Attachment No. 5

TRAFFIC STUDY
FOR THE
MARKET HALL PROJECT

Prepared for:

REGENCY CENTERS

JUNE 2017

Submitted by:

RAJU Associates, Inc.

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EXECUTIVE SUMMARY

A detailed traffic study has been performed by Raju Associates, Inc. to assess the traffic impacts of the proposed Market Hall Project. The Proposed Project is comprised of two sites located on the northwest corner (Site A) and northeast corner (Site B) of the intersection of Centinela Avenue and Washington Boulevard in the City of Culver City, California.

The Proposed Project (Sites A and B) consists of approximately 15,526 square feet of specialty retail use, 14,680 square feet of quality restaurant use and 5,210 square feet of high-turnover restaurant use. Site A consists of approximately 15,526 square feet of specialty retail use and 14,680 square feet of quality restaurant use. Site B consists of approximately 5,210 square feet of high-turnover restaurant use. The Project would provide a total of 204 parking spaces. On Site A, structured parking equivalent to 184 spaces would be provided. On Site B, a surface parking lot with 20 parking spaces would be provided. The existing sites are vacant.

As proposed for Site A, one driveway on Centinela Avenue, north of Washington Boulevard, and one driveway on Colonial Avenue, would provide access to the Project's parking garage. The proposed Site A driveway on Centinela Avenue will provide full access, while the driveway on Colonial Avenue would provide right-turn in and left-turn out access to and from the south only. A second driveway on Centinela Avenue and a second driveway on Colonial Avenue would provide access to the loading area. These loading driveways would be gate controlled.

For Site B, one driveway on Centinela Avenue, north of Washington Boulevard, and one driveway on the alley connecting to Washington Boulevard, east of Centinela Avenue, would provide right-turn in and right-turn out access.

Current and future traffic analyses at 19 intersections within the Cities of Culver City and Los Angeles were conducted in this study. At these locations, traffic operations were studied prior to and after implementation of the Proposed Project; deficiencies and impacts, if any, identified; improvements and mitigation measures, if required, developed; their effectiveness determined

and residual traffic impacts, if any, ascertained as part of this study. Access and circulation at the proposed driveways to the parking area for the Project were also evaluated. The following executive summary highlighting the key findings of this study is presented below.

- A total of 19 intersections were analyzed within the study area for this project. The study area is bounded by Venice Boulevard on the north, Marina Expressway (SR-90) on the south, Lincoln Boulevard on the west, and Sepulveda Boulevard on the east.

- Currently, 18 of the 19 analyzed intersection locations are operating at levels of service (LOS) D or better during the morning peak hours and 16 of the 19 analyzed intersection locations are operating at levels of service (LOS) D or better during the evening peak hours.

- In the Cumulative (Future Year 2019) Base conditions, i.e., future conditions without the implementation of the Proposed Project, 14 of the 19 study intersections are projected to operate at LOS D or better during the morning peak hour. During the evening peak hour, 10 of the 19 study intersections are projected to operate at LOS D or better.

- The Proposed Project (Sites A and B) consists of approximately 15,526 square feet of specialty retail use, 14,680 square feet of quality restaurant use and 5,210 square feet of high-turnover restaurant use. The Project is estimated to generate a total of 58 trips during the morning peak hour and 137 trips during the evening peak hour.

- In the Existing (2017) plus Project conditions, both the morning and evening peak hour operating conditions would be similar to those for the Existing Conditions. During the morning peak hour, 18 of the 19 analyzed intersection locations would be operating at levels of service (LOS) D or better. During the evening peak hour, 16 of the 19 analyzed intersection locations would be operating at levels of service (LOS) D or better.

- The Existing (2017) plus Project traffic conditions indicate that the Proposed Project would not cause significant traffic impacts at any of the analysis locations during the weekday morning and evening peak hours.

- In the Cumulative (Future Year 2019) plus Project conditions, both the morning and evening peak hour operating conditions would be similar to those projected for the Cumulative Base conditions. Fourteen of the 19 study intersections are projected to operate at LOS D or better during the morning peak hour. During the evening peak hour, 9 of the 19 study intersections are projected to operate at LOS D or better.

- The Cumulative (Future Year 2019) plus Project traffic conditions indicate that the Proposed Project would not cause significant traffic impacts at any of the analysis locations during both the weekday morning and evening peak hours.

- The Proposed Project would add less than 50 trips to the nearest Congestion Management Program (CMP) arterial monitoring locations and would add less than 150 trips in either direction to the nearest CMP mainline freeway monitoring locations during both the weekday morning and evening peak hours. Per CMP guidelines, no further CMP analysis is required.

- Access and circulation systems were assessed as part of this study. A review of the proposed site plan was also conducted. This review indicates that they would all function adequately.

- In order to protect the residential neighborhood from project traffic intrusion, three options for traffic circulation at the Proposed Project's driveway along Colonial Avenue were evaluated. Option 3, where the Proposed Project would provide the required improvements to allow only northbound Colonial Avenue right-turn traffic (inbound) and westbound driveway left-turn traffic (outbound) at the project driveway, was selected.

Summarizing, the Proposed Project would not cause any significant impacts at any of the analyzed intersections. Therefore, no project-specific mitigation measures would be required.

I. INTRODUCTION

This report documents the assumptions, methodologies and findings of a study conducted by Raju Associates, Inc., to evaluate the potential traffic impacts of the proposed Market Hall Project.

PROJECT DESCRIPTION

The Proposed Project is comprised of two sites located on the northwest corner (Site A) and northeast corner (Site B) of the intersection of Centinela Avenue and Washington Boulevard in the City of Culver City. The west project site is located on the north side of Washington Boulevard between Colonial Avenue and Centinela Avenue. The east project site is located on the north side of Washington Boulevard east of Centinela Avenue. Figure 1 illustrates the location of the Proposed Project in relation to the surrounding street system.

The Proposed Project consists of approximately 15,526 square feet of specialty retail use, 14,680 square feet of quality restaurant use and 5,210 square feet of high-turnover restaurant use. Site A consists of approximately 15,526 square feet of specialty retail use and 14,680 square feet of quality restaurant use. Site B consists of approximately 5,210 square feet of high-turnover restaurant use. The Project would provide a total of 204 parking spaces. On Site A, structured parking equivalent to 184 spaces would be provided. On Site B, a surface parking lot with 20 parking spaces would be provided. The existing sites are vacant. The Project site plan is shown in Figure 2.

ACCESS AND CIRCULATION

As shown in Figure 2, Site A includes one driveway along Centinela Avenue, north of Washington Boulevard, and one driveway along Colonial Avenue, north of Washington Boulevard. These driveways would provide access to the Project's parking garage. The proposed Site A driveway on Centinela Avenue will provide full access, while the driveway on Colonial Avenue would provide right-turn in and left-turn out access to and from the south only. The driveway design to the parking structure would be coordinated with the City to prevent project traffic from using neighborhood streets and alleys. A second driveway on Centinela Avenue and a second driveway on Colonial Avenue would provide access to the loading area. These loading driveways would be gate controlled.

