

In addition to vehicular LOS and the other CEQA significance thresholds described above, the per-capita VMT, vehicle trips, and peak period mode split are also evaluated for informational purposes. Significance thresholds for these metrics have not been established by the City of Los Angeles so only the direction (i.e., increase or decrease) and magnitude of change is reported.

METHODOLOGY

INTERSECTION AND FREEWAY MAINLINE LEVEL OF SERVICE METHODOLOGY

A variety of standard methodologies are available to analyze LOS, and a lead agency retains discretion to decide how the existing physical conditions without the Proposed Project can most realistically be measured. As required by the *Traffic Study Policies and Procedures*, the CMA method is used to determine the LOS grade for signalized intersections within the City of Los Angeles (Transportation Research Board, 1980). The CMA methodology determines the intersection V/C ratio. The V/C ratio is then used to determine the corresponding LOS grade. The City of Culver City utilizes a similar but different method of intersection capacity calculation: Intersection Capacity Utilization (ICU). Under both the CMA and ICU methodology, a V/C ratio is generated for each study intersection based on factors such as the volume of traffic and the number of lanes providing for such vehicle movement and an LOS grade. The City of Santa Monica utilizes the Highway Capacity Manual's Operational Analysis delay-based method of intersection capacity calculation. **Table 4.12-3** provides LOS definitions for signalized intersections and freeway mainline segments according to jurisdictions in the area.

In consultation with LADOT and in accordance with precedent, the governing methodologies for each jurisdiction were utilized for the study of impacts in each separate jurisdiction. LOS worksheets are included in **Appendix H**.

Under the CMA methodology, a V/C ratio is generated for each study intersection based on factors, such as the volume of traffic and the number of travel lanes and theoretical lane capacity available to the traffic on each approach. Because the CMA methodology uses V/C as the means to determine LOS, the results of CMA methodology tend to inaccurately reflect the effects of congestion in areas with acute traffic congestion. During periods of acute congestion, fewer vehicles may travel through an intersection because of gridlock. Lower vehicle throughput translates into lower V/C, resulting in artificially better LOS measurements. For instance, the V/C may show a LOS of B, C, or D when there are instead gridlock conditions that should be categorized as LOS E or F. As a result, LOS results may not accurately reflect true, on-the-ground traffic conditions for intersections experiencing heavy congestion.

TABLE 4.12-3: LEVEL OF SERVICE DEFINITIONS SUMMARY TABLE

LOS ANGELES AND CULVER CITY SIGNALIZED INTERSECTIONS

Level of Service	Volume/Capacity Ratio	Definition
A	0.000 - 0.600	EXCELLENT. No Vehicle waits longer than one red light and no approach phase is fully used.
B	>0.600 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat what restricted within groups of vehicles.
C	>0.700 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	>0.800 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	>0.900 - 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

SOURCE: *Transportation Research Circular No. 212, Interim Materials on Highway Capacity,* Transportation Research Board, 1980.

SANTA MONICA SIGNALIZED INTERSECTIONS

Level of Service	Seconds of Delay	Definition
A	≤10	EXCELLENT. No Vehicle waits longer than one red light and no approach phase is fully used.
B	>10 and ≤20	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat what restricted within groups of vehicles.
C	>20 and ≤35	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	>35 and ≤55	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	>55 and ≤80	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	>80	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

SOURCE: *Highway Capacity Manual,* Transportation Research Board, 2010.

CMP FREEWAY MAINLINE SEGMENTS

Level of Service	Demand-to-Capacity Ratio
A	0.00-0.35
B	>0.35-0.54
C	>0.54-0.77
D	>0.77-0.93
E	>0.93-1.00
F(0)	>1.00-1.25
F(1)	>1.25-1.35
F(2)	>1.35-1.45
F(3)	>1.45

SOURCE: *Congestion Management Program*, Metro, 2010.

During field observations, intersections in the study area were observed to experience acute traffic congestion during the afternoon peak traffic period on certain approaches of the intersection, resulting in a reduced number of vehicles traveling through the intersection. This reduction in vehicle throughput was determined to inaccurately reflect the existing LOS experienced by motorists. The congestion was determined to be worsened by the temporary impacts of construction of the I-405 Sepulveda Pass Improvements Project and the construction of the Expo LRT Line Phase 2, resulting in uncharacteristically oversaturated conditions unreflective of generally existing conditions and longer than normal queuing and delays. In consultation with LADOT and in accordance with LADOT's traffic study guidelines, adjusted capacities were used to calculate V/C ratios to reflect conditions where congestion has led to suppressed volumes. The adjusted capacities were calculated based on field observations of saturation flow (traffic conditions during acute congestion) at the intersections listed below. LADOT allows for the adjustment (substitution of lower observed capacity for theoretical capacity) of intersection capacities at heavily congested locations to better reflect the operating conditions that are observed in the field and subsequently experienced by motorists.

The LOS worksheets included in **Appendix H** reflect the adjusted capacity values for these intersections as described in **Appendix H**. The following intersections were adjusted to reflect traffic bottlenecks and spillbacks, and the resulting LOS:

1. Barrington Avenue & Santa Monica Boulevard
2. Barrington Avenue & Pico Boulevard
3. Gateway Boulevard & Pico Boulevard
4. Beloit/I-405 SB Off-Ramp & Santa Monica Boulevard
5. Sawtelle Boulevard & Olympic Boulevard
6. Sawtelle Boulevard & Pico Boulevard
7. Cotner Avenue/I-405 NB On-Ramp & Santa Monica Boulevard
8. Sepulveda Boulevard & Santa Monica Boulevard
9. Sepulveda Boulevard & Olympic Boulevard
10. Sepulveda Boulevard & Pico Boulevard
11. Culver Boulevard & Venice Boulevard
12. Robertson Boulevard & Venice Boulevard
13. Robertson Boulevard & National Boulevard
14. National Boulevard & I-10 EB On-Ramp
15. National Boulevard & Venice Boulevard

The City of Los Angeles' Automated Traffic Surveillance and Control (ATSAC) system is a computer-based traffic signal control system that monitors traffic conditions and system performance to allow ATSAC operations to manage signal timing to improve traffic flow conditions. The Adaptive Traffic Control System (ATCS) is an enhancement to ATSAC and provides fully responsive traffic-adaptive signal control based on real-time traffic conditions. All of the signalized study intersections in the City of Los Angeles are currently operating under the City's ATSAC system and ATCS control. ATSAC and ATCS provide improved operating conditions. Therefore, in accordance with City of Los Angeles procedures, a credit of 0.07 V/C reduction was applied at all intersections where ATSAC is implemented, and an additional 0.03 V/C reduction was applied at the same intersections where ATCS is implemented.

Trip Generation and Vehicle Miles Traveled (VMT) Methodology. In order to analyze the effects of the Proposed Project on the transportation network, it was necessary to calculate vehicle trip generation for the change areas within each of the five light rail station areas. These estimates are based on a quantitative model that attempts to capture the vehicle traffic reduction effects of mixed-use developments and improve on current trip generation methods that rely on conventional travel demand models or rates and adjustments from the Institute of Transportation Engineers (ITE). ITE trip generation rates have been developed from data collected mainly at single land use sites that do not account for mixed-use (including accounting for reduced trip generation as a result of trips occurring internal to the Proposed Project between on-site uses) or transit-oriented development (where an increased shift from vehicles to transit can be expected), thus resulting in trip

characteristics that would not be applicable to this type of project. Further information on ITE guidance and recommended practice for analysis of mixed-use and transit-oriented developments (TODs) can be found in the American Planning Association (APA) Planning Advisory Service (PAS) report *Getting Trip Generation Right: Eliminating the Bias against Mixed-Use Development*, May 2013 (See **Appendix H**).

Due to the mix of land uses proposed in the Plan area and the state of the practice guidance noted above, a Mixed-Use Development Trip Generation (MXD) model was used to estimate the probabilities for a trip that would be captured internally among complementary uses, that would be a walking trip from/to employment within one mile of the site, or that would be a transit trip from/to employment within a 30-minute transit ride of the site. These trips would no longer be accounted for as vehicle trips that would leave the site, but would instead shift to walking, biking, transit, or trips by other modes that would remain internal or very close to the Project Area. Additional trip generation adjustments related to transportation demand management (TDM) measures were not included in this analysis. TDM requirements that exceed the current municipal code, such as transit system improvements, parking pricing, and commute trip reduction programs have been shown to further reduce both trip generation and VMT. The ECTNP requires most new development to implement several TDM strategies, such as unbundled parking, parking cash out programs, and subsidized transit passes. Additionally, in exchange for additional development rights, commercial projects are required to achieve a vehicle trip reduction using further TDM strategies. These elements are not explicitly analyzed within the ECTNP and, therefore, are not included in the MXD trip generation.

Table 4.12-4 and **Table 4.12-5** provide the future trip generation for the segments around each of the five Expo LRT stations. **Table 4.12-6** shows the trip generation attributable to the Proposed Project. The Gross Trips represent trip generation based on the traditional ITE rates, while the Net External Trips (MXD) represent the gross trips net of the internally captured trips described above. Also described in the tables are the vehicle trip adjustments that represent the share of gross trips that are captured internally or shifted to non-auto modes (e.g., walk, bike and transit). In general, the trip generation shows an increase in automobile trips due to the Proposed Project at all station areas. (See the "Cumulative Analysis and Other Metrics" discussion later in this section, which shows that despite an increase in trips due to the Project, an even greater increase in the growth of the service population due to the Project results in reduced Vehicle Miles Traveled per capita.)

TABLE 4.12-4: FUTURE (2035) NO PROJECT TRIP GENERATION

	Daily			AM Peak Hour			PM Peak Hour		
Station Segment	**Gross Trips (ITE)**	**Net External Trips (MXD)**	**Vehicle Trip Adjustment**	**Gross Trips**	**Net External Trips**	**Vehicle Trip Adjustment**	**Gross Trips**	**Net External Trips**	**Vehicle Trip Adjustment**
Bundy	78,418	**55,683**	29%	6,574	**4,546**	31%	8,830	**5,625**	36%
Sepulveda	103,197	**71,871**	30%	7,526	**5,077**	33%	11,024	**6,816**	38%
Westwood	53,825	**37,957**	29%	2,851	**1,853**	35%	5,291	**3,278**	38%
Palms	108,875	**75,160**	31%	7,842	**4,920**	37%	10,633	**6,684**	37%
Culver City	55,615	**38,238**	31%	3,764	**2,410**	36%	5,659	**3,489**	38%

SOURCE: Fehr & Peers, 2015.

TABLE 4.12-5: FUTURE (2035) WITH PROJECT TRIP GENERATION

	Daily			AM Peak Hour			PM Peak Hour		
Station Segment	**Gross Trips (ITE)**	**Net External Trips (MXD)**	**Vehicle Trip Adjustment**	**Gross Trips**	**Net External Trips**	**Vehicle Trip Adjustment**	**Gross Trips**	**Net External Trips**	**Vehicle Trip Adjustment**
Bundy	112,090	**78,602**	30%	10,839	**7,524**	31%	12,998	**8,213**	37%
Sepulveda	117,411	**81,944**	30%	9,544	**6,501**	32%	12,849	**8,003**	38%
Westwood	54,076	**38,101**	30%	2,897	**1,880**	35%	5,322	**3,298**	38%
Palms	124,433	**84,078**	32%	8,474	**5,168**	39%	12,021	**7,263**	40%
Culver City	67,021	**46,349**	31%	5,278	**3,434**	35%	7,038	**4,366**	38%

Source: Fehr & Peers, 2015.

TABLE 4.12-6: PROJECT ONLY TRIP GENERATION

Station Segment	Net External Trips		
	Daily	AM Peak Hour	PM Peak Hour
Bundy	22,919	2,978	2,588
Sepulveda	10,073	1,424	1,187
Westwood	144	27	20
Palms	8,918	248	579
Culver City	8,111	1,024	877

Source: Fehr & Peers, 2015.

These changes in land use result in mode split estimates that are considered conservative since they are based on experience with vehicular trip generation in mixed-use and transit-oriented developments. If recent changes in demographics, vehicle ownership patterns, and energy prices persist or increase in magnitude, this could lead to further increases in mode shift to lower-energy and lower-cost transportation modes.

The trip generation estimated by the MXD model was categorized according to the origin and destination of each trip. Internal-to-internal (II) trips remain within each station area. Internal-to-external (IX) trips originate within each station area and terminate at an outside destination. External-to-internal (XI) trips originate outside each station area and terminate within it. The VMT calculation accounts for 100 percent of internal-to-internal (II) trips and 50 percent of both internal-to-external (IX) and external-to-internal (XI) trips; trips that pass through a station area but both originate and terminate outside of it ("through trips") are excluded. Trips were further categorized by trip purpose, including home-based work, home-based other, and non-home based trips. Average trip lengths by purpose and origin-destination type (II, IX, or XI) were then applied to the trip generation estimates to calculate the VMT attributable to land uses in the five station areas.

Travel Demand Model Development. The potential impacts associated with implementation of the ECTNP are evaluated using the City of Los Angeles' Travel Demand Model. The model developed for the ECTNP utilizes the TransCAD Version 4.8 Build 500 modeling software and has been calibrated and validated for current conditions. The model has a future horizon year of 2035 and was designed to produce AM and PM peak period vehicle and transit flows on roadways within the study area based on comprehensive land use and socioeconomic data (SED) and uses a conventional 4-step process of trip generation, trip distribution, modal split and assignment. For modeling purposes, the City of Los Angeles is divided into 1,411 Transportation Analysis Zones (TAZs), each with corresponding SED and connections to the roadway and transit networks. The SED reflects a combination of the City of Los Angeles SED data and the SCAG 2012-2035 RTP/SCS Model data for existing and future conditions.

Changing Travel Behavior and VMT Trends. As discussed throughout this EIR, federal, state, regional and local regulations and policies are increasingly addressing reduction of GHG emissions. SB 375 requires Metropolitan Planning Organizations (SCAG in the Los Angeles area) to identify land use strategies to achieve specified GHG emission reductions from automobiles and light trucks. The 2012-2035 RTP/SCS contains the regional-scale Sustainable Communities Strategy to achieve per capita GHG reduction targets specified by the California Air Resources Board (CARB). However, the RTP presents only a regional strategy that local jurisdictions are required to interpret at the local level to ensure consistency with the 2012-2035 RTP/SCS and required reductions in VMT and therefore GHGs. At its heart, the regional strategy calls for increasing density around transit stations and increasing mixed-use land uses. Regional and City planning is based on total forecast growth, so if growth increases in areas adjacent to transit stations, it would decrease in areas further from transit. With more development closer to transit in the region and in the City, average VMT by car per capita would decrease.

The ECTNP is the City of Los Angeles response to the 2012-2035 RTP/SCS for the Exposition Corridor in the critical West Los Angeles area. West Los Angeles is already substantially congested and is, therefore, the focus of extensive transit and active transportation planning efforts on the part of Metro and other transit agencies. The City of Los Angeles aims to complement these transit planning efforts with land use planning in the ECTNP that encourages not only transit use but also active transportation (bicycling and walking).

However, the ECTNP does not stand alone; it is part of the synergistic group of plans, policies and regulations that are anticipated to foster a community that is less dominated by personal vehicles and more supportive of alternative modes of transportation. This shift in focus and changed behaviors, together with anticipated changes in energy pricing, would not occur overnight, and it may be several years before the results of this societal change are fully reflected in what we see on our streets and what the traffic models reflect.

As noted, traffic models are substantially based on past precedent. The model-estimated changes in circulation system conditions are conservative, vehicle-centric estimates based on historical travel behavior patterns and do not account for additional changes in demographics, vehicle ownership patterns, energy prices, and migration to walkable and transit-served locations that would lead to decreasing vehicular volumes. Transportation demand models are largely dependent on historical travel patterns and mode choices when forecasting future traffic projections. Recent research in this area suggests that factors correlated with annual VMT over the last 60 years include the economy, demographics, technology, and the urban form of the built environment. Specifically, this research shows both cyclical recession effects and a structural leveling of the economy and travel. Recent research shows significantly higher than expected transit ridership and lower than expected trip rates than typical ITE rates.[20]

The traffic model used for the ECTNP is primarily validated and calibrated to conservatively forecast vehicular travel. While it also includes forecasts of transit ridership and short trips that are likely to be walking or bicycling trips, the sensitivity of the model to shifts in demographics, vehicle ownership, walkability, and active transportation networks at a citywide scale is limited. Accordingly, expected increases in bicycling and pedestrian activity anticipated to result from changing land use policies, as well as increasing regulations and fuel pricing, have not been directly quantified and incorporated in to the traffic model. It is possible that current traffic studies (including the study in this EIR) that rely on the traffic model for vehicle trip generation may overstate future traffic congestion, possibly by a substantial amount.

In response to increased focus on reducing GHG emissions, the State is shifting the approach to the assessment of traffic impacts – away from the traditional metrics such as Level of Service (LOS) that measure levels of traffic congestion and towards metrics that address GHG emissions such as per capita VMT.[21] Also as noted above, it is anticipated the Governor's OPR will provide additional guidance on CEQA review of transportation impacts.

Analysis Scenarios. Two CEQA cases address analysis scenarios: 1) *Sunnyvale West Neighborhood Assoc. v. City of Sunnyvale City Council (6th Dist. 2010) 190 Cal.App.4th 1351* (Sunnyvale West) and 2) *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority (2013) 57 Cal.4th 439* (Expo II). The first case indicated that Project impacts should be compared directly to existing conditions. However, this is not always an appropriate comparison, particularly for planning projects.

For a planning project that would be implemented over time, comparison of the Project to existing conditions would be misleading because the plan cannot be built out immediately. Impacts would not occur in the context of existing conditions, but rather in the future context once the plan has had time to be realized.

[20]Boarnet, Marlon J., Andy Hong, Jeongwoo Lee, Xize Wang, Weijie Wang. 2013. The Exposition Light Rail Line Study A Before-and-After Study of the Impact of New Light Rail Transit Service. *USC Sol Price School of Public Policy.* 59-61.

[21]Governor's OPR, *Updating Transportation Impacts Analysis in the CEQA Guidelines*, August 6, 2014.

The *Neighbors for Smart Rail* case clarified that comparison to an existing condition may *not* be appropriate if there is, "substantial evidence that an analysis based on existing conditions would tend to be misleading or without informational value to EIR users."

Thus for a planning project, significance of impacts is more appropriately assessed based on a comparison between Future (at the earliest time buildout could reasonably be expected) Project conditions and Future No Project conditions. The ECTNP is a plan that is anticipated to be fully realized only over time with all improvements anticipated to happen in 2035 or later. Therefore, an analysis of potential land use changes and associated traffic impacts compared to existing traffic conditions could be misleading since the land uses changes would not occur immediately.

Nonetheless, even though the Project could not be built out immediately, an analysis of the Proposed Project compared to existing conditions (2015 No Project compared to 2015 with Project) is provided for informational purposes. In this case, 2015, the anticipated opening year of the Expo LRT Phase 2, is used to represent existing conditions.[22] (Although in this EIR the year 2013 is considered the base year for analysis, 2015 is instead used as the base year for the transportation analysis since the Project assumes the Expo LRT Phase 2 to be operational.)

Finally, the City of Los Angeles has recently adopted MP 2035, formerly the Transportation Element of the City's General Plan, as the transportation blueprint for the City of Los Angeles. The City is also in the process of making amendments to the Coastal Transportation Corridor Specific Plan (CTCSP) and West LA Transportation Improvement and Mitigation Specific Plan (WLA TIMP), which will include an updated list of transportation improvements to be funded by impact fees on new development and an update to the Transportation Impact Assessment (TIA) fee program. Together these projects (MP 2035, CTCSP, and WLA TIMP) represent the future cumulative condition. An analysis of the cumulative scenario both with and without the Project is provided.

The following scenarios are analyzed:

1. Existing Conditions (2013)
2. 2015 No Project
3. 2015 with Project
4. Future No Project (2035)
5. Future with Project (2035)
6. Future Cumulative without Project (2035)
7. Future Cumulative with Project (2035)

The following comparisons between scenarios are described herein:

1. 2015 No Project vs. 2015 with Project
2. Future No Project (2035) vs. Future with Project (2035)
3. Future Cumulative without Project vs. Future Cumulative with Project (a comparison of data such as vehicle trips, vehicle miles traveled and mode share for the West Los Angeles Area Planning Commission geography)

Alternative Compliance Scenario. As discussed in Chapter 3.0, Project Description, the ECTNP includes an alternative compliance procedure that would allow designated sites (within the areas of change) to have a different mix of residential and non-residential uses than required per the zoning of the property. Projects utilizing this path would still be subject to the maximum floor area ratio (FAR) and other zoning and development standards, but would also be required to provide increased public benefits and affordable housing (within Chapter 3.0, Project Description, Table 3-13 compares the population, housing, and employment of the

[22]At the time of this study, the opening year for EXPO LRT Phase 2 was anticipated to be 2015. It instead opened in 2016. This does not have a measurable effect on the analysis.

Proposed Project incorporating the Alternative Compliance scenario to the results of the Proposed Project not accounting for the Alternative Compliance scenario; Figure 3-8 shows the parcels where the Alternative Compliance scenario would be permitted). Projects reviewed under the Alternative Compliance procedure of the Specific Plan would be required to obtain a "Director's Determination for an Alternative Compliance." Alternative Compliance scenario would result in increased residential land use on a given parcel but not increased FAR. Trip generation from increased residential development (but not increased total development) on any given site would result in fewer trips than assumed for the Project without Alternative Compliance, therefore a separate Alternative Compliance scenario is not analyzed herein.

IMPACTS

IMPACT 4.12-1 WOULD IMPLEMENTATION OF THE PROPOSED PROJECT DISRUPT EXISTING PUBLIC TRANSIT, BICYCLE, OR PEDESTRIAN FACILITIES OR INTERFERE WITH PLANNED FACILITIES, OR CREATE CONFLICTS OR INCONSISTENCIES WITH ADOPTED PUBLIC TRANSIT, BICYCLE, OR PEDESTRIAN SYSTEM PLANS, GUIDELINES, POLICIES, OR STANDARDS OR OTHERWISE DECREASE THE PERFORMANCE OR SAFETY OF SUCH FACILITIES? THIS IS A LESS THAN SIGNIFICANT IMPACT.

