

Technical Memorandum

To: Lauren Rhodes and Jan Green Rebstock, Environmental Management Group, Bureau of Engineering, Department of Public Works, City of Los Angeles; Kari Derderian and Clare Lahey, Bureau of Transit Services, Los Angeles Department of Transportation, City of Los Angeles

From: Nak Kim, P.E., Traffic Engineer, Parsons
Anne Kochaon, Parsons

Date: July 28, 2022

Re: Los Angeles Department of Transportation Electric Bus Maintenance Facility - Transportation/Traffic Impact Analysis

1.0 PURPOSE AND ORGANIZATION OF THIS MEMO

The purpose of this memorandum is to document the results of the traffic and transportation analysis as it relates to the potential environmental impacts associated with the construction and operation of the Los Angeles Department of Transportation's (LADOT) Electric Bus Maintenance Facility (EBMF or project). This memo identifies the environmental impacts of the project as it relates to traffic and transportation following the City of Los Angeles guidelines.

2.0 PROJECT DESCRIPTION

2.1 Project Location and Setting

The City of Los Angeles (the City) is proposing to construct the EBMF on the 5.5 acre land located at 740 and 800 East 111th Place in South Los Angeles (Assessor's Parcel Numbers [APNs] 6071-022-009 and 6071-022-013). The project site is located on the light industrial zoned land and has been recently utilized as a logistics warehouse for solar panels. The site is within Council District 8's jurisdiction in the Southeast Los Angeles Community Planning Area of the City (Figures 1 and 2). The proposed project will be operated by the City Department of Transportation (LADOT).

There are two buildings on the site: a 32,000-square-foot warehouse built in 1957 at the eastern section and a 118,800-square-foot warehouse built in 1956 at the central and western sections. The buildings sit back to back and the eastern and western ends of the site are paved as internal driveways and parking areas. Vehicle access to the site is provided by two driveways off East 111th Place.

The project site is designated as Limited Industrial in the Southeast Los Angeles Community Plan and is zoned M1-1-CPIO (Limited Industrial Zone, Height District 1, Community Plan Implementation Overlay District). This site is in Section 5, Township

3 South, Range 13 West and specifically at the following latitude/longitude: 33 56' 4.65"N 118 15' 35.9"W.

The Animo James B. Taylor Charter Middle School is immediately to the east and the Kedren Health Community Center (which provides primary care, mental health care, and a Headstart/State preschool) is immediately to the west. The site is bound by East 111th Place to the northwest, with single family residences across the street and by the Union Pacific Railroad (UPRR) tracks and Lanzit Avenue to the south, with single family residences beyond the tracks and street.

Access to the site is off East 111th Place, a street that is designated as a local collector with one lane in each direction and allows daytime on street parking on each side. The UPRR rail line runs parallel to Lanzit Avenue south of the project site. Imperial Highway and Interstate 105 (I-105) are located approximately three and seven blocks south of the project site, respectively.

The project is within a Transit Priority Area (TPA), with bus lines along several roadways in proximity to the site (108th Street, South Avalon Boulevard, South Central Avenue, and Imperial Highway). The project site is within 1,500 feet (ft) of several major transit stops (intersections with two or more bus routes with a service interval of 15 minutes or less during the morning and afternoon peak commute periods).

The project site is not located on a street within the High Injury Network, but the nearest signalized intersection at South Avalon Boulevard and East 111th Place is located within the High Injury Network.

Figure 3 presents an aerial view of the project site and its general vicinity.

Figure 1: Regional Map

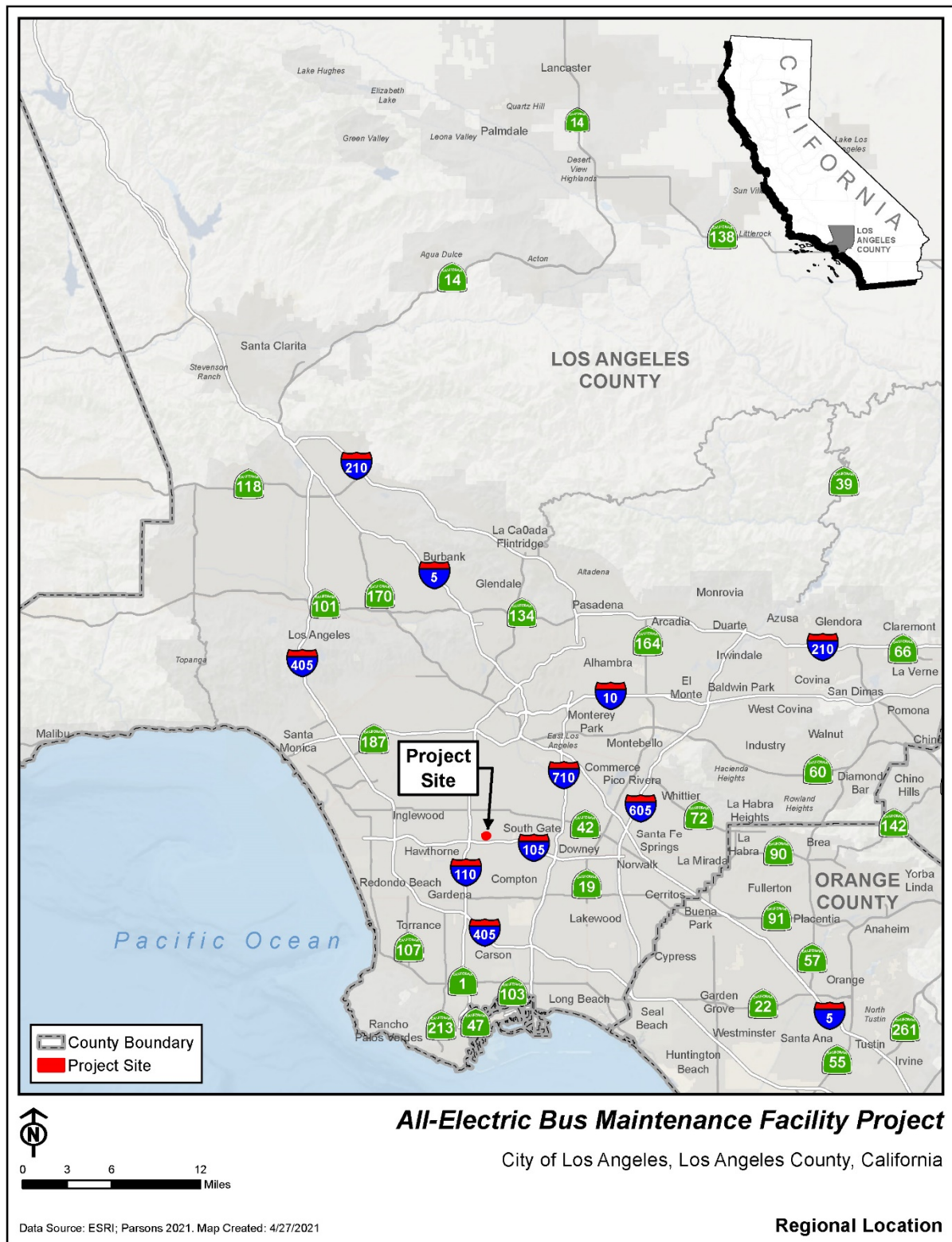


Figure 2: Project Location Map

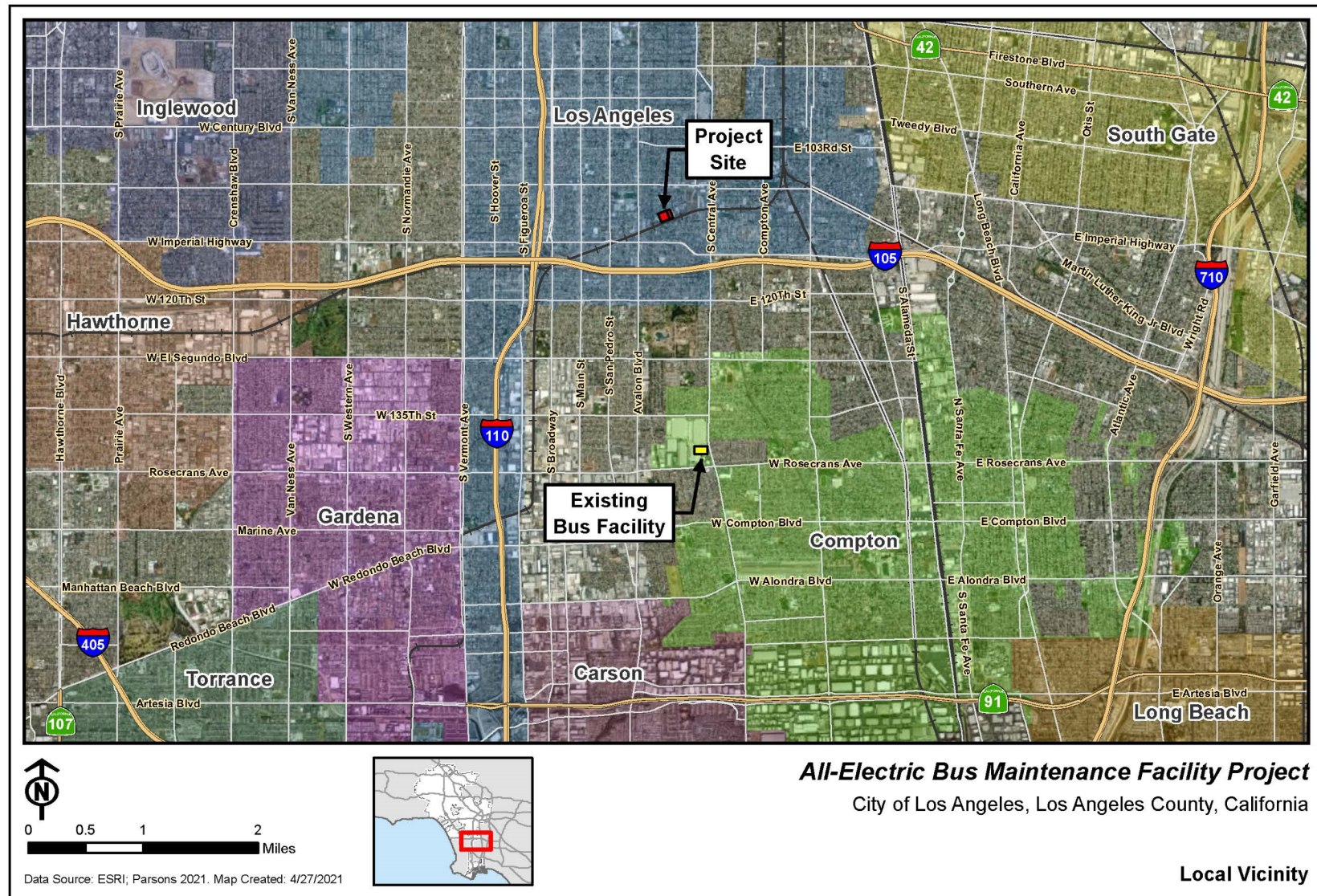


Figure 3: Aerial View of Project Site and its Immediate Vicinity

2.2 Proposed Project Description

LADOT operates and maintains its existing bus fleet from the South Los Angeles Bus Maintenance Facility, located at 14011 South Central Avenue in the City of Compton (or the South Yard), approximately 2 miles south of the new facility. This current facility is not owned by the City and is leased through LADOT's operations services contractor. The existing facility does not have sufficient capacity to accommodate the additional maintenance and storage requirements of the proposed transition to electric buses and expanded charging needs of an all-electric bus fleet.

LADOT proposes to build a bus maintenance facility at the project site to serve future its electric bus fleet. The proposed EBMF is planned as a modern maintenance facility to support a larger and cleaner zero-emissions bus fleet, consisting of 130 all-electric battery bus vehicles for the DASH and Commuter Express services provided by LADOT. The EBMF would be used to store and dispatch electric buses for daily service and would provide repair and maintenance services, parking, and inspection functions. The proposed facility would eventually replace the existing LADOT bus maintenance facility at the South Yard.