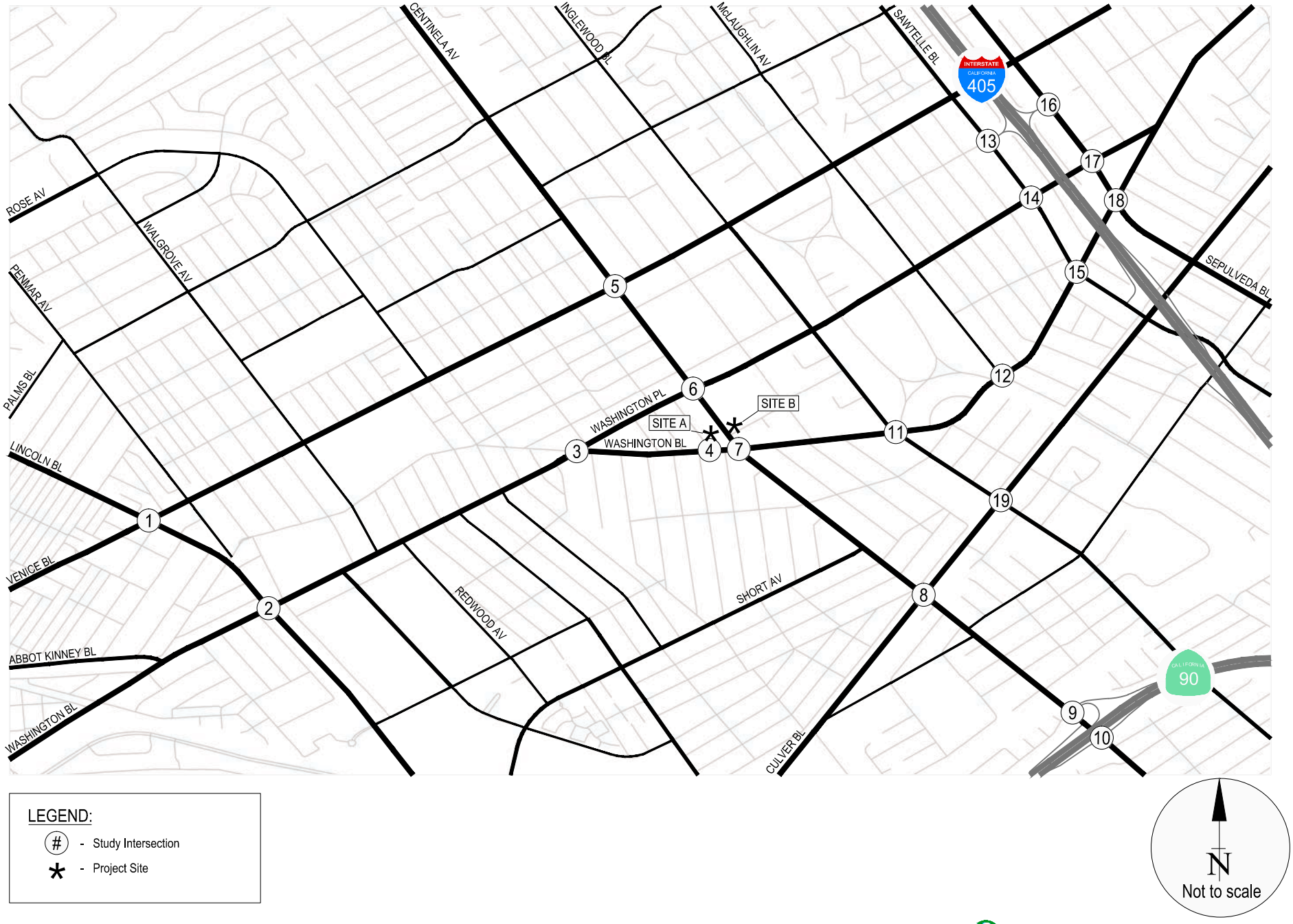

FIGURE 1
LOCATION OF POROJECT AND ANALYZED INTERSECTIONS

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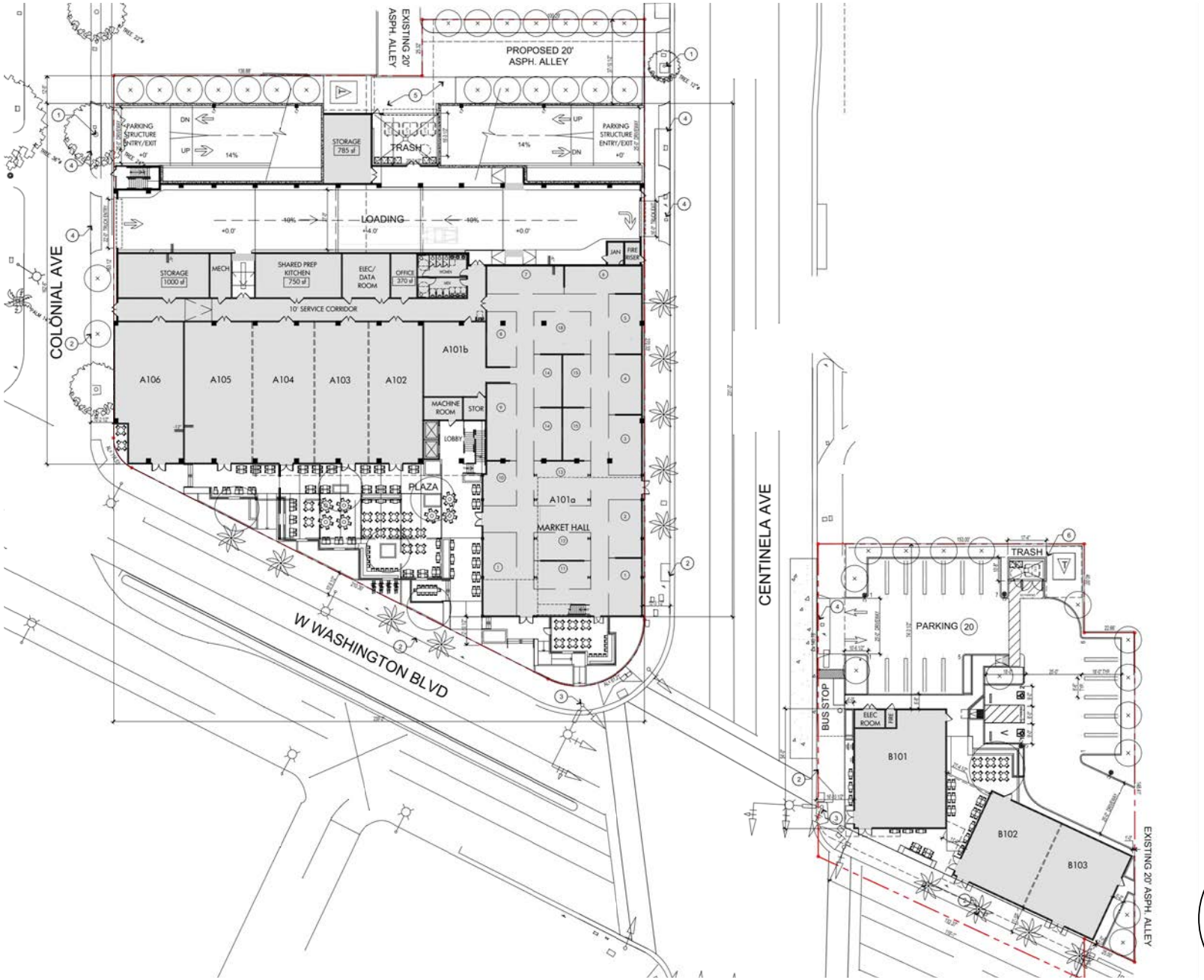

SOURCE: JRDV ARCHITECTS

FIGURE 2
PROJECT SITE PLAN

RAJU Associates, Inc.

As shown on Figure 2, Site B has one driveway on Centinela Avenue, north of Washington Boulevard, and one driveway on the alley connecting to Washington Boulevard, east of Centinela Avenue. Both driveways would provide right-turns in and out access only.

STUDY SCOPE

The scope of work for this study was developed in conjunction with the Cities of Culver City and Los Angeles staff. The base assumptions, technical methodologies and geographic coverage of the study were all identified as part of the study approach. The study is directed at the analysis of potential traffic impacts on the street system produced by the Proposed Project per the City of Culver City traffic study guidelines. The scenarios identified below have been evaluated in this study.

- Existing (2017) Conditions - The analysis of existing traffic conditions is intended to provide a basis for the remainder of the study. The existing conditions analysis includes an assessment of streets, traffic volumes, and operating conditions.

- Existing (2017) Plus Project Conditions – The net traffic expected to be generated by the Proposed Project is estimated and added to the Existing (2017) traffic volumes. The impacts of the Proposed Project on existing traffic operating conditions are then identified.

- Cumulative (2019) Base Conditions - Future traffic conditions in the year 2019 without the Proposed Project has been developed. The objective of this analysis is to project future traffic growth and operating conditions, which could be expected to result from regional growth and related projects in the vicinity of the study area by the year 2019.

- Cumulative (2019) Plus Project Conditions – The net traffic expected to be generated by the Proposed Project is estimated and added to the Cumulative (2019) Base traffic forecasts. The impacts of the Proposed Project on future traffic operating conditions are then identified.

As part of this traffic study, a total of 19 intersections within two jurisdictions have been analyzed. A listing of these intersections including jurisdiction, control type, and signal control system is presented in Table 1 and their locations are illustrated in Figure 1. Eighteen of the 19 analyzed intersections are signalized, while one intersection is stop-controlled. Of the 19 study locations, 12 intersections are in the City of Culver City and seven intersections are in the City of Los Angeles.