The Proposed Project seeks to enhance access to transit stations and creates new zoning regulations to encourage appropriate mixes and scales of uses as well as site design supportive of transit use. These objectives are consistent with the SCAG 2012-2035 RTP/SCS and the MP 2035 goals and policies. The Proposed Project would not disrupt any existing or planned transit facilities or create conflicts or inconsistencies with adopted transit plans, guidelines, policies, or standards, but rather helps to implement them by encouraging development patterns that would foster transit ridership. Therefore, impacts related to the transit system would be less than significant.

The Proposed Project seeks to improve the configuration and condition of streets to better promote bicycle circulation. It anticipates the bicycle networks identified in the MP 2035 and allows these networks to be accommodated in the future. The Proposed Project would not disrupt any existing or planned bicycle facilities, or create conflicts or inconsistencies with adopted bicycle system plans, guidelines, policies, or standards. Therefore, impacts related to the bicycle circulation system would be less than significant.

The Proposed Project aims to support vibrant neighborhoods around transit stations, where people can live, work, shop and dine, all within a safe and pleasant walk to transit stations. The Proposed Project requires the design of new buildings to be pedestrian-oriented and seeks to improve the configuration and condition of streets to better promote pedestrian circulation. The Proposed Project would not disrupt existing pedestrian facilities or interfere with planned pedestrian facilities, or create conflicts or inconsistencies with adopted pedestrian system plans, guidelines, policies, or standards. Instead, the Project attempts to enhance pedestrian facilities through site planning requirements, public benefits requirements, streetscape improvements, etc. Therefore, impacts related to the pedestrian circulation system would be less than significant. See also the more detailed discussion of plans and policies in Section 4.8, Land Use and Planning.

MITIGATION MEASURES

Impacts related to public transit, bicycle or pedestrian facilities would be less than significant under the Proposed Project. No mitigation measures are necessary.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

Impacts related to public transit, bicycle or pedestrian facilities under the Proposed Project would be less than significant without mitigation.

IMPACT 4.12-2 WOULD IMPLEMENTATION OF THE PROPOSED PROJECT IMPACT THE CIRCULATION SYSTEM BY EXCEEDING THE APPLICABLE THRESHOLDS ESTABLISHED BY EACH JURISDICTION? THIS IMPACT IS SIGNIFICANT AND UNAVOIDABLE.

Consistent with existing requirements of each affected jurisdiction in the Study Area, V/C ratios and LOS calculations were prepared for the 86 study intersections under (1) 2015 No Project, (2) 2015 With Project, (3) Future (2035) No Project, and (4) Future (2035) With Project conditions. Each intersection was analyzed using the methodology of the jurisdiction in which the intersection is located. In addition, Signal Warrant Analysis was performed for the two unsignalized study intersections.

2015 and 2035 No Project. 2015 No Project traffic volumes were analyzed to determine V/C ratios or seconds of delay and a corresponding LOS for each of the study intersections. As indicated in **Table 4.12-7A**, 31 intersections are projected to operate at LOS E or F in either the AM or PM peak hour under 2015 conditions without the Project. 2035 No Project traffic volumes were also analyzed. Under 2035 conditions, 38 intersections are projected to operate at LOS E or F in either the AM or PM peak hour without the Proposed Project. The number of intersections operating at E or F in 2015 without the project is anticipated to be slightly less than in 2013 (31 in 2015 compared to 33 in 2013) because of the immediate benefits of the Expo LRT, which would be operational in 2015.

TABLE 4.12-7A: INTERSECTIONS OPERATING AT LOS E OR F UNDER NO PROJECT CONDITIONS

ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	2015 No Project		2035 No Project	
				V/C or Delay	LOS	V/C or Delay	LOS
3	Stewart St. Olympic Blvd.	Santa Monica	AM	*	*	66.0	E
			PM	*	*	28.2	C
6	Centinela Ave. Exposition Blvd. /b/	Santa Monica	AM	27.5	D	63.8	F
			PM	39.0	E	110.8	F
7	Centinela Ave. I-10 WB On-/Off-Ramps	Los Angeles	AM	0.887	D	0.953	E
			PM	0.887	D	1.079	F
		Santa Monica	AM	52.4	D	69.4	E
			PM	56.9	E	120.3	F
11	Bundy Dr. Wilshire Blvd.	Los Angeles	AM	*	*	1.003	F
			PM	*	*	1.015	F
17	Bundy Dr. Pico Blvd.	Los Angeles	AM	0.893	D	0.904	E
			PM	0.955	E	1.075	F
19	Bundy Dr. Ocean Park Blvd.	Los Angeles	AM	0.931	E	0.980	E
			PM	1.042	F	1.049	F
21	Barrington Ave. Santa Monica Blvd.	Los Angeles	AM	1.071	F	1.293	F
			PM	1.190	F	1.356	F
25	Barrington Ave. Mississippi Ave.	Los Angeles	AM	*	*	0.687	B
			PM	*	*	0.920	E
27	Barrington Ave. Pico Blvd.	Los Angeles	AM	1.011	F	1.133	F
			PM	1.145	F	1.232	F
31	Beloit Ave./I-405 SB Off-Ramp Santa Monica Blvd.	Los Angeles	AM	1.117	F	1.250	F
			PM	1.320	F	1.361	F
32	Sawtelle Blvd. Olympic Blvd.	Los Angeles	AM	1.041	F	1.150	F
			PM	1.327	F	1.460	F
34	Sawtelle Blvd. Pico Blvd.	Los Angeles	AM	1.117	F	1.100	F
			PM	1.221	F	1.285	F
35	Sawtelle Blvd. National Blvd.	Los Angeles	AM	0.931	E	1.054	F
			PM	0.870	D	1.152	F
36	I-405 SB On-Ramp National Blvd.	Los Angeles	AM	*	*	0.566	A
			PM	*	*	0.955	E
38	Cotner Ave./ I-405 NB On-/Off-Ramps Santa Monica Blvd.	Los Angeles	AM	1.053	F	1.240	F
			PM	1.121	F	1.363	F

TABLE 4.12-7A: INTERSECTIONS OPERATING AT LOS E OR F UNDER NO PROJECT CONDITIONS

ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	2015 No Project		2035 No Project	
				V/C or Delay	LOS	V/C or Delay	LOS
39	Sepulveda Blvd. Santa Monica Blvd.	Los Angeles	AM	1.108	F	1.189	F
			PM	1.221	F	1.458	F
40	Sepulveda Blvd. Olympic Blvd.	Los Angeles	AM	1.075	F	1.202	F
			PM	1.192	F	1.293	F
41	Sepulveda Blvd. Pico Blvd.	Los Angeles	AM	1.000	E	1.014	F
			PM	1.317	F	1.334	F
45	Sepulveda Blvd. National Blvd.	Los Angeles	AM	0.909	E	0.973	E
			PM	1.009	F	1.144	F
46	Sepulveda Blvd. Palms Blvd.	Los Angeles	AM	0.835	D	0.880	D
			PM	0.967	E	1.013	F
48	Westwood Blvd. Olympic Blvd.	Los Angeles	AM	0.982	E	0.971	E
			PM	0.895	D	1.019	F
52	Overland Ave. Pico Blvd.	Los Angeles	AM	0.876	D	0.896	D
			PM	0.940	E	0.971	E
53	Overland Ave. National Blvd./ I-10 WB On-/Off-Ramps	Los Angeles	AM	0.997	E	1.125	F
			PM	1.148	F	1.381	F
57	Overland Ave. Palms Blvd.	Los Angeles	AM	0.906	E	0.963	E
			PM	1.023	F	1.061	F
59	Overland Ave. Culver Blvd.	Culver City	AM	0.990	E	1.160	F
			PM	0.951	E	1.036	F
67	Castle Heights Ave. National Blvd.	Los Angeles	AM	0.947	E	1.120	F
			PM	0.787	C	0.880	D
69	Robertson Blvd. /a/ Venice Blvd.	Los Angeles	AM	*	*	1.279	F
			PM	*	*	1.077	F
70	Robertson Blvd. National Blvd.	Los Angeles	AM	1.202	F	1.259	F
			PM	1.034	F	1.085	F
72	National Blvd. /a/ Venice Blvd.	Los Angeles	AM	0.982	E	1.007	F
			PM	1.007	F	1.114	F
73	National Blvd. Washington Blvd.	Culver City	AM	0.742	C	0.789	C
			PM	0.917	E	1.029	F
76	La Cienega Blvd. Venice Blvd.	Los Angeles	AM	*	*	0.933	E
			PM	*	*	0.933	E
77	La Cienega Blvd. Washington Blvd.	Culver City	AM	0.936	E	0.984	E
			PM	0.891	D	1.025	F
78	Jefferson Blvd. National Blvd.	Los Angeles	AM	0.924	E	1.071	F
			PM	0.763	C	0.907	E
81	Ince Blvd. Culver Blvd.	Culver City	AM	*	*	0.945	E
			PM	*	*	0.931	E
82	Washington Blvd./Irving Pl./ Watseka Ave. Culver Blvd.	Culver City	AM	0.914	E	1.007	F
			PM	0.954	E	1.096	F
84	Sepulveda Blvd. Venice Blvd.	Culver City	AM	0.922	E	0.999	E
			PM	0.949	E	1.019	F
		Los Angeles	AM	0.858	D	0.945	E
			PM	0.888	D	0.969	E
85	Sepulveda Blvd. 405 NB On-/Off-Ramps	Culver City	AM	0.854	D	0.867	D
			PM	0.956	E	0.974	E
86	Sawtelle Blvd. 405 SB On-/Off-Ramps	Culver City	AM	1.133	F	1.163	F
			PM	0.980	E	1.019	F

CMA/ICU methodology uses a V/C ratio, while Highway Capacity Manual methodology uses seconds of delay. The City of Santa Monica uses Highway Capacity Manual Methodology. City of LA uses CMA methodology. Culver City uses ICU methodology. Unsignalized intersections use Highway Capacity Manual unsignalized methodology.
*Intersection operates at LOS D or better in both AM and PM peak hour
/a/ Intersection geometry altered due to construction.
/b/ Unsignalized intersection. City of Santa Monica uses Highway Capacity Manual unsignalized methodology. (City of Los Angeles does not require impact analysis for unsignalized intersections.)
SOURCE: Fehr & Peers, 2015.

2015 and 2035 With Project. As indicated in **Table 4.12-7B**, there would be 34 and 45 intersections in 2015 and 2035, respectively, operating at LOS E or F in either the AM or PM peak hour with the Proposed Project. In 2015 the Project would increase the number of intersections operating at LOS E or F to 34, as compared to 33 (in the pre-light rail 2013 conditions) and 31 (in 2015 with light rail but without the Project). In 2035 the Project would increase the number of intersections operating at LOS E of F from 38 (in 2035 without Project) to 45 (in 2035 With Project).

TABLE 4.12-7B: INTERSECTIONS OPERATING AT LOS E OR F UNDER PROJECT CONDITIONS

ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	2015 With Project		2035 With Project	
				V/C or Delay	LOS	V/C or Delay	LOS
3	Stewart St. Olympic Blvd.	Santa Monica	AM	*	*	69.9	E
			PM	*	*	28.7	C
6	Centinela Ave. Exposition Blvd. /b/	Santa Monica	AM	31.9	D	83	F
			PM	52.4	F	159.7	F
7	Centinela Ave. I-10 WB On-/Off-Ramps	Los Angeles	AM	0.908	E	0.974	E
			PM	0.971	E	1.163	F
		Santa Monica	AM	53.8	D	70.8	E
			PM	78.8	E	148.3	F
11	Bundy Dr. Wilshire Blvd.	Los Angeles	AM	*	*	1.007	F
			PM	*	*	1.037	F
16	Bundy Dr. Olympic Blvd.	Los Angeles	AM	*	*	0.920	E
			PM	*	*	0.877	D
17	Bundy Dr. Pico Blvd.	Los Angeles	AM	0.994	E	0.940	E
			PM	1.111	F	1.147	F
19	Bundy Dr Ocean Park Blvd.	Los Angeles	AM	0.994	E	1.060	F
			PM	1.111	F	1.115	F
20	Bundy Dr. National Blvd.	Los Angeles	AM	0.913	E	0.918	E
			PM	0.711	C	0.817	D
21	Barrington Ave. Santa Monica Blvd.	Los Angeles	AM	1.101	F	1.313	F
			PM	1.209	F	1.374	F
25	Barrington Ave. Mississippi Ave.	Los Angeles	AM	*	*	0.700	B
			PM	*	*	0.933	E
27	Barrington Ave. Pico Blvd.	Los Angeles	AM	1.086	F	1.208	F
			PM	1.223	F	1.309	F
31	Beloit Ave./I-405 SB Off-Ramp Santa Monica Blvd.	Los Angeles	AM	1.124	F	1.257	F
			PM	1.358	F	1.399	F
32	Sawtelle Blvd. Olympic Blvd.	Los Angeles	AM	1.153	F	1.178	F
			PM	1.337	F	1.470	F
33	Sawtelle Blvd. I-405 SB Off-Ramp	Los Angeles	AM	0.607	B	0.739	C
			PM	0.922	E	0.970	E
34	Sawtelle Blvd. Pico Blvd.	Los Angeles	AM	1.206	F	1.189	F
			PM	1.275	F	1.339	F
35	Sawtelle Blvd. National Blvd.	Los Angeles	AM	0.971	E	1.084	F
			PM	0.932	E	1.213	F
36	I-405 SB On-Ramp National Blvd.	Los Angeles	AM	*	*	0.569	A
			PM	*	*	0.988	E
38	Cotner Ave./ I-405 NB On-/Off-Ramps Santa Monica Blvd.	Los Angeles	AM	1.089	F	1.250	F
			PM	1.180	F	1.374	F
39	Sepulveda Blvd. Santa Monica Blvd.	Los Angeles	AM	1.110	F	1.191	F
			PM	1.230	F	1.462	F
40	Sepulveda Blvd. Olympic Blvd.	Los Angeles	AM	1.126	F	1.253	F
			PM	1.217	F	1.318	F
41	Sepulveda Blvd. Pico Blvd.	Los Angeles	AM	1.013	F	1.083	F
			PM	1.358	F	1.375	F
45	Sepulveda Blvd. National Blvd.	Los Angeles	AM	0.952	E	1.016	F
			PM	1.060	F	1.195	F
46	Sepulveda Blvd. Palms Blvd.	Los Angeles	AM	0.895	D	0.923	E
			PM	1.010	F	1.057	F
48	Westwood Blvd. Olympic Blvd.	Los Angeles	AM	0.984	E	0.973	E
			PM	0.899	D	1.020	F
49	Westwood Blvd. Pico Blvd.	Los Angeles	AM	*	*	0.804	D
			PM	*	*	0.922	E

TABLE 4.12-7B: INTERSECTIONS OPERATING AT LOS E OR F UNDER PROJECT CONDITIONS

ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	2015 With Project		2035 With Project	
				V/C or Delay	LOS	V/C or Delay	LOS
52	Overland Ave. Pico Blvd.	Los Angeles	AM	0.880	D	0.904	E
			PM	0.989	E	1.019	F
53	Overland Ave. National Blvd./ I-10 WB On-/Off-Ramps	Los Angeles	AM	1.001	F	1.177	F
			PM	1.197	F	1.420	F
57	Overland Ave. Palms Blvd.	Los Angeles	AM	0.927	E	0.984	E
			PM	1.072	F	1.111	F
58	Overland Ave. Venice Blvd.	Los Angeles	AM	*	*	0.874	D
			PM	*	*	0.908	E
59	Overland Ave. Culver Blvd.	Culver City	AM	1.015	F	1.184	F
			PM	0.969	E	1.055	F
61	Motor Ave. Palms Blvd.	Los Angeles	AM	0.760	C	0.760	C
			PM	0.932	E	0.960	E
67	Castle Heights Ave. National Blvd.	Los Angeles	AM	0.974	E	1.147	F
			PM	0.813	D	0.907	E
69	Robertson Blvd. /a/ Venice Blvd.	Los Angeles	AM	*	*	1.329	F
			PM	*	*	1.078	F
70	Robertson Blvd. National Blvd.	Los Angeles	AM	1.238	F	1.295	F
			PM	1.056	F	1.108	F
72	National Blvd. /a/ Venice Blvd.	Los Angeles	AM	1.012	F	1.038	F
			PM	1.065	F	1.157	F
73	National Blvd. Washington Blvd.	Culver City	AM	0.754	C	0.813	D
			PM	0.942	E	1.055	F
75	Robertson Blvd. Cattaraugus Ave.	Los Angeles	AM	*	*	0.907	E
			PM	*	*	0.877	D
76	La Cienega Blvd. Venice Blvd.	Los Angeles	AM	*	*	0.943	E
			PM	*	*	0.962	E
77	La Cienega Blvd. Washington Blvd.	Culver City	AM	0.956	E	1.012	F
			PM	0.918	E	1.052	F
78	Jefferson Blvd. National Blvd.	Los Angeles	AM	0.928	E	1.075	F
			PM	0.770	C	0.915	E
81	Ince Blvd. Culver Blvd.	Culver City	AM	*	*	0.959	E
			PM	*	*	0.938	E
82	Washington Blvd./Irving Pl./ Watseka Ave. Culver Blvd.	Culver City	AM	0.936	E	1.030	F
			PM	0.967	E	1.103	F
84	Sepulveda Blvd. Venice Blvd.	Culver City	AM	0.939	E	1.001	F
			PM	0.985	E	1.043	F
		Los Angeles	AM	0.877	D	0.949	E
			PM	0.930	E	0.997	E
85	Sepulveda Blvd. 405 NB On-/Off-Ramps	Culver City	AM	0.857	D	0.870	D
			PM	0.969	E	0.987	E
86	Sawtelle Blvd. 405 SB On-/Off-Ramps	Culver City	AM	1.155	F	1.185	F
			PM	0.998	E	1.024	F

CMA/ICU methodology uses a V/C ratio, while Highway Capacity Manual methodology uses seconds of delay. The City of Santa Monica uses Highway Capacity Manual Methodology. City of LA uses CMA methodology. Culver City uses ICU methodology. Unsignalized intersections use Highway Capacity Manual unsignalized methodology.
*Intersection operates at LOS D or better in both AM and PM peak hour
/a/ Intersection geometry altered due to construction.
/b/ Unsignalized intersection. City of Santa Monica uses Highway Capacity Manual unsignalized methodology. (City of Los Angeles does not require impact analysis for unsignalized intersections.)
SOURCE: Fehr & Peers, 2015.

Table 4.12-8 identifies Proposed Project impacts by comparing what would happen if the Proposed Project were fully completed by 2015 to 2015 Without Project conditions (as discussed above, the Proposed Project is a long-term planning project that is anticipated to build out over time and could not be completed by 2015, so this is a theoretical scenario only). The table also compares 2035 With Project conditions to 2035 No Project conditions. Without mitigation, 47 of the 86 intersections would be significantly impacted by the Project during one or more peak hours under 2015 conditions, and 56 of the 86 intersections would be significantly impacted during one or more peak hours under 2035 conditions. Therefore, without mitigation, the Proposed Project would result in a significant impact related to the circulation system.