After demolition of the existing buildings on the site, the City proposes to construct several buildings and structures, including a two-story operations building to provide dispatch and administrative functions, a maintenance building with 10 bus maintenance bays, a service

building, a bus wash building, and a second-story parking deck for up to 360 employee/visitor vehicles, with the canopy above the parking deck topped with a 2000-kilowatt photo-voltaic (PV) system. Electrification equipment, including electrical transformers, switch cabinets, and bus chargers is also proposed.

The EBMF will provide preventative maintenance inspections, light maintenance and repair, emergency maintenance, interior vehicle cleaning, and exterior vehicle washing. It will also accommodate administrative and operations functions and will be used as a report base for bus operators. It will include space for employee parking, conference meeting rooms, operations and maintenance staff offices, dispatcher workstations, employee report and recreation rooms, and areas with lockers, showers, and restrooms for operators and maintenance personnel.

The electric bus fleet's primary entrance to the new EBMF site will be located at the northwest corner of the site along East 111th Place, adjacent to the proposed maintenance building. Buses entering the property will first have to check in with an onsite security guard, with buses looping through the site and park at the central section of the site. A dedicated entrance/exit for non-revenue bus fleet and employee/visitor vehicles will be located at the north end of the site, between the bus entrance and exit driveways, with ramp access to a second level parking deck.

The construction schedule for the project has not yet been determined. For environmental analysis purposes, it is assumed the construction would be completed in 24 months following the final engineering design and bidding process in 2023. Any required remediation will be completed prior to the start of construction activities. Assuming no or limited remediation is necessary, project construction is tentatively scheduled to begin in mid-2024 and will be completed by mid-2026. Construction activities at the proposed project site would include mobilization and staging; building demolition; site clearing, grading and paving; new structure construction, equipment installation, and minor landscaping and finishing.

The proposed project facility would accommodate as many as seventy (70) 30-ft-long DASH buses and sixty (60) 45-ft-long Commuter Express buses, comprising a total of 130 all-electric buses that would be assigned to the proposed EBMF. The facility would include surface parking spaces for 130 electric buses, to be accommodated at the central area located east of the Maintenance Building.

BEBs running easterly from Avalon Boulevard will enter the site through the west entrance driveway on East 111th Place and check in with the onsite security guard and proceed into the site to the southern section for service and washing. Otherwise, BEBs requiring repairs will park at the bus bays along the western section. Other BEBs may directly run in a counterclockwise direction and park at the central area for charging. BEBs will leave the site through the east exit driveway and run westerly on East 111th Place to Avalon Boulevard. Vehicles driven by bus operators, proposed Project staff, other employees and visitors will enter and exit through the center driveway that connects to a ramp leading to the second level parking deck.

Approximately 312 onsite employees will be working on-site and the facility will be open 24 hours per day, 7 days a week. Staff would be onsite on 2 or 3 shifts, which would be staggered depending on their work responsibilities.

3.0 EXISTING CONDITIONS

The project site is currently developed with two industrial buildings that were previously used as a logistics warehouse and a recycling center.

LADOT operates and maintains its existing DASH and Commuter Express bus fleet from its South Yard Los Angeles Bus Maintenance Facility, located approximately 2 miles south of the proposed EBMF site. The South Yard facility currently operates approximately 95 buses: 3 propane and 42 CNG DASH buses and 50 CNG Commuter Express buses.

The proposed facility would eventually replace the existing South Yard LADOT bus operation. Similar to the existing South Yard LADOT bus operations, DASH buses will be serving the Chesterfield Square, Pueblo del Rio, San Pedro, Southeast, Vermont/Main, Watts, and Wilmington areas. The Commuter Express buses will serve CE Routes 142, 430, 437, 438, 448, 534, and the Union Station/Bunker Hill shuttle.

Figure 4 presents a DASH system map and Figure 5 shows the Commuter Express system map.

Figure 4: DASH System Map

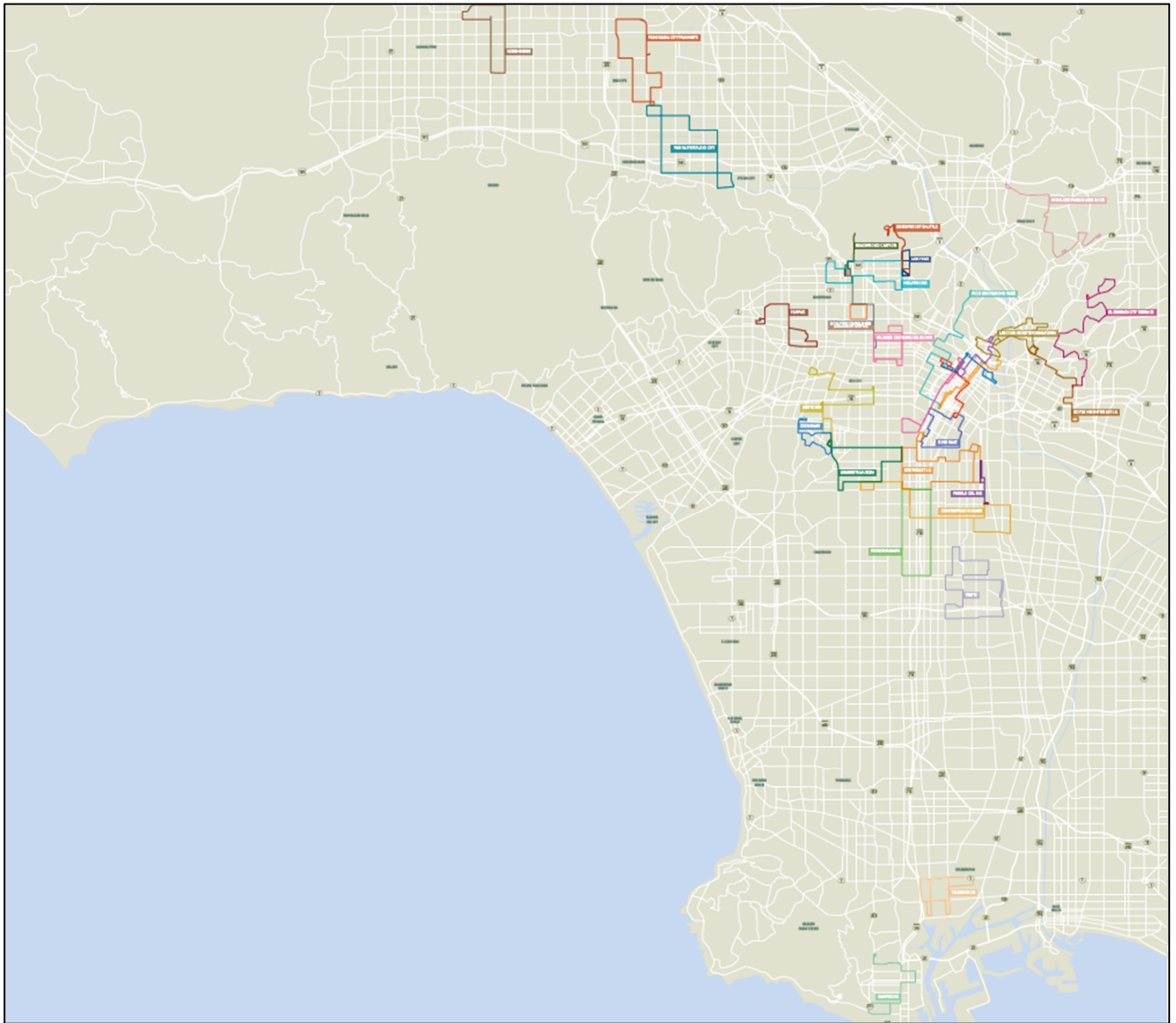
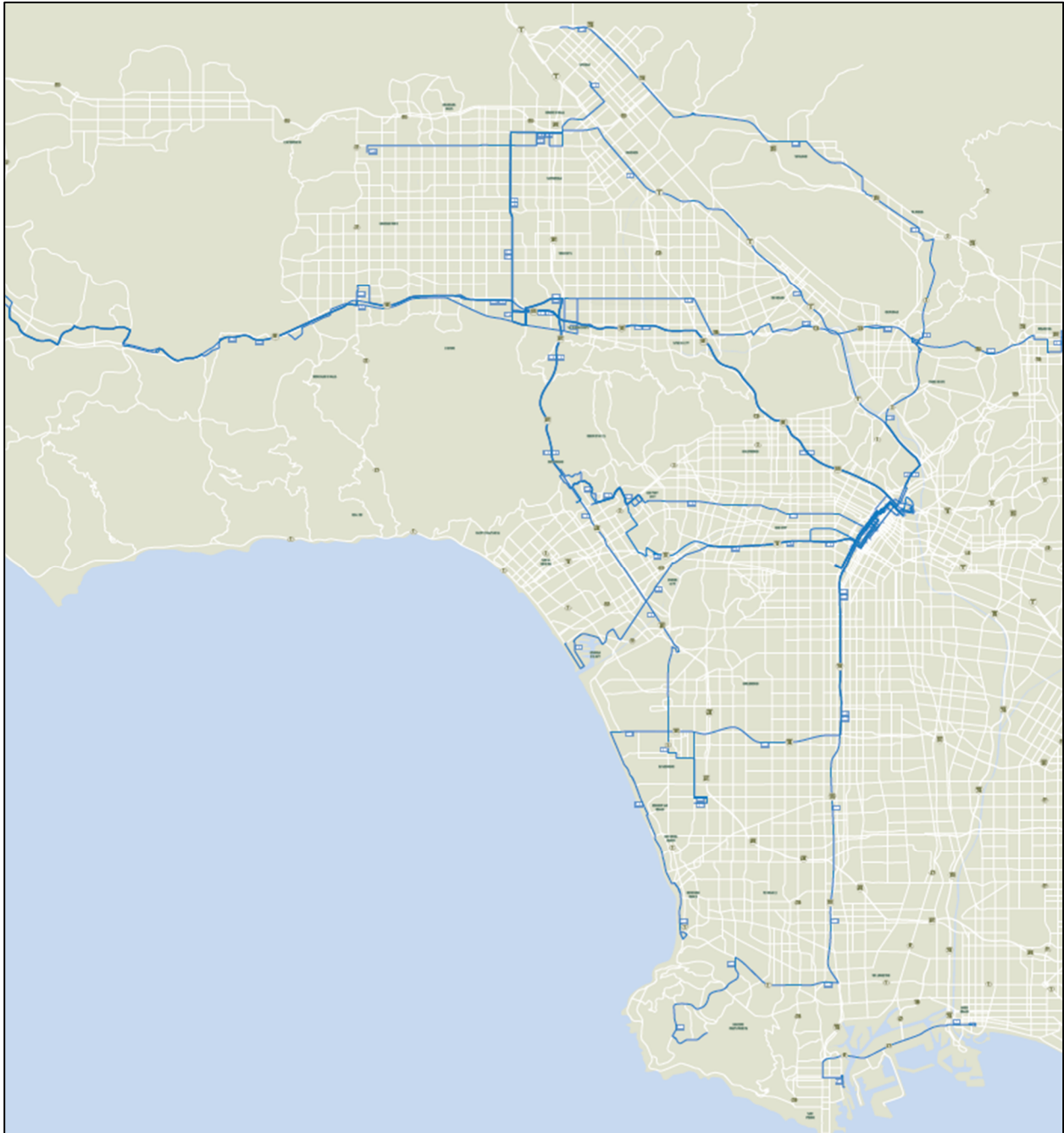


Figure 5: Commuter Express Map



4.0 REGULATORY SETTING

4.1 Federal

Americans with Disabilities Act of 1990

Titles I, II, III, and V of the Americans with Disabilities Act (ADA) have been codified in Title 42 of the United States Code, beginning at Section 12101. Title III prohibits discrimination on the basis of disability in “places of public accommodation” (businesses and nonprofit agencies that serve the public) and “commercial facilities” (other businesses). The regulations promulgated to implement ADA include Appendix A to 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.