TABLE 1
LIST OF STUDY INTERSECTIONS

#	Intersection		Jurisdiction	Signalized?	Signal System Control
	Northbound/Southbound	Eastbound/Westbound			
1.	Lincoln Boulevard	Venice Boulevard [1]	City of Los Angeles/Caltrans	Yes	ATSAC/ATCS
2.	Lincoln Boulevard	Washington Boulevard	City of Los Angeles/Caltrans	Yes	ATSAC/ATCS
3.	Zanja St/Wade St/Washington Bl	Washington Boulevard/Washington Pl	Culver City	Yes	ATSAC*
4.	Colonial Avenue	Washington Boulevard	Culver City	No	-
5.	Centinela Avenue	Venice Boulevard [1]	City of Los Angeles/Caltrans	Yes	ATSAC/ATCS
6.	Centinela Avenue	Washington Place	Culver City	Yes	ATSAC*
7.	Centinela Avenue	Washington Boulevard	Culver City	Yes	ATSAC*
8.	Centinela Avenue	Culver Boulevard	City of Los Angeles	Yes	ATSAC/ATCS
9.	Centinela Avenue	Sandford/SR-90 Westbound Ramps	City of Los Angeles/Caltrans	Yes	ATSAC/ATCS
10.	Centinela Avenue	SR-90 Eastbound On-/Off-Ramps	City of Los Angeles/Caltrans	Yes	ATSAC/ATCS
11.	Inglewood Boulevard	Washington Boulevard	Culver City	Yes	ATSAC*
12.	McLaughlin Avenue	Washington Boulevard	Culver City	Yes	ATSAC*
13.	Sawtelle Boulevard	Matteson Street/I-405 Southbound Ramps	Culver City/Caltrans	Yes	ATSAC*
14.	Sawtelle Boulevard	Washington Place	Culver City	Yes	ATSAC*
15.	Sawtelle Boulevard	Washington Boulevard	Culver City	Yes	ATSAC*
16.	Sepulveda Boulevard	I-405 Northbound On-/Off-Ramps	Culver City/Caltrans	Yes	ATSAC*
17.	Sepulveda Boulevard	Washington Place	Culver City	Yes	ATSAC*
18.	Sepulveda Boulevard	Washington Boulevard	Culver City	Yes	ATSAC*
19.	Inglewood Boulevard	Culver Boulevard	City of Los Angeles	Yes	ATSAC/ATCS

* Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.

[1] Los Angeles County Congestion Management Program monitoring location.

A detailed Memorandum of Understanding (MOU) was prepared in coordination with the City of Culver City and Los Angeles staff. The MOU includes among other details, a description of the Proposed Project, its trip generation and distribution characteristics. A copy of the MOU is attached in Appendix A of this report.

ORGANIZATION OF REPORT

An executive summary presenting key details of the study is provided at the beginning of this report. The rest of the report is divided into eight chapters. Chapter I presents an introduction and provides details of the various elements of the study. Chapter II describes the existing circulation system, traffic volumes, and traffic conditions within the study area. Chapter III describes the development of the Proposed Project's traffic projections. The methodology to develop Future Year 2019 traffic volume forecasts without and with the Proposed Project is described and applied in Chapter IV. Chapter V presents assessment of traffic conditions with and without the project and the potential traffic impacts due to the Proposed Project. Residential street segment analysis, parking, and access/circulation evaluations are presented in Chapter VI. The results of the analysis of the Proposed Project's impacts on the CMP regional transportation system are provided in Chapter VII. A summary of the analysis and study conclusions is included in Chapter VIII. Appendices to this report include details of the technical analyses.

II. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions within the study area. The assessment of conditions relevant to this study includes an inventory of the street system, traffic volumes on these facilities, and operating conditions at key intersections. A detailed description of these elements is presented in this chapter. The existing transit system serving the study area is also described in this chapter.

STUDY AREA

The Proposed Project is located on two sites along the northwest and northeast corners of the intersection of Centinela Avenue and Washington Boulevard in the City of Culver City, as shown in Figure 1. The west project site (Site A) is located on the north side of Washington Boulevard between Colonial Avenue and Centinela Avenue. The east project site (Site B) is located on the north side of Washington Boulevard east of Centinela Avenue. The San Diego Freeway (I-405) is located approximately one mile east of the Project site and the Marina Expressway/Freeway (SR-90) is located approximately 1.2 miles south of the Project site.

The study area is bounded by Venice Boulevard on the north, the Marina Freeway (SR-90) on the south, Lincoln Boulevard on the west, and Sepulveda Boulevard on the east.

EXISTING STREET SYSTEM

The City of Culver City uses the following street classification designation - primary arterials, secondary arterials, neighborhood feeder streets and local streets. Per the City of Los Angeles' Mobility Plan 2035, the City of Los Angeles uses the following designations - arterial streets consisting of boulevards and avenues, collector streets, and local streets. The existing street system within the study area consists of a regional highway system including primary arterials, highways/boulevards and a sub-regional street system including secondary arterials/avenues, and neighborhood feeder streets/collectors and local streets. A description of the regional and local access and circulation offered by the various roadways follows.

The San Diego (I-405) and Marina (SR-90) Freeways provide the primary regional access to the study area. The key arterials serving the site are Lincoln Boulevard, Centinela Avenue, Venice Boulevard, Washington Boulevard, Washington Place, Culver Boulevard, Inglewood Boulevard, Sawtelle Boulevard and Sepulveda Boulevard. The remaining neighborhood streets (collector and local streets) offer local circulation possibilities. Brief descriptions of these facilities serving the study area are included in the following section. The existing lane configurations of the analyzed intersections are included in Appendix B.

- Lincoln Boulevard (SR-1) – Lincoln Boulevard is a north-south Boulevard II arterial roadway (within the City of Los Angeles) that runs across several jurisdictions. The roadway generally offers six travel lanes, three lanes in each direction with left-turn lanes at all intersections. Parking is allowed along many stretches of this roadway within the study area. The posted speed limit is 40 miles per hour.

- Centinela Avenue – Centinela Avenue is classified as a primary arterial roadway within the City of Culver City and an Avenue I arterial roadway within the City of Los Angeles. It runs in a north-south direction across several jurisdictions. Within the study area, the roadway generally provides four travel lanes, two lanes in each direction, and provides connection to the SR-90 ramps. Parking is allowed along many stretches of this roadway. The posted speed limit is 35 miles per hour.

- Venice Boulevard (SR-187) – Venice Boulevard is classified as a primary arterial highway within the City of Culver City and as a Boulevard II arterial roadway within the City of Los Angeles. It traverses in an east-west direction across several jurisdictions. Venice Boulevard offers six travel lanes, three lanes in each direction, with left-turn lanes at key intersections and a large raised median island. A bike lane is provided on both sides of the street. Parking is generally allowed on both sides of the street throughout the study area. The posted speed limit is 40 miles per hour.

- Washington Boulevard – Washington Boulevard is classified as a primary arterial roadway within the City of Culver City and a Boulevard II arterial roadway within the City of Los Angeles and defines the southern frontage of the Project site. Washington Boulevard traverses in an east-west direction across several jurisdictions and generally offers four travel lanes, two lanes per direction, with a central left-turn lane or median. Parking is allowed along many stretches of this roadway within the study area. Metered parking is available in the vicinity of Project site. The posted speed limit is 35 miles per hour.

- Washington Place – Washington Place is classified as a primary arterial roadway within the City of Culver City and a Boulevard II arterial roadway within the City of Los Angeles. It runs in an east-west direction. This roadway offers four travel lanes, two lanes per direction, with a central left-turn lane/median and bike lanes on both sides of the street. Parking is allowed along many stretches of this roadway. The posted speed limit is 35 miles per hour.

- Culver Boulevard – Culver Boulevard is a primary arterial within the City of Culver City and an Avenue I arterial roadway within the City of Los Angeles. It traverses diagonally in an east-west direction from Playa del Rey to its terminus at Venice Boulevard. Within the study area, this roadway generally provides four travel lanes, two lanes per direction, and turn lanes at major or key intersections. Parking is allowed along many stretches of this roadway throughout the study area. Culver Boulevard provides access to the SR-90 Freeway ramps and the I-405 Freeway ramps. The posted speed limit is 40 miles per hour.

- Inglewood Boulevard – Inglewood Boulevard is classified as a secondary arterial roadway within the City of Culver City and as an Avenue II arterial roadway within the City of Los Angeles. It traverses in a north-south direction. Within the study area, the roadway provides four travel lanes, two lanes in each direction, and turn lanes at major or key intersections south of Washington Boulevard. North of Washington Boulevard, Inglewood Boulevard offers two travel lanes, one lane in each direction with turn lanes at key intersections. Parking is generally available on both sides of the street. The posted speed limit is 35 miles per hour.

- Sawtelle Boulevard – Sawtelle Boulevard is classified as a secondary arterial roadway within the City of Culver City and as an Avenue I arterial roadway within the City of Los Angeles. It traverses in a north-south direction and generally provides four travel lanes, two lanes per direction, with turn lanes at major or key intersections in the study area. Shared bicycle lanes or "Sharrow Lanes" are offered along this roadway south of Washington Place to the I-405 Freeway overpass. Parking is generally allowed along many stretches of this roadway within the study area. Sawtelle Boulevard provides access to the I-405 Freeway southbound ramps. The posted speed limit is 35 miles per hour.