TABLE 4.12-8: 2015 AND 2035 INTERSECTION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	2015 No Project		2015 With Project		2015 Diff.	2015 Impact	2035 No Project		2035 With Project		2035 Diff.	2035 Impact
				V/C or Delay	LOS	V/C or Delay	LOS			V/C or Delay	LOS	V/C or Delay	LOS		
1	Cloverfield Blvd. /a/ Olympic Blvd.	Santa Monica	AM	37.7	D	38.4	D	0.7	NO	38.1	D	38.4	D	0.3	NO
			PM	37.9	D	38.5	D	0.6	NO	37.0	D	37.7	D	0.7	NO
2	26th St. Olympic Blvd.	Santa Monica	AM	31.6	C	32.7	C	1.1	NO	31.3	C	32.6	C	1.3	NO
			PM	33.3	C	33	C	14.9	NO	36.3	D	36.1	D	14.9	NO
3	Stewart St. Olympic Blvd.	Santa Monica	AM	45.1	D	47.7	D	2.6	NO	66.0	E	69.9	E	3.9	YES
			PM	27.3	C	27.7	C	0.4	NO	28.2	C	28.7	C	0.5	NO
4	Centinela Ave. (West) Olympic Blvd.	Santa Monica	AM	8.2	A	8.3	A	0.1	NO	9.8	A	10.2	B	0.4	NO
			PM	9.1	A	9.3	A	0.2	NO	9.3	A	9.5	A	0.2	NO
5	Centinela Ave. (East) Olympic Blvd.	Los Angeles	AM	0.580	A	0.613	B	0.033	NO	0.665	B	0.698	B	0.033	NO
			PM	0.501	A	0.511	A	0.01	NO	0.561	A	0.574	A	0.013	NO
		Santa Monica	AM	15.7	B	18.1	B	2.4	NO	18.1	B	19.1	B	1	NO
			PM	10.1	B	10.6	B	0.5	NO	12.3	B	13.1	B	0.8	NO
6	Centinela Ave. Exposition Blvd. /b/	Santa Monica	AM	27.5	D	31.9	D	4.4	NO	63.8	F	83	F	19.2	YES
			PM	39.0	E	52.4	F	13.4	YES	110.8	F	159.7	F	48.9	YES
7	Centinela Ave. I-10 WB On-/Off-Ramps	Los Angeles	AM	0.887	D	0.908	E	0.021	YES	0.953	E	0.974	E	0.021	YES
			PM	0.887	D	0.971	E	0.084	YES	1.079	F	1.163	F	0.084	YES
		Santa Monica	AM	52.4	D	53.8	D	1.4	NO	69.4	E	70.8	E	1.4	YES
			PM	56.9	E	78.8	E	21.9	YES	120.3	F	148.3	F	28	YES
8	I-10 EB Off-Ramp/34th St. Pico Blvd.	Santa Monica	AM	18.7	B	20.9	C	2.2	NO	22.2	C	24.5	C	2.3	NO
			PM	10.5	B	11.8	B	1.3	NO	11.3	B	12.9	B	1.6	NO
9	Centinela Ave. Pico Blvd.	Los Angeles	AM	0.727	C	0.764	C	0.037	NO	0.717	C	0.753	C	0.036	NO
			PM	0.691	B	0.721	C	0.030	NO	0.720	C	0.750	C	0.030	NO
		Santa Monica	AM	19.9	B	27.1	C	7.2	NO	26.1	C	40.1	D	14	YES
			PM	14.4	B	17.4	B	3	NO	17.0	B	20.1	C	3.1	NO
10	Centinela Ave. I-10 EB On-Ramp	Los Angeles	AM	0.429	A	0.462	A	0.033	NO	0.537	A	0.570	A	0.033	NO
			PM	0.434	A	0.511	A	0.077	NO	0.520	A	0.597	A	0.077	NO
		Santa Monica	AM	9.7	A	9.8	A	0.1	NO	11.8	B	12.1	B	0.3	NO
			PM	7.3	A	7.4	A	0.1	NO	9.0	A	9.5	A	0.5	NO
11	Bundy Dr. Wilshire Blvd	Los Angeles	AM	0.698	B	0.701	C	0.003	NO	1.003	F	1.007	F	0.004	NO
			PM	0.672	B	0.694	B	0.022	NO	1.015	F	1.037	F	0.022	YES
12	Bundy Dr. Santa Monica Blvd.	Los Angeles	AM	0.582	A	0.593	A	0.011	NO	0.862	D	0.867	D	0.005	NO
			PM	0.643	B	0.656	B	0.013	NO	0.823	D	0.837	D	0.014	NO
13	Bundy Dr. Ohio Ave.	Los Angeles	AM	0.547	A	0.573	A	0.026	NO	0.603	B	0.630	B	0.027	NO
			PM	0.550	A	0.560	A	0.010	NO	0.600	A	0.610	B	0.010	NO
14	Bundy Dr. Missouri Ave.	Los Angeles	AM	0.447	A	0.447	A	0.000	NO	0.480	A	0.480	A	0.000	NO
			PM	0.445	A	0.465	A	0.020	NO	0.493	A	0.513	A	0.020	NO
15	Bundy Dr. La Grange Ave.	Los Angeles	AM	0.491	A	0.491	A	0.000	NO	0.520	A	0.520	A	0.000	NO
			PM	0.567	A	0.577	A	0.010	NO	0.613	B	0.623	B	0.010	NO

TABLE 4.12-8: 2015 AND 2035 INTERSECTION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	2015 No Project		2015 With Project		2015 Diff.	2015 Impact	2035 No Project		2035 With Project		2035 Diff.	2035 Impact
				V/C or Delay	LOS	V/C or Delay	LOS			V/C or Delay	LOS	V/C or Delay	LOS		
16	Bundy Dr. Olympic Blvd.	Los Angeles	AM	0.821	D	0.868	D	0.047	YES	0.872	D	0.920	E	0.048	YES
			PM	0.787	C	0.828	D	0.041	YES	0.836	D	0.877	D	0.041	YES
17	Bundy Dr. Pico Blvd.	Los Angeles	AM	0.893	D	0.919	E	0.026	YES	0.904	E	0.940	E	0.036	YES
			PM	0.955	E	1.028	F	0.073	YES	1.075	F	1.147	F	0.072	YES
18	Bundy Dr. I-10 EB On-Ramp	Los Angeles	AM	0.630	B	0.663	B	0.033	NO	0.627	B	0.660	B	0.033	NO
			PM	0.642	B	0.749	C	0.107	YES	0.687	B	0.793	C	0.106	YES
19	Bundy Dr. Ocean Park Blvd.	Los Angeles	AM	0.931	E	0.994	E	0.063	YES	0.980	E	1.060	F	0.080	YES
			PM	1.042	F	1.111	F	0.069	YES	1.049	F	1.115	F	0.066	YES
20	Bundy Dr. National Blvd.	Los Angeles	AM	0.853	D	0.913	E	0.060	YES	0.858	D	0.918	E	0.060	YES
			PM	0.675	B	0.711	C	0.036	NO	0.816	D	0.817	D	0.001	NO
21	Barrington Ave. Santa Monica Blvd.	Los Angeles	AM	1.071	F	1.101	F	0.030	YES	1.293	F	1.313	F	0.020	YES
			PM	1.190	F	1.209	F	0.019	YES	1.356	F	1.374	F	0.018	YES
22	Barrington Ave. Nebraska Ave.	Los Angeles	AM	0.557	A	0.571	A	0.014	NO	0.593	A	0.593	A	0.000	NO
			PM	0.595	A	0.615	B	0.020	NO	0.633	B	0.660	B	0.027	NO
24	Barrington Ave. La Grange Ave.	Los Angeles	AM	0.607	B	0.640	B	0.033	NO	0.660	B	0.693	B	0.033	NO
			PM	0.718	C	0.758	C	0.040	YES	0.767	C	0.807	D	0.040	YES
25	Barrington Ave. Mississippi Ave.	Los Angeles	AM	0.637	B	0.655	B	0.018	NO	0.687	B	0.700	B	0.013	NO
			PM	0.880	D	0.893	D	0.013	NO	0.920	E	0.933	E	0.013	YES
26	Barrington Ave. Olympic Blvd.	Los Angeles	AM	0.816	D	0.853	D	0.037	YES	0.851	D	0.879	D	0.028	YES
			PM	0.746	C	0.780	C	0.034	NO	0.847	D	0.881	D	0.034	YES
27	Barrington Ave. Pico Blvd.	Los Angeles	AM	1.011	F	1.086	F	0.075	YES	1.133	F	1.208	F	0.075	YES
			PM	1.145	F	1.223	F	0.078	YES	1.232	F	1.309	F	0.077	YES
28	Barrington Ave. Gateway Rd.	Los Angeles	AM	0.745	C	0.789	C	0.044	YES	0.773	C	0.823	D	0.050	YES
			PM	0.827	D	0.840	D	0.013	NO	0.860	D	0.873	D	0.013	NO
29	Gateway Blvd. /a/ Pico Blvd.	Los Angeles	AM	0.694	B	0.716	C	0.022	NO	0.703	C	0.725	C	0.022	NO
			PM	0.697	B	0.726	C	0.029	NO	0.748	C	0.793	C	0.045	YES
30	Sawtelle Blvd. Santa Monica Blvd.	Los Angeles	AM	0.807	D	0.842	D	0.035	YES	0.859	D	0.894	D	0.035	YES
			PM	0.765	C	0.807	D	0.042	YES	0.812	D	0.854	D	0.042	YES
31	Beloit Ave./ I-405 SB Off-Ramp Santa Monica Blvd.	Los Angeles	AM	1.117	F	1.124	F	0.007	NO	1.250	F	1.257	F	0.007	NO
			PM	1.320	F	1.358	F	0.038	YES	1.361	F	1.399	F	0.038	YES
32	Sawtelle Blvd. Olympic Blvd.	Los Angeles	AM	1.041	F	1.153	F	0.112	YES	1.150	F	1.178	F	0.028	YES
			PM	1.327	F	1.337	F	0.010	YES	1.460	F	1.470	F	0.010	YES
33	Sawtelle Blvd. I-405 SB Off-Ramp	Los Angeles	AM	0.492	A	0.607	B	0.115	NO	0.598	A	0.739	C	0.141	YES
			PM	0.806	D	0.922	E	0.116	YES	0.854	D	0.970	E	0.116	YES
34	Sawtelle Blvd. Pico Blvd.	Los Angeles	AM	1.117	F	1.206	F	0.089	YES	1.100	F	1.189	F	0.089	YES
			PM	1.221	F	1.275	F	0.054	YES	1.285	F	1.339	F	0.054	YES
35	Sawtelle Blvd. National Blvd.	Los Angeles	AM	0.931	E	0.971	E	0.040	YES	1.054	F	1.084	F	0.030	YES
			PM	0.870	D	0.932	E	0.062	YES	1.152	F	1.213	F	0.061	YES

TABLE 4.12-8: 2015 AND 2035 INTERSECTION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	2015 No Project		2015 With Project		2015 Diff.	2015 Impact	2035 No Project		2035 With Project		2035 Diff.	2035 Impact
				V/C or Delay	LOS	V/C or Delay	LOS			V/C or Delay	LOS	V/C or Delay	LOS		
36	I-405 SB On-Ramp National Blvd.	Los Angeles	AM	0.390	A	0.404	A	0.014	NO	0.566	A	0.569	A	0.003	NO
			PM	0.606	B	0.639	B	0.033	NO	0.955	E	0.988	E	0.033	YES
37	Sawtelle Blvd. Palms Blvd.	Los Angeles	AM	0.719	C	0.735	C	0.016	NO	0.747	C	0.763	C	0.016	NO
			PM	0.773	C	0.809	D	0.036	YES	0.833	D	0.870	D	0.037	YES
38	Cotner Ave./ I-405 NB On-/Off-Ramps Santa Monica Blvd.	Los Angeles	AM	1.053	F	1.089	F	0.036	YES	1.240	F	1.250	F	0.010	YES
			PM	1.121	F	1.180	F	0.059	YES	1.363	F	1.374	F	0.011	YES
39	Sepulveda Blvd. Santa Monica Blvd.	Los Angeles	AM	1.108	F	1.110	F	0.002	NO	1.189	F	1.191	F	0.002	NO
			PM	1.221	F	1.230	F	0.009	NO	1.458	F	1.462	F	0.004	NO
40	Sepulveda Blvd. Olympic Blvd.	Los Angeles	AM	1.075	F	1.126	F	0.051	YES	1.202	F	1.253	F	0.051	YES
			PM	1.192	F	1.217	F	0.025	YES	1.293	F	1.318	F	0.025	YES
41	Sepulveda Blvd. Pico Blvd.	Los Angeles	AM	1.000	E	1.013	F	0.013	YES	1.014	F	1.083	F	0.069	YES
			PM	1.317	F	1.358	F	0.041	YES	1.334	F	1.375	F	0.041	YES
42	Cotner Ave. /a/ Pico Blvd.	Los Angeles	AM	0.682	B	0.716	C	0.034	NO	0.672	B	0.705	C	0.033	NO
			PM	0.479	A	0.512	A	0.033	NO	0.485	A	0.518	A	0.033	NO
43	Sepulveda Blvd. /a/ Exposition Blvd.	Los Angeles	AM	0.566	A	0.640	B	0.074	NO	0.711	C	0.777	C	0.066	YES
			PM	0.683	B	0.725	C	0.042	YES	0.735	C	0.777	C	0.042	YES
44	I-405 NB Off-Ramp National Blvd.	Los Angeles	AM	0.649	B	0.659	B	0.010	NO	0.770	C	0.810	D	0.040	YES
			PM	0.553	A	0.560	A	0.007	NO	0.657	B	0.677	B	0.020	NO
45	Sepulveda Blvd. National Blvd.	Los Angeles	AM	0.909	E	0.952	E	0.043	YES	0.973	E	1.016	F	0.043	YES
			PM	1.009	F	1.060	F	0.051	YES	1.144	F	1.195	F	0.051	YES
46	Sepulveda Blvd. Palms Blvd.	Los Angeles	AM	0.835	D	0.895	D	0.060	YES	0.880	D	0.923	E	0.043	YES
			PM	0.967	E	1.010	F	0.043	YES	1.013	F	1.057	F	0.044	YES
47	Military Ave. National Blvd.	Los Angeles	AM	0.571	A	0.591	A	0.020	NO	0.560	A	0.583	A	0.023	NO
			PM	0.749	C	0.796	C	0.047	YES	0.763	C	0.810	D	0.047	YES
48	Westwood Blvd. Olympic Blvd.	Los Angeles	AM	0.982	E	0.984	E	0.002	NO	0.971	E	0.973	E	0.002	NO
			PM	0.895	D	0.899	D	0.004	NO	1.019	F	1.020	F	0.001	NO
49	Westwood Blvd. Pico Blvd.	Los Angeles	AM	0.745	C	0.769	C	0.024	NO	0.780	C	0.804	D	0.024	YES
			PM	0.818	D	0.845	D	0.027	YES	0.895	D	0.922	E	0.027	YES
51	Westwood Blvd. National Blvd.	Los Angeles	AM	0.623	B	0.663	B	0.040	NO	0.680	B	0.707	C	0.027	NO
			PM	0.777	C	0.803	D	0.026	YES	0.850	D	0.880	D	0.030	YES
52	Overland Ave. Pico Blvd.	Los Angeles	AM	0.876	D	0.880	D	0.004	NO	0.896	D	0.904	E	0.008	NO
			PM	0.940	E	0.989	E	0.049	YES	0.971	E	1.019	F	0.048	YES
53	Overland Ave. National Blvd./I-10 WB On-/Off-Ramps	Los Angeles	AM	0.997	E	1.001	F	0.004	NO	1.125	F	1.177	F	0.052	YES
			PM	1.148	F	1.197	F	0.049	YES	1.381	F	1.420	F	0.039	YES
54	Overland Ave. I-10 EB On-Ramp	Los Angeles	AM	0.551	A	0.574	A	0.023	NO	0.633	B	0.656	B	0.023	NO
			PM	0.463	A	0.468	A	0.005	NO	0.523	A	0.530	A	0.007	NO
55	Overland Ave. National Pl.	Los Angeles	AM	0.733	C	0.738	C	0.005	NO	0.837	D	0.880	D	0.043	YES
			PM	0.835	D	0.885	D	0.050	YES	0.849	D	0.900	D	0.051	YES

TABLE 4.12-8: 2015 AND 2035 INTERSECTION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	2015 No Project		2015 With Project		2015 Diff.	2015 Impact	2035 No Project		2035 With Project		2035 Diff.	2035 Impact
				V/C or Delay	LOS	V/C or Delay	LOS			V/C or Delay	LOS	V/C or Delay	LOS		
56	I-10 WB Off-Ramp National Blvd.	Los Angeles	AM	0.591	A	0.625	B	0.034	NO	0.683	B	0.717	C	0.034	NO
			PM	0.381	A	0.404	A	0.023	NO	0.443	A	0.453	A	0.010	NO
57	Overland Ave. Palms Blvd.	Los Angeles	AM	0.906	E	0.927	E	0.021	YES	0.963	E	0.984	E	0.021	YES
			PM	1.023	F	1.072	F	0.049	YES	1.061	F	1.111	F	0.050	YES
58	Overland Ave. Venice Blvd.	Los Angeles	AM	0.837	D	0.859	D	0.022	YES	0.852	D	0.874	D	0.022	YES
			PM	0.813	D	0.829	D	0.016	NO	0.888	D	0.908	E	0.020	YES
59	Overland Ave. Culver Blvd.	Culver City	AM	0.990	E	1.015	F	0.025	YES	1.160	F	1.184	F	0.024	YES
			PM	0.951	E	0.969	E	0.018	YES	1.036	F	1.055	F	0.019	YES
60	Motor Ave. National Blvd.	Los Angeles	AM	0.593	A	0.607	B	0.014	NO	0.598	A	0.612	B	0.014	NO
			PM	0.655	B	0.704	C	0.049	YES	0.735	C	0.784	C	0.049	YES
61	Motor Ave. Palms Blvd.	Los Angeles	AM	0.750	C	0.760	C	0.010	NO	0.749	C	0.760	C	0.011	NO
			PM	0.872	D	0.932	E	0.060	YES	0.900	D	0.960	E	0.060	YES
62	Motor Ave. Venice Blvd.	Los Angeles	AM	0.631	B	0.657	B	0.026	NO	0.665	B	0.685	B	0.020	NO
			PM	0.609	B	0.674	B	0.065	NO	0.720	C	0.751	C	0.031	NO
63	National Blvd./ Exposition Blvd. /a/ Palms Blvd.	Los Angeles	AM	0.586	A	0.593	A	0.007	NO	0.630	B	0.640	B	0.010	NO
			PM	0.646	B	0.656	B	0.010	NO	0.787	C	0.817	D	0.030	YES
64	Hughes Ave. Venice Blvd.	Los Angeles	AM	0.569	A	0.593	A	0.024	NO	0.611	B	0.615	B	0.004	NO
			PM	0.559	A	0.593	A	0.034	NO	0.649	B	0.682	B	0.033	NO
65	Duquesne Ave. Culver Blvd.	Culver City	AM	0.736	C	0.746	C	0.010	NO	0.757	C	0.765	C	0.008	NO
			PM	0.737	C	0.765	C	0.028	NO	0.789	C	0.817	D	0.028	NO
66	Manning Ave./ I-10 EB Off-Ramp /a/ National Blvd.	Los Angeles	AM	0.800	C	0.829	D	0.029	YES	0.867	D	0.896	D	0.029	YES
			PM	0.752	C	0.784	C	0.032	NO	0.776	C	0.802	D	0.026	YES
67	Castle Heights Ave. National Blvd.	Los Angeles	AM	0.947	E	0.974	E	0.027	YES	1.120	F	1.147	F	0.027	YES
			PM	0.787	C	0.813	D	0.026	YES	0.880	D	0.907	E	0.027	YES
68	Culver Blvd. Venice Blvd.	Los Angeles	AM	0.653	B	0.655	B	0.002	NO	0.690	B	0.697	B	0.007	NO
			PM	0.681	B	0.699	B	0.018	NO	0.852	D	0.870	D	0.018	NO
69	Robertson Blvd. /a/ Venice Blvd.	Los Angeles	AM	0.831	D	0.881	D	0.050	YES	1.279	F	1.329	F	0.050	YES
			PM	0.769	C	0.771	C	0.002	NO	1.077	F	1.078	F	0.001	NO
70	Robertson Blvd. National Blvd.	Los Angeles	AM	1.202	F	1.238	F	0.036	YES	1.259	F	1.295	F	0.036	YES
			PM	1.034	F	1.056	F	0.022	YES	1.085	F	1.108	F	0.023	YES
71	National Blvd. I-10 EB On-Ramp	Los Angeles	AM	0.438	A	0.447	A	0.009	NO	0.473	A	0.482	A	0.009	NO
			PM	0.488	A	0.515	A	0.027	NO	0.555	A	0.555	A	0.000	NO
72	National Blvd. /a/ Venice Blvd.	Los Angeles	AM	0.982	E	1.012	F	0.030	YES	1.007	F	1.038	F	0.031	YES
			PM	1.007	F	1.065	F	0.058	YES	1.114	F	1.157	F	0.043	YES
73	National Blvd. Washington Blvd.	Culver City	AM	0.742	C	0.754	C	0.012	NO	0.789	C	0.813	D	0.024	NO
			PM	0.917	E	0.942	E	0.025	YES	1.029	F	1.055	F	0.026	YES

TABLE 4.12-8: 2015 AND 2035 INTERSECTION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	2015 No Project		2015 With Project		2015 Diff.	2015 Impact	2035 No Project		2035 With Project		2035 Diff.	2035 Impact
				V/C or Delay	LOS	V/C or Delay	LOS			V/C or Delay	LOS	V/C or Delay	LOS		
74	Robertson Blvd. I-10 WB Off-Ramp/ Kincardine Ave.	Los Angeles	AM	0.607	B	0.621	B	0.014	NO	0.657	B	0.670	B	0.013	NO
			PM	0.802	D	0.815	D	0.013	NO	0.860	D	0.873	D	0.013	NO
75	Robertson Blvd. Cattaraugus Ave.	Los Angeles	AM	0.721	C	0.700	C	0.010	NO	0.897	D	0.907	E	0.010	YES
			PM	0.705	C	0.715	C	0.010	NO	0.867	D	0.877	D	0.010	NO
76	La Cienega Blvd. Venice Blvd.	Los Angeles	AM	0.820	D	0.830	D	0.010	NO	0.933	E	0.943	E	0.010	YES
			PM	0.835	D	0.864	D	0.029	YES	0.933	E	0.962	E	0.029	YES
77	La Cienega Blvd. Washington Blvd.	Culver City	AM	0.936	E	0.956	E	0.020	YES	0.984	E	1.012	F	0.028	YES
			PM	0.891	D	0.918	E	0.027	YES	1.025	F	1.052	F	0.027	YES
78	Jefferson Blvd. National Blvd.	Los Angeles	AM	0.924	E	0.928	E	0.004	NO	1.071	F	1.075	F	0.004	NO
			PM	0.763	C	0.770	C	0.007	NO	0.907	E	0.915	E	0.008	NO
79	Higuera St. Washington Blvd.	Culver City	AM	0.791	C	0.794	C	0.003	NO	0.875	D	0.879	D	0.004	NO
			PM	0.709	C	0.724	C	0.015	NO	0.821	D	0.838	D	0.017	NO
80	Ince Blvd. Washington Blvd.	Culver City	AM	0.650	B	0.650	B	0.000	NO	0.710	C	0.722	C	0.012	NO
			PM	0.673	B	0.686	B	0.013	NO	0.811	D	0.824	D	0.013	NO
81	Ince Blvd. Culver Blvd.	Culver City	AM	0.860	D	0.874	D	0.014	NO	0.945	E	0.959	E	0.014	NO
			PM	0.775	C	0.782	C	0.007	NO	0.931	E	0.938	E	0.007	NO
82	Washington Blvd./ Irving Pl./Watseka Ave. Culver Blvd.	Culver City	AM	0.914	E	0.936	E	0.022	YES	1.007	F	1.030	F	0.023	YES
			PM	0.954	E	0.967	E	0.013	NO	1.096	F	1.103	F	0.007	NO
83	Duquesne Ave. Washington Blvd.	Culver City	AM	0.687	B	0.704	C	0.017	NO	0.820	D	0.850	D	0.030	NO
			PM	0.753	C	0.784	C	0.031	NO	0.844	D	0.875	D	0.031	NO
		Los Angeles	AM	0.526	A	0.545	A	0.019	NO	0.667	B	0.700	B	0.033	NO
			PM	0.597	A	0.630	B	0.033	NO	0.693	B	0.727	C	0.034	NO
84	Sepulveda Blvd. Venice Blvd.	Culver City	AM	0.922	E	0.939	E	0.017	NO	0.999	E	1.001	F	0.002	NO
			PM	0.949	E	0.985	E	0.036	YES	1.019	F	1.043	F	0.024	YES
		Los Angeles	AM	0.858	D	0.877	D	0.019	NO	0.945	E	0.949	E	0.004	NO
			PM	0.888	D	0.930	E	0.042	YES	0.969	E	0.997	E	0.028	YES
85	Sepulveda Blvd. I-405 NB On-/Off-Ramps	Culver City	AM	0.854	D	0.857	D	0.003	NO	0.867	D	0.870	D	0.003	NO
			PM	0.956	E	0.969	E	0.013	NO	0.974	E	0.987	E	0.013	NO
86	Sawtelle Blvd. I-405 SB On-/Off-Ramps	Culver City	AM	1.133	F	1.155	F	0.022	YES	1.163	F	1.185	F	0.022	YES
			PM	0.980	E	0.998	E	0.018	NO	1.019	F	1.024	F	0.005	NO

CMA/ICU methodology uses a V/C ratio, while Highway Capacity Manual methodology uses seconds of delay. The City of Santa Monica uses Highway Capacity Manual Methodology. City of Los Angeles uses CMA methodology. Culver City uses ICU methodology. Unsignalized intersections use Highway Capacity Manual unsignalized methodology.
/a/ Intersection geometry altered due to construction.
/b/ Unsignalized intersection. City of Santa Monica uses Highway Capacity Manual unsignalized methodology. (City of Los Angeles does not require impact analysis for unsignalized intersections.)
SOURCE: Fehr & Peers, 2015.