4.2 State

Senate Bill 743

The purpose of Senate Bill (SB) 743 is to streamline the review under CEQA for several categories of development projects, including the development of infill projects in transit priority areas. SB 743 also intends to 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. SB 743 adds Chapter 2.7: Modernization of Transportation Analysis for Transit-Oriented Infill Projects to the CEQA Statutes (Public Resources Code [PRC] Section 21099 et seq.). Section 21099(d)(1) provides that aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a Transit Priority Area shall not be considered significant impacts on the environment. In addition, SB 743 mandates that alternative metric(s) for determining impacts relative to transportation shall be developed to replace the use of Level of Service (LOS) in CEQA documents. Under SB 743, the focus of transportation analysis changes from vehicle delay to vehicle miles traveled (VMT).

VMT Guidelines

The December 2018 updates to the State CEQA Guidelines in support of the goals of SB 743 establish VMT as the primary metric for evaluating a project’s impacts on the environment and transportation system. The revised guidelines require that a project’s environmental assessment must assess and disclose whether it conflicts or is inconsistent with local plans or policies. The revised guidelines also state, among other things, that “transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less-than-significant transportation impact.”

The Office of Planning and Research's (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) provides recommendations regarding significance thresholds for development projects with common land use types, general plans, and transportation projects. It lists more than two dozen types of transportation projects that would most likely not lead to a substantial or measurable increase in vehicle travel and, therefore, should not require an induced travel analysis. Among them are "rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of existing transportation assets ([...] pedestrian facilities) and that do not add additional motor vehicle capacity." Other relevant considerations may include the effects of the project on transit and nonmotorized travel.

4.3 Local

Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is designated under federal law as a Metropolitan Planning Organization (MPO) and as a Regional Transportation Planning Agency and a Council of Governments under State law. SCAG develops long-range regional transportation plans, including growth forecast components, regional transportation improvement programs, and a portion of the South Coast Air Quality Management District's air quality management plans.

SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) is a long-range visioning plan that balances future mobility and transportation needs with economic, environmental, and public health goals. The RTP/SCS consists of a vision for the region's future and is developed with input from local governments, County Transportation Commissions (CTCs), tribal governments, nonprofit organizations, businesses, and local stakeholders within the region.

There are more than 4,000 transportation projects from local city and county plans identified in the 2020–2045 RTP/SCS, including highway improvements, railroad grade separations, bicycle lanes, new transit hubs, replacement bridges, and pedestrian improvements. These future investments seek to reduce traffic bottlenecks, improve the efficiency of the region's transportation network, and expand mobility choices for everyone.

Los Angeles County Congestion Management Program

The Los Angeles County Congestion Management Program (CMP) is a State-mandated program enacted by the California State Legislature with the passage of Proposition 111 in 1990, and is administered by the Los Angeles County Metropolitan Transportation Authority (Metro). The purpose of the CMP is to develop a coordinated approach to managing and decreasing traffic congestion by linking the various transportation, land use, and air quality planning programs throughout the county. One required element of the CMP is a process to evaluate the transportation and traffic impacts of large projects on the regional transportation system. That process is undertaken by local agencies,

project applicants, and traffic consultants through a transportation impact report usually conducted as part of the CEQA environmental review process.

The 2010 CMP for the County (adopted October 28, 2010) was developed, in part, to link local land use decisions with their impacts on regional transportation. The CMP identifies a system of highways and roadways and establishes a minimum LOS performance measurements of LOS E (except where the 1992 base year LOS is worse than E, in which case base year LOS is the standard) for highway segments and key roadway intersections on this system. A traffic impact analysis (TIA) is required for projects that generate at least 50 new trips at CMP monitoring intersections or 150 one-way trips on mainline freeway monitoring locations during either the AM or PM peak hour on weekdays.

City of Los Angeles General Plan

The City General Plan outlines the City's long-range goals and policies for the development of land within the City and addresses community development relative to the distribution of land use. The City's General Plan includes the Framework Element, Plan for a Healthy Los Angeles – Health and Wellness Element, Housing Element, Mobility Plan 2035 (i.e., Mobility Element), Noise Element, Air Quality Element, Conservation Element, Open Space Element, Safety Element, Infrastructure Systems Element, Public Facilities and Services Element, and 35 Community Plans.

Mobility Plan 2035

The Mobility Plan 2035, adopted on September 7, 2016, provides the policy foundation for achieving a transportation system that balances the needs of all road users. The Mobility Plan 2035 incorporates “complete streets” principles and lays the policy foundation for how future generations of residents interact with their streets. The Mobility Plan contains policies that pertain to maintaining safe and attractive sidewalks.

Southeast Los Angeles Community Plan

The Southeast Los Angeles Community Plan serves as the Land Use Element of the City's General Plan and articulates the vision for long-term physical and economic development and community enhancement of the Southeast Los Angeles community. This Community Plan includes goals and policies addressing land use and urban design, mobility, community facilities, and infrastructure issues in the community. It designates the project site as Limited Industrial with a Manufacturing zone and classifies East 111th Place as a Collector Street.

2010 Bicycle Plan

The City 2010 Bicycle Plan (Bicycle Plan), adopted on March 1, 2011, is a component of the Transportation Element of the City's General Plan (later renamed to Mobility Plan 2035). 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. The

Bicycle Plan 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 Bicycle Plan has been updated and has been incorporated into the Mobility Plan 2035 and is no longer a standalone chapter devoted to a single mode but instead reflects the City's commitment to a holistic and balanced complete street approach that acknowledges the role of multiple modes (i.e., pedestrians, bicycles, transit, and vehicles). There is no existing or proposed bicycle path or bicycle lane on 111th Place east of Avalon Boulevard. A Class II bicycle lane (designated on the roadway) is proposed on Avalon Boulevard from East 111th Place to the Metro station near I-105.

Los Angeles Municipal Code

The Los Angeles Municipal Code (LAMC) contains the City's regulations. LAMC Section 12.21.A.4. contains requirements related to vehicle parking spaces by development type. Section 12.21.A.16 contains requirements related to bicycle parking spaces. The project shall provide adequate vehicle and bicycle parking spaces for staff and visitors.

LAMC Section 12.37 contains requirements related to highway and collector street dedication and improvement. Section 17.05 contains standards that have been updated to expand the role of the Street Standards Committee and to reflect the City's new focus on complete streets. Section 62.61 states that temporary lane closures resulting from non-emergency construction along major and secondary highways or collector streets would be limited to off-peak hours. Permits may be issued on a case-by-case basis to provide an exemption. Section 62.105 outlines City requirements for streets, sidewalks, driveways, and other improvements.

5.0 TRANSPORTATION/TRAFFIC IMPACT ANALYSIS

Methodology

Vehicle Miles Traveled (VMT)

The City of Los Angeles VMT Calculator was used to review the project's vehicle trips and vehicle miles traveled. As with the land use type of the proposed project, light industrial was selected for the existing land use based on discussions with LADOT. The thresholds of further VMT analysis are 250 daily trips and 1,000 daily VMT. If the proposed facility would generate an increase of less than 250 daily trips and less than 1,000 daily VMT, further VMT analysis is not required.

Intersection Level of Service Analysis

This section presents the methodology used to perform the intersection LOS analysis for the proposed project, consistent with the City of Los Angeles Transportation Impact Study Guidelines. The methodology used to assess the operation of signalized intersections in the City of Los Angeles is the Highway Capacity Manual (HCM 2010) delay-based methodology. Under HCM 2010 methodology, LOS thresholds are based on the average

delay incurred by vehicles traveling through an intersection. Delay is dependent on a number of factors, including signal cycle length, roadway capacity (number of travel lanes) provided on each intersection approach, and traffic demand.

The LOS analysis is used to evaluate congestion and delay on streets and highways. The relative level of congestion is evaluated on a scale of A through F. Level of service A indicates free-flow conditions with no delay. Level of Service F indicates the breakdown of the system with very long vehicular delays. The relationship between the LOS and delay for signalized intersections is shown in Table 1.

Table 1 Level of Service For Signalized Intersections

Level of Service	Signalized Intersection Control Delay (Seconds)
A	0-10
B	10-20
C	20-35
D	35-55
E	55-80
F	80 or more

Source: Highway Capacity Manual (2010)

The computer software program Synchro (version 9) was used to calculate the intersection delay and resulting LOS. Synchro is a traffic signal progression analysis software tool that is capable of performing intersection delay analyses using various methodologies, including the HCM 2010 method.

Existing Conditions

The COVID-19 pandemic has abnormally impacted statewide traffic patterns, such that current field traffic counts have decreased significantly as compared to pre-pandemic conditions. To ensure the credibility of baseline traffic conditions, on which future year conditions (post-COVID-19) are based, the traffic count data collected by LADOT in June 2021 was compared to the year 2019 traffic count data of StreetLight Data.

As shown in Appendices C and D, the 2019 traffic count data of StreetLight Data was considerably higher than the recent LADOT traffic count. Therefore, to be more conservative and more accurately reflect normal existing conditions, year 2019 traffic count data of StreetLight Data has been used for the traffic operational analysis.

On-street parking is generally allowed on Local and Collector streets in the study area, including East 111th Place and the west side of Avalon Boulevard. Off-street surface parking is available at individual lots.

Table 2 presents the existing and proposed bus fleet and increase ratio.

Table 2 Existing and Proposed Bus Fleet and Increase Ratio

Component	Existing Facility	Proposed Facility	Increase Ratio
Bus Fleet	95 Buses	130 Buses	1.44

Table 3 presents the existing condition intersection LOS summary at the South Avalon Boulevard and East 111th Place intersection.

Table 3 Existing Intersection LOS Summary

Intersection No.	Intersection Location	Control	Existing Conditions			
			AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	South Avalon Blvd & East 111th Pl	Signal	72.3	E	28.3	C

Table 4 presents the staffing summary and work shifts at the proposed Electric Bus Maintenance Facility.

Table 4 Staffing at Proposed Electric Bus Maintenance Facility

Work Responsibility	Staff	Number of Staff	Shift Schedule
Operations	Managers, Clerks, Supervisors, Receptionist, Operators, Dispatch, and On-time Performance	257	3 AM to 11:30 AM 11 AM to 7:30 PM 7 PM to 3:00 AM or 5 AM to 1:30 PM 3:30 PM to 12 AM or 6 AM to 2:30 PM
Fleet Maintenance	Maintenance Manager, Assistant Managers, Mechanics	33	3 AM to 11:30 AM 11 AM to 7:30 PM 7 PM to 3 AM
Parts Storeroom	Parts Manager and Clerks	4	3 AM to 11:30 AM 11 AM to 7:30 PM 7 PM to 3 AM
Service and Clean	Utility Worker	16	3 AM to 11:30 AM 11 AM to 7:30 PM 7 PM to 3 AM
Facility Maintenance	Facility Maintenance Staff	2	6 AM to 2:30 PM
	Total	312	

Construction Scenario

Construction activities associated with the project would occur mainly within the project site during the 2-year construction period. Traffic flow along the roadway alignment would be maintained during construction, although, occasionally, lane reduction could occur to accommodate construction activities on the adjacent sidewalk and site frontage on East 111th Place. The Contractor shall prepare a Traffic Management Plan (TMP) before construction. The TMP will outline necessary street lane closures and detours. A restriction on large-size trucks shall be imposed to confine travel to and from the construction site during off-peak commute times. Construction contractors shall reroute construction trucks away from congested streets or sensitive receptor areas, as feasible. The TMP will be submitted with the construction plans to the Los Angeles Police and Fire departments before the commencement of construction activities.

During temporary blockages of sidewalks, a sidewalk detour that would reroute pedestrians to an alternative sidewalk path or a sidewalk diversion, which provides a protected pathway near, but safely away from the facility construction, would be included in the TMP, and implemented in accordance with the California MUTCD or other City-approved standard. Signs will be posted to direct pedestrians to intersections where they may cross.

Business access would be maintained at all times during construction, and work would be scheduled to avoid unnecessary inconvenience to the public and abutting property owners. Undue delays in construction activities would be avoided to reduce the public's exposure to construction.

No-Build and Build Scenarios

During the operation, most of the buses from the EBMF would roll out in the early morning hours, before AM peak hour traffic. In addition, many other staffs and workers would work a very early shift, arriving before the AM peak hour (7 AM) and leaving before the PM peak hour (5 PM). Mechanics and attendants would rotate in three shifts, early morning, swing shift, nights, as shown in Table 4.