- Sepulveda Boulevard – Sepulveda Boulevard is classified as a primary arterial roadway within the City of Culver City and as a Boulevard II arterial roadway within the City of Los Angeles. It traverses through numerous jurisdictions in a north-south direction. Within the study area, this roadway offers four travel lanes, two lanes per direction, with a central left-turn lane and turn lanes at major or key intersections. Bikes lanes are provided on both sides of the street north of Venice Boulevard. Parking is allowed along many stretches of this roadway. Sepulveda Boulevard provides access to the I-405 Freeway northbound ramps. Within the study area, the posted speed limit is 35 miles per hour.

- McLaughlin Avenue – McLaughlin Avenue is classified as a local roadway within the City of Culver City and as a collector roadway within the City of Los Angeles. It runs in a north-south direction and provides two travel lanes, one lane in each direction. Parking is available on both sides of the street. The posted speed limit is 35 miles per hour.

- Wade Street – Wade Street is classified as a local roadway within the City of Culver City and as a collector roadway within the City of Los Angeles. It runs in a north-south direction and provides two travel lanes, one lane in each direction. Parking is available on both sides of the street. The prima facie speed limit is 25 miles per hour.

- Zanja Street – Zanja Street is a local roadway that traverses in an east-west direction. It provides one travel lane in each direction. Parking is available on both sides of the street. The posted speed limit is 30 miles per hour.

- Colonial Avenue – Colonial Avenue is a local roadway and defines the western frontage of the Project site. It runs in a north-south direction from its northern terminus at Washington Place to its southern terminus at Washington Boulevard. Colonial Avenue provides one travel lane in each direction. Parking is available by permit only on both sides of the street. The prima facie speed limit is 25 miles per hour.

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

The following sections present the existing intersection peak hour traffic volumes, a description of the methodology utilized to analyze the intersection traffic conditions, and the resulting level of service conditions at each of the study intersections.

Existing Traffic Volumes

Weekday morning and evening peak hour traffic counts were compiled from data collected at the 16 of the 19 analyzed intersections in 2015 and 2016. At the remaining three study locations, traffic count data was collected in 2014. Traffic counts were factored upward 1% per year to reflect existing 2017 conditions. These traffic volumes reflect typical weekday operations during current year 2017 conditions. The traffic volumes in Figures 3A and 3B represent, for the purposes of this analysis, the Existing 2017 AM and PM peak hour conditions.

The raw data showing the raw traffic counts are attached in Appendix C.

Level of Service Methodology

Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. LOS D is typically recognized as the minimum acceptable level of service in urban areas.

The Level of Service definitions for signalized and unsignalized intersections is provided in Table 2 and Table 3, respectively. Eighteen of the 19 analyzed intersections are controlled by traffic signals. The intersection of Colonial Avenue/Washington Boulevard is unsignalized and controlled by a stop sign on the minor approach.