As shown in **Table 4.12-7A** and **Table 4.12-7B**, even without the Proposed Project, traffic congestion and intersection delays for motorists in the project area are expected to increase considerably compared to today. This increase in traffic is related to development occurring in downtown Los Angeles and in Santa Monica and the Westside (as well as elsewhere in the region) and trips both passing through and generated in the Project Area. As shown in **Table 4.12-8**, the Proposed Project is expected to further increase intersection delays for motorists in the vicinity of the change areas.

As discussed in the subsection "Changing Travel Behavior and VMT Trends," this traffic analysis includes conservative assumptions with respect to trip generation and expected delays for people driving.

Traffic patterns in the future on the Westside are expected to be more heavily influenced by demographics shifts (for example changing patterns of car ownership and use in younger people), expansion of transit service and the characteristics of development (both new and redeveloped land) than roadway expansion and vehicular capacity increases. Since few widening projects are currently programmed and since these would likely induce additional demand on the system, the majority of programmed Westside transportation projects and the policies of the MP 2035 are focused on increasing mobility via transit, active transportation modes, and increasing accessibility through land use intensification.

Under these conditions, intensification of land use in locations that are well served by transit and have characteristics that support shorter trip lengths and active modes is likely to result in lower VMT per capita and relatively less severe congestion and vehicular delay related outcomes than uncoordinated development patterns.

The 2035 With Project scenario includes land use intensification and an organized and coordinated development pattern to increase accessibility of destinations while minimizing the related growth in vehicle trips and VMT per capita. While not part of the CEQA analysis, it should be noted that future conditions without the Project could be worse than with Project conditions. While the 2035 No Project scenario evaluated in this traffic section considers a reasonably foreseeable and less intense amount of development with less vehicle trip generation and fewer delay related impacts, as discussed in Chapter 5.0, Alternatives, it is reasonable to expect continued market demand for housing and jobs in the area, which could result in unpredictable, uncoordinated and more intense development patterns on individual parcels that could produce much greater congestion impacts at specific locations within the study area.

Unsignalized Intersections (City of Los Angeles) - Signal Warrant Analysis.[23] Details of the of the signal warrant analysis are presented in **Appendix H**. As shown on **Table 4.12-9**, both unsignalized study intersections meet the signal warrant thresholds under the PM peak hour. The results of the signal warrant analysis do not result in any impacts but are provided for informational purposes.

[23]This analysis is intended to examine the general correlation between the planned level of future development and the need to install new traffic signals. It estimates future development-generated traffic compared against a sub-set of the standard traffic signal warrants recommended in the Federal Highway Administration *Manual on Uniform Traffic Control Devices* and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured, rather than forecast, traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely upon the warrants, since the installation of signals can lead to certain types of collisions. The responsible state or local agency should undertake regular monitoring of actual traffic conditions and accident data, and timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.

TABLE 4.12-9: SIGNAL WARRANT ANALYSIS

ID	N/S Street Name	E/W Street Name	Analyzed Periods	Existing (2013)	2015 No Project	2015 With Project	2035 No Project	2035 With Project
23	Barrington Ave.	Missouri Ave.	AM PM	NO YES	NO YES	NO YES	NO YES	NO YES
50	Westwood Blvd.	Exposition Blvd. (South)	AM PM	NO NO	NO NO	NO YES	NO NO	NO YES

SOURCE: Fehr & Peers, 2015.

STATE HIGHWAYS

This section summarizes the intersection operations analysis for study intersections along State Route 187 (SR 187), Venice Boulevard, in the vicinity of the Proposed Project. Within the Project Area, the roadway provides westbound and eastbound access to the I-405 and adjacent land uses in the study area.

Specific intersections studied along SR 187 include:

- Intersection 58: Overland Avenue & Venice Boulevard
- Intersection 62: Motor Avenue & Venice Boulevard
- Intersection 64: Hughes Avenue & Venice Boulevard
- Intersection 68: Culver Boulevard & Venice Boulevard
- Intersection 69: Robertson Boulevard & Venice Boulevard
- Intersection 72: National Boulevard & Venice Boulevard
- Intersection 76: La Cienega Boulevard & Venice Boulevard
- Intersection 84: Sepulveda Boulevard & Venice Boulevard

2015 and 2035 No Project. 2015 No Project traffic volumes were analyzed to determine V/C ratios or seconds of delay and a corresponding LOS for each of the study intersections. As indicated in **Table 4.12-7A**, one intersection (National Boulevard) along SR 187 is projected to operate at LOS E or F under 2015 conditions without the Project. 2035 No Project traffic volumes were also analyzed. Under 2035 conditions, four intersections on SR 187 are projected to operate at LOS E or F in either the AM or PM peak hour without the Project. These include Robertson Boulevard, National Boulevard, La Cienega Boulevard, and Sepulveda Boulevard.

2015 and 2035 with Project. As indicated in **Table 4.12-7B**, there are two intersections (National Boulevard and Sepulveda Boulevard) in 2015 and five intersections in 2035 operating at LOS E or F in either the AM or PM peak hour with the Project. The five intersections operating at LOS E of F in 2035 with Project include Overland Boulevard, Robertson Boulevard, National Boulevard, La Cienega Boulevard, and Sepulveda Boulevard.

As shown in **Table 4.12-7A** and **Table 4.12-7B**, even without the Proposed Project, traffic congestion and intersection delays for motorists in the Project Area are expected to increase considerably compared to today. This increase in traffic is related to development occurring in Downtown Los Angeles and in Santa Monica and the Westside (as well as elsewhere in the region) and trips both passing through and generated in the Project area. As shown in **Table 4.12-8**, the Proposed Project is expected to further increase intersection delays for motorists in the vicinity of the change areas. However, as discussed in the subsection "Changing Travel Behavior and VMT Trends," this traffic analysis includes conservative assumptions with respect to trip generation and expected delays for people driving.

FREEWAYS

The following section details the freeway off-ramp queue analysis that was performed at 13 intersections within the ECTNP AREA, the methodology that was used to perform the analysis and summarizes the estimated queue lengths for both the 50th and 95th percentile volumes in the Existing (2013), Future (2035) without Project, and Future (2035) with Project scenarios.

Methodology. Queue lengths were estimated for both the 50th and 95th percentile volumes using the Synchro traffic analysis software and the Highway Capacity Manual methodology. The Highway Capacity Manual methodology uses a static approach to predicting traffic performance at signalized intersections, estimating the average vehicular delay and queue lengths for a typical signal cycle during the peak hour. The Highway Capacity Manual methodology uses the V/C ratio to determine queues. When V/C is greater than 1 for a specific movement, the queue would theoretically not dissipate until the volume decreases. As such, Highway Capacity Manual methodology does not provide the average queue length and instead reports the estimated queue length after two cycles. The following subset of intersections was studied:

- Intersection 7: Centinela Avenue & I-10 W B ramps
- Intersection 8: Pico Boulevard & 34th Street (I-10 EB off-ramps)
- Intersection 31: Santa Monica Boulevard & I-405 SB ramps
- Intersection 33 Tennessee Avenue & Sawtelle Boulevard (I-405 SB off-ramp)
- Intersection 38: Santa Monica Boulevard & I-405 NB ramps
- Intersection 44: National Boulevard & I-405 NB off-ramp
- Intersection 53: National Boulevard & Overland Avenue (I-10 WB off-ramp)
- Intersection 56: National Boulevard & I-10 EB off-ramp
- Intersection 66: National Boulevard & Manning Avenue (I-10 WB off-ramp)
- Intersection 69: Venice Boulevard & Robertson Boulevard (I-10 EB off-ramp)
- Intersection 74: Kincardine Avenue & Robertson Boulevard (I-10 WB off-ramp)
- Intersection 85: Sepulveda Boulevard & I-405 NB ramps
- Intersection 86: Sawtelle Boulevard & I-405 SB ramps

Each intersection is configured according to its existing conditions, including signal timing and physical geometry. Under the Future Year (2035) with Project scenario, the eastbound shared through/left-turn lane at Intersection 53 is restriped to a shared left/through/right lane. Existing signal timing charts were acquired from the City of Los Angeles, except for Intersection 8 (City of Santa Monica) and Intersections 85 and 86 (City of Culver City).

In addition to queue analysis in Synchro, data from Caltrans' Performance Measurement System (PeMS) were obtained in order to compare the speeds of mainline freeway lanes and auxiliary lanes near the analyzed off-ramps. Data were collected from Vehicle Detector Stations (VDS) along the I-10 and I-405 within the study area. The data include speeds by lane, which can be used to compare the speed differential between freeway auxiliary lanes and mainline lanes near off-ramps. However, only three of the 13 study off-ramps had VDSs in close enough proximity to provide useful data on the difference in lane speeds caused by queueing on the off-ramps. PeMS data were collected for the month of May 2013 for these off-ramps, but was inconsistent with field observations and did not provide a useful comparison between the travel lanes and so is not shown in the analysis results.

Queue Results. Ramp queues for the 50th percentile volumes are shown in **Table 4.12-10** and ramp queues for the 95th percentile volumes are shown in **Table 4.12-11**. Each table shows the ramp storage length from the intersection to the gore point between the off-ramp and the mainline. The estimated ramp queues do not exceed the storage capacity at any of the study intersections for either the 50th or 95th percentile volumes for any of scenarios analyzed. In most cases, the difference in queue length does not change by more than +/- 75 feet, which would equate to approximately three vehicles. See also the discussion of impacts to CMP facilities for further discussion of impacts to freeways.

TABLE 4.12-10: 50TH PERCENTILE OFF-RAMP TERMINI INTERSECTION RAMP QUEUES

ID	Intersection	Ramp Length (ft)	Analysis Period	Existing (2013) Queue Length (ft)	Future (2035) without Project Queue Length (ft)	Future (2035) with Project Queue Length (ft)
7	Centinela Ave. & I-10 WB On/Off Ramp	770	AM	375 /a/	450 /a/	400 /a/
			PM	225 /a/	325 /a/	325 /a/
8	I-10 EB Off Ramp & Pico Blvd.	830	AM	250 /a/	300 /a/	325 /a/
			PM	50	50	50
31	Beloit Ave./I-405 SB On/Off Ramps & Santa Monica Blvd.	980	AM	550 /a/	725 /a/	625 /a/
			PM	350	350	325
33	Sawtelle Blvd. & I-405 SB Off Ramp	785	AM	175	200	225
			PM	225	225	225
38	Cotner Ave./I-405 NB On/Off Ramps & Santa Monica Blvd.	1300	AM	350	500 /a/	475 /a/
			PM	225	225	250
44	I-405 NB Off Ramp & National Blvd.	900	AM	275	300	325
			PM	200	175	200
53	Overland Ave. & National Blvd./I-10 WB On/Off Ramps	1185	AM	125	200	200
			PM	225	250	250
56	I-10 EB Off Ramp & National Blvd.	1030	AM	300	450 /a/	500 /a/
			PM	225	200	200
66	Manning Ave./I-10 WB Off Ramp & National Blvd.	840	AM	100	125	125
			PM	250	200	200
69	Robertson Blvd. & Venice Blvd.	1600	AM	300	350	350
			PM	500 /a/	625 /a/	650 /a/
74	Robertson Blvd. & I-10 WB Off Ramp/ Kincardine Ave.	980	AM	100	125	125 /a/
			PM	175 /a/	200 /a/	200 /a/
85	Sepulveda Blvd. & I-405 NB On/Off-Ramps	810	AM	150	175	175
			PM	375 /a/	425 /a/	425 /a/
86	Sawtelle Blvd. & I-405 SB On/Off-Ramps	770	AM	125	150	150
			PM	200	150	175

/a/ Volume exceeds capacity, queue may be longer. Queue shown after two cycles.
SOURCE: Fehr & Peers, 2015.

TABLE 4.12-11: 95TH PERCENTILE OFF-RAMP TERMINI INTERSECTION RAMP QUEUES

ID	Intersection	Ramp Length (ft)	Analysis Period	2013 Existing Queue Length (ft)	2035 Future Queue Length (ft)	2035 Project Queue Length (ft)
7	Centinela Ave. & I-10 WB On/Off Ramp	770	AM	575 /a/	650 /a/	625 /a/
			PM	375 /a/	500 /a/	500 /a/
8	I-10 EB Off Ramp & Pico Blvd.	830	AM	400 /a/	475 /a/	500 /a/
			PM	100	100	100
31	Beloit Ave./I-405 SB On/Off Ramps & Santa Monica Blvd.	980	AM	775 /a/	950 /a/	875 /a/
			PM	525 /a/	525 /a/	475 /a/
33	Sawtelle Blvd. & I-405 SB Off Ramp	785	AM	250	325	400 /a/
			PM	325	325	300
38	Cotner Ave./I-405 NB On/Off Ramps & Santa Monica Blvd.	1300	AM	550 /a/	650 /a/	625 /a/
			PM	275	300	325
44	I-405 NB Off Ramp & National Blvd.	900	AM	375	450	550 /a/
			PM	275	250	250
53	Overland Ave. & National Blvd./I-10 WB On/Off Ramps	1185	AM	150	275	275
			PM	425 /a/	350 /a/	350 /a/
56	I-10 EB Off Ramp & National Blvd.	1030	AM	525 /a/	675 /a/	725 /a/
			PM	275	250	275
66	Manning Ave./I-10 WB Off Ramp & National Blvd.	840	AM	150	175	200
			PM	375 /a/	300	300
69	Robertson Blvd. & Venice Blvd.	1600	AM	400	400	425
			PM	575 /a/	725 /a/	750 /a/
74	Robertson Blvd. & I-10 WB Off Ramp/ Kincardine Ave.	980	AM	175 /a/	175 /a/	175 /a/
			PM	325 /a/	350 /a/	350 /a/
85	Sepulveda Blvd. & I-405 NB On/Off-Ramps	810	AM	225	250	250
			PM	575 /a/	625 /a/	625 /a/
86	Sawtelle Blvd. & I-405 SB On/Off-Ramps	770	AM	200	200	225 /a/
			PM	350 /a/	275 /a/	275 /a/

/a/ Volume exceeds capacity, queue may be longer. Queue shown after two cycles.
SOURCE: Fehr & Peers, 2015.

MITIGATION MEASURES

The following mitigation measures identify physical improvements and procedures that are designed to reduce project impacts and are feasible. Physical intersection improvements that would conflict with Project objectives were considered to be infeasible. Feasible mitigation measures are also limited due to the constraints of the existing conditions. Beyond conflicting with Project Objectives, mitigation measures involving street widening were deemed infeasible since it was not considered practical or desirable to widen streets at the expense of reduced sidewalk widths or lost on-street parking spaces.

TR1 A trip generation analysis, as well as an access and circulation study per LADOT guidelines, will be required as part of the development application for projects within the Specific Plan boundary that result in net new square footage, for purposes of determining consistency of the project with the transportation assumptions in the EIR. The Specific Plan area is divided into five ECTNP station segments, as shown in Figure 3-2 in the Project Description. To be consistent, a project cannot cause the total estimated 2035 trip forecasts (for the station segment in which it is located) to exceed the number of either AM or PM peak hour net new external trips analyzed in the EIR (see **Table 4.12-5**). If a project is determined to be consistent, no further traffic analysis will be required. However, if a project causes the number of either AM or PM peak hour net external trips to exceed the cumulative total number of trips in the corresponding station segment analyzed in the EIR, then a project-specific traffic analysis per current LADOT Guidelines will be required.

The City will revise this traffic impact consistency determination methodology, if appropriate, to reflect new traffic impact guidance mandated by the State of California, Office of Planning and Research in response to SB 743.

Potential intersection improvements were identified and evaluated for all intersections identified as being significantly impacted in either 2015 or 2035. However, the focus of the Proposed Project is establishing new development regulations that better support transit ridership, with particular emphasis on vibrant neighborhoods around transit stations, where people can live, work, and shop or eat out, all in a safe and pleasant walk to transit stations. Physical intersection improvement mitigations that require widening travel lanes, adding turn lanes, and increasing pedestrian crossing distances would be in conflict with multiple Project Objectives such as: improving circulation, increasing mobility choices, promoting alternative transit modes (Primary Project Objective 6); ensuring new development is pedestrian oriented (Secondary Objective 1); and stimulating vibrancy and activity and creating a unique sense of place through the design of buildings, streets, and the public realm(Secondary Objective 2). Physical intersection improvement mitigations that would conflict with Proposed Project Objectives were considered to be infeasible. See **Appendix H-9** for detailed evaluation of the feasibility of mitigation measures identified for each significantly impacted intersection.

The feasible intersection mitigations include improvements, such as restriping, signalization, and traffic signal modifications, that would be consistent with Proposed Project goals. The following discussions identify study intersections with no feasible mitigations and propose mitigation measures that would either partially or fully mitigate the remaining significant impacts identified in the impacts analysis above.

2015 Intersection Improvement Mitigation Measures. The following mitigation measures would partially or fully mitigate the significant impacts for 10 of the intersections identified in the 2015 impact analysis above:

TR2 **Centinela Avenue & Exposition Boulevard (Intersection 6)**. Signalize the intersection.

TR3 **Bundy Drive & Olympic Boulevard (Intersection 16)**. Restripe the northbound and southbound approaches. The northbound restriping would add one northbound left-turn lane. This would result in a northbound approach of one right-turn lane, two through lanes, and two left-turn lanes. The southbound restriping would add one southbound left-turn lane and change one through lane

and the right-turn lane into a shared through/right lane. This would result in a southbound approach of one shared through/right lane, one through lane, and two left-turn lanes.

TR4 **Barrington Avenue & Pico Boulevard (Intersection 27)**. Restripe the existing northbound curb lane to provide one through lane and one right-turn lane. This improvement would require the removal of one on-street parking space.

TR5 **Barrington Avenue & Gateway Boulevard (Intersection 28)**. Restripe the existing northbound shared through/right-turn lane to provide one through lane and one right-turn lane. This improvement would require the removal of four on-street parking spaces.

TR6 **Sepulveda Boulevard & Exposition Boulevard (Intersection 43)**. Restripe the existing eastbound shared left/through/right lane to provide one shared through/left-turn lane and one right-turn lane.

TR7 **Sepulveda Boulevard & Palms Boulevard (Intersection 46)**. Restripe one existing northbound shared through/right-turn lane to provide one through lane and one right-turn lane. This improvement would require the removal of two on-street parking spaces.

TR8 **Military Avenue & National Boulevard (Intersection 47)**. Restripe one existing southbound shared through/right-turn lane to provide one shared through/left-turn lane and one right-turn lane. This improvement would require the removal of four on-street parking spaces.

TR9 **Overland Avenue & National Boulevard / I-10 Westbound On- and Off-Ramp (Intersection 53)**. Restripe the existing eastbound shared through/left-turn lane to a shared left-/through/right-turn lane.

TR10 **La Cienega Boulevard & Venice Boulevard (Intersection 76)**. Remove the median to provide a second westbound left-turn lane.

TR11 **Sepulveda Boulevard & Venice Boulevard (Intersection 84)**. Remove the medians on Venice Boulevard and restripe both the eastbound and westbound approaches to add one left-turn lane to each approach.

2035 Intersection Improvement Mitigation Measures. The following mitigation measures would partially or fully mitigate the significant impacts for 12 of the intersections identified in the 2035 impact analysis above:

TR12 **Stewart Street & Olympic Boulevard (Intersection 3)**. Modify the existing signal phasing to change eastbound left-turn signal phasing from permitted to protected and change westbound left-turn signal phasing from protected/permitted to protected.

Centinela Avenue & Exposition Boulevard (Intersection 6). Mitigation Measure **TR2** would also mitigate impacts in 2035.

Bundy Drive & Olympic Boulevard (Intersection 16). Mitigation Measure **TR3** would also mitigate impacts in 2035.

TR13 **Barrington Avenue & Mississippi Avenue (Intersection 25)**. Restripe the existing eastbound shared left/through/right lane to provide one shared through/left-turn lane and one right-turn lane. This improvement would require the removal of two on-street parking spaces.

Barrington Avenue & Pico Boulevard (Intersection 27). Mitigation Measure **TR4** would also mitigate impacts in 2035.

Barrington Avenue & Gateway Boulevard (Intersection 28). Mitigation Measure **TR5** would also mitigate impacts in 2035.

Sepulveda Boulevard & Exposition Boulevard (Intersection 43). Mitigation Measure **TR6** would also mitigate impacts in 2035.

Sepulveda Boulevard & Palms Boulevard (Intersection 46). Mitigation Measure **TR7** would also mitigate impacts in 2035.

Military Avenue & National Boulevard (Intersection 47). Mitigation Measure **TR8** would also mitigate impacts in 2035.

Overland Avenue & National Boulevard/I-10 Westbound On- and Off-Ramp (Intersection 53). Mitigation Measure **TR9** would also mitigate impacts in 2035.

La Cienega Boulevard & Venice Boulevard (Intersection 76). Mitigation Measure **TR10** would also mitigate impacts in 2035.