The proposed EBMF would be functionally similar to the existing LADOT bus maintenance facility at the South Yard, which is located approximately 2 miles south of the new facility and holds 95 buses. The new facility would be capable of handling 70 DASH buses and 60 Commuter Express buses, with 214 operators and 98 administrative and support personnel, including mechanics, dispatchers, road supervisors, service attendants, inventory control personnel and managers.

The new vehicle trips to be generated at the EBMF are conservatively estimated to be approximately 20 more trips each for AM peak hour and PM peak hour. This estimate is based on the assumption that the new EBMF would replace the existing facility at the South Yard facility. The new vehicle trips are based on the trips that would be generated by the EBMF less the existing trips at the South Yard and the trips generated by the existing use of the site as a logistics warehouse and recycling center.

To assess the traffic impacts of the proposed facility in VMT, the City of Los Angeles VMT Calculator was used. Regionally, the South Yard would be considered as the existing facility since it is located only 2 miles south of the proposed facility. Based on the discussion with LADOT, the Light Industrial category was used for the existing Land Use of the project site to determine the net increase in daily trips and the net increase in daily VMT. Figure 6 shows the City of Los Angeles VMT Calculator results. As shown, the proposed project would generate a net increase of 90 trips and a net increase of 724 VMT. Since the proposed facility would generate an increase of less than 250 daily trips and less than 1,000 daily VMT, the proposed project is not required to perform further VMT analysis.

Figure 6: City of Los Angeles VMT Calculator Output

CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: LADOT All-Electric Bus Maintenance Facility
 Scenario: Concept A1/A2
 Address: 740 E 111TH PL, 90059

Existing Land Use

Land Use Type	Value	Unit
Industrial Light Industrial	118.8	ksrf

Proposed Project Land Use

Land Use Type	Value	Unit
Industrial Light Industrial	118.8	ksrf
(custom) Bus Maintenance Facility Daily	935	Trips
(custom) Bus Maintenance Facility HBW-Attrac	20	Percent
(custom) Bus Maintenance Facility HBW-Attrac	40	Percent
(custom) Bus Maintenance Facility NHB-Attrac	20	Percent
(custom) Bus Maintenance Facility HBW-Produ	0	Percent
(custom) Bus Maintenance Facility HBW-Produ	0	Percent
(custom) Bus Maintenance Facility NHB-Produ	20	Percent
(custom) Bus Maintenance Facility Daily	0	Residents
(custom) Bus Maintenance Facility Daily	312	Employees
(custom) Bus Maintenance Facility Daily	Non-Retail	Retail/Non-Retail

Project Screening Summary

Existing Land Use	Proposed Project
669 Daily Vehicle Trips	759 Daily Vehicle Trips
5,547 Daily VMT	6,271 Daily VMT

Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. ☐

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips **90**
NET Daily Trips

The net increase in daily VMT ≤ 0 **724**
NET Daily VMT

The proposed project consists of only retail land uses ≤ 50,000 square feet total. **0.000**
ksrf

The proposed project is not required to perform VMT analysis.

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Measuring the Miles

The project site is within a Transit Priority Area (TPA) with bus lines along several roadways in proximity to the site (108th Street, S. Avalon Boulevard, S. Central Avenue, and Imperial Highway). The project site is within 1,500 feet of several major transit stops (intersections with two or more bus routes with a service interval of 15 minutes or less during the morning and afternoon peak commute periods) as defined under PRC Section 21064.3. These include the Metro 51 bus stop at East 111th Place and at South Avalon Boulevard located less than 1,500 feet away, several bus stops at Imperial Highway and Avalon Boulevard located about 2,400 feet away, and the Metro C (Green) Line Station on Avalon Boulevard located about 3,700 feet away.

The State Office of Planning and Research issued guidance with respect to how to evaluate transportation impacts. As stated in the CEQA Guidelines Section 15064.3 (b)(1), lead agencies generally should presume that projects proposed within 0.5 miles (2,640 feet) of an existing major transit stop or an existing stop along a high-quality transit corridor (i.e., a corridor with fixed bus route service with a service frequency of 15 minutes or less during the peak morning and evening peak hours) should be presumed to cause a less than significant impact on transportation. Therefore with the project's location near an existing stop along a high-quality transit corridor, the proposed project would not be considered to have a significant impact on transportation.

For the LOS analysis, Table 5 presents the projected No-Build and Build conditions intersection LOS at the South Avalon Boulevard and East 111th Place intersection.

Table 5 No-Build and Build Intersection LOS Summary

Intersection No.	Intersection Location	Control	No-Build Conditions				Build Conditions			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	S. Avalon Blvd & E. 111th Pl	Signal	75.7	E	29.1	C	77.7	E	30.5	C

Under existing conditions, the intersection LOS is already at LOS E during the AM peak hour and the westbound (WB) movement is failing. The project would not change the LOS but the delay would increase by 2 seconds during the AM peak hour and by 1.4 seconds during the PM peak hour. Per City TIA guidelines, this is considered a minor increase in delay since no change in LOS would occur. However, the Volume-to-Capacity ratio (V/C) for the westbound left-turn movement (i.e., left turns by vehicles westbound on East 111th Place) is already over 1.0 in the existing and no-build conditions. The performance of the nearby intersections will be quantified after the project is fully constructed and operational. If it is determined that the project exceeds screen criteria as defined in the LADOT Transportation Assessment Guidelines (TAG), potential corrective action could be implemented, which may include adding a left-turn lane pocket for the WB approach at this intersection to improve the intersection delay and LOS during the AM peak hour.

Parking

Parking is currently allowed on both sides of East 111th Place. The City intends to keep all the on-street parking along the existing roadways near the proposed project site. However, due to the construction of the new driveways for the project, some on-street parking slots along East 111th Place in front of the site could be affected. While changes in on-street parking could occur and would be confirmed during the final design, for environmental impact analysis purposes, it is assumed that a few parking slots would be affected. Construction equipment would be parked on-site during construction and all buses and employee vehicles would be parked on-site during project operations.

5.1 CEQA Analysis

This section describes the CEQA transportation analysis for the proposed project. The CEQA Guidelines include four CEQA issues related to transportation. Using the Initial Study Checklist questions in Appendix G of the CEQA Guidelines and the City's Thresholds, project impacts are analyzed for significance as follows:

	Potentially Significant Impact	Less than Significant With Mitigation	Less than Significant	No Impact
Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) *Would the project conflict with an applicable plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?*

Reference: L.A. CEQA Thresholds Guide (2006) (Sections L.1 through L.4 and L.6 through L.8), LADOT Transportation Assessment Guidelines, Los Angeles County Congestion Management Program, City of Los Angeles General Plan, Mobility Plan 2035, 2010 Bicycle Plan.

Comment: A significant impact would occur if the proposed project conflicts with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Less than significant impact with mitigation. The proposed project would not conflict with the Los Angeles General Plan, including the Southeast Los Angeles Community Plan, Mobility Plan 2035, and the 2010 Bicycle Plan. The proposed project would generate an increase of less than 500 daily trips and less than 43 PM peak hour vehicle trips on the street system. The impact of the proposed project would be less than significant, but the intersection LOS at South Avalon Boulevard, and East 111th Place in

the existing and No-Build condition is LOS E and the westbound left turn movement has a v/c ratio of greater than 1.0. For the westbound approach, providing an additional left turn lane pocket would improve the intersection delay and LOS. Also, improving the East 111th Place to two lanes each direction from the eastern end of the site frontage to Avalon Boulevard would provide additional roadway capacity. Project Design Feature (PDF-TR-1) requires compliance with LADOT Transportation Assessment Guidelines (TAG) and provides recommendations to be implemented to ensure the traffic impacts resulting from project implementation are avoided or reduced to less than significant levels.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Reference: L.A. CEQA Thresholds Guide (2006) (Section L); LADOT Transportation Assessment Guidelines (2020).

Comment: A significant impact would occur if the project generates a net increase of 250 or more daily vehicle trips or generates a net increase of 1,000 VMT or more per site over existing conditions in daily VMT. A significant impact would occur if the project includes retail uses and the portion of the project that contains retail uses exceeds net 50,000 square feet; and if located within a 0.5 mile of a fixed-rail or fixed-guideway transit station, replaces an existing number of residential units with a smaller number of residential units.

Less than significant impact. The proposed project would generate a net increase of less than 250 daily vehicle trips and the net increase of daily VMT would be less than 1,000 VMT over existing conditions. The proposed project would not conflict with State CEQA Guidelines Section 15064.3, subdivision (b) during construction and maintenance/operations. The impact of the proposed project would be less than significant, and no mitigation is required.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves, or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Reference: L.A. CEQA Thresholds Guide (2006) (Section L.5); LADOT Transportation Assessment Guidelines (2020).

Comment: A significant impact would occur if the project proposes new driveways, introduces new vehicle access to the property from the public right-of-way, or proposes to, or is required to, make any voluntary or required modifications to the public right-of-way (e.g., street dedications, reconfigurations of curb line).

Less than significant impact with mitigation. The proposed project would improve the existing driveways for entry and exit and introduce new vehicle access to the property from the public right-of-way. The proposed project shall be designed in accordance with City standards and would not substantially create or increase hazards due to design features. The impact of the proposed project would be less than significant with the implementation of Standard Condition (SC) SC-TR-1, requiring compliance with City

standards for streets, sidewalks, driveways, and other street improvements, as outlined in the LAMC.

d) Would the project result in inadequate emergency access?

Reference: L.A. CEQA Thresholds Guide (2006) (Section L); LADOT Transportation Assessment Guidelines (2020)

Comment: A significant impact would occur if the proposed project results in inadequate emergency access.

Less than significant impact. The project proposes three driveways on 111th Place, which would also serve as emergency access. The northwestern driveway would serve arriving buses, the northeastern driveway would serve departing buses, and the center driveway would serve employee and visitor vehicles. Emergency access would not be substantially inhibited by the proposed project. The impact of the proposed project would be less than significant, and no mitigation is required.

6.0 RECOMMENDED MEASURES

Based on the analysis above, the following PDF and SC would reduce the potential for significant adverse traffic impacts:

PDF-TR-1: The proposed project shall quantify the operational performance for primary site access points, unsignalized intersections integral to the project's site access, and signalized intersections in the vicinity of the project site after the project is fully operational. If it is determined that the project exceeds the travel volume screening criteria for Boulevards and Avenues as defined in the Los Angeles Department of Transportation's (LADOT) Transportation Assessment Guidelines (TAG), further analysis is required to estimate the travel delay at each major signalized intersection where the capacity would be altered by the projects and to estimate how the project would be expected to improve or reduce safety for vulnerable road users. Potential corrective actions for the project access and circulation constraints could include:

- Providing an additional left-turn lane pocket for the westbound approach at the South Avalon Boulevard and East 111th Place intersection.
- Improving the segment of East 111th Place from the eastern end of the site frontage to Avalon Boulevard to two lanes each direction to provide additional roadway capacity.
- Utilization of Transportation Demand Management (TDM) Strategies that reduce trips above and beyond those required in Section 2.2 of the LADOT TAG.
- Installation of a traffic signal or stop signs or electronic warning devices at site access points.
- Redesign and/or relocation of project access points.

- Redesign of the internal access and circulation system.
- Installation of stop signs and pavement markings internal to the site.
- Restrict or prohibit turns at site access points.
- Repurpose existing curb space to better accommodate passenger loading.
- New traffic signal installation, left-turn signal phasing, or other vehicle flow enhancements (e.g., ATSAC system upgrades) at nearby intersections.
- Intersection reconfiguration that reduces gridlock and unsafe conflict points.
- Providing continuous paved sidewalks, walkways, or shared-use paths to off-site pedestrians and bicyclists to adjacent or nearby transit facilities.
- Fair share contribution to planned LADOT capital project that accomplishes one or more of the above.

SC-TR-1 The proposed project shall be designed in accordance with City standards for streets, sidewalks, driveways and other street improvements to prevent the creation of traffic hazards.