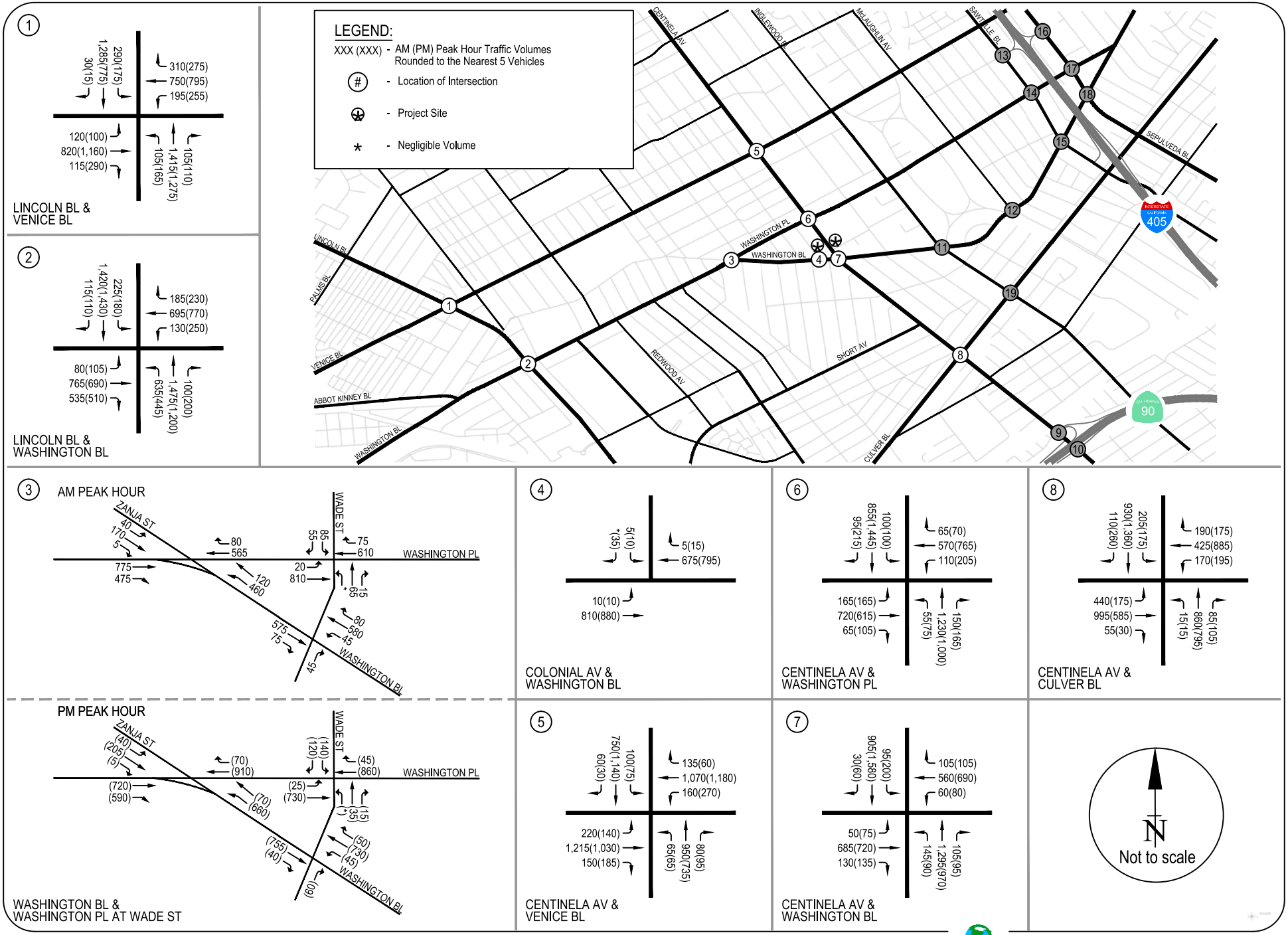

FIGURE 3A
EXISTING (2017) CONDITIONS - PEAK HOUR TRAFFIC VOLUMES

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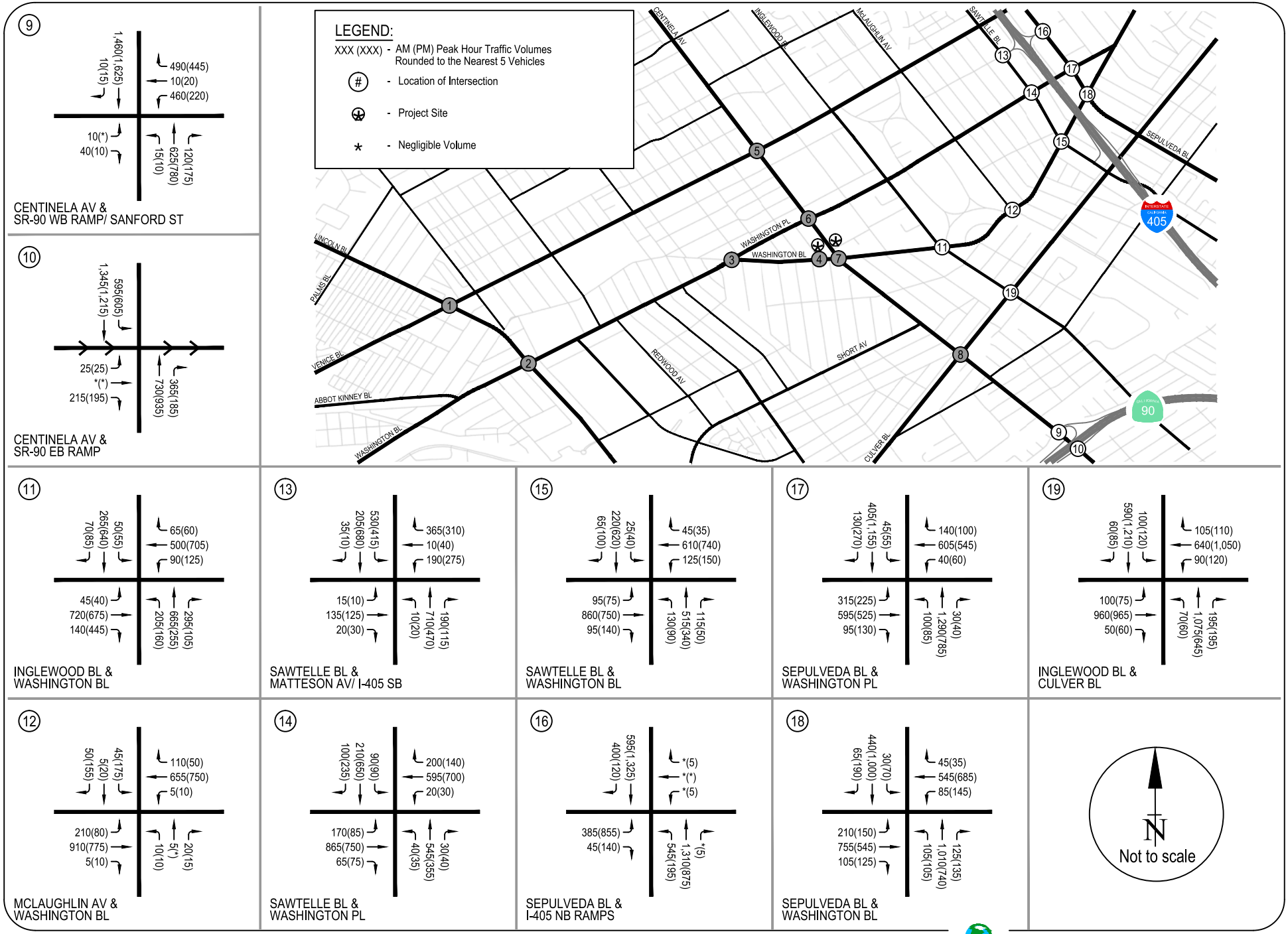

FIGURE 3B
EXISTING (2017) CONDITIONS - PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

TABLE 2
LEVEL OF SERVICE DEFINITIONS FOR 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 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 Board, *Transportation Research Circular No. 212, Interim Materials on Highway Capacity* , 1980.

TABLE 3
LEVEL OF SERVICE DEFINITIONS FOR
STOP-CONTROLLED INTERSECTIONS

Level of Service	Average Total Delay (seconds/vehicle)
A	≤ 10.0
B	> 10.0 and ≤ 15.0
C	> 15.0 and ≤ 25.0
D	> 25.0 and ≤ 35.0
E	> 35.0 and ≤ 50.0
F	> 50.0

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

The Intersection Capacity Utilization (ICU) method was used to determine the intersection V/C ratio and corresponding level of service for City of Culver City study intersections. Per City of Culver City Traffic Study Criteria, a capacity of 1,600 vehicles per lane per hour is assumed, a total of 2,880 vehicles per hour for dual left-turn lanes, and a 10% calculation factor for the loss time of the yellow signal clearance periods was utilized in the capacity calculations.

For the City of Los Angeles study locations, the "Critical Movement Analysis-Planning", (Transportation Research Board, 1980) method of intersection capacity analysis was used to determine the intersection volume to capacity (V/C) ratio and corresponding level of service at the signalized intersections. Level of service spreadsheets developed by LADOT were used to implement the CMA (Circular 212 Method) methodology.

The seven study intersections under City of Los Angeles jurisdiction are currently controlled by the City of Los Angeles' Automated Traffic Surveillance and Control (ATSAC) System and Adaptive Traffic Control System (ATCS). In accordance with LADOT procedures, a capacity increase of 10% (0.07 V/C adjustment for ATSAC and 0.03 V/C adjustment for ATCS) was applied to reflect the benefits of ATSAC/ATCS control at these intersections.

The remaining 11 signalized intersections under the jurisdiction of the City of Culver City currently operate under a signal coordination system similar to ATSAC, but have not yet been upgraded with the ATCS-type operations. Therefore, a capacity increase of 7% (0.07 V/C adjustments) was applied to reflect the benefits of ATSAC-type control at these intersections.

The Highway Capacity Manual (HCM) 2010 method of unsignalized intersection analysis was used to determine the delay (in seconds) and corresponding level of service at the stop-controlled intersection. For two-way stop-controlled locations, the intersection delay is defined as the worst case delay experienced by drivers at the intersection who must stop or yield to unimpeded major street traffic. This method uses a "gap acceptance" technique to predict driver delay and is applicable to unsignalized intersections where there is potential for difficulty for minor street or stopped traffic to cross the traffic on the major or unimpeded street. Table 3 defines the ranges of delay and corresponding levels of service for unsignalized intersections.

Existing Levels of Service

The existing traffic volumes presented in Figure 3 for AM and PM peak hours were used in conjunction with the level of service methodologies described in the previous sections, and the current intersection characteristics illustrated in Appendix B, to determine the existing operating conditions at the analyzed intersections.

Table 4 summarizes the results of the intersection capacity analysis for existing conditions at each of the study intersections in the study area. The table indicates the existing V/C ratio during the morning and evening peak hours and the corresponding LOS at the study intersections. As illustrated in the table, 18 of the 19 study intersections are currently operating at LOS D or better during the morning peak hour. During the evening peak hour, 16 of the 19 study intersections are operating at LOS D or better. The remaining locations are operating at LOS E or F and include:

- Centinela Avenue & Washington Boulevard – PM Peak Hour: LOS E
- Centinela Avenue & Culver Boulevard – AM Peak Hour: LOS E, PM Peak Hour: LOS F
- Sepulveda Boulevard & I-405 Northbound Ramps – PM Peak Hour: LOS E

Capacity calculation worksheets for Existing (2017) conditions are provided in Appendix D of the report.

EXISTING TRANSIT CONDITIONS

Fifteen bus lines currently serve the study area. Four bus lines are operated by the Los Angeles County Metropolitan Transportation Authority (Metro), six bus lines are operated by the Culver City Bus, four bus lines are operated by Santa Monica Big Blue Bus and one bus line is operated by the Los Angeles Department of Transportation (LADOT). These transit lines are described below.

- Metro Line 33 - Line 33 is a local east/west line that provides service from Santa Monica to Downtown Los Angeles and travels primarily along Venice Boulevard within the study area. This line runs every day, including holidays, at a frequency of approximately 6-15 minutes during peak commute hours. The western terminus is at the intersection of Ocean Avenue/Santa Monica Boulevard in Santa Monica. The eastern terminus is at the Patsaouras Transit Plaza (Union Station) in Downtown Los Angeles.

TABLE 4
EXISTING (2017) INTERSECTION LEVEL OF SERVICE ANALYSIS

No.	Intersection	Existing (2017) Conditions			
		AM Peak Hour		PM Peak Hour	
		V/C	LOS	V/C	LOS
1.	Lincoln Boulevard & Venice Boulevard [1] [2]	0.891	D	0.857	D
2.	Lincoln Boulevard & Washington Boulevard [1]	0.856	D	0.801	D
3.	Washington Boulevard & Washington Place at Wade St [3]	0.701	C	0.883	D
4.	Colonial Avenue & Washington Boulevard [3] [4]	20.2 s	C	15.6 s	C
5.	Centinela Avenue & Venice Boulevard [1] [2]	0.798	C	0.809	D
6.	Centinela Avenue & Washington Place [3]	0.790	C	0.892	D
7.	Centinela Avenue & Washington Boulevard [3]	0.821	D	0.918	E
8.	Centinela Avenue & Culver Boulevard [1]	0.904	E	1.012	F
9.	Centinela Avenue & SR-90 Westbound Ramps [1]	0.515	A	0.461	A
10.	Centinela Avenue & SR-90 Eastbound Ramps [1]	0.537	A	0.490	A
11.	Inglewood Boulevard & Washington Boulevard [3]	0.756	C	0.819	D
12.	McLaughlin Avenue & Washington Boulevard [3]	0.466	A	0.554	A
13.	Sawtelle Boulevard & Matteson Avenue/I-405 SB Ramps [3]	0.781	C	0.843	D
14.	Sawtelle Boulevard & Washington Place [3]	0.584	A	0.633	B
15.	Sawtelle Boulevard & Washington Boulevard [3]	0.659	B	0.692	B
16.	Sepulveda Boulevard & I-405 Northbound Ramps [3]	0.707	C	0.916	E
17.	Sepulveda Boulevard & Washington Place [3]	0.855	D	0.838	D
18.	Sepulveda Boulevard & Washington Boulevard [3]	0.725	C	0.785	C
19.	Inglewood Boulevard & Culver Boulevard [1]	0.788	C	0.808	D

V/C - Volume to Capacity Ratio
LOS - Level of Service

[1] Study intersection is located within the City of Los Angeles.
[2] Los Angeles County Congestion Management Program arterial monitoring location.
[3] Study intersection is located within the City of Culver City.
[4] Unsignalized intersection - stop-controlled on minor approach. Worst case approach delay (in seconds) reported.