Sepulveda Boulevard & Venice Boulevard (Intersection 84). Mitigation Measure **TR11** would also mitigate impacts in 2035.

The above mitigation measures may be constructed either by development projects, as a condition of project approval, or by the City through a capital improvement program.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

Table 4.12-12 presents the significance of impacts after mitigation under both 2015 and 2035 conditions.Without mitigation, the Proposed Project would result in a significant impact related to the circulation system at 47 of the 86 intersections during one or more peak hours under 2015 With Project conditions; 37 impacted study intersections mitigation measures were found to be infeasible. Feasible mitigation measures that fully mitigate the significant impact are identified for eight impacted study intersections and feasible mitigation measures that partially mitigate the significant impact are identified for two impacted study intersections.

Without mitigation, the Proposed Project would result in a significant impact related to the circulation system at 56 of the 86 intersections during one or more peak hours under 2035 With Project conditions; 44 impacted study intersections mitigation measures were found infeasible. Feasible mitigation measures that fully mitigate the significant impact are identified for nine impacted study intersections and feasible mitigation measures that partially mitigate the significant impacts are identified for three impacted study intersections.

No Feasible Mitigation. Mitigation measures that would result in physical intersection improvements would conflict with Proposed Project goals and were considered to be infeasible. Under both 2015 and 2035 conditions, no feasible mitigation measures were identified for the following 37 study intersections:

7. Centinela Avenue & I-10 Westbound On-/Off-Ramps
17. Bundy Drive & Pico Boulevard
18. Bundy Drive & I-10 Eastbound On-Ramp
19. Bundy Drive & Ocean Park Boulevard
20. Bundy Drive & National Boulevard
21. Barrington Avenue & Santa Monica Boulevard
24. Barrington Avenue & La Grange Avenue
26. Barrington Avenue & Olympic Boulevard
30. Sawtelle Boulevard & Santa Monica Boulevard
31. Beloit Avenue / I-405 Southbound On- and Off-Ramp & Santa Monica Boulevard
32. Sawtelle Boulevard & Olympic Boulevard
33. Sawtelle Boulevard & I-405 Southbound Off-Ramp
34. Sawtelle Boulevard & Pico Boulevard
35. Sawtelle Boulevard & National Boulevard
37. Sawtelle Boulevard & Palms Boulevard
38. Cotner Avenue / I-405 Northbound On- and Off-Ramp & Santa Monica Boulevard
40. Sepulveda Boulevard & Olympic Boulevard
41. Sepulveda Boulevard & Pico Boulevard

TABLE 4.12-12: 2015 AND 2035 INTERSECTION WITH MITIGATION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	2015 No Project		2015 With Project Plus Mit		2015 Diff.	2015 Impact	2035 No Project		2035 With Project Plus Mit		2035 Diff.	2035 Impact
				V/C or Delay	LOS	V/C or Delay	LOS			V/C or Delay	LOS	V/C or Delay	LOS		
1	Cloverfield Blvd. /a/ Olympic Blvd.	Santa Monica	AM	37.7	D	38.4	D	0.7	NO	38.1	D	38.4	D	0.3	NO
			PM	37.9	D	38.5	D	0.6	NO	37.0	D	37.7	D	0.7	NO
2	26th St. Olympic Blvd.	Santa Monica	AM	31.6	C	32.7	C	1.1	NO	31.3	C	32.6	C	1.3	NO
			PM	33.3	C	33.0	C	14.9	NO	36.3	D	36.1	D	14.9	NO
3	Stewart St. Olympic Blvd.	Santa Monica	AM	45.1	D	47.7	D	2.6	NO	66.0	E	35.3	D	-30.7	NO
			PM	27.3	C	27.7	C	0.4	NO	28.2	C	32.0	C	3.8	NO
4	Centinela Ave. (West) Olympic Blvd.	Santa Monica	AM	8.2	A	8.3	A	0.1	NO	9.8	A	10.2	B	0.4	NO
			PM	9.1	A	9.3	A	0.2	NO	9.3	A	9.5	A	0.2	NO
5	Centinela Ave. (East) Olympic Blvd.	Los Angeles	AM	0.580	A	0.613	B	0.033	NO	0.665	B	0.698	B	0.033	NO
			PM	0.501	A	0.511	A	0.010	NO	0.561	A	0.574	A	0.013	NO
		Santa Monica	AM	15.7	B	18.1	B	2.4	NO	18.1	B	19.1	B	1.0	NO
			PM	10.1	B	10.6	B	0.5	NO	12.3	B	13.1	B	0.8	NO
6	Centinela Ave. Exposition Blvd. /b/	Santa Monica	AM	27.5	D	9.6	A	-17.9	NO	63.8	F	20.8	C	-43.0	NO
			PM	39.0	E	7.8	A	-31.2	NO	110.8	F	9.2	A	-101.6	NO
7	Centinela Ave. I-10 WB On-/Off-Ramps	Los Angeles	AM	0.887	D	0.908	E	0.021	YES	0.953	E	0.974	E	0.021	YES
			PM	0.887	D	0.971	E	0.084	YES	1.079	F	1.163	F	0.084	YES
		Santa Monica	AM	52.4	D	53.8	D	1.4	NO	69.4	E	70.8	E	1.4	YES
			PM	56.9	E	78.8	E	21.9	YES	120.3	F	148.3	F	28	YES
8	I-10 EB Off-Ramp/34th St. Pico Blvd.	Santa Monica	AM	18.7	B	20.9	C	2.2	NO	22.2	C	24.5	C	2.3	NO
			PM	10.5	B	11.8	B	1.3	NO	11.3	B	12.9	B	1.6	NO
9	Centinela Ave. Pico Blvd.	Los Angeles	AM	0.727	C	0.764	C	0.037	NO	0.717	C	0.753	C	0.036	NO
			PM	0.691	B	0.721	C	0.030	NO	0.720	C	0.750	C	0.030	NO
		Santa Monica	AM	19.9	B	27.1	C	7.2	NO	26.1	C	40.1	D	14.0	YES
			PM	14.4	B	17.4	B	3.0	NO	17.0	B	20.1	C	3.1	NO
10	Centinela Ave. I-10 EB On-Ramp	Los Angeles	AM	0.429	A	0.462	A	0.033	NO	0.537	A	0.570	A	0.033	NO
			PM	0.434	A	0.511	A	0.077	NO	0.520	A	0.597	A	0.077	NO
		Santa Monica	AM	9.7	A	9.8	A	0.1	NO	11.8	B	12.1	B	0.3	NO
			PM	7.3	A	7.4	A	0.1	NO	9.0	A	9.5	A	0.5	NO
11	Bundy Dr. Wilshire Blvd.	Los Angeles	AM	0.698	B	0.701	C	0.003	NO	1.003	F	1.007	F	0.004	NO
			PM	0.672	B	0.694	B	0.022	NO	1.015	F	1.037	F	0.022	YES
12	Bundy Dr. Santa Monica Blvd.	Los Angeles	AM	0.582	A	0.593	A	0.011	NO	0.862	D	0.867	D	0.005	NO
			PM	0.643	B	0.656	B	0.013	NO	0.823	D	0.837	D	0.014	NO
13	Bundy Dr. Ohio Ave.	Los Angeles	AM	0.547	A	0.573	A	0.026	NO	0.603	B	0.630	B	0.027	NO
			PM	0.550	A	0.560	A	0.010	NO	0.600	A	0.610	B	0.010	NO

TABLE 4.12-12: 2015 AND 2035 INTERSECTION WITH MITIGATION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	2015 No Project		2015 With Project Plus Mit		2015 Diff.	2015 Impact	2035 No Project		2035 With Project Plus Mit		2035 Diff.	2035 Impact
				V/C or Delay	LOS	V/C or Delay	LOS			V/C or Delay	LOS	V/C or Delay	LOS		
14	Bundy Dr. Missouri Ave.	Los Angeles	AM	0.447	A	0.447	A	0.000	NO	0.480	A	0.480	A	0.000	NO
			PM	0.445	A	0.465	A	0.020	NO	0.493	A	0.513	A	0.020	NO
15	Bundy Dr. La Grange Ave.	Los Angeles	AM	0.491	A	0.491	A	0.000	NO	0.520	A	0.520	A	0.000	NO
			PM	0.567	A	0.577	A	0.010	NO	0.613	B	0.623	B	0.010	NO
16	Bundy Dr. Olympic Blvd.	Los Angeles	AM	0.821	D	0.784	C	-0.037	NO	0.872	D	0.835	D	-0.037	NO
			PM	0.787	C	0.781	C	-0.006	NO	0.836	D	0.849	D	0.013	NO
17	Bundy Dr. Pico Blvd.	Los Angeles	AM	0.893	D	0.919	E	0.026	YES	0.904	E	0.940	E	0.036	YES
			PM	0.955	E	1.028	F	0.073	YES	1.075	F	1.147	F	0.072	YES
18	Bundy Dr. I-10 EB On-Ramp	Los Angeles	AM	0.630	B	0.663	B	0.033	NO	0.627	B	0.660	B	0.033	NO
			PM	0.642	B	0.749	C	0.107	YES	0.687	B	0.793	C	0.106	YES
19	Bundy Dr. Ocean Park Blvd.	Los Angeles	AM	0.931	E	0.994	E	0.063	YES	0.980	E	1.060	F	0.080	YES
			PM	1.042	F	1.111	F	0.069	YES	1.049	F	1.115	F	0.066	YES
20	Bundy Dr. National Blvd.	Los Angeles	AM	0.853	D	0.913	E	0.060	YES	0.858	D	0.918	E	0.060	YES
			PM	0.675	B	0.711	C	0.036	NO	0.816	D	0.817	D	0.001	NO
21	Barrington Ave. Santa Monica Blvd.	Los Angeles	AM	1.071	F	1.101	F	0.030	YES	1.293	F	1.313	F	0.020	YES
			PM	1.190	F	1.209	F	0.019	YES	1.356	F	1.374	F	0.018	YES
22	Barrington Ave. Nebraska Ave.	Los Angeles	AM	0.557	A	0.571	A	0.014	NO	0.593	A	0.593	A	0.000	NO
			PM	0.595	A	0.615	B	0.020	NO	0.633	B	0.660	B	0.027	NO
24	Barrington Ave. La Grange Ave.	Los Angeles	AM	0.607	B	0.640	B	0.033	NO	0.660	B	0.693	B	0.033	NO
			PM	0.718	C	0.758	C	0.040	YES	0.767	C	0.807	D	0.040	YES
25	Barrington Ave. Mississippi Ave.	Los Angeles	AM	0.637	B	0.655	B	0.018	NO	0.687	B	0.647	B	-0.040	NO
			PM	0.880	D	0.893	D	0.013	NO	0.920	E	0.780	C	-0.140	NO
26	Barrington Ave. Olympic Blvd.	Los Angeles	AM	0.816	D	0.853	D	0.037	YES	0.851	D	0.879	D	0.028	YES
			PM	0.746	C	0.780	C	0.034	NO	0.847	D	0.881	D	0.034	YES
27	Barrington Ave. Pico Blvd.	Los Angeles	AM	1.011	F	1.072	F	0.061	YES	1.133	F	1.192	F	0.059	YES
			PM	1.145	F	1.223	F	0.078	YES	1.232	F	1.309	F	0.077	YES
28	Barrington Ave. Gateway Rd.	Los Angeles	AM	0.745	C	0.722	C	-0.023	NO	0.773	C	0.763	C	-0.010	NO
			PM	0.827	D	0.840	D	0.013	NO	0.860	D	0.873	D	0.013	NO
29	Gateway Blvd. /a/ Pico Blvd.	Los Angeles	AM	0.694	B	0.716	C	0.022	NO	0.703	C	0.725	C	0.022	NO
			PM	0.697	B	0.726	C	0.029	NO	0.748	C	0.793	C	0.045	YES
30	Sawtelle Blvd. Santa Monica Blvd.	Los Angeles	AM	0.807	D	0.842	D	0.035	YES	0.859	D	0.894	D	0.035	YES
			PM	0.765	C	0.807	D	0.042	YES	0.812	D	0.854	D	0.042	YES
31	Beloit Ave./ I-405 SB Off-Ramp Santa Monica Blvd.	Los Angeles	AM	1.117	F	1.124	F	0.007	NO	1.250	F	1.257	F	0.007	NO
			PM	1.320	F	1.358	F	0.038	YES	1.361	F	1.399	F	0.038	YES

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ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	2015 No Project		2015 With Project Plus Mit		2015 Diff.	2015 Impact	2035 No Project		2035 With Project Plus Mit		2035 Diff.	2035 Impact
				V/C or Delay	LOS	V/C or Delay	LOS			V/C or Delay	LOS	V/C or Delay	LOS		
32	Sawtelle Blvd. Olympic Blvd.	Los Angeles	AM	1.041	F	1.153	F	0.112	YES	1.150	F	1.178	F	0.028	YES
			PM	1.327	F	1.337	F	0.010	YES	1.460	F	1.470	F	0.010	YES
33	Sawtelle Blvd. I-405 SB Off-Ramp	Los Angeles	AM	0.492	A	0.607	B	0.115	NO	0.598	A	0.739	C	0.141	YES
			PM	0.806	D	0.922	E	0.116	YES	0.854	D	0.970	E	0.116	YES
34	Sawtelle Blvd. Pico Blvd.	Los Angeles	AM	1.117	F	1.206	F	0.089	YES	1.100	F	1.189	F	0.089	YES
			PM	1.221	F	1.275	F	0.054	YES	1.285	F	1.339	F	0.054	YES
35	Sawtelle Blvd. National Blvd.	Los Angeles	AM	0.931	E	0.971	E	0.040	YES	1.054	F	1.084	F	0.030	YES
			PM	0.870	D	0.932	E	0.062	YES	1.152	F	1.213	F	0.061	YES
36	I-405 SB On-Ramp National Blvd.	Los Angeles	AM	0.390	A	0.404	A	0.014	NO	0.566	A	0.569	A	0.003	NO
			PM	0.606	B	0.639	B	0.033	NO	0.955	E	0.988	E	0.033	YES
37	Sawtelle Blvd. Palms Blvd.	Los Angeles	AM	0.719	C	0.735	C	0.016	NO	0.747	C	0.763	C	0.016	NO
			PM	0.773	C	0.809	D	0.036	YES	0.833	D	0.870	D	0.037	YES
38	Cotner Ave./ I-405 NB On-/Off-Ramps Santa Monica Blvd.	Los Angeles	AM	1.053	F	1.089	F	0.036	YES	1.240	F	1.250	F	0.010	YES
			PM	1.121	F	1.180	F	0.059	YES	1.363	F	1.374	F	0.011	YES
39	Sepulveda Blvd. Santa Monica Blvd.	Los Angeles	AM	1.108	F	1.110	F	0.002	NO	1.189	F	1.191	F	0.002	NO
			PM	1.221	F	1.230	F	0.009	NO	1.458	F	1.462	F	0.004	NO
40	Sepulveda Blvd. Olympic Blvd.	Los Angeles	AM	1.075	F	1.126	F	0.051	YES	1.202	F	1.253	F	0.051	YES
			PM	1.192	F	1.217	F	0.025	YES	1.293	F	1.318	F	0.025	YES
41	Sepulveda Blvd. Pico Blvd.	Los Angeles	AM	1.000	E	1.013	F	0.013	YES	1.014	F	1.083	F	0.069	YES
			PM	1.317	F	1.358	F	0.041	YES	1.334	F	1.375	F	0.041	YES
42	Cotner Ave. /a/ Pico Blvd.	Los Angeles	AM	0.682	B	0.716	C	0.034	NO	0.672	B	0.705	C	0.033	NO
			PM	0.479	A	0.512	A	0.033	NO	0.485	A	0.518	A	0.033	NO
43	Sepulveda Blvd. /a/ Exposition Blvd.	Los Angeles	AM	0.566	A	0.640	B	0.074	NO	0.711	C	0.777	C	0.066	YES
			PM	0.683	B	0.647	B	-0.036	NO	0.735	C	0.749	C	0.014	NO
44	I-405 NB Off-Ramp National Blvd.	Los Angeles	AM	0.649	B	0.659	B	0.010	NO	0.770	C	0.810	D	0.040	YES
			PM	0.553	A	0.560	A	0.007	NO	0.657	B	0.677	B	0.020	NO
45	Sepulveda Blvd. National Blvd.	Los Angeles	AM	0.909	E	0.952	E	0.043	YES	0.973	E	1.016	F	0.043	YES
			PM	1.009	F	1.060	F	0.051	YES	1.144	F	1.195	F	0.051	YES
46	Sepulveda Blvd. Palms Blvd.	Los Angeles	AM	0.835	D	0.842	D	0.007	NO	0.880	D	0.860	D	-0.020	NO
			PM	0.967	E	0.984	E	0.017	YES	1.013	F	1.003	F	-0.010	NO
47	Military Ave. National Blvd.	Los Angeles	AM	0.571	A	0.591	A	0.020	NO	0.560	A	0.583	A	0.023	NO
			PM	0.749	C	0.660	B	-0.089	NO	0.763	C	0.677	B	-0.086	NO
48	Westwood Blvd. Olympic Blvd.	Los Angeles	AM	0.982	E	0.984	E	0.002	NO	0.971	E	0.973	E	0.002	NO
			PM	0.895	D	0.899	D	0.004	NO	1.019	F	1.020	F	0.001	NO

TABLE 4.12-12: 2015 AND 2035 INTERSECTION WITH MITIGATION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	2015 No Project		2015 With Project Plus Mit		2015 Diff.	2015 Impact	2035 No Project		2035 With Project Plus Mit		2035 Diff.	2035 Impact
				V/C or Delay	LOS	V/C or Delay	LOS			V/C or Delay	LOS	V/C or Delay	LOS		
49	Westwood Blvd. Pico Blvd.	Los Angeles	AM	0.745	C	0.769	C	0.024	NO	0.780	C	0.804	D	0.024	YES
			PM	0.818	D	0.845	D	0.027	YES	0.895	D	0.922	E	0.027	YES
51	Westwood Blvd. National Blvd.	Los Angeles	AM	0.623	B	0.663	B	0.040	NO	0.680	B	0.707	C	0.027	NO
			PM	0.777	C	0.803	D	0.026	YES	0.850	D	0.880	D	0.030	YES
52	Overland Ave. Pico Blvd.	Los Angeles	AM	0.876	D	0.880	D	0.004	NO	0.896	D	0.904	E	0.008	NO
			PM	0.940	E	0.989	E	0.049	YES	0.971	E	1.019	F	0.048	YES
53	Overland Ave. National Blvd./I-10 WB On-/Off-Ramps	Los Angeles	AM	0.997	E	0.923	E	-0.074	NO	1.125	F	1.063	F	-0.062	NO
			PM	1.148	F	1.052	F	-0.096	NO	1.381	F	1.209	F	-0.172	NO
54	Overland Ave. I-10 EB On-Ramp	Los Angeles	AM	0.551	A	0.574	A	0.023	NO	0.633	B	0.656	B	0.023	NO
			PM	0.463	A	0.468	A	0.005	NO	0.523	A	0.530	A	0.007	NO
55	Overland Ave. National Pl.	Los Angeles	AM	0.733	C	0.738	C	0.005	NO	0.837	D	0.880	D	0.043	YES
			PM	0.835	D	0.885	D	0.050	YES	0.849	D	0.900	D	0.051	YES
56	I-10 WB Off-Ramp National Blvd.	Los Angeles	AM	0.591	A	0.625	B	0.034	NO	0.683	B	0.717	C	0.034	NO
			PM	0.381	A	0.404	A	0.023	NO	0.443	A	0.453	A	0.010	NO
57	Overland Ave. Palms Blvd.	Los Angeles	AM	0.906	E	0.927	E	0.021	YES	0.963	E	0.984	E	0.021	YES
			PM	1.023	F	1.072	F	0.049	YES	1.061	F	1.111	F	0.050	YES
58	Overland Ave. Venice Blvd.	Los Angeles	AM	0.837	D	0.859	D	0.022	YES	0.852	D	0.874	D	0.022	YES
			PM	0.813	D	0.829	D	0.016	NO	0.888	D	0.908	E	0.020	YES
59	Overland Ave. Culver Blvd.	Culver City	AM	0.990	E	1.015	F	0.025	YES	1.160	F	1.184	F	0.024	YES
			PM	0.951	E	0.969	E	0.018	NO	1.036	F	1.055	F	0.019	NO
60	Motor Ave. National Blvd.	Los Angeles	AM	0.593	A	0.607	B	0.014	NO	0.598	A	0.612	B	0.014	NO
			PM	0.655	B	0.704	C	0.049	YES	0.735	C	0.784	C	0.049	YES
61	Motor Ave. Palms Blvd.	Los Angeles	AM	0.750	C	0.760	C	0.010	NO	0.749	C	0.760	C	0.011	NO
			PM	0.872	D	0.932	E	0.060	YES	0.900	D	0.960	E	0.060	YES
62	Motor Ave. Venice Blvd.	Los Angeles	AM	0.631	B	0.657	B	0.026	NO	0.665	B	0.685	B	0.020	NO
			PM	0.609	B	0.674	B	0.065	NO	0.720	C	0.751	C	0.031	NO
63	National Blvd./ Exposition Blvd. /a/ Palms Blvd.	Los Angeles	AM	0.586	A	0.593	A	0.007	NO	0.630	B	0.640	B	0.010	NO
			PM	0.646	B	0.656	B	0.010	NO	0.787	C	0.817	D	0.030	YES
64	Hughes Ave. Venice Blvd.	Los Angeles	AM	0.569	A	0.593	A	0.024	NO	0.611	B	0.615	B	0.004	NO
			PM	0.559	A	0.593	A	0.034	NO	0.649	B	0.682	B	0.033	NO
65	Duquesne Ave. Culver Blvd.	Culver City	AM	0.736	C	0.746	C	0.010	NO	0.757	C	0.765	C	0.008	NO
			PM	0.737	C	0.765	C	0.028	NO	0.789	C	0.817	D	0.028	NO
66	Manning Ave./ I-10 EB Off-Ramp /a/ National Blvd.	Los Angeles	AM	0.800	C	0.829	D	0.029	YES	0.867	D	0.896	D	0.029	YES
			PM	0.752	C	0.784	C	0.032	NO	0.776	C	0.802	D	0.026	YES