7.0 REFERENCES

California Department of Transportation (Caltrans). 2020. Transportation Impact Study Guide – Vehicle Miles Traveled-Focused DRAFT.

———. 2002. Guide for the Preparation of Traffic Impact Studies. December 2002.

City of Los Angeles. 2021. City of Los Angeles Municipal Code.
https://codelibrary.amlegal.com/codes/los_angeles/latest/lamc/0-0-0-107363.

———. 2020a. Existing Community Plans. <https://planning.lacity.org/plans-policies/community-plans>.

———. 2020b. General Plan Overview. <https://planning.lacity.org/plans-policies/general-plan-overview>.

———. 2020c. LADOT Transportation Assessment Guidelines.

———. 2006. L.A. CEQA Thresholds Guide.

Los Angeles County Metropolitan Transportation Authority. 2010. 2010 Congestion Management Program.

Southern California Association of Governments. September 2020. 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy.

8.0 PREPARERS

Nak Kim, P.E., Parsons

Anne Kochaon, QEP, Parsons

Attachment A – Existing Bus and Bus Operator Schedules

South Yard	#Buses Departing	#Buses Returning	South Yard	Driver Shifts Reporting	Driver Shifts Ending
4:00	3	0	4:00	5	0
5:00	49	0	5:00	53	0
6:00	23	0	6:00	16	0
7:00	0	2	7:00	4	1
8:00	1	11	8:00	9	10
9:00	0	24	9:00	6	24
10:00	0	2	10:00	4	4
11:00	1	0	11:00	7	1
12:00	0	0	12:00	5	4
13:00	0	1	13:00	0	7
14:00	10	0	14:00	10	8
15:00	23	0	15:00	22	1
16:00	7	3	16:00	6	7
17:00	1	1	17:00	1	6
18:00	0	18	18:00	0	19
19:00	0	42	19:00	0	40
20:00	0	10	20:00	0	12
21:00	0	2	21:00	0	2
22:00	0	1	22:00	0	1
23:00	0	1	23:00	0	1
	118	118		148	148

25

July 2022

	Proposed Weekend	
	Bus Operator Schedule	
	Arrive	Depart
4AM to 6AM	1	0
6AM to 8AM	2	0
8AM to 10 AM	37	0
10 AM to 12 NN	4	1
12NN to 2PM	2	3
2PM top 4 PM	1	7
4PM to 6 PM	1	5
6PM to 8 PM	2	29
8PM to 10PM	0	3
10PM to 12 MN	0	2
TOTAL	50	50

Attachment C – Year 2019 Weekday StreetLight Data

AM Peak Hour

↑ North

Out	In	Total
843	831	1,674
North Leg Avalon Bl - IN_EH		

Day Type:

1: Weekday (M-Th)

Start Time

08: 7am (7am-8am)

End Time

08: 7am (7am-8am)

West Leg 111th Pl_IN_EH			East Leg 111th Pl_IN_EH		
Out	In	Total	Out	In	Total
211	137	348	230	430	660

South Leg Avalon Bl_IN_EH		
1,013	899	1,912
Out	In	Total

100			675			56		
Right			Thru			Left		
↖			↓			↘		
↖			↑			↗		
Left			Thru			Right		
45			78			14		
↖			↑			↗		
Left			Thru			Right		
25			778			96		

Attachment D – Year 2021 Traffic Counts


City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY**STREET:**North/South Avalon Bl**East/West**111th Pl**Day:**Wednesday**Date:**June 16, 2021**Weather:**SUNNY**Hours:**7-10 AM & 3-6 PM**Staff:**AMS**School Day:**NO**District:**Southern**I/S CODE**2240

	<u>N/B</u>	<u>S/B</u>	<u>E/B</u>	<u>W/B</u>
TRUCKS	73	20	16	15
BIKES	15	8	2	1
BUSES	46	37	0	0
	<u>N/B TIME</u>	<u>S/B TIME</u>	<u>E/B TIME</u>	<u>W/B TIME</u>
AM PK 15 MIN	114 9.45	127 7.00	18 7.00	23 9.15
PM PK 15 MIN	187 4.00	162 5.45	37 4.45	35 5.45
AM PK HOUR	427 9.00	472 7.00	55 7.00	78 9.00
PM PK HOUR	699 3.30	595 3.45	131 4.30	111 5.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	11	308	25	344
8-9	14	318	29	361
9-10	10	375	42	427
3-4	21	556	56	633
4-5	22	601	53	676
5-6	19	577	70	666
TOTAL	97	2735	275	3107

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	6	440	26	472
8-9	6	309	22	337
9-10	8	304	21	333
3-4	6	503	26	535
4-5	6	531	36	573
5-6	6	547	26	579
TOTAL	38	2634	157	2829

TOTAL

N-S
816
698
760
1168
1249
1245
5936

XING S/L

Ped	Sch
3	0
1	0
5	0
11	0
8	0
7	0
35	0

XING N/L

Ped	Sch
4	0
3	0
3	0
4	0
10	0
3	0
27	0

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	18	6	31	55
8-9	14	15	16	45
9-10	21	8	17	46
3-4	27	19	33	79
4-5	39	37	40	116
5-6	33	39	42	114
TOTAL	152	124	179	455

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	42	13	3	58
8-9	43	12	7	62
9-10	54	11	13	78
3-4	56	10	9	75
4-5	66	13	13	92
5-6	84	19	8	111
TOTAL	345	78	53	476

TOTAL

E-W
113
107
124
154
208
225
931

XING W/L

Ped	Sch
13	0
4	0
8	0
3	0
13	0
8	0
49	0

XING E/L

Ped	Sch
7	0
4	0
1	0
3	0
4	0
6	0
25	0

(Rev Oct 06)



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:North/South McKinley Ave**East/West**108th Street**Day:** Wednesday **Date:** June 16, 2021 **Weather:** SUNNY**Hours:** 7-10 AM & 3-6 PM **Staff:** DL**School Day:** No **District:** Southern **I/S CODE** 2183

	<u>N/B</u>	<u>S/B</u>	<u>E/B</u>	<u>W/B</u>
TRUCKS	4	1	18	22
BIKES	5	7	0	0
BUSES	0	0	17	12

	<u>N/B TIME</u>	<u>S/B TIME</u>	<u>E/B TIME</u>	<u>W/B TIME</u>
AM PK 15 MIN	15 9.15	7 7.00	42 8.45	41 9.45
PM PK 15 MIN	19 3.30	15 5.45	96 5.30	51 3.30
AM PK HOUR	46 7.15	26 7.00	143 8.00	131 9.00
PM PK HOUR	65 4.00	37 4.30	369 4.45	192 3.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	5	2	30	37
8-9	3	2	36	41
9-10	7	5	33	45
3-4	10	3	40	53
4-5	13	5	47	65
5-6	10	4	46	60
TOTAL	48	21	232	301

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	9	6	11	26
8-9	2	5	13	20
9-10	4	1	6	11
3-4	7	2	19	28
4-5	8	8	15	31
5-6	6	15	16	37
TOTAL	36	37	80	153

TOTAL

N-S
63
61
56
81
96
97
454

XING S/L

Ped	Sch
3	0
1	0
5	0
2	0
2	0
0	0
13	0

XING N/L

Ped	Sch
3	0
2	5
3	0
5	0
0	0
5	3
18	8

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	6	105	4	115
8-9	7	128	8	143
9-10	6	85	10	101
3-4	19	189	16	224
4-5	27	260	15	302
5-6	22	326	12	360
TOTAL	87	1093	65	1245

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	16	83	8	107
8-9	26	81	10	117
9-10	24	102	5	131
3-4	32	141	5	178
4-5	37	133	15	185
5-6	39	112	7	158
TOTAL	174	652	50	876

TOTAL

E-W
222
260
232
402
487
518
2121

XING W/L

Ped	Sch
3	0
0	0
1	0
3	0
1	0
3	0
11	0

XING E/L

Ped	Sch
1	0
2	0
4	0
1	0
1	0
2	0
11	0



















(Rev Oct 06)

Attachment E – Synchro Outputs

HCM 2010 Signalized Intersection Summary

1: S. Avalon Blvd & E. 111th PI



















Existing Conditions - AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	78	14	324	86	20	25	778	96	56	675	100
Future Volume (veh/h)	45	78	14	324	86	20	25	778	96	56	675	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.97	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	54	93	17	360	96	22	27	837	103	60	726	108
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	1	0
Peak Hour Factor	0.84	0.84	0.84	0.90	0.90	0.90	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	61	105	19	330	88	20	88	1496	184	271	684	102
Arrive On Green	0.12	0.12	0.12	0.27	0.27	0.27	0.02	0.47	0.47	0.03	0.48	0.48
Sat Flow, veh/h	528	910	166	1206	322	74	1774	3159	389	1774	1419	211
Grp Volume(v), veh/h	164	0	0	478	0	0	27	469	471	60	0	834
Grp Sat Flow(s),veh/h/ln	1604	0	0	1601	0	0	1774	1770	1778	1774	0	1630
Q Serve(g_s), s	15.1	0.0	0.0	41.0	0.0	0.0	1.2	28.5	28.5	2.6	0.0	72.2
Cycle Q Clear(g_c), s	15.1	0.0	0.0	41.0	0.0	0.0	1.2	28.5	28.5	2.6	0.0	72.2
Prop In Lane	0.33		0.10	0.75		0.05	1.00		0.22	1.00		0.13
Lane Grp Cap(c), veh/h	186	0	0	438	0	0	88	838	842	271	0	785
V/C Ratio(X)	0.88	0.00	0.00	1.09	0.00	0.00	0.31	0.56	0.56	0.22	0.00	1.06
Avail Cap(c_a), veh/h	203	0	0	438	0	0	107	838	842	287	0	785
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	65.3	0.0	0.0	54.5	0.0	0.0	36.2	28.3	28.3	22.1	0.0	38.9
Incr Delay (d2), s/veh	31.7	0.0	0.0	70.3	0.0	0.0	1.9	2.7	2.7	0.4	0.0	49.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	0.0	0.0	26.7	0.0	0.0	0.6	14.6	14.6	1.3	0.0	43.4
LnGrp Delay(d),s/veh	97.0	0.0	0.0	124.8	0.0	0.0	38.1	31.0	31.0	22.5	0.0	88.7
LnGrp LOS	F			F			D	C	C	C		F
Approach Vol, veh/h	164			478			967			894		
Approach Delay, s/veh	97.0			124.8			31.2			84.3		
Approach LOS	F			F			C			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	75.0		21.4	7.4	76.2		45.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	6.0	68.0		19.0	5.0	69.0		41.0				
Max Q Clear Time (g_c+I1), s	4.6	30.5		17.1	3.2	74.2		43.0				
Green Ext Time (p_c), s	0.0	18.7		0.1	0.0	0.0		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	72.3											
HCM 2010 LOS	E											