- Metro Line 108 - Line 108 is a local east/west line that provides service from Marina Del Rey to Pico Rivera and travels primarily along Mindanao Way, Short Avenue and Centinela Avenue within the study area. This line runs every day, including holidays, at a peak frequency of approximately 8-15 minutes during peak commute hours. The western terminus is at the intersection of Palawan Way/Washington Boulevard in Marina Del Rey. The eastern terminus is at the intersection of Paramount Boulevard/Slauson Avenue in Pico Rivera.

- Metro Line 358 - Line 358 is a local, limited stop, east/west line that provides service from Marina Del Rey to Pico Rivera and travels primarily along Mindanao Way, Short Avenue and Centinela Avenue within the study area. This line runs Monday through Friday, at a frequency of 10-20 minutes during peak commute hours. The western terminus is at the intersection of Washington Boulevard and Palawan Way in Marina Del Rey. The eastern terminus is at the intersection of Paramount Boulevard/Slauson Avenue in the City of Pico Rivera.

- Metro Rapid 733 - Line 733 is an east/west 'Rapid Bus' line that provides service from Santa Monica to Downtown Los Angeles and travels primarily along Venice Boulevard within the study area. This line runs Monday through Friday at a frequency of approximately 7-15 minutes during peak commute hours. Service is also provided on weekends and holidays. The western terminus is at the intersection of Ocean Avenue/Santa Monica Boulevard in Santa Monica. The eastern terminus is at the Patsaouras Transit Plaza (Union Station) in Downtown Los Angeles.

- Culver City Bus Line 2 – Line 2 is a local east/west line that provides service from Culver City to Venice and travels primarily along Washington Boulevard, Lincoln Boulevard, Venice Boulevard, Centinela Avenue and Inglewood Boulevard in the vicinity of the study area. This line runs Monday through Friday at a frequency of approximately 60 minutes. Service is not provided on weekends and holidays. The western terminus is at Venice High School in Venice. The eastern terminus is at the Culver City Transit Center near the intersection of Sepulveda Boulevard/Slauson Avenue in Culver City.

- Culver City Bus Line 5 – Line 5 is a local east/west line that provides service from the west side of Culver City to Blair Hills on the east side, and travels primarily along Washington Boulevard, Centinela Avenue, Inglewood Boulevard and Braddock Drive within the study area. This line operates only when school is in session, Monday through Friday from 7:15-7:40 AM and from 2:45-4:05 PM. No weekend or holiday service is provided. It provided westbound/eastbound service from the intersection of Elenda Street/Braddock Drive (Culver City Schools) to the intersection of La Cienega Boulevard/Rodeo Road and eastbound only service from Venice High School (at Maplewood Road) to Culver City Schools.

- Culver City Bus Line 6 – Line 6 is a local north/south line that provides service from Westwood to the Aviation Metro Green Line Station and travels primarily along Sepulveda Boulevard within the study area. This line runs every day at a frequency of approximately 15-20 minutes during peak commute hours. The northern terminus is at the University of California, Los Angeles (UCLA) in Westwood. The southern terminus is at the Aviation Metro Green Line Station near Imperial Highway.

- Culver City Bus Rapid 6 – Culver City Bus Rapid Line 6 is a north/south express line that provides service from Westwood to the Aviation Metro Green Line Station and travels primarily along Sepulveda Boulevard within the study area. This line runs Monday through Friday from 5:45-10:55 AM and 1:35-7:57 PM at a frequency of 15-20 minutes. Service is not provided on weekends and holidays. The northern terminus is at the University of California, Los Angeles (UCLA) in Westwood. The southern terminus is at the Aviation Metro Green Line Station near Imperial Highway.

- Culver City Bus Line 7 – Line 7 is a local east/west line that provides service from Marina Del Rey to Culver City and travels primarily along Lincoln Boulevard, Maxella Avenue, Alla Road and Culver Boulevard within the study area. This line runs Monday through Friday at a frequency of approximately 30 minutes. Service on weekends and holidays is not provided. The western terminus is at Fisherman's Village in Marina Del Rey. The eastern terminus is at the Metro Expo Line Robertson Station in Culver City.

- Culver City Bus Line 16 – Line 16 is a local north/south line that provides service from Marina del Rey through Culver City to West Los Angeles and travels primarily along Washington Boulevard, Wade Street and Lincoln Boulevard in the vicinity of the study area. This line runs Monday through Friday at a peak frequency of approximately 30 minutes. Service is not provided on weekends and holidays. The northern terminus is at the intersection of Bundy Drive/Wilshire Boulevard in West Los Angeles. The southern terminus is at the intersection of Lincoln Boulevard/Mindanao Way in Marina del Rey.

- Santa Monica Big Blue Bus Line 1 – Line 1 is a local east/west line that provides service from Venice to Westwood and travels primarily along Lincoln Boulevard, Walgrove Avenue and Venice Boulevard within the study area. This line runs every day, including holidays, at a frequency of 10 minutes during peak commute hours. The western terminus is at the intersection of Walgrove Avenue/Venice Boulevard. The eastern terminus is at the University of California, Los Angeles (UCLA) in Westwood.

- Santa Monica Big Blue Bus Line 3 – Line 3 is a local north/south line that provides service from Santa Monica to Aviation Metro Green Line Station and travels primarily along Lincoln Boulevard within the study area. This line runs every day, including holidays, at a peak frequency of 18-24 minutes during peak commute hours. The northern terminus is at the intersection of 5th Street/Arizona Avenue in Santa Monica. The southern terminus is at the Metro Green Line Aviation Station near Imperial Highway.

- Santa Monica Big Blue Bus Rapid 3 – Line 3 is a north/south "rapid bus" line that provides service from Santa Monica to Aviation Metro Green Line Station and travels primarily along Lincoln Boulevard within the study area. This line runs Monday through Friday at a peak frequency of approximately 10-12 minutes during peak commute hours. Service is not provided on weekends and holidays. The northern terminus is at the intersection of 5th Street/Arizona Avenue in Santa Monica. The southern terminus is at the Aviation Metro Green Line Station near Imperial Highway.

- Santa Monica Big Blue Bus Line 14 – Line 14 is a local north/south line that provides service from Brentwood to Playa Vista and travels primarily along Centinela Avenue within the study area. This line runs every day, including holidays, at a frequency of approximately 15 minutes during peak commute hours. The northern terminus is at the intersection of San Vicente Boulevard/Gorham Boulevard in Brentwood. The southern terminus is at the intersection of Artisans Way/Centinela Avenue in Playa Vista.

- LADOT Commuter Express Line 437 – Line 437 is a LADOT Commuter Express line that provides service from Downtown Los Angeles to Marina Del Rey and travels primarily along Mindanao Way, Alla Road and Culver Boulevard within the study area. This line runs Monday through Friday and provides service only during peak commute hours. During the morning peak hours, it runs in the eastbound direction only, from Marina Del Rey to Downtown Los Angeles, with a frequency of approximately 17-29 minutes. During the evening peak hours, it runs in the westbound direction only, from Downtown Los Angeles to Marina Del Rey, with a frequency of approximately 30 minutes. Service is not provided during weekday off-peak hours and on weekends and holidays. The western terminus is at the intersection of Pacific Avenue/Washington Boulevard in Marina Del Rey. The eastern terminus is at the intersection of San Pedro Street/Temple Street in Downtown Los Angeles.

These transit lines within the study area are illustrated in Figure 4. It can be observed from Figure 4 that there is a robust transit network serving the study area.