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ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	2015 No Project		2015 With Project Plus Mit		2015 Diff.	2015 Impact	2035 No Project		2035 With Project Plus Mit		2035 Diff.	2035 Impact
				V/C or Delay	LOS	V/C or Delay	LOS			V/C or Delay	LOS	V/C or Delay	LOS		
67	Castle Heights Ave. National Blvd.	Los Angeles	AM	0.947	E	0.974	E	0.027	YES	1.120	F	1.147	F	0.027	YES
			PM	0.787	C	0.813	D	0.026	YES	0.880	D	0.907	E	0.027	YES
68	Culver Blvd. Venice Blvd.	Los Angeles	AM	0.653	B	0.655	B	0.002	NO	0.690	B	0.697	B	0.007	NO
			PM	0.681	B	0.699	B	0.018	NO	0.852	D	0.870	D	0.018	NO
69	Robertson Blvd. /a/ Venice Blvd.	Los Angeles	AM	0.831	D	0.881	D	0.050	YES	1.279	F	1.329	F	0.050	YES
			PM	0.769	C	0.771	C	0.002	NO	1.077	F	1.078	F	0.001	NO
70	Robertson Blvd. National Blvd.	Los Angeles	AM	1.202	F	1.238	F	0.036	YES	1.259	F	1.295	F	0.036	YES
			PM	1.034	F	1.056	F	0.022	YES	1.085	F	1.108	F	0.023	YES
71	National Blvd. I-10 EB On-Ramp	Los Angeles	AM	0.438	A	0.447	A	0.009	NO	0.473	A	0.482	A	0.009	NO
			PM	0.488	A	0.515	A	0.027	NO	0.555	A	0.555	A	0.000	NO
72	National Blvd. /a/ Venice Blvd.	Los Angeles	AM	0.982	E	1.012	F	0.030	YES	1.007	F	1.038	F	0.031	YES
			PM	1.007	F	1.065	F	0.058	YES	1.114	F	1.157	F	0.043	YES
73	National Blvd. Washington Blvd.	Culver City	AM	0.742	C	0.754	C	0.012	NO	0.789	C	0.813	D	0.024	NO
			PM	0.917	E	0.942	E	0.025	YES	1.029	F	1.055	F	0.026	YES
74	Robertson Blvd. I-10 WB Off-Ramp/ Kincardine Ave.	Los Angeles	AM	0.607	B	0.621	B	0.014	NO	0.657	B	0.670	B	0.013	NO
			PM	0.802	D	0.815	D	0.013	NO	0.860	D	0.873	D	0.013	NO
75	Robertson Blvd. Cattaraugus Ave.	Los Angeles	AM	0.721	C	0.731	C	0.010	NO	0.897	D	0.907	E	0.010	YES
			PM	0.705	C	0.715	C	0.010	NO	0.867	D	0.877	D	0.010	NO
76	La Cienega Blvd. Venice Blvd.	Los Angeles	AM	0.820	D	0.830	D	0.010	NO	0.933	E	0.943	E	0.010	YES
			PM	0.835	D	0.789	C	-0.046	NO	0.933	E	0.874	D	-0.059	NO
77	La Cienega Blvd. Washington Blvd.	Culver City	AM	0.936	E	0.956	E	0.020	YES	0.984	E	1.012	F	0.028	YES
			PM	0.891	D	0.918	E	0.027	YES	1.025	F	1.052	F	0.027	YES
78	Jefferson Blvd. National Blvd.	Los Angeles	AM	0.924	E	0.928	E	0.004	NO	1.071	F	1.075	F	0.004	NO
			PM	0.763	C	0.770	C	0.007	NO	0.907	E	0.915	E	0.008	NO
79	Higuera St. Washington Blvd.	Culver City	AM	0.791	C	0.794	C	0.003	NO	0.875	D	0.879	D	0.004	NO
			PM	0.709	C	0.724	C	0.015	NO	0.821	D	0.838	D	0.017	NO
80	Ince Blvd. Washington Blvd.	Culver City	AM	0.650	B	0.650	B	0.000	NO	0.710	C	0.722	C	0.012	NO
			PM	0.673	B	0.686	B	0.013	NO	0.811	D	0.824	D	0.013	NO
81	Ince Blvd. Culver Blvd.	Culver City	AM	0.860	D	0.874	D	0.014	NO	0.945	E	0.959	E	0.014	NO
			PM	0.775	C	0.782	C	0.007	NO	0.931	E	0.938	E	0.007	NO
82	Washington Blvd./ Irving Pl./Watseka Ave. Culver Blvd.	Culver City	AM	0.914	E	0.936	E	0.022	YES	1.007	F	1.030	F	0.023	YES
			PM	0.954	E	0.967	E	0.013	NO	1.096	F	1.103	F	0.007	NO
83	Duquesne Ave. Washington Blvd.	Culver City	AM	0.687	B	0.704	C	0.017	NO	0.820	D	0.850	D	0.030	NO
			PM	0.753	C	0.784	C	0.031	NO	0.844	D	0.875	D	0.031	NO

TABLE 4.12-12: 2015 AND 2035 INTERSECTION WITH MITIGATION LEVEL OF SERVICE ANALYSIS

ID	N/S Street Name E/W Street Name	Jurisdiction	Analyzed Period	2015 No Project		2015 With Project Plus Mit		2015 Diff.	2015 Impact	2035 No Project		2035 With Project Plus Mit		2035 Diff.	2035 Impact
				V/C or Delay	LOS	V/C or Delay	LOS			V/C or Delay	LOS	V/C or Delay	LOS		
		Los Angeles	AM	0.526	A	0.545	A	0.019	NO	0.667	B	0.700	B	0.033	NO
			PM	0.597	A	0.630	B	0.033	NO	0.693	B	0.727	C	0.034	NO
84	Sepulveda Blvd. Venice Blvd.	Culver City	AM	0.922	E	0.883	D	-0.039	NO	0.999	E	0.932	E	-0.067	NO
			PM	0.949	E	0.934	E	-0.015	NO	1.019	F	0.976	E	-0.043	NO
		Los Angeles	AM	0.858	D	0.811	D	-0.047	NO	0.945	E	0.867	D	-0.78	NO
			PM	0.888	D	0.869	D	-0.019	NO	0.969	E	0.918	E	-0.051	NO
85	Sepulveda Blvd. I-405 NB On-/Off-Ramps	Culver City	AM	0.854	D	0.857	D	0.003	NO	0.867	D	0.870	D	0.003	NO
			PM	0.956	E	0.969	E	0.013	NO	0.974	E	0.987	E	0.013	NO
86	Sawtelle Blvd. I-405 SB On-/Off-Ramps	Culver City	AM	1.133	F	1.155	F	0.022	YES	1.163	F	1.185	F	0.022	YES
			PM	0.980	E	0.998	E	0.018	NO	1.019	F	1.024	F	0.005	NO

CMA/ICU methodology uses a V/C ratio, while Highway Capacity Manual methodology uses seconds of delay. The City of Santa Monica uses Highway Capacity Manual Methodology. City of Los Angeles uses CMA methodology. Culver City uses ICU methodology. Unsignalized intersections use Highway Capacity Manual unsignalized methodology.
/a/ Intersection geometry altered due to construction.
/b/ Unsignalized intersection. City of Santa Monica uses Highway Capacity Manual unsignalized methodology. (City of Los Angeles does not require impact analysis for unsignalized intersections.)
SOURCE: Fehr & Peers, 2015.

45. Sepulveda Boulevard & National Boulevard
49. Westwood Boulevard & Pico Boulevard
51. Westwood Boulevard & National Boulevard
52. Overland Avenue & Pico Boulevard
55. Overland Avenue & Palms Boulevard
57. Overland Avenue & Palms Boulevard
58. Overland Avenue & Venice Avenue
59. Overland Avenue & Culver Boulevard
60. Motor Avenue & National Boulevard
61. Motor Avenue & Palms Boulevard
66. Manning Avenue / I-10 Westbound Off-Ramp & National Boulevard
67. Castle Heights Avenue & National Boulevard
69. Robertson Boulevard & Venice Boulevard
70. Robertson Boulevard & National Boulevard
72. National Boulevard & Venice Boulevard
73. National Boulevard & Washington Boulevard
77. La Cienega Boulevard & Washington Boulevard
82. Washington Boulevard / Irving Place / Watseka Avenue & Culver Boulevard
86. Sawtelle Boulevard & I-405 Northbound On- and Off- Ramp

In addition, under 2035 conditions, no feasible mitigation measures were identified for the following seven study intersections:

9. Centinela Avenue & Pico Boulevard
11. Bundy Drive & Wilshire Boulevard
29. Gateway Boulevard & Pico Boulevard
36. I-405 Southbound On-Ramp & National Boulevard
44. I-405 Northbound Off-Ramp & National Boulevard
63. Exposition Boulevard / National Boulevard & Palms Boulevard
75. Robertson Boulevard & Cattaraugus Avenue

Partial Mitigation. There is one intersection where the identified mitigation measure does not fully mitigate the identified impact under both 2015 and 2035 conditions:

27. Barrington Avenue & Pico Boulevard – Mitigation Measure **TR4** would partially mitigate the identified Project impact in the AM peak period and would not mitigate the identified Project impact in the PM peak period. No other feasible mitigations were identified. Therefore, this impact would remain significant and unavoidable.

Under 2015 conditions only, there is one intersection where the identified mitigation measure does not fully mitigate the identified impact:

46. Sepulveda Boulevard & Palms Boulevard – Mitigation Measure **TR7** would fully mitigate the identified Project impact in the AM peak period but would only partially mitigate the identified Project impact in the PM peak period. No other feasible mitigations were identified. Therefore, this impact would remain significant and unavoidable.

Under 2035 conditions only, there are two intersections where mitigation measures do not fully mitigate the identified impacts:

43. Sepulveda Boulevard & Exposition Boulevard – Mitigation Measure **TR6** would fully mitigate the identified Project impact in the PM peak period but would not mitigate the identified Project impact in the AM peak period. No other feasible mitigations were identified. Therefore, this impact would remain significant and unavoidable.

76. La Cienega Boulevard & Venice Boulevard – Mitigation Measure **TR10** would fully mitigate the identified Project impact in the PM peak period but would not mitigate the identified Project impact in the AM peak period. No other feasible mitigations were identified. Therefore, this impact would remain significant and unavoidable.

Intersections with Dual Jurisdiction. There are two intersections where the City of Los Angeles does not have full control of the intersection to implement the identified feasible mitigations for impacts under both 2015 and 2035 conditions:

6. Centinela Avenue & Exposition Boulevard – Mitigation Measure **TR2** would fully mitigate the identified Project impact. However, because this intersection is under dual control by the City of Los Angeles and the City of Santa Monica, the City of Los Angeles does not have full control over modifications to the intersection. Therefore, this impact would remain significant and unavoidable.

84. Sepulveda Boulevard & Venice Boulevard – Mitigation Measure **TR11** would fully mitigate the identified Project impact. However, because this intersection is under dual control by the City of Los Angeles and Culver City, the City of Los Angeles does not have full control over modifications to the intersection. Therefore, this impact would remain significant and unavoidable.

Under 2015 conditions only, there is one intersection where the City of Los Angeles does not have full control of the intersection to implement the identified mitigation:

76. La Cienega Boulevard & Venice Boulevard – Mitigation Measure **TR10** would fully mitigate the identified Project impact. However, because this intersection is under dual control by the City of Los Angeles and Caltrans, the City of Los Angeles does not have full control over modifications to the intersection. Therefore, this impact would remain significant and unavoidable.

Under 2035 conditions only, there is one intersection where the City of Los Angeles does not have full control of the intersection to implement the identified mitigation:

3. Stewart Street & Olympic Boulevard – Mitigation Measure **TR12** would fully mitigate the identified Project impact. However, because this intersection is under dual control by the City of Los Angeles and the City of Santa Monica, the City of Los Angeles does not have full control over modifications to the intersection. Therefore, this impact would remain significant and unavoidable.

Therefore, of the 47 total study intersections identified with potential impacts under 2015 conditions without mitigation, significant impacts would remain at 42 study intersections with mitigation. Of the 56 total study intersections identified with potential impacts under 2035 conditions without mitigation, significant impacts would remain at 50 study intersections after mitigation.

Fully Mitigated. The identified mitigation measures would fully mitigate significant impacts under both 2015 and 2035 conditions at the following four study intersections within the City of Los Angeles:

16. Bundy Drive & Olympic Boulevard
28. Barrington Avenue & Gateway Boulevard
47. Military Avenue & National Boulevard
53. Overland Avenue & National Boulevard

Under 2015 conditions, the identified mitigation measure would fully mitigate the significant impact at the following intersection:

43. Sepulveda Boulevard & Exposition Boulevard

Under 2035 conditions, the identified mitigation measures would fully mitigate the significant impacts at the following two study intersections:

25. Barrington Avenue & Mississippi Avenue
46. Sepulveda Boulevard & Palms Boulevard

A summary of the total number of significantly impacted intersections before and after feasible mitigation measures for 2015 and 2035 is provided below in **Table 4.12-13**. As noted, since the City of Los Angeles has no ability to implement mitigation measures in other jurisdictions, all intersections that are not fully controlled by the City of Los Angeles are considered significantly impacted after mitigation for purposes of this EIR.

TABLE 4.12-13: SUMMARY OF NUMBER OF INTERSECTIONS SIGNIFICANTLY IMPACTED

Future Year	Number of Significantly Impacted Intersections Before Mitigation	Number of Significantly Impacted Intersections With No Feasible Mitigation	Number of Significantly Impacted Intersections With Partial Mitigation	Intersections with Dual Jurisdiction (No Feasible Mitigation)	Number of Significantly Impacted Intersections Fully Mitigated	Number of Significantly Impacted Intersections After Mitigations
2015	47	37	2	3	5	42
2035	56	44	3	3	6	50

Note: Table includes intersections that are shared with and outside of the City of Los Angeles.

Transportation Demand Management (TDM) strategies, which are requirements of the Proposed Specific Plan, could mitigate some of the intersection-level impacts identified above. However, at this time it is not possible to estimate the effectiveness of these TDMs without additional detail on the selected TDM strategies and their application to individual development projects. Therefore, the impacts identified in this section would remain significant and unavoidable.

These impacts result from a conservative analysis, based on past experience with vehicular trip generation in mixed-use and transit-oriented developments. If recent changes in demographics, vehicle ownership patterns, and energy prices persist or increase in magnitude, this could lead to further increases in mode shift to lower-energy and lower-cost transportation modes that would reduce the volume of vehicular travel and potentially reduce the number of impacted intersections.

IMPACT 4.12-3 WOULD THE IMPLEMENTATION OF THE PROPOSED PROJECT HAVE A SIGNIFICANT IMPACT RELATED TO NEIGHBORHOOD INTRUSION BY EXCEEDING THE ESTABLISHED THRESHOLDS? THIS IMPACT IS SIGNIFICANT AND UNAVOIDABLE.

The EIR modeling analysis accounts for potential redistribution of vehicular traffic from highly congested links to links that have more available capacity. While not every local street is included in the model, the cumulative effect of cut-through traffic is accounted for on the modeled links. Along roadways where the Proposed Project would cause significant traffic congestion, diversion of trips could occur onto adjacent parallel routes. It is anticipated that diversion would not occur on streets that operate at LOS D or better during peak periods because the average delay is not substantial. However, for the street segments where the LOS would degrade from D to E or F, some trips could divert to adjacent streets to avoid longer travel times through congested locations. Travel route changes on the City's arterial and collector roadways have been captured through the travel model's peak hour forecasts and LOS results. The extent to which trips would divert to adjacent local residential roadways is not reasonably foreseeable given the broad scope of the Project and the uncertainty around the specific location of individual development project driveways, and, therefore, impacts cannot be precisely determined. However, it is anticipated that increased traffic could

occur on these roadways. Therefore, the Proposed Project would result in a significant impact related to neighborhood intrusion.

MITIGATION MEASURE

TR14 In areas where implementation of the Proposed Project could result in diversion of traffic to adjacent residential streets, LADOT shall monitor traffic on identified residential streets, upon request submitted through the Council Office, to determine if traffic diversion occurs. If traffic on residential streets is found to be significantly impacted in accordance with current LADOT guidelines, LADOT will work with the project applicant and neighborhood residents to survey and monitor the residential street segment/s before and after project occupancy to assess the need for appropriate traffic calming measures. These measures could include the following (but are not limited to):

- Traffic circles
- Speed humps
- Roadway narrowing effects (e.g. raised medians, traffic chokers etc.)
- Landscaping features
- Roadway striping changes
- Stop signs

In addition to the aforementioned traffic calming measures, neighborhood improvements can offset the effect of adding traffic. These could include (but are not limited to) measures such as street trees, sidewalks, landscaping, neighborhood identification features, and pedestrian amenities. It would be the project applicant's responsibility to implement any of the approved measures through the Bureau of Engineering's permit process.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

The implementation of Mitigation Measure **TR14** would reduce the level of impact related to neighborhood intrusion but impacts would remain significant and unavoidable.

IMPACT 4.12-4 WOULD THE IMPLEMENTATION OF THE PROPOSED PROJECT HAVE A SIGNIFICANT IMPACT RELATED TO THE CMP FREEWAY ANALYSIS BY EXCEEDING THE ESTABLISHED THRESHOLD? THIS IMPACT IS LESS THAN SIGNIFICANT.

The CMP is a state-mandated program administered by Metro (*2010 Congestion Management Program for Los Angeles County*, Metro, 2010) that provides a mechanism for coordinating land use and development decisions. CMP requires establishment of LOS standards to measure congestion at specific monitoring locations on the freeway and arterial systems. LOS ranges from LOS A to LOS F, with LOS A representing free-flow conditions and LOS F representing a high level of congestion.

Freeway segment volumes based on model data were used to compare Future with Project (2035) to Future No Project (2035) conditions and 2015 with Project to 2015 No Project conditions for six mainline CMP freeway monitoring locations identified within the sphere of influence of the Project along the I-10 and I-405. These six mainline locations are identified as CMP Freeway Monitoring Stations in the 2010 CMP:

- Route 10, at postmile R2.17, Lincoln Boulevard
- Route 10, at postmile R6.75, east of Overland Avenue
- Route 10, at postmile R10.71, east of La Brea Avenue
- Route 405, at postmile 24.27, north of La Tijera Boulevard
- Route 405, at postmile 28.30, north of Venice Boulevard
- Route 405, at postmile 35.81, south of Mulholland Drive

In accordance with the CMP guidelines, freeway (mainline) operating conditions during peak periods were evaluated using the general procedures established by the CMP. Freeway mainline LOS is estimated with calculation of the V/C ratio. Calculation of LOS based on V/C ratios is a surrogate for the speed-based LOS used by Caltrans for traffic operational analysis. The LOS criteria for freeway segments using V/C ratios as the performance measure can be found in the *2010 Congestion Management Program for Los Angeles County* and **Table 4.12-4**. Capacity was determined based on the existing capacities reported in the *2010 Congestion Management Program for Los Angeles County* and modified for future 2035 conditions to account for the addition of lanes on the I-405 freeway. Highways and roadways designated in the CMP network are required to operate at LOS E, except where Future No Project LOS is worse than LOS E. In such cases, the Future No Project LOS is the standard.

Freeway segment volumes based on the most recently reported CMP data were used to establish the CMP LOS conditions during the AM and PM peak hours for 2015 No Project conditions. Although PeMS data on existing freeway volumes was also collected, these volumes were not deemed to be representative of local conditions due to the heavily congested conditions on the I-405 and I-10. The use of PeMS data would have resulted in an underestimate of current and future vehicle throughput for these freeway facilities.

The analysis was then performed to evaluate 2015 With Project, 2035 No Project, and 2035 With Project conditions for the six CMP Freeway Monitoring Stations identified above based on AM and PM peak hour traffic volume per direction data from the City of Los Angeles' Travel Demand Model:

- 2015 With Project volumes were calculated by adding the difference between model 2035 with Project volumes and model 2035 No Project volumes to 2015 No Project volumes.
- 2035 No Project volumes were calculated as the difference between the model 2035 No Project volumes and the model 2015 volumes added to the 2015 freeway segment volumes.
- 2035 With Project volumes were calculated as the difference between the model 2035 with Project volumes and the model 2035 No Project volumes added to the 2035 No Project volumes calculated above.

The required CMP methodology compares the typical lane capacity for a freeway mainline segment to the number of vehicles traveling on the segment during the peak hour. Due to bottlenecks in the freeway network, vehicle demand can often exceed vehicle throughput resulting in significant reductions in travel speeds and extensive vehicle queuing. When this situation occurs, the number of vehicles passing a CMP monitoring location may be substantially lower than the actual vehicle demand for that location. This results in an artificially low traffic count at the CMP monitoring station, that when compared to the typical lane capacity, can show better operations (i.e., a lower V/C) than experienced by drivers.

As defined by the CMP, a significant impact occurs when a project increases traffic demand on a CMP facility by two percent of capacity ($V/C \geq 0.02$), causing LOS F ($V/C > 1.00$); if the facility is already at LOS F, a significant impact occurs when a project increases traffic demand on a CMP facility by two percent of capacity ($V/C \geq 0.02$). Since bottlenecks in the freeway network are resulting in artificially low vehicle counts at some CMP monitoring stations and vehicle LOS experienced by drivers is worse than reported based on the CMP methodology, increases in $V/C \geq 0.02$ for facilities shown to be operating at LOS E or better may also experience a significant impact resulting from the proposed project.

Freeway CMP Impact Analysis

Table 4.12-14 presents the freeway segment LOS for each of the six identified CMP Freeway Monitoring Stations for AM and PM peak hours under 2015 No Project, 2015 With Project, 2035 No Project, and 2035 With Project conditions.

Multiple CMP freeway monitoring locations during both the AM and PM peak hours are operating at LOS F under 2015 conditions or are projected to operate at LOS F in the future. The incremental change in the V/C ratio between Project conditions and No Project conditions for both 2015 and 2035 scenarios is less than 0.02 in each case. Other CMP freeway monitoring locations are expected to operate at LOS E or better based on the CMP methodology. Therefore, no impact related to the freeway system would occur.