HCM 2010 Signalized Intersection Summary

1: S. Avalon Blvd & E. 111th Pl

Existing Conditions - PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	72	33	72	30	19	19	874	93	18	728	68
Future Volume (veh/h)	54	72	33	72	30	19	19	874	93	18	728	68
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.95	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	61	82	38	86	36	23	20	940	100	19	783	73
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.84	0.84	0.84	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	96	44	107	45	29	198	1921	204	327	898	84
Arrive On Green	0.13	0.13	0.13	0.12	0.12	0.12	0.02	0.60	0.60	0.02	0.60	0.60
Sat Flow, veh/h	527	708	328	932	390	249	1774	3217	342	1774	1506	140
Grp Volume(v), veh/h	181	0	0	145	0	0	20	517	523	19	0	856
Grp Sat Flow(s), veh/h/ln	1563	0	0	1571	0	0	1774	1770	1789	1774	0	1646
Q Serve(g_s), s	13.6	0.0	0.0	10.8	0.0	0.0	0.5	20.0	20.0	0.5	0.0	52.5
Cycle Q Clear(g_c), s	13.6	0.0	0.0	10.8	0.0	0.0	0.5	20.0	20.0	0.5	0.0	52.5
Prop In Lane	0.34		0.21	0.59		0.16	1.00		0.19	1.00		0.09
Lane Grp Cap(c), veh/h	211	0	0	181	0	0	198	1057	1068	327	0	982
V/C Ratio(X)	0.86	0.00	0.00	0.80	0.00	0.00	0.10	0.49	0.49	0.06	0.00	0.87
Avail Cap(c_a), veh/h	248	0	0	249	0	0	236	1057	1068	367	0	982
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.8	0.0	0.0	51.8	0.0	0.0	20.7	13.8	13.8	10.7	0.0	20.4
Incr Delay (d2), s/veh	22.2	0.0	0.0	12.2	0.0	0.0	0.2	1.6	1.6	0.1	0.0	8.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	7.2	0.0	0.0	5.3	0.0	0.0	0.3	10.1	10.2	0.2	0.0	25.9
LnGrp Delay(d), s/veh	73.0	0.0	0.0	64.0	0.0	0.0	21.0	15.4	15.4	10.7	0.0	29.0
LnGrp LOS	E			E			C	B	B	B		C
Approach Vol, veh/h		181			145			1060			875	
Approach Delay, s/veh		73.0			64.0			15.5			28.6	
Approach LOS		E			E			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	75.7		20.2	6.4	75.6		17.8				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.0	61.0		19.0	5.0	61.0		19.0				
Max Q Clear Time (g_c+I1), s	2.5	22.0		15.6	2.5	54.5		12.8				
Green Ext Time (p_c), s	0.0	20.8		0.3	0.0	5.4		0.4				
Intersection Summary												
HCM 2010 Ctrl Delay			28.3									
HCM 2010 LOS			C									



















Parsons

Synchro 9 Report

HCM 2010 Signalized Intersection Summary

1: S. Avalon Blvd & E. 111th PI


















No-Build Conditions - AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	79	14	329	87	20	25	790	97	57	685	102
Future Volume (veh/h)	46	79	14	329	87	20	25	790	97	57	685	102
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.97	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	55	94	17	366	97	22	27	849	104	61	737	110
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	1	0
Peak Hour Factor	0.84	0.84	0.84	0.90	0.90	0.90	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	62	106	19	330	88	20	88	1493	183	266	682	102
Arrive On Green	0.12	0.12	0.12	0.27	0.27	0.27	0.02	0.47	0.47	0.03	0.48	0.48
Sat Flow, veh/h	532	909	164	1208	320	73	1774	3161	387	1774	1419	212
Grp Volume(v), veh/h	166	0	0	485	0	0	27	475	478	61	0	847
Grp Sat Flow(s), veh/h/ln	1605	0	0	1601	0	0	1774	1770	1778	1774	0	1630
Q Serve(g_s), s	15.3	0.0	0.0	41.0	0.0	0.0	1.2	29.1	29.1	2.7	0.0	72.1
Cycle Q Clear(g_c), s	15.3	0.0	0.0	41.0	0.0	0.0	1.2	29.1	29.1	2.7	0.0	72.1
Prop In Lane	0.33		0.10	0.75		0.05	1.00		0.22	1.00		0.13
Lane Grp Cap(c), veh/h	187	0	0	438	0	0	88	836	840	266	0	784
V/C Ratio(X)	0.89	0.00	0.00	1.11	0.00	0.00	0.31	0.57	0.57	0.23	0.00	1.08
Avail Cap(c_a), veh/h	203	0	0	438	0	0	107	836	840	282	0	784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	65.3	0.0	0.0	54.5	0.0	0.0	36.2	28.5	28.5	22.3	0.0	38.9
Incr Delay (d2), s/veh	32.5	0.0	0.0	75.8	0.0	0.0	1.9	2.8	2.8	0.4	0.0	56.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	8.5	0.0	0.0	27.3	0.0	0.0	0.6	14.8	14.8	1.3	0.0	44.7
LnGrp Delay(d), s/veh	97.8	0.0	0.0	130.3	0.0	0.0	38.1	31.3	31.3	22.7	0.0	95.2
LnGrp LOS	F			F			D	C	C	C		F
Approach Vol, veh/h	166			485			980			908		
Approach Delay, s/veh	97.8			130.3			31.5			90.3		
Approach LOS	F			F			C			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	74.9		21.5	7.4	76.1		45.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	6.0	68.0		19.0	5.0	69.0		41.0				
Max Q Clear Time (g_c+I1), s	4.7	31.1		17.3	3.2	74.1		43.0				
Green Ext Time (p_c), s	0.0	18.9		0.1	0.0	0.0		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	75.7											
HCM 2010 LOS	E											

HCM 2010 Signalized Intersection Summary


1: S. Avalon Blvd & E. 111th PI

No-Build Conditions - PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	73	33	73	30	19	19	887	94	18	739	69
Future Volume (veh/h)	55	73	33	73	30	19	19	887	94	18	739	69
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.95	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	62	83	38	87	36	23	20	954	101	19	795	74
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.84	0.84	0.84	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	72	96	44	108	45	29	186	1917	203	321	896	83
Arrive On Green	0.14	0.14	0.14	0.12	0.12	0.12	0.02	0.60	0.60	0.02	0.59	0.59
Sat Flow, veh/h	530	709	325	937	388	248	1774	3219	341	1774	1506	140
Grp Volume(v), veh/h	183	0	0	146	0	0	20	524	531	19	0	869
Grp Sat Flow(s),veh/h/ln	1564	0	0	1572	0	0	1774	1770	1790	1774	0	1646
Q Serve(g_s), s	13.7	0.0	0.0	10.9	0.0	0.0	0.5	20.4	20.4	0.5	0.0	54.3
Cycle Q Clear(g_c), s	13.7	0.0	0.0	10.9	0.0	0.0	0.5	20.4	20.4	0.5	0.0	54.3
Prop In Lane	0.34		0.21	0.60		0.16	1.00		0.19	1.00		0.09
Lane Grp Cap(c), veh/h	213	0	0	182	0	0	186	1054	1066	321	0	979
V/C Ratio(X)	0.86	0.00	0.00	0.80	0.00	0.00	0.11	0.50	0.50	0.06	0.00	0.89
Avail Cap(c_a), veh/h	248	0	0	249	0	0	224	1054	1066	360	0	979
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.7	0.0	0.0	51.7	0.0	0.0	21.7	13.9	13.9	10.8	0.0	20.9
Incr Delay (d2), s/veh	22.7	0.0	0.0	12.5	0.0	0.0	0.3	1.7	1.7	0.1	0.0	10.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	0.0	0.0	5.3	0.0	0.0	0.3	10.4	10.5	0.2	0.0	27.3
LnGrp Delay(d),s/veh	73.5	0.0	0.0	64.2	0.0	0.0	21.9	15.6	15.6	10.9	0.0	30.8
LnGrp LOS	E			E			C	B	B	B		C
Approach Vol, veh/h	183			146			1075			888		
Approach Delay, s/veh	73.5			64.2			15.7			30.4		
Approach LOS	E			E			B			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	75.5		20.3	6.4	75.4		17.9				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.0	61.0		19.0	5.0	61.0		19.0				
Max Q Clear Time (g_c+I1), s	2.5	22.4		15.7	2.5	56.3		12.9				
Green Ext Time (p_c), s	0.0	21.1		0.3	0.0	4.0		0.4				
Intersection Summary												
HCM 2010 Ctrl Delay				29.1								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary1: S. Avalon Blvd & E. 111th Pl

Build Conditions - AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Volume (veh/h)	46	79	14	334	87	25	25	790	102	62	685	102
Future Volume (veh/h)	46	79	14	334	87	25	25	790	102	62	685	102
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.97	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	55	94	17	371	97	28	27	849	110	67	737	110
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	1	0
Peak Hour Factor	0.84	0.84	0.84	0.90	0.90	0.90	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	62	106	19	327	85	25	88	1481	192	264	682	102
Arrive On Green	0.12	0.12	0.12	0.27	0.27	0.27	0.02	0.47	0.47	0.03	0.48	0.48
Sat Flow, veh/h	532	909	164	1195	312	90	1774	3137	406	1774	1419	212
Grp Volume(v), veh/h	166	0	0	496	0	0	27	479	480	67	0	847
Grp Sat Flow(s), veh/h/ln	1605	0	0	1598	0	0	1774	1770	1774	1774	0	1630
Q Serve(g_s), s	15.3	0.0	0.0	41.0	0.0	0.0	1.2	29.4	29.4	2.9	0.0	72.1
Cycle Q Clear(g_c), s	15.3	0.0	0.0	41.0	0.0	0.0	1.2	29.4	29.4	2.9	0.0	72.1
Prop In Lane	0.33		0.10	0.75		0.06	1.00		0.23	1.00		0.13
Lane Grp Cap(c), veh/h	187	0	0	437	0	0	88	835	837	264	0	784
V/C Ratio(X)	0.89	0.00	0.00	1.14	0.00	0.00	0.31	0.57	0.57	0.25	0.00	1.08
Avail Cap(c_a), veh/h	203	0	0	437	0	0	107	835	837	280	0	784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	65.3	0.0	0.0	54.5	0.0	0.0	36.2	28.7	28.7	22.5	0.0	38.9
Incr Delay (d2), s/veh	32.5	0.0	0.0	85.6	0.0	0.0	1.9	2.9	2.8	0.5	0.0	56.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	8.5	0.0	0.0	28.5	0.0	0.0	0.6	15.0	15.1	1.5	0.0	44.7
LnGrp Delay(d), s/veh	97.8	0.0	0.0	140.1	0.0	0.0	38.1	31.5	31.5	23.0	0.0	95.2
LnGrp LOS	F			F			D	C	C	C		F
Approach Vol, veh/h	166			496			986			914		
Approach Delay, s/veh	97.8			140.1			31.7			89.9		
Approach LOS	F			F			C			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	74.8		21.5	7.4	76.1		45.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	6.0	68.0		19.0	5.0	69.0		41.0				
Max Q Clear Time (g_c+I1), s	4.9	31.4		17.3	3.2	74.1		43.0				
Green Ext Time (p_c), s	0.0	18.9		0.1	0.0	0.0		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	77.7											
HCM 2010 LOS	E											


Parsons

Synchro 9 Report

HCM 2010 Signalized Intersection Summary

1: S. Avalon Blvd & E. 111th Pl

Build Conditions - PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Volume (veh/h)	55	73	33	78	30	24	19	887	99	23	739	69
Future Volume (veh/h)	55	73	33	78	30	24	19	887	99	23	739	69
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.96	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	62	83	38	93	36	29	20	954	106	25	795	74
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.84	0.84	0.84	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	72	96	44	113	44	35	177	1871	208	318	886	82
Arrive On Green	0.14	0.14	0.14	0.12	0.12	0.12	0.02	0.58	0.58	0.02	0.59	0.59
Sat Flow, veh/h	530	709	325	921	356	287	1774	3200	356	1774	1506	140
Grp Volume(v), veh/h	183	0	0	158	0	0	20	527	533	25	0	869
Grp Sat Flow(s), veh/h/ln	1564	0	0	1564	0	0	1774	1770	1786	1774	0	1646
Q Serve(g_s), s	13.7	0.0	0.0	11.8	0.0	0.0	0.5	21.2	21.2	0.7	0.0	55.3
Cycle Q Clear(g_c), s	13.7	0.0	0.0	11.8	0.0	0.0	0.5	21.2	21.2	0.7	0.0	55.3
Prop In Lane	0.34		0.21	0.59		0.18	1.00		0.20	1.00		0.09
Lane Grp Cap(c), veh/h	213	0	0	192	0	0	177	1035	1044	318	0	968
V/C Ratio(X)	0.86	0.00	0.00	0.82	0.00	0.00	0.11	0.51	0.51	0.08	0.00	0.90
Avail Cap(c_a), veh/h	248	0	0	248	0	0	215	1035	1044	350	0	968
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.7	0.0	0.0	51.4	0.0	0.0	22.4	14.7	14.7	11.3	0.0	21.6
Incr Delay (d2), s/veh	22.7	0.0	0.0	15.8	0.0	0.0	0.3	1.8	1.8	0.1	0.0	11.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	7.3	0.0	0.0	6.0	0.0	0.0	0.3	10.8	10.9	0.3	0.0	27.8
LnGrp Delay(d), s/veh	73.5	0.0	0.0	67.2	0.0	0.0	22.7	16.5	16.5	11.4	0.0	32.6
LnGrp LOS	E			E			C	B	B	B		C
Approach Vol, veh/h	183			158			1080			894		
Approach Delay, s/veh	73.5			67.2			16.6			32.0		
Approach LOS	E			E			B			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	74.2		20.3	6.4	74.6		18.7				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.0	61.0		19.0	5.0	61.0		19.0				
Max Q Clear Time (g_c+I1), s	2.7	23.2		15.7	2.5	57.3		13.8				
Green Ext Time (p_c), s	0.0	21.0		0.3	0.0	3.2		0.3				
Intersection Summary												
HCM 2010 Ctrl Delay				30.5								
HCM 2010 LOS				C								

Attachment F – LADOT MOU



Attachment C

Transportation Assessment Memorandum of Understanding (MOU)

This MOU acknowledges that the Transportation Assessment for the following Project will be prepared in accordance with the latest version of LADOT's Transportation Assessment Guidelines:

I. PROJECT INFORMATION

Project Name: 111th Place LADOT All-Electric Bus Maintenance Facility Project

Project Address: 740 and 800 E. 111th Place, Los Angeles, CA 90059

Project Description: The City of Los Angeles (the City) Department of Transportation (LADOT) is proposing to build an Electric Bus Maintenance Facility (the proposed Project) at 740 and 800 E. 111th Place in South Los Angeles.