EXISTING BICYCLE FACILITIES

The City of Culver City's *Culver City Bicycle and Pedestrian Master Plan* and City of Los Angeles' *2010 Bicycle Plan* documents the existing and planned bicycle facilities within each respective jurisdiction. Class I Bikeways (Bike Path) provide an exclusive paved right-of-way separated from the street or highway. Class II Bikeways (Bike Lane) provide a striped and signed bike lane for one-way travel on a street or highway. Class III Bikeways (Bike Routes) provide for a shared use of the roadway with posted signage for bicycle use which can include Sharrow pavement markings. In the study area, bicycle facilities are provided on the following roadways:

- Venice Boulevard: Abbot Kinney Boulevard to Arlington Avenue - Bike Lanes
- Washington Boulevard: Pacific Avenue to Lincoln Boulevard - Bike Lanes
- Washington Place: Wade Street to Bentley Avenue - Bike Lanes
- Sepulveda Boulevard: National Boulevard to Venice Boulevard - Bike Lanes
- Sawtelle Boulevard: Washington Place to Braddock Drive - Sharrows or Bike Lanes
- Grand View Boulevard: Palms Boulevard to Venice Boulevard - Bike Lanes
- McLaughlin Avenue: Indianapolis Street to Venice Boulevard - Bike Route
- Culver Boulevard: Elenda Avenue to McConnell Avenue - Bike Path
- Ballona Creek Bike Path

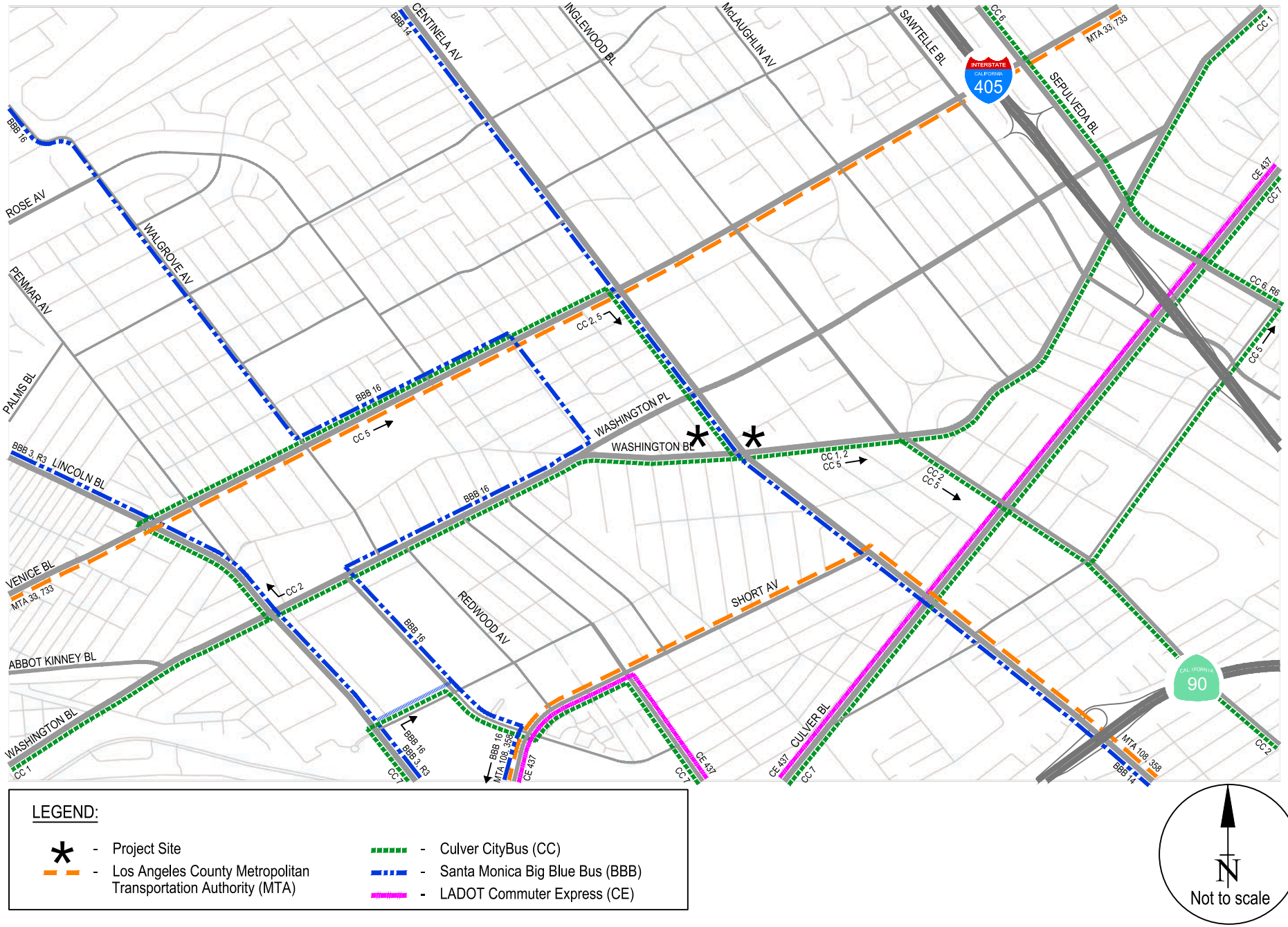

FIGURE 4
EXISTING TRANSIT LINES

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III. PROJECT TRAFFIC PROJECTIONS

In order to properly evaluate the potential impact of the Proposed Project on the local street system, estimates of the Project traffic volumes were developed. The traffic generated by the Proposed Project was estimated and assigned separately to the street system. The addition of Project traffic and existing traffic volumes represents the Existing (2017) plus Project scenario.

PROJECT TRAFFIC VOLUMES

The development of traffic generation estimates for the Proposed Project involves the use of a three-step process: trip generation, trip distribution and traffic assignment.

Project Trip Generation

Implementation of the Proposed Project consists of approximately 15,526 square feet of specialty retail use, 14,680 square feet of quality restaurant use and 5,210 square feet of high-turnover restaurant use. Site A consists of approximately 15,526 square feet of specialty retail use and 14,680 square feet of quality restaurant use. Site B consists of approximately 5,210 square feet of high-turnover restaurant use.

Utilizing the ITE's *Trip Generation Manual*, 9th Edition trip rates, the Proposed Project's trip generation was determined. Table 5 presents details of the Proposed Project's trip generation including type of use, size, applicable rate and trip generation estimates. Other calculations within the tables also provide for trip generation reductions from internal capture and pass-by trips.

From Table 5, it can be observed that the Proposed Project's trip generation would result in a total of approximately 1,802 daily trips of which 58 trips would occur during the morning peak hour and 137 trips during the evening peak hour.

TABLE 5
ESTIMATED PROJECT TRIP GENERATION

	Size	Daily	AM Peak Hour			PM Peak Hour		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Proposed Project - NWC of Centinela Av/Washington Bl								
Specialty Retail	15,526 s.f.	688	11	8	19	18	24	42
Restaurant (Quality)	14,680 s.f.	1,320	6	6	12	74	36	110
Internal Capture (10%)		(201)	(2)	(1)	(3)	(9)	(6)	(15)
Pass-By (25%) Trips*		(452)	(4)	(3)	(7)	(21)	(13)	(34)
Project Net Trip Generation Total		**1,355**	**11**	**10**	**21**	**62**	**41**	**103**
Proposed Project - NEC of Centinela Av/Washington Bl								
Restaurant (High-Turnover)	5,210 s.f.	662	31	25	56	31	20	51
Internal Capture (10%)		(66)	(3)	(3)	(6)	(3)	(2)	(5)
Pass-By (25%) Trips*		(149)	(7)	(6)	(13)	(7)	(5)	(12)
Project Net Trip Generation Total		**447**	**21**	**16**	**37**	**21**	**13**	**34**
Overall Proposed Project								
Specialty Retail	15,526 s.f.							
Restaurant	19,890 s.f.							
Overall Project Net Trip Generation Total		**1,802**	**32**	**26**	**58**	**83**	**54**	**137**
Trip Rates [1]								
Quality Restaurant (ITE Land Use 931)	Trips per 1,000 s.f.	89.95	50%	50%	0.81	67%	33%	7.49
High-Turnover Restaurant (ITE Land Use 932)	Trips per 1,000 s.f.	127.15	55%	45%	10.81	60%	40%	9.85
Specialty Retail (ITE Land Use 826) [2]	Trips per 1,000 s.f.	44.32	60%	40%	1.20	44%	56%	2.71

* Pass-by trips determined after reduction of internal capture.
[1] Trip Generation Manual, 9th Edition, ITE 2012

[2] ITE does not provide AM peak hour trip rates for this use. Therefore, the AM peak hour trip rate from *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region* , SANDAG, April 2002 was utilized.

Project Trip Distribution

The geographic distribution for Project trips was assumed to be the following:

- To and From the North: 30%
- To and From the South: 30%
- To and From the East: 25%
- To and From the West: 15%

Intersection level trip distribution percentages are shown in Figure 5A (Site A) and 5B (Site B). Based on these distribution assumptions, location and points of access of the project driveways, and trip generation estimates from the Proposed Project, traffic estimates of project-only trips were developed. These project-only trips are presented in Figures 6A and 6B.