TABLE 4.12-14: CMP FREEWAY ANALYSIS

CMP Station		Dir.	2015 Capacity	2015 No Project			2015 With Project			2015 Change in V/C	2035 Capacity	2035 No Project			2035 With Project			2035 Change in V/C
				Vol.	V/C	CMP LOS	Vol.	V/C	CMP LOS			Vol.	V/C	CMP LOS	Vol.	V/C	CMP LOS	
1010 Santa Monica Fwy (I-10) Lincoln Blvd. Postmile R2.17	AM	EB	6,000	5,084	0.847	D	5,116	0.853	D	0.006	6,000	5,301	0.883	D	5,332	0.889	D	0.006
		WB	6,000	4,677	0.780	D	4,694	0.782	D	0.002	6,000	4,881	0.813	D	4,898	0.816	D	0.003
	PM	EB	6,000	5,897	0.983	E	5,939	0.990	E	0.007	6,000	6,053	1.009	F(0)	6,095	1.016	F(0)	0.007
		WB	6,000	3,966	0.661	C	3,999	0.667	C	0.006	6,000	4,332	0.722	C	4,365	0.728	C	0.006
1011 Santa Monica Fwy (I-10) e/o Overland Ave. Postmile R6.75	AM	EB	10,000	12,101	1.210	F(0)	12,101	1.210	F(0)	0.000	10,000	12,161	1.216	F(0)	12,161	1.216	F(0)	0.000
		WB	8,000	10,185	1.273	F(1)	10,288	1.286	F(1)	0.013	8,000	10,253	1.282	F(1)	10,356	1.295	F(1)	0.013
	PM	EB	10,000	13,714	1.371	F(2)	13,814	1.381	F(2)	0.010	10,000	14,059	1.406	F(2)	14,159	1.416	F(2)	0.010
		WB	8,000	8,571	1.071	F(0)	8,572	1.071	F(0)	0.000	8,000	8,622	1.078	F(0)	8,623	1.078	F(0)	0.000
1012 Santa Monica Fwy (I-10) e/o La Brea Ave. UC Postmile R10.71	AM	EB	10,000	13,008	1.301	F(1)	13,008	1.301	F(1)	0.000	10,000	12,842	1.284	F(1)	12,842	1.284	F(1)	0.000
		WB	10,000	12,807	1.281	F(1)	12,886	1.289	F(1)	0.008	10,000	13,400	1.340	F(1)	13,479	1.348	F(1)	0.008
	PM	EB	10,000	14,118	1.412	F(2)	14,203	1.420	F(2)	0.008	10,000	14,463	1.446	F(2)	14,547	1.455	F(3)	0.009
		WB	10,000	11,899	1.190	F(0)	11,899	1.190	F(0)	0.000	10,000	12,171	1.217	F(0)	12,171	1.217	F(0)	0.000
1069 San Diego Fwy (I-405) n/o La Tijera Blvd. Postmile 24.27	AM	NB	10,000	14,319	1.432	F(2)	14,427	1.443	F(2)	0.011	10,000	15,309	1.531	F(3)	15,417	1.542	F(3)	0.011
		SB	10,000	10,185	1.019	F(0)	10,185	1.019	F(0)	0.000	10,000	10,785	1.079	F(0)	10,785	1.079	F(0)	0.000
	PM	NB	10,000	14,521	1.452	F(3)	14,521	1.452	F(3)	0.000	10,000	15,143	1.514	F(3)	15,143	1.514	F(3)	0.000
		SB	10,000	11,597	1.160	F(0)	11,682	1.168	F(0)	0.008	10,000	12,852	1.285	F(1)	12,937	1.294	F(1)	0.009
1070 San Diego Fwy (I-405) n/o Venice Blvd Postmile 28.3	AM	NB	10,000	13,828	1.383	F(2)	13,909	1.391	F(2)	0.008	10,000	14,868	1.487	F(3)	14,949	1.495	F(3)	0.008
		SB	10,000	9,456	0.946	E	9,456	0.946	E	0.000	10,000	10,084	1.008	F(0)	10,084	1.008	F(0)	0.000
	PM	NB	10,000	15,150	1.515	F(3)	15,150	1.515	F(3)	0.000	10,000	16,820	1.682	F(3)	16,820	1.682	F(3)	0.000
		SB	10,000	14,845	1.485	F(3)	14,930	1.493	F(3)	0.008	10,000	15,630	1.563	F(3)	15,715	1.571	F(3)	0.008
1071 San Diego Fwy (I-405) s/o Mulholland Dr. Postmile 35.81	AM	NB	10,000	8,948	0.895	D	8,948	0.895	D	0.000	10,000	9,640	0.964	E	9,640	0.964	E	0.000
		SB	10,000	14,845	1.485	F(3)	14,961	1.496	F(3)	0.011	10,000	15,282	1.528	F(3)	15,398	1.540	F(3)	0.012
	PM	NB	10,000	14,845	1.485	F(3)	14,962	1.496	F(3)	0.011	10,000	16,602	1.660	F(3)	16,719	1.672	F(3)	0.012
		SB	10,000	10,168	1.017	F(0)	10,168	1.017	F(0)	0.000	10,000	10,695	1.069	F(0)	10,695	1.069	F(0)	0.000

SOURCE: Fehr & Peers, 2015.

MITIGATION MEASURES

Impacts related to the freeway CMP analysis would be less than significant under the Proposed Project. No mitigation measures are necessary.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

Impacts related to the freeway CMP analysis under the Proposed Project would be less than significant without mitigation.

IMPACT 4.12-5 WOULD THE IMPLEMENTATION OF THE PROPOSED PROJECT HAVE A SIGNIFICANT IMPACT RELATED TO THE CMP ARTERIAL INTERSECTION ANALYSIS BY EXCEEDING THE ESTABLISHED THRESHOLD? THIS IMPACT IS SIGNIFICANT AND UNAVOIDABLE.

The CMP Guidelines require analysis of all CMP arterial monitoring intersections where the proposed Project will add 50 or more peak hour trips (total of both directions). The CMP exempts from analysis residential and mixed use projects within ¼ mile of fixed rail passenger stations. While some portion of the project and study intersections would be exempt under the criteria, all CMP intersections in the study area were evaluated, including the following seven CMP arterial monitoring stations (i.e., intersections). The CMP arterial monitoring stations identified for analysis were analyzed using the CMA/Circular 212 method to estimate LOS (see **Table 4.12-4**).

- Venice Boulevard and Overland Avenue (CMP Arterial Monitoring Station #15)
- La Cienega Boulevard and Jefferson Boulevard (CMP Arterial Monitoring Station #46)
- Santa Monica Boulevard and Bundy Drive (CMP Arterial Monitoring Station #59)
- Santa Monica Boulevard and Westwood Boulevard (CMP Arterial Monitoring Station #62)
- Venice Boulevard and Centinela Avenue (CMP Arterial Monitoring Station #70)
- Venice Boulevard and La Cienega Boulevard (CMP Arterial Monitoring Station #71)
- Wilshire Boulevard and Sepulveda Boulevard (CMP Arterial Monitoring Station #88)

Table 4.12-15 presents the arterial intersection LOS for each of the seven identified CMP Arterial Monitoring Stations for AM and PM peak hours under 2015 No Project, 2015 With Project, 2035 No Project, and 2035 With Project conditions.

This analysis concluded that the identified CMP arterial intersections are expected to operate at LOS E or better during the AM and PM peak hours at six of the seven analyzed locations under 2015 No Project and 2015 With Project conditions. One location would not operate at LOS E or better:

- CMP Arterial Monitoring Station #46 – La Cienega Boulevard at Jefferson Boulevard, where the LOS would be F during both peak hours under 2015 With Project conditions and during the AM peak hour under 2015 No Project conditions.

The Proposed Project does not result in a V/C ratio increase greater than 0.02 with LOS F at any of the analyzed CMP Arterial Monitoring Stations under 2015 conditions. Therefore, there would be no significant impact related to the arterial circulation system under 2015 conditions.

TABLE 4.12-15: CMP ARTERIAL MONITORING STATIONS

Intersection	Jurisdiction	Peak Hour	2015 No Project		2015 with Project				2035 No Project		2035 with Project			
			V/C	LOS	V/C	LOS	Increase in V/C	Project Impact?	V/C	LOS	V/C	LOS	Increase in V/C	Project Impact?
Venice Blvd. Overland Ave. CMP #15 Study Intersection #58	Culver City	AM	0.837	D	0.859	D	0.022	NO	0.852	D	0.874	D	0.022	NO
		PM	0.813	D	0.829	D	0.016	NO	0.888	D	0.908	E	0.020	NO
La Cienega Blvd. Jefferson Blvd. CMP #46	Los Angeles City	AM	1.036	F	1.050	F	0.014	NO	1.096	F	1.111	F	0.015	NO
		PM	0.983	E	1.001	F	0.018	NO	1.113	F	1.131	F	0.018	NO
Santa Monica Blvd. Bundy Dr. CMP #59 Study Intersection #12	Los Angeles City	AM	0.582	A	0.593	A	0.011	NO	0.862	D	0.867	D	0.005	NO
		PM	0.643	B	0.656	B	0.013	NO	0.823	D	0.837	D	0.014	NO
Santa Monica Blvd. Westwood Blvd. CMP #62	Los Angeles City	AM	0.931	E	0.938	E	0.007	NO	1.064	F	1.080	F	0.016	NO
		PM	0.981	E	0.983	E	0.002	NO	1.150	F	1.182	F	0.032	YES
Venice Blvd. Centinela Ave. CMP #70	Los Angeles City	AM	0.910	E	0.976	E	0.066	NO	1.027	F	1.093	F	0.066	YES
		PM	0.867	D	0.888	D	0.021	NO	0.958	E	0.963	E	0.005	NO
Venice Blvd. La Cienega Blvd. CMP #71 Study Intersection #76	Los Angeles City	AM	0.820	D	0.830	D	0.010	NO	0.933	E	0.943	E	0.010	NO
		PM	0.835	D	0.864	D	0.029	NO	0.933	E	0.962	E	0.029	NO
Wilshire Blvd. Sepulveda Blvd. CMP #88	Los Angeles City	AM	0.910	E	0.976	E	0.032	NO	0.926	E	0.930	E	0.004	NO
		PM	0.705	C	0.732	C	0.027	NO	0.893	D	0.920	E	0.027	NO

SOURCE: Fehr & Peers, 2015.

The identified CMP arterial intersections are expected to operate at LOS E or better during the AM and PM peak hours at four of the seven analyzed locations under both 2035 No Project and 2035 With Project conditions. Three locations would not operate at LOS E or better:

- CMP Arterial Monitoring Station #46 – La Cienega Boulevard at Jefferson Boulevard, where the LOS would be F during both peak hours under both 2035 No Project and 2035 With Project conditions.
- CMP Arterial Monitoring Station #62 – Santa Monica Boulevard at Westwood Boulevard, where the LOS would be F during both peak hours under both 2035 No Project and 2035 With Project conditions.
- CMP Arterial Monitoring Station #70 – Venice Boulevard at Centinela Avenue, where the LOS would be F during the AM peak hour under both 2035 No Project and 2035 With Project conditions.

The Proposed Project results in a V/C ratio increase greater than 0.02 with LOS F at CMP Arterial Monitoring Stations #62 Santa Monica Boulevard at Westwood Boulevard and #70 Venice Boulevard and Centinela Avenue. Therefore, without mitigation, the Proposed Project would result in a significant impact related to the arterial circulation system under 2035 conditions.

MITIGATION MEASURE

Under 2015 conditions, no intersections were identified as having a significant Project impact. Potential intersection improvements were identified and evaluated for all intersections presented in **Table 4.12-15** as being significantly impacted under 2035 conditions.

Two locations were identified to have Project impacts under the 2035 with Project conditions, CMP Arterial Monitoring Station #62 (Santa Monica Boulevard and Westwood Boulevard) and CMP Arterial Monitoring Station #70 (Venice Boulevard and Centinela Avenue). At CMP Arterial Monitoring Station #62, the only mitigation measures involve physical intersection improvements which would conflict with Project goals.

TR15 **Arterial Monitoring Station #70 (Venice Boulevard and Centinela Avenue)**. Restripe one existing northbound shared through/right-turn lane to provide one through lane and one right-turn lane and restripe one existing shared through/right-turn lane to provide one through lane and one right-turn lane. This improvement would require the removal of four on-street parking spaces on Venice Boulevard and the relocation of the bus stop on Centinela Avenue from the south side to the north side of the intersection.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

At Arterial Monitoring Station #62 (Santa Monica Boulevard at Westwood Boulevard), the only mitigation measures involve physical intersection improvements (such as widening the intersection) which would conflict with Project goals and are considered to be infeasible, and, therefore, this impact would remain significant and unavoidable.

Because Arterial Monitoring Station #70 (Venice Boulevard and Centinela Avenue) is under dual control by the City of Los Angeles and Caltrans, the City of Los Angeles does not have full control over modifications to the intersection. Therefore, impacts related to CMP arterial intersection analysis would remain significant and unavoidable.

IMPACT 4.12-6 WOULD THE IMPLEMENTATION OF THE PROPOSED PROJECT HAVE A SIGNIFICANT IMPACT RELATED TO THE CMP TRANSIT IMPACT REVIEW BY SUBSTANTIALLY IMPACTING TRANSIT SERVICE? THIS IMPACT IS LESS THAN SIGNIFICANT.

Potential increases in transit person trips generated by the Proposed Project were estimated. Appendix D of the 2010 CMP provides guidelines on a methodology for estimating the number of transit trips expected to result from a proposed project based on the projected number of vehicle trips. This methodology assumes an average vehicle ridership (AVR) factor of 1.4 to estimate the number of person trips to and from the

Proposed Project and then provides guidance on the percentage of person trips assigned to public transit depending on the type of use (commercial/other versus residential) and the proximity to transit services. The CMP Guidelines suggest that 3.5 percent of total person trips generated should be assigned to transit in most cases. In the case of portions of the Project Area, primarily commercial development within ¼ mile of a CMP transit center, 15 percent of total person trips generated are assigned to transit. As a conservative assumption, this transit analysis uses vehicle trip estimates derived from ITE trip rates (shown as "Gross Trips" in **Tables 4.12-4** and **4.12-5**) as opposed to the number of Net External Trips, which account for reductions in the number of vehicle trips anticipated in a mixed-use development proximate to high-frequency transit service and would result in a smaller number of person trips assigned to transit.

This analysis estimates the capacity of future transit services in the Project Area by identifying the bus and rail services with stops within the Project Area, described under the "Existing Public Transit Service" section, above. In addition to the capacity of the Expo LRT, the analysis assumes that, although existing bus services would likely be reconfigured, the overall bus capacity serving the Project Area in the future would be similar to the existing capacity. Although precise reconfiguration plans are not presently known, it is assumed that buses that are redirected from routes that would duplicate Expo service could be used to create better connections to Expo stations and provide additional connectivity to destinations not directly served by Expo. For reference, forecast boardings for the Expo LRT for the year 2030 by station are shown in **Table 4.12-16**.

TABLE 4.12-16: EXPO LRT 2030 STATION BOARDINGS

Station Area	Boardings
Bundy	2,811
Sepulveda	5,097
Westwood	5,213
Palms	1,856
Culver City	4,196

SOURCE: Expo FEIR, 2009.

The Proposed Project would have an estimated increase in vehicle trip generation of approximately 8,475 vehicle trips during the AM peak hour, 8,791 net vehicle trips during the PM peak hour, and 75,101 daily net vehicle trips. Applying the AVR factor of 1.4 to the estimated net vehicle trips would result in an estimated increase of approximately 11,865 AM net person trips, 12,307 PM net person trips and 105,141 daily net person trips. Following the CMP guidelines for assigning trips to transit described above, the Proposed Project would generate an estimated increase of approximately 1,220 AM peak hour transit trips, 1,123 PM peak hour transit trips, and 12,306 daily transit trips.

The bus and rail transit services in the Project Area are estimated to have a combined capacity of approximately 18,700 AM peak hour passenger trips, 18,600 PM peak hour passenger trips, and 287,000 daily passenger trips. The project would use seven percent of total AM peak hour capacity, six percent of total PM peak hour capacity, and four percent of total daily capacity. No significant impacts to the transit system would be anticipated.

MITIGATION MEASURES

Impacts related to the CMP transit analysis would be less than significant under the Proposed Project. No mitigation measures are required.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

Impacts related to the CMP transit analysis under the Proposed Project would be less than significant without mitigation.

IMPACT 4.12-7 WOULD THE IMPLEMENTATION OF THE PROPOSED PROJECT RESULT IN INADEQUATE EMERGENCY VEHICLE ACCESS SUCH THAT THERE WOULD BE NEED FOR CONSTRUCTION OF NEW OR PHYSICALLY ALTERED EMERGENCY SERVICE FACILITIES (POLICE AND/OR FIRE)? THIS IMPACT IS LESS THAN SIGNIFICANT.

Where segment-level LOS would be significantly impacted, emergency vehicles may also be significantly impacted due to the project's location in a congested area of West Los Angeles. Since the Proposed Project could contribute to increased delay for drivers, it would have a potentially significant impact related to inadequate emergency vehicle access resulting in the potential need for construction of new or physically altered emergency service facilities.

In the case of this Proposed Project, if roadway capacity were added (as a mitigation measure), it would be counter to the goals and objectives set forth in the ECTNP designed to encourage mobility using a variety of modes, including vehicles, transit, bicycle, and walking. The addition of significant roadway capacity in this area could also result in induced travel and, thus, not provide mitigation for decreasing emergency response times. However, increasing congestion could impede emergency access. While the Proposed Project could impact segment-level LOS, there is not a direct relationship between predicted travel delay and response times as California State law does require drivers to yield the right-of-way to emergency vehicles and even permits emergency vehicles to use opposing lane of travel, the center turn lanes, or bus-only lanes. People traveling by bicycle are also required to pull to the side of the road to yield access to emergency providers. Emergency responders also routinely use the center left-turn lanes, or even travel in opposing travel lanes if needed. Generally, multi-lane roadways allow the emergency vehicles to travel at higher speeds and permit other traffic to maneuver out of the path of the emergency vehicle.

Parallel with the ECTNP effort (see cumulative discussion below), the City is evaluating and proposing to implement the Citywide Mobility Plan, Coastal Transportation Corridor Specific Plan (CTCSP), and the West Los Angeles Transportation Improvement and Mitigation Specific Plan (WLA TIMP) Amendments. These projects, together with proposed project mitigation, could alter roadway configurations in the study area. These revised roadway configurations could improve emergency access. For example, a roadway reconfiguration could improve emergency access where a bus-only lane or a contiguous center left-turn lane is introduced where it previously did not exist. Emergency vehicles are permitted to use bus only lanes for local access to emergency destinations, though it is more likely that when in route to an emergency incident, general traffic would merge into a bus only lane permitting the emergency vehicle to pass in the through lane to the left.

Knowing exactly how fire and emergency service response times will be affected calls for a great deal of speculation.

The interrelationship between emergency access and traffic is complex and involves factors such as the following:

- Los Angeles Fire Department (LAFD) in collaboration with LADOT has developed a FPS, a system that automatically turns traffic lights to green for emergency vehicles traveling on designated streets in the City. The City of Los Angeles has over 205 miles of routes equipped with FPS.[24]
- The proximity of LAFD (and other) facilities to those they serve.
- The opportunity for LAFD and emergency responders to use alternative routes in an area.
- LAFD, in cooperation with LADOT and the City's Department of City Planning, actively participates in the design of specific roadway changes in order to ensure adequate fire/emergency access is maintained.

[24]Training Bulletin: Traffic Signal Preemption System for Emergency Vehicles, Los Angeles Fire Department, Bulletin No. 133, October 2008.

LAFD, in reviewing street and right-of-way projects, comments on particular street configuration designs, and will raise concerns if roadways present particular access challenges, and can recommend no changes be done at all or alternative changes be undertaken if fire and emergency access are particularly impacted.

- LAFD is responsible for identifying and implementing capital improvements (such as new Fire Stations) as may be needed to respond to anticipated increased demand. LAFD does not have a capital improvement plan that identifies construction of new fire stations in specific locations, and, therefore, it is not possible to forecast or identify any specific impacts associated with any potential new or expanded fire stations. Any impacts from building or expanding fire stations and facilities would be speculative at this point in time.
- As identified in the Thresholds Guide, on any given project review, LAFD can implement project specific mitigation requirements, such as requiring fire retardant landscaping, prohibiting construction in fire hazard areas, requiring design features that reduce fire potential and developing emergency response plans.
- The changing demand for service is complex. For example, with increasing populations, there may be more density and more construction, though new buildings are constructed in accordance with increasingly stringent building and fire codes making them safer and more resistant to fires, such as requiring fire sprinklers. The population is aging, which may increase demand for service. However, the population may be becoming healthier with increased and improved healthcare.
- Future factors that could increase efficiencies in response, including improvements in technology and management, such as changes in deployment of equipment and staff and mutual aid agreements.

LAFD is responsible for maintaining adequate response times. LAFD published a Strategic Plan in April 2015. The LAFD Strategic Plan[25] focuses on nine goals and corresponding strategic actions that would guide the LAFD for the next three years. The primary goals that are applicable to the Project include providing exceptional public safety and emergency service and implementing and capitalizing on advanced technologies. Some of the key priorities associated with these goals include the following:

- Improving response times by utilizing data and metrics to identify gaps in LAFD's response strategies and exploring response time improvements through dialogue, cognitive inquiry, innovation, and follow-up;
- Delivery of emergency medical services by expanding LAFD EMS response capabilities for special events and addressing periods of high vehicle traffic; and
- Identifying and implementing advanced technologies to support and improve performance metrics, tracking standards, data collection, analysis and reporting procedures (FireStatLA).

The LAFD Strategic Plan also focuses on the development of an even more professional workforce and promotion of a positive work environment to address risk management issues and strengthening community relationships to improve preparedness and enhance resiliency during emergency events.