LADOT Project Case Number: CEN20-49780 Project Site Plan attached? (Required) ☒ Yes ☐ No

II. TRANSPORTATION DEMAND MANAGEMENT (TDM) MEASURES

Select any of the following TDM measures, which may be eligible as a Project Design Feature¹, that are being considered for this project:

<input checked="" type="checkbox"/> Reduced Parking Supply ²	<input checked="" type="checkbox"/> Bicycle Parking and Amenities	<input type="checkbox"/> Parking Cash Out
---	---	---

List any other TDM measures (e.g. bike share kiosks, unbundled parking, microtransit service, etc.) below that are also being considered and would require LADOT staff's determination of its eligibility as a TDM measure. LADOT staff will make the final determination of the TDM measure's eligibility for this project.

- | | |
|---------|---------|
| 1 _____ | 4 _____ |
| 2 _____ | 5 _____ |
| 3 _____ | 6 _____ |

III. TRIP GENERATION

Trip Generation Rate(s) Source: ITE 10th Edition / Other Manual calculation based on LADOT data

Trip Generation Adjustment (Exact amount of credit subject to approval by LADOT)	Yes	No
Transit Usage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Existing Active or Previous Land Use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Internal Trip	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pass-By Trip	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Transportation Demand Management (See above)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Trip generation table including a description of the existing and proposed land uses, rates, estimated morning and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. attached? (Required) ☒ Yes ☐ No

	IN	OUT	TOTAL
AM Trips	<u>10</u>	<u>10</u>	<u>20</u>
PM Trips	<u>10</u>	<u>10</u>	<u>20</u>

NET Daily Vehicle Trips (DVT)	
<u>250</u>	DVT (ITE ed.) (Manual calculation)
<u>204</u>	DVT (VMT Calculator ver. 1.3)

¹ At this time Project Design Features are only those measures that are also shown to be needed to comply with a local ordinance, affordable housing incentive program, or State law.

² Select if reduced parking supply is pursued as a result of a parking incentive as permitted by the City's Bicycle Parking Ordinance, State Density Bonus Law, or the City's Transit Oriented Community Guidelines.



IV. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2026 Ambient Growth Rate: 1.5 % Per Yr.

Related Projects List, researched by the consultant and approved by LADOT, attached? (Required) ☒ Yes ☐ No

STUDY INTERSECTIONS and/or STREET SEGMENTS:

(May be subject to LADOT revision after access, safety, and circulation evaluation.)

1	<u>S. Avalon Blvd. and E. 111th Pl. Intersection</u>	<u>4</u>
2	<u>E. 111th Place</u>	<u>5</u>
3	<u></u>	<u>6</u>

Provide a separate list if more than six study intersections and/or street segments.

Is this Project located on a street within the High Injury Network? ☐ Yes ☒ No (Avalon Blvd. is within the HIN)

If a study intersection is located within a ¼-mile of an adjacent municipality's jurisdiction, signature approval from said municipality is required prior to MOU approval.

V. ACCESS ASSESSMENT

- Does the project exceed 1,000 net DVT? ☐ Yes ☒ No
- Is the project's frontage 250 linear feet or more along an Avenue or Boulevard as classified by the City's General Plan? ☐ Yes ☒ No
- Is the project's building frontage encompassing an entire block along an Avenue or Boulevard as classified by the City's General Plan? ☐ Yes ☒ No

VI. ACCESS ASSESSMENT CRITERIA

If Yes to any of the above questions a., b., or c., complete **Attachment C.1: Access Assessment Criteria**.

VII. SITE PLAN AND MAP OF STUDY AREA

Please note that the site plan should also be submitted to the Department of City Planning for cursory review.

Does the attached site plan and/or map of study area show	Yes	No	Not Applicable
Each study intersection and/or street segment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Project Vehicle Peak Hour trips at each study intersection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Project Vehicle Peak Hour trips at each project access point	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Project trip distribution percentages at each study intersection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Project driveways designed per LADOT MPP 321 (show widths and directions or lane assignment) (Widths of driveways n/a)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pedestrian access points and any pedestrian paths	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pedestrian loading zones	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Delivery loading zone or area	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Bicycle parking onsite	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bicycle parking offsite (in public right-of-way)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

*For mixed-use projects, also show the project trips and project trip distribution by land use category.



City of Los Angeles Transportation Assessment MOU
LADOT Project Case No: CEN20-49780

VIII. FREEWAY SAFETY ANALYSIS SCREENING

Will the project add 25 or more trips to any freeway off-ramp in either the AM or PM peak hour? ☐ Yes ☒ No

Provide a brief explanation or graphic identifying the number of project trips expected to be added to the nearby freeway off-ramps serving the project site. If Yes to the question above, a freeway ramp analysis is required.

IX. CONTACT INFORMATION

	<u>CONSULTANT</u>	<u>DEVELOPER</u>
Name:	<u>Parsons</u>	<u>City of LA - DPW/BOE-EMG (LADOT)</u>
Address:	<u>100 West Walnut Street, Pasadena, CA 91124</u>	<u>1149 S Broadway, Ste 600, LA, CA 90015</u>
Phone Number:	<u>650-796-9101</u>	<u>213-485-5733</u>
E-Mail:	<u>nak.kim@parsons.com</u>	<u>lauren.rhodes@lacity.org</u>

Approved by: <u>x Nak H. Kim</u> <small>Consultant's Representative</small>	<u>8/02/2021</u> <small>Date</small>	x <u><i>Lauren Rhodes</i></u> <small>LADOT Representative</small>	<u>9/01/2021</u> <small>**Date</small>
Adjacent Municipality: _____ Approved by: _____ <small>(if applicable) Representative Date</small>			

**MOUs are generally valid for two years after signing. If after two years a transportation assessment has not been submitted to LADOT, the developer's representative shall check with the appropriate LADOT office to determine if the terms of this MOU are still valid or if a new MOU is needed.

Figure 1 Project Location Map

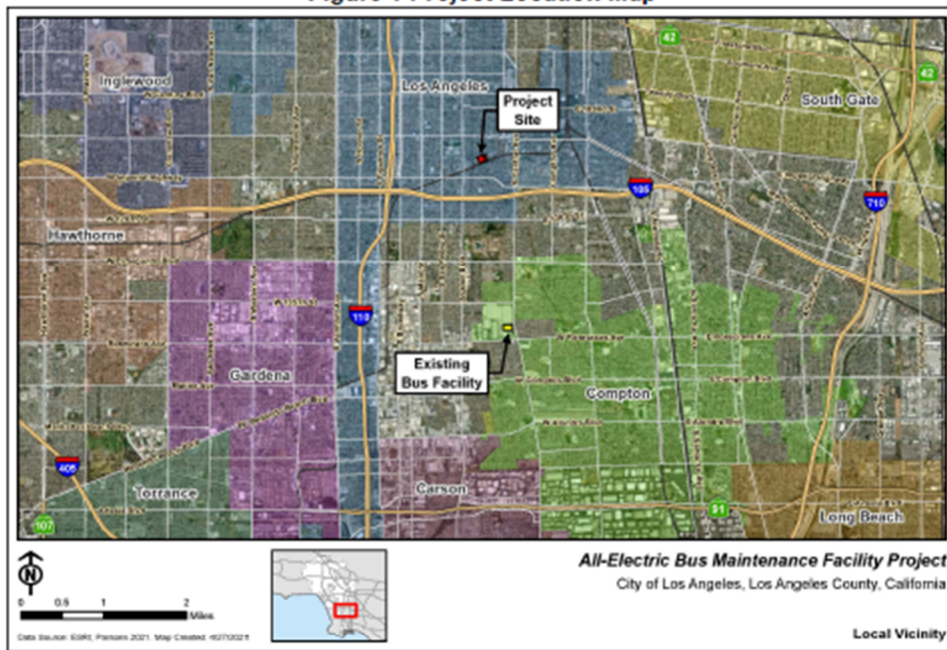


Figure 2 Aerial View of Project Site and its Immediate Vicinity



Figure 3 Conceptual Ground Level Floor Plan



Figure 4 Conceptual Second Level Floor Plan



Figure 5 Assessor Map

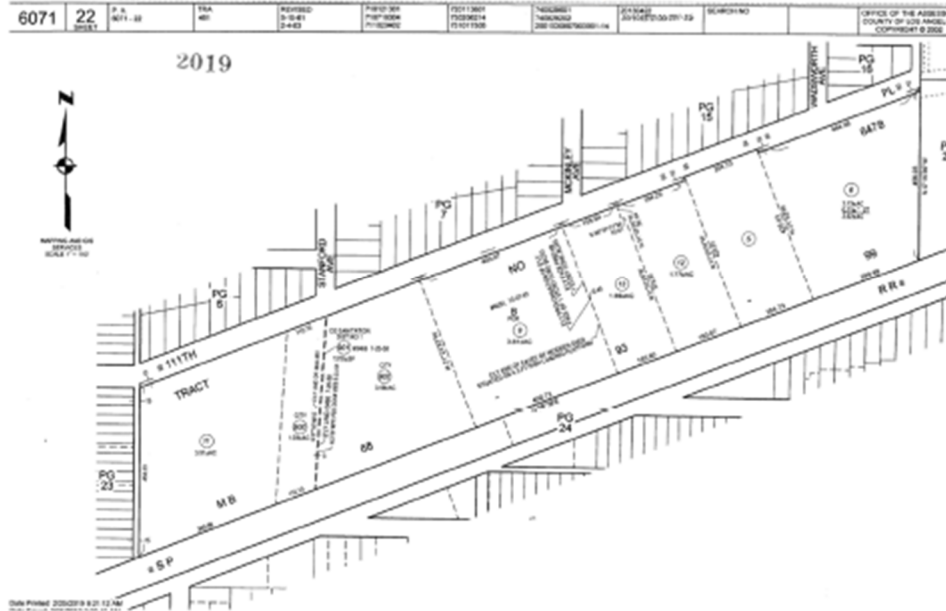


Figure 6 Site Location and Trip Distribution



Trip Generation

Table 1 Trip Generation

Year	Daily Trips	AM Trips			PM Trips		
		In	Out	Total	In	Out	Total
Existing (Year 2021)	685	121	48	169	119	47	166
Buildout (Year 2026)	935	143	65	208	141	65	206

Table 2 Buildout (Year 2026) AM and PM Trips

	<u>IN</u>	<u>OUT</u>	<u>TOTAL</u>
AM Trips	143	65	208
PM Trips	141	65	206

NET Daily Vehicle Trips (DVT)

250 DVT (Manual calculation)

204 DVT (VMT Calculator ver. 1.3)

Figure 7 City of Los Angeles VMT Calculator

CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: LADOT All Electric Bus Maintenance Facility
 Scenario: Commuter A1A2
 Address: 740 E 11TH PL, 90059

Existing Land Use

Land Use Type	Value	Unit
Industrial / Light Industrial	118.5	net

Proposed Project Land Use

Land Use Type	Value	Unit
(Custom) Bus Maintenance Facility / City	819	net
(Custom) Bus Maintenance Facility / H&Q/Jan: 25	Percent	
(Custom) Bus Maintenance Facility / H&Q/Jan: 40	Percent	
(Custom) Bus Maintenance Facility / H&Q/Jan: 20	Percent	
(Custom) Bus Maintenance Facility / H&Q/Prods: 0	Percent	
(Custom) Bus Maintenance Facility / H&Q/Prods: 5	Percent	
(Custom) Bus Maintenance Facility / H&Q/Prods: 20	Percent	
(Custom) Bus Maintenance Facility / Daily	0	Residents
(Custom) Bus Maintenance Facility / Daily	312	Employees
(Custom) Bus Maintenance Facility / Daily	Non-Resid	Percent/Non-Res

Project Screening Summary

Existing Land Use	Proposed Project
669 Daily Vehicle Trips	759 Daily Vehicle Trips
5,547 Daily VMT	4,271 Daily VMT

Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. ☐

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips. ☐ 90
Net Daily Trips

The net increase in daily VMT < 0. ☐ 724
Net Daily VMT

The proposed project consists of only retail land uses < 50,000 square feet total. ☐ 0.000
Net

The proposed project is not required to perform VMT analysis.

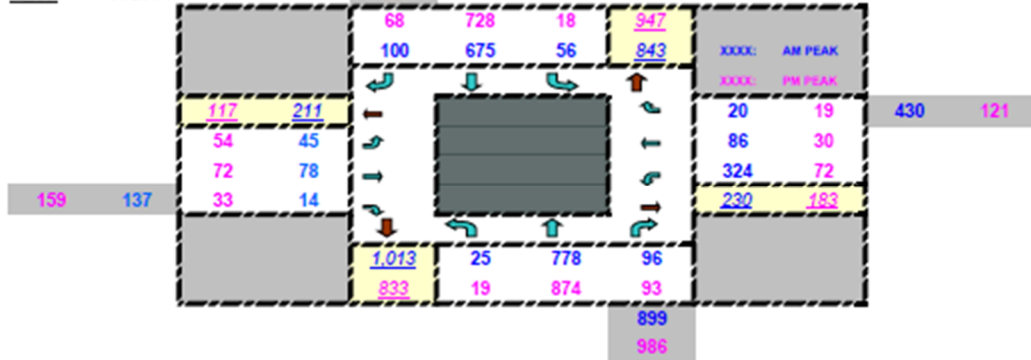
StreetLight Data

Date Range: 01/01/2019-12/31/2019

Intersection Turning Movements (Existing Counts)

N-S: Avalon Blvd

E-W: 111th Pl



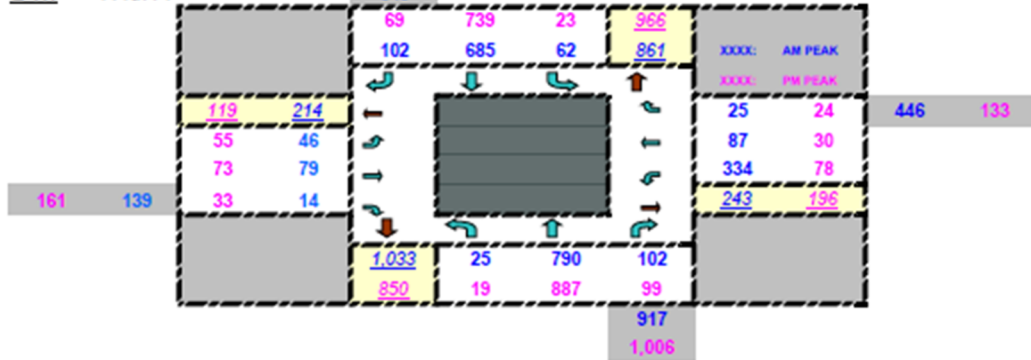
Year 2026

Intersection Turning Movements (Buildout Scenario)

Growth Factor 1.0150

N-S: Avalon Blvd

E-W: 111th Pl



Related Projects List

Table 3 Facilities Information and Construction Timeline

Facility	Address	Main function	Types of Infrastructure	Service Capacity	Needs Upgrade	Estimated Construction Timeline
Downtown	540 E. Commercial St. Los Angeles, CA 90012	Maintenance, fueling, and overnight charging	Install additional 125kW chargers and additional infrastructure equipment	Fast charging to deploy 25 BEB in 2021.	Yes	In 2020, capacity of 25 electric buses. By 2027 parking rearranged and installation of 28 depot fast chargers (125kW) and installation of electrification infrastructure. The facility is expected to accommodate 82 BEBs.
Sylmar	12776 Foothill Blvd. Sylmar, 91342	Maintenance, fueling, and overnight charging	Construction to install infrastructure equipment (transformers, Switch gear cabinets etc.), install 125kW chargers	Fast charging to deploy 23 BEB in Q4 of 2021.	Yes	In 2021, capacity of 23 buses. In 2024 parking rearranged and installation of 47 depot fast chargers (150kW) and installation of electrification infrastructure. The facility is expected to accommodate 94 BEBs.
Washington	1950 E. Washington Blvd. Los Angeles, 90021	Maintenance, fueling and overnight charging	Construction to install infrastructure equipment (transformers, Switch gear cabinets etc.), install 150kW chargers	Fast charging to deploy 96 BEB in 2022.	Yes	In 2022, capacity of 96 buses. In 2025 parking rearranged and installation of 32 depot fast chargers (125kW) and installation of electrification infrastructure. The facility is expected to accommodate 150 BEBs.
South Yard	14011 S. Central Los Angeles 90059	Maintenance, fueling, and overnight charging	Construction of all-electric bus maintenance facility that includes the installation of infrastructure equipment (transformers, Switch gear cabinets etc.), install 125kW chargers	Fast charging to deploy 10 BEBs in 2021	Yes	In 2021 purchase land to build a new facility in South Los Angeles (previously leased). In 2022, begin the construction of an all-electric bus maintenance facility that includes the installation of 65 depot fast chargers (125kW). The facility is expected to accommodate 130 BEBs.

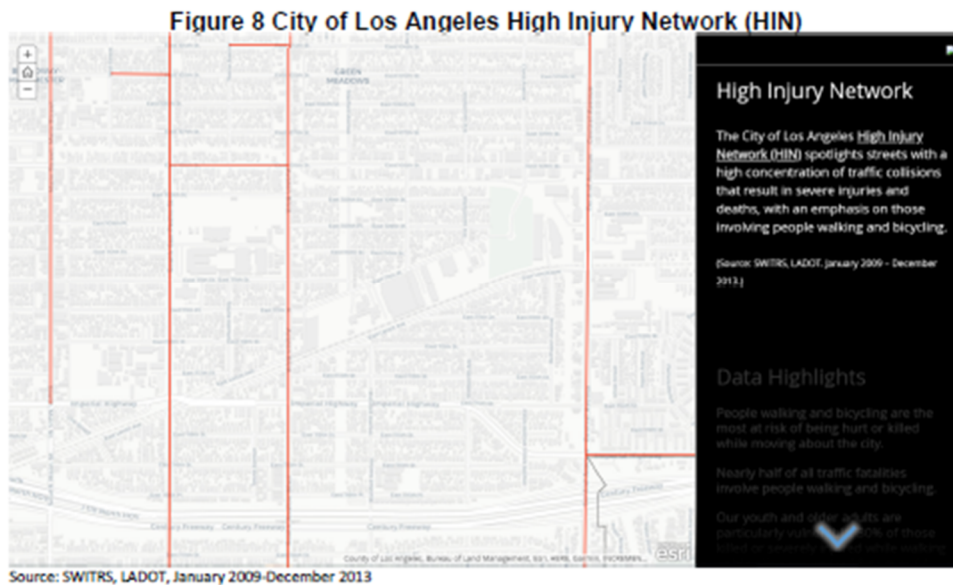
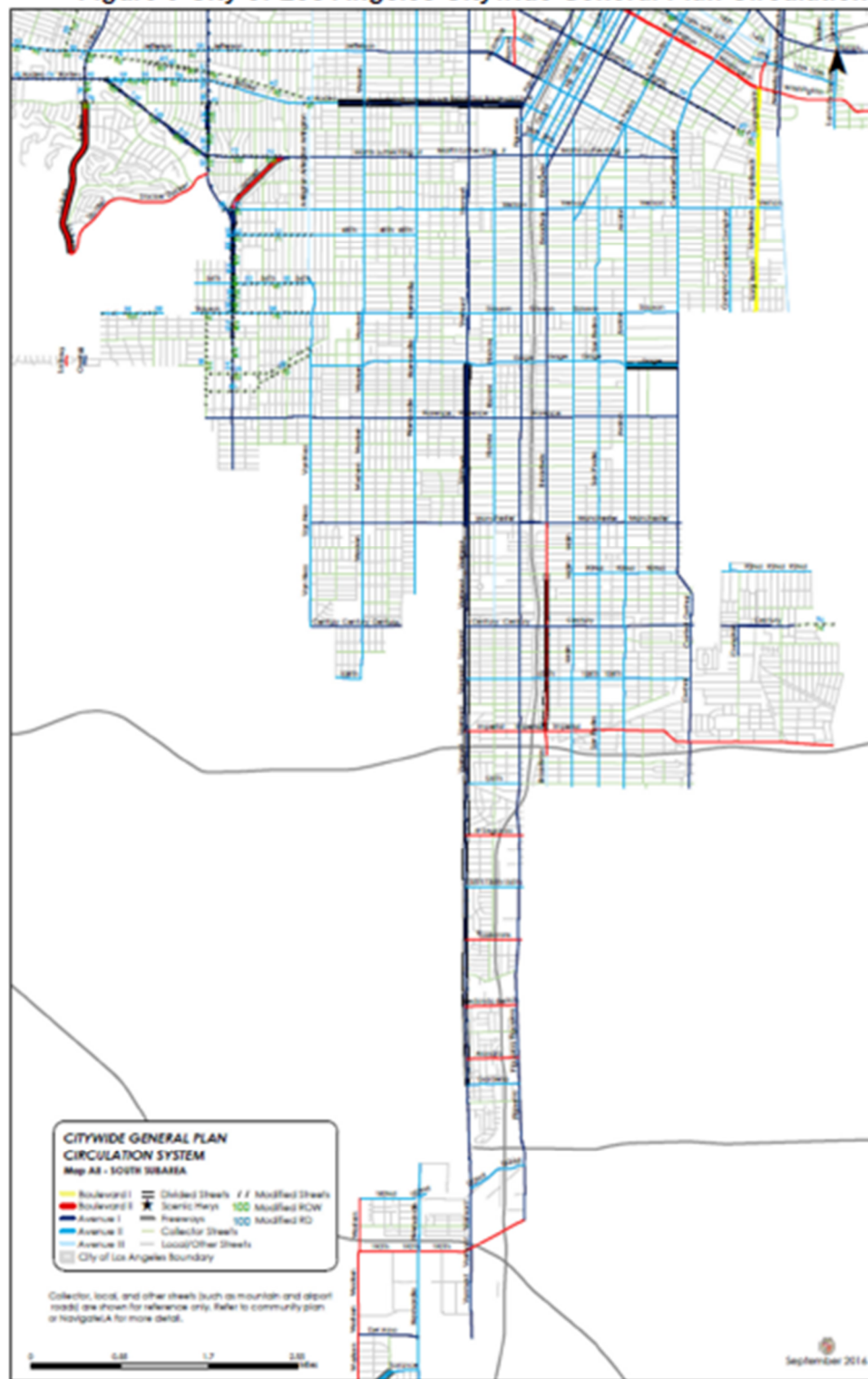


Figure 9 City of Los Angeles Citywide General Plan Circulation System



Source: Los Angeles Department of City Planning, September, 2016