Planning Department Staff have discussed the LAFD Strategic Plan and its relationship to growth and traffic with LAFD Staff in order to understand how LAFD responds to growth and changes in traffic. LAFD advised that while increasing congestion is a factor in how they address emergency response, their ongoing planning efforts, including the LAFD Strategic Plan take in to account such increases in congestion and LAFD continues to plan for and maintain public safety and emergency service as required. LAFD will continue to monitor any impact on-the-ground implementation of the the Proposed Project may have on response times and make adjustments as necessary. These adjustments may or may not include redeploying resources, adding staff or building new fire stations.

[25]Los Angeles Fire Department, *LAFD Strategic Plan 2015-2017*, May 2015.

It is not reasonably foreseeable that the Proposed Project would cause the addition of a new fire station or police facilities or the expansion, consolidation or relocation of an existing facility to maintain service. LAFD has a mandate to protect public safety and must respond to changing circumstances and therefore would act to maintain response times. The steps that LAFD would have to take to maintain public safety are not reasonably foreseeable at this time. Options available to LAFD include expanding the FPS, increasing staffing levels and adding new fire stations(s) to underserved areas. The potential for new fire station construction is speculative at the present time and is, therefore, not analyzed in this document. Depending on the location of new fire protection facilities, operational impacts (primarily noise) could occur; however, such impacts are unforeseeable at this time. Therefore, the Proposed Project would have a less-than-significant impact on emergency access.

MITIGATION MEASURE

Impacts on emergency vehicle access that would trigger the need for new emergency service facilities were found to be less than significant. No mitigation measures are required.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

The Proposed Project would increase congestion, which could impede emergency access; however, it is not anticipated that congestion would result in the need for construction of new or physically altered emergency service facilities (police and/or fire). LAFD has a mandate to protect public safety and must respond to changing circumstances and therefore would act to maintain response times. The steps that LAFD would have to take to maintain public safety are not reasonably foreseeable at this time. Options available to LAFD include increased staffing levels and new fire stations(s) in underserved areas. Any construction impacts associated with new fire protection facilities would be within the impacts discussed in this document. Depending on the location of new fire protection facilities, operational impacts (primarily noise) could occur; however, such impacts are unforeseeable at this time. Therefore, the Proposed Project was found to have less-than-significant impacts on emergency vehicle access without mitigation.

IMPACT 4.12-8 WOULD THE IMPLEMENTATION OF THE PROPOSED PROJECT INCREASE HAZARDS DUE TO A DESIGN FEATURE OR INCOMPATIBLE USES? THIS IMPACT IS LESS THAN SIGNIFICANT.

None of the transportation system improvements proposed in the Proposed Project would introduce new safety hazards or incompatible uses at intersections or along roadway segments, as most would be designed to improve safe circulation and access to the transit stations for all users. No new roadways are introduced or removed; streetscape plans are designed to help minimize conflicts between pedestrians and vehicles, and design standards in the Proposed Project are designed to limit the number, width, and location of new driveways along major streets and in areas of high pedestrian activity. Therefore, from a programmatic perspective, impacts related to safety would be less than significant.

MITIGATION MEASURES

Impacts related to design features or incompatible uses would be less than significant under the Proposed Project. No mitigation measures are necessary.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

Impacts related to design features or incompatible uses under the Proposed Project would be less than significant without mitigation.

IMPACT 4.12-9 WOULD THE IMPLEMENTATION OF THE PROPOSED PROJECT REQUIRE CONSTRUCTION ACTIVITIES TO TAKE PLACE WITHIN A MAJOR OR SECONDARY HIGHWAY ROW WHICH WOULD NECESSITATE TEMPORARY LANE, ALLEY, OR STREET CLOSURES FOR MORE THAN ONE DAY; REQUIRE CONSTRUCTION ACTIVITIES TO TAKE PLACE WITHIN A COLLECTOR OR LOCAL STREET ROW WHICH WOULD NECESSITATE TEMPORARY LANE, ALLEY, OR STREET CLOSURES FOR MORE THAN SEVEN DAYS; RESULT IN THE LOSS OF REGULAR VEHICULAR OR PEDESTRIAN ACCESS TO AN EXISTING LAND USE FOR MORE THAN ONE DAY; OR RESULT IN THE TEMPORARY LOSS FOR MORE THAN ONE DAY OF AN EXISTING BUS STOP OR REROUTING OF A BUS ROUTE THAT SERVES THE PROJECT SITE? THIS IMPACT IS LESS THEN SIGNIFICANT WITH MITIGATION.

Construction-related impacts would generally be temporary. Because the study area represents a specific plan area relating to the build out of multiple parcels, construction-related impacts would depend on the approach to development of each parcel or development site. Although specific impacts related to construction cannot be known at this time, it is likely that construction activities could necessitate temporary lane, alley, or street closures or result in bus stop relocation or bus rerouting. Therefore, without mitigation, the Proposed Project would result in a significant impact related to construction.

MITIGATION MEASURE

TR16 Projects that require a worksite traffic control plan per current LADOT guidelines shall submit to LADOT for review and approval a plan that mitigates the impact of traffic disruption and ensures the safety of all users of the affected roadway. The plan shall address construction duration and activities and include measures, such as operating a temporary traffic signal, using flagmen adjacent to construction activities, or providing a dedicated pedestrian walkway, as appropriate.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

The implementation of Mitigation Measure **TR16** would reduce the level of impact related to construction to a less-than-significant level.

PARKING

The Proposed Project includes the addition of landscaped bulb-outs that would result in some minor reductions in on-street parking. On Palms Boulevard between Motor Avenue and National Boulevard, the installation of landscaped bulb-outs would result in the removal of approximately five on-street parking spaces.

The reduction in parking spaces related to the Proposed Project could increase VMT if people drive farther to find parking or seek an alternate destination with more convenient parking. However, this increased VMT could typically be offset by a reduction in vehicle trips from others who are aware of constrained parking conditions in a given area. In addition, the Project's strategies to increase proximity to neighborhood services and increase alternative transportation use including transit, bicycling and walking would reduce VMT. As discussed above under Thresholds of Significance, loss of parking is not considered an impact, but can trigger secondary impacts (such as noise, air emissions etc.). In the case of the ECTNP, the loss of parking in the Project Area is not anticipated to result in secondary impacts because the reduction is relatively small and the anticipated number of vehicle trips to the area may decrease as result of parking constraints. Therefore, the Proposed Project would result in less-than-significant impacts related to parking.

CUMULATIVE ANALYSIS AND OTHER METRICS

The analysis of future conditions with and without the project above takes into account forecast population for the year 2035 prepared by SCAG and found in the 2012-2035 RTP/SCS. The RTP also includes a SCS that provides guidance on land use planning and transportation to ensure that the region meets CARBs region-specific GHG reduction goals (see Section 4.5, Greenhouse Gas Emissions). The SCAG population projections are provided at TAZ levels of detail for purposes of analysis in the RTP. However, in order to provide individual jurisdictions flexibility in distribution of populations within their jurisdiction, the population assumptions are only adopted at the jurisdictional level. Individual jurisdictions have the flexibility to distribute population as long as they continue to comply with SCS policies and do not affect regional compliance with CARB GHG targets. The RTP also includes large-scale transportation improvements (such as the Expo Line Phase 2 LRT) to show how linking transportation and land use planning can reduce automobile trips and GHG emissions. The 2012-2035 RTP/SCS identifies transportation corridors and transit routes, High Quality Transit Areas (HQTAs), and a variety of strategies to be employed across the region; to the extent information is available about these strategies/improvements they are included in the analysis of project impacts above.

CEQA requires an analysis of cumulative impacts resulting from the implementation of the Proposed Project along with other related projects anticipated to occur in the same geography and timeframe. In addition to the RTP there are two (City of Los Angeles) plans that could have overlapping impacts with the Proposed Project: the recently adopted MP 2035 and the proposed CTCSP/WLA TIMP. (These plans are discussed in more detail below.) Roadway network changes that could result from MP 2035 and CTCSP/WLA TIMP have not been designed, and, therefore, detailed evaluation of potential traffic impacts at the intersection level of detail was not possible and was not included in the intersection analysis of project impacts above.

The purpose of this cumulative/other metrics analysis is to document potential transportation impacts of the Proposed Project with related transportation projects and roadway network improvement projects that are not designed to the level of detail that they can be included in the intersection-level Project analysis above. Since some of the projects considered are outside of the ECTNP Area boundaries, the cumulative transportation analysis focused on the area defined as the West Los Angeles APC. In addition to the 2012-2035 RTP/SCS included in the analysis of project impacts above, the following projects are included in the cumulative analysis:

- MP 2035: In August 2015, the City of Los Angeles adopted MP 2035. MP 2035 (formerly the Transportation Element of the City's General Plan) is the transportation blueprint for the City of Los Angeles, subsequent amendments have been made to the Mobility Plan. MP 2035 includes a number of changes to the City's circulation system, including policies, an Enhanced Complete Street System, an Action Plan, a Complete Streets Design Guide, and a revised Bicycle Plan, all of which will influence the network conditions in the study area and adjacent areas in the City of Los Angeles.

  MP 2035 provides the framework for future community plans and specific plans, which take a closer look at the transportation system in specific areas of the City and recommend more detailed implementation strategies to realize MP 2035. MP 2035 was prepared in compliance with the 2008 Complete Streets Act, which mandates that the circulation element of a city's General Plan be modified to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan.

  For purposes of analysis in this cumulative/other metrics evaluation, the multi-modal improvements included in the MP 2035 enhanced networks (Transit, Bicycle, Neighborhood, Pedestrian and Vehicle) were assumed to be implemented citywide (both within the ECTNP boundaries and in the rest of the City of Los Angeles). While MP 2035 was recently adopted, the timing of implementation and funding sources have not yet been identified, nor have detailed design plans been developed. Therefore the

specific multi-modal improvements could not be included in the detailed 2035 Project analysis. Individual transportation improvements will be designed and implemented as part of subsequent City projects.

- CTCSP and WLA TIMP Amendments: These amendments include an update to the list of transportation improvements to be funded, in part, by the impact fees collected from new development; an update to the Transportation Impact Assessment (TIA) fee program, including revisions to the fees, trip generation rates, exemptions, in-lieu credits, and affordable housing credits; and a new TOD credit. The updated project lists reflect the vision of MP 2035; however, they do not reflect full buildout of MP 2035. Many of the projects contained in the updated project lists provide a first-step in implementing MP 2035 within the specific plan areas. These amendments are currently under review by the City, and therefore, full implementation was not included in the 2035 Project analysis. In addition, project design at the intersection level of detail is not yet available. Individual transportation improvements will be designed and implemented as part of subsequent City projects.

Over the course of the development of the EIR, new methods for evaluating transportation impacts have emerged that are appropriate for evaluating both project and cumulative impacts. The City recently adopted MP 2035, which includes new VMT-related metrics in response to new technical guidance for transportation metrics under SB743 developed by OPR . Although the new draft CEQA guidance from OPR focuses on per-capita VMT, other potential metrics that could be considered include total VMT, vehicle trips (VT), and peak period mode split. This section addresses VT, VMT, VMT per capita, and mode split metrics in the context of cumulative conditions (including the regionally adopted RTP, MP 2035 and CTCSP/WLA TIMP) with and without the ECTNP. Note that these metrics are not adopted thresholds, and are presented below for informational purposes only.

Modeling of cumulative conditions was completed utilizing the City's MP 2035 TDF Model. As part of the MP 2035, the socioeconomic data for the City's TDF Model were updated to reflect the most recent growth forecasts in 2012-2035 RTP/SCS. In addition, the roadway and transit networks have been updated to reflect the assumptions contained in the 2012-2035 RTP/SCS.

Table 4.12-17 presents the number of vehicle trips with an origin and/or destination in the West Los Angeles APC. The number of vehicle trips are reported for both the AM and PM peak periods as well as the two peak periods combined. As shown, with the addition of the Project vehicle trips would increase by 1.1 percent during the AM peak period and 1.3 percent during the PM peak period.

TABLE 4.12-17: VEHICLE TRIPS WITH ORIGINS AND/OR DESTINATIONS WITHIN THE WEST LOS ANGELES APC AREA – COMPARISON OF FUTURE CUMULATIVE CONDITIONS WITH AND WITHOUT PROJECT

West Los Angeles APC	Future Cumulative Vehicle Trips Without ECTNP	Future Cumulative Vehicle Trips With ECTNP	Vehicle Trip Difference	Percent Difference
AM Peak Period (3-hour)	305,303	308,808	+3,506	+1.1%
PM Peak Period (4-hour)	466,448	472,573	+6,126	+1.3%
Peak Period (7-hour)	771,750	781,382	+9,632	+1.2%

SOURCE: Fehr & Peers, 2014.

Table 4.12-18 presents the amount of VMT on roadways contained within the West Los Angeles APC. VMT results are reported for the AM and PM peak periods as well as the two peak periods combined. In comparison to future conditions with implementation of the Proposed Project, VMT would increase by 0.6 percent during both the AM and PM peak periods. Although peak period vehicle trips increase by 1.2 percent, peak period VMT would increase by only 0.6 percent, indicating that, although more trips are made when the the Proposed Project is included, those trips tend to be shorter distances.

TABLE 4.12-18: VEHICLE MILES TRAVELED – ORIGINS AND/OR DESTINATIONS WITHIN THE WEST LOS ANGELES APC AREA – COMPARISON OF FUTURE CUMULATIVE CONDITIONS WITH AND WITHOUT PROJECT

West Los Angeles APC	Future Cumulative VMT Without ECTNP	Future Cumulative VMT With ECTNP	VMT Difference	Percent Difference
AM Peak Period (3-hour)	2,643,475	2,658,975	+15,500	+0.6%
PM Peak Period (4-hour)	3,991,705	4,017,069	+25,364	+0.6%
Total Peak Period (7-hour)	6,635,180	6,676,043	+40,864	+0.6%

SOURCE: Fehr & Peers, 2014.

Table 4.12-19 presents the VMT per capita results for the West Los Angeles APC. In order to capture the effect of increased travel due to additional jobs and housing with the Proposed Project, per-capita VMT is calculated on a service population basis. Service population is defined as the total number of jobs plus the total population of a given area. Although peak period VMT increases approximately 0.6 percent with the addition of the Proposed Project, service population increases by 1.4 percent. As a result, peak period VMT per capita is 0.8 percent lower with the addition of the Proposed Project when compared to future cumulative conditions without the Project.

TABLE 4.12-19: PEAK PERIOD VMT PER CAPITA COMPARISON – WEST LOS ANGELES AREA PLANNING COMMISSION AREA – FUTURE CUMULATIVE CONDITIONS WITH AND WITHOUT PROJECT

West Los Angeles APC	Population	Employment	Service Population (Population + Employment)	Peak Period VMT	VMT per Capita
Future Cumulative Conditions without ECTNP	459,500	362,900	822,400	6,635,180	8.1
Future Cumulative Conditions with ECTNP	466,900	366,900	833,800	6,676,043	8.0
Difference	+7,400	+4,000	+11,400	+40,864	-0.1
Percent Difference	+1.6%	+1.1%	+1.4%	+0.6%	-0.8%

SOURCE: Fehr & Peers, 2014.

Table 4.12-20 presents the types of trips made (i.e., mode split) within the West Los Angeles APC. In comparison to future conditions without the Proposed Project, auto mode share would be approximately 1.1 percent lower, while transit, bike, and walk mode shares would increase by 0.7 percent, 0.3 percent, and 0.2 percent, respectively, with the addition of the Proposed Project. The increase in transit mode share represents a 16.7 percent increase over future cumulative conditions without the Proposed Project, suggesting that proximity of new development to transit services would result in an increase in transit ridership.

TABLE 4.12-20: PEAK PERIOD MODE SPLIT COMPARISON – WEST LOS ANGELES AREA PLANNING COMMISSION AREA - FUTURE CUMULATIVE CONDITIONS WITH AND WITHOUT PROJECT

West Los Angeles APC	Auto	Transit	Bike	Walk
Future Cumulative Conditions Without ECTNP	74.6%	4.2%	2.8%	18.4%
Future Cumulative Conditions with ECTNP	73.5%	4.9%	3.1%	18.6%
Difference	-1.1%	+0.7%	+0.3%	+0.2%
Percent Difference	-1.5%	+16.7%	+10.7%	+1.1%

SOURCE: Fehr & Peers, 2014.

Overview. The cumulative projects considered in the transportation analysis, in combination with the Proposed Project, would improve access to transit and concentrate more growth in compact, mixed-use developments in close proximity to transit services. This would result in a similar number of VMT compared to cumulative conditions without the Project. However, each additional resident and job resulting

fro the Project is expected to contribute fewer VMT than current residents and employees, thereby decreasing the VMT per capita ratio and increasing the mode share for transit, biking and walking.

Cumulative Summary

The cumulative impact analysis below considers related projects that are currently not approved or do not have full funding. For the purposes of this analysis, the cumulative scenario considers the 2012-2035 RTP/SCS and both the MP 2035 and the CTCSP/WLA TIMP Amendments.

Circulation System. As described, potential impacts to the circulation system were evaluated. V/C ratios and LOS calculations were prepared for Existing conditions (2015), Existing conditions With Project (2015), Future Without Project (2035), and Future With Project (2035) conditions. The addition of the Proposed Project would result in significant impacts at 47 intersections in 2015, of which 42 would remain significant after mitigation, and 56 intersections in 2035, of which 50 would remain significant after mitigation measures are applied. Under current CEQA Guidelines and City thresholds, this is considered a significant adverse impact. Roadway network changes that could result from MP 2035 and CTCSP/WLA TIMP have not been designed, and, therefore, detailed evaluation of potential traffic impacts with these projects at the intersection level of detail is not possible. As explained in the respective EIRs for these two projects, each would individually result in traffic impacts at the areawide level. The combination of the Proposed Project together with MP 2035 and CTCSP/WLA TIMP would result in traffic impacts worse than those identified for the year 2035 With Project in the intersection analysis above. All three projects together would result in significant traffic impacts. The Proposed Project would result in a cumulatively considerable contribution to circulation system impacts in the Project Area.

Neighborhood Intrusion. The EIR modeling analysis accounts for potential redistribution of vehicular traffic from highly congested roadway segments to roadway segments that have more available capacity. Along roadways where the Proposed Project would cause significant traffic congestion, diversion of trips could occur onto adjacent parallel routes. While the TDM plans required by LADOT can alleviate neighborhood traffic intrusion from individual developments within the ECTNP Area, regional growth and associated increases in activity levels may still result in vehicles diverting to residential roadways. As noted, while both the MP 2035 and CTCSP/WLA TIMP include proposed roadway network changes, they do not provide detailed intersection level designs in the study area. Therefore, as noted above, detailed evaluation of traffic and associated impacts from these projects is not possible. On a regional level, traffic in the study area is anticipated to increase in conjunction with regional population, housing, and employment growth projected to occur in the future by SCAG. This growth would occur with or without implementation of the Proposed Project. The background growth influences the transportation analysis by accounting for the increased activity levels under Future With Project conditions, although those increases would occur with or without the project. The combination of the Proposed Project together with the anticipated roadway network changes in MP 2035 and the CTCSP/WLA TIMP would further increase traffic and associated impacts, such as neighborhood intrusion, as compared to the 2035 With Project scenario analyzed for the Proposed Project in Impact 4-12-3. Therefore, there is a significant impact to neighborhood intrusion from cumulative projects. The Proposed Project would result in a cumulatively considerable contribution to neighborhood intrusion impacts.

Congestion Management Plan (CMP). As defined by the CMP, a significant impact occurs when a project increases traffic demand on a CMP facility by two percent of capacity ($V/C \geq 0.02$), causing LOS F ($V/C > 1.00$); if the facility is already at LOS F, a significant impact occurs when a project increases traffic demand on a CMP facility by two percent of capacity ($V/C \geq 0.02$). On a regional level, traffic in the Project Area is anticipated to increase in conjunction with regional population, housing, and employment growth projected to occur in the future by SCAG. This growth would occur with or without implementation of the Proposed Project. The background growth influences the transportation analysis by accounting for the increased activity levels under Future With Project conditions, although those increases would occur with or without the project. Consequently, when comparing traffic operations on the CMP network under Future With

Project conditions to Future No Project conditions, peak period congestion continues to increase as a result of background and project growth. The combination of the Proposed Project together with the anticipated roadway network changes in MP 2035 and the CTCSP/WLA TIMP would further increase traffic and associated roadway impacts, such as impacts on CMP arterial facilities, as compared to the 2035 With Project scenario analyzed for the Proposed Project in Impact 4.12-5. The Proposed Project would result in a cumulatively considerable contribution to CMP arterial impacts. The Proposed Project would not meet CMP criteria for a significant impact to freeways or transit service (Impacts 4.12-4 and 4.12-6). The thresholds used to determine significant project-level impacts to freeways and transit service are also used to determine the potential for cumulatively considerable contributions to these impacts. Therefore, the Propsed Project would not make a cumulatively considerable contribution to freeway or transit service impacts using CMP criteria.

Emergency Access. As discussed above, the Proposed Project would increase traffic in the area resulting in potential delays for emergency vehicles. As noted above, while both the MP 2035 and CTCSP/WLA TIMP include proposed roadway network changes, they do not provide detail ed intersection level concepts in the study area. It is possible that some of these roadway improvements would provide a benefit to emergency access. As discussed above, Department of City Planning Staff have discussed the LAFD Strategic Plan and its relationship to growth and traffic with LAFD Staff in order to understand how LAFD responds to growth and changes in traffic from cululative development and changes to the roadway network. LAFD advised that while increasing congestion is a factor in how they address emergency response, their ongoing planning efforts, including the LAFD Strategic Plan, take in to account such increases in congestion and LAFD continues to plan for and maintain public safety and emergency service as required. LAFD will continue to monitor any impact of growth and changes to the roadway network may have on response times and make adjustments as necessary. These adjustments may or may not include redeploying resources, adding staff or building new fire stations. Based on conversations with LAFD regarding this project and the two other related plans in the area, cumulative impacts are considered less than significant.

Construction of new emergency service facilities as a result of increased traffic delays is not reasonably foreseeable at the present time given the number of factors that affect emergency response. Even if new facilities were needed and constructed impacts would generally fall within those discussed in this document, except for potential operational noise impacts associated with new emergency response facilities. However, it is too speculative to determine even if new facilities would be needed, let alone where noise impacts could occur.