EXISTING (2017) PLUS PROJECT TRAFFIC VOLUMES

Utilizing the project-only traffic estimates developed for both AM and PM peak hours, traffic forecasts for the Existing (2017) plus Project conditions were developed. The existing (2017) traffic volumes were combined with the project-only traffic volumes to obtain the Existing with Project traffic volume forecasts. The Existing (2017) plus Project traffic volumes during both AM and PM peak hours are presented in Figures 7A and 7B.

FIGURE 5A
PROJECT TRIP DISTRIBUTION - PROJECT SITE ON NWC OF CENTINELA AV/ WASHINGTON BL

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FIGURE 5B
PROJECT TRIP DISTRIBUTION - PROJECT SITE ON NEC OF CENTINELA AV/ WASHINGTON BL

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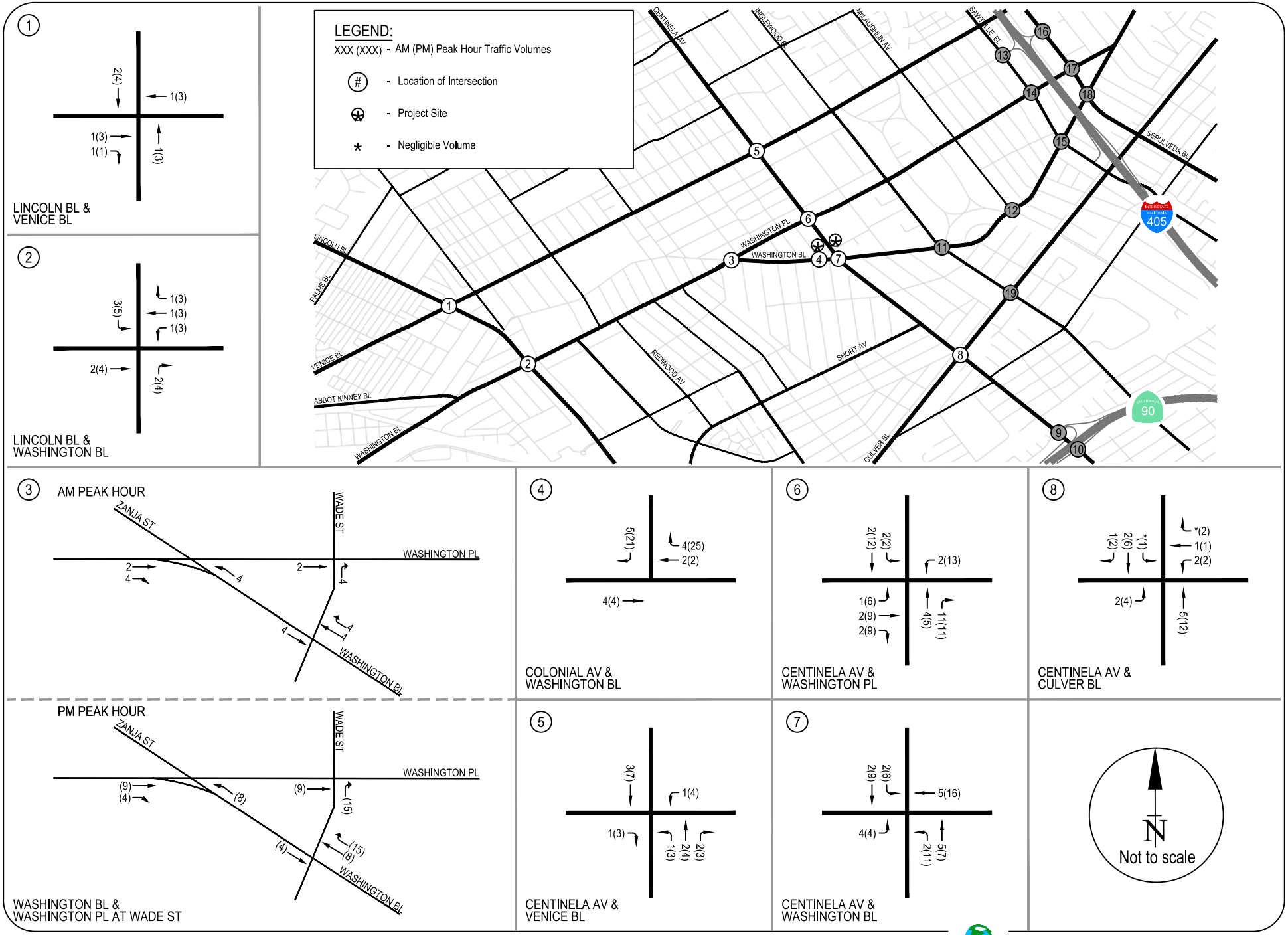

FIGURE 6A
PROJECT ONLY - PEAK HOUR TRAFFIC VOLUMES

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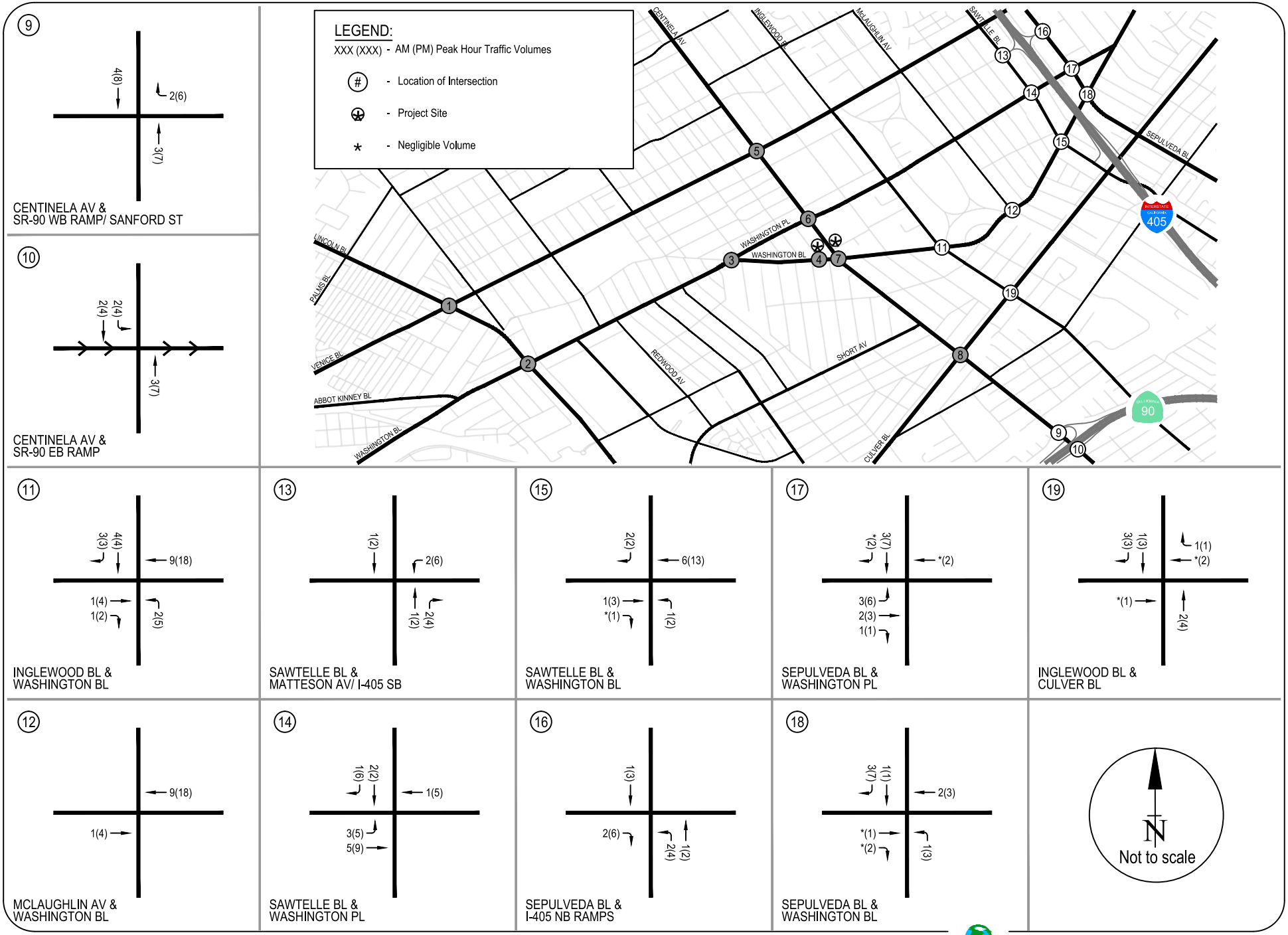

FIGURE 6B
PROJECT ONLY - PEAK HOUR TRAFFIC VOLUMES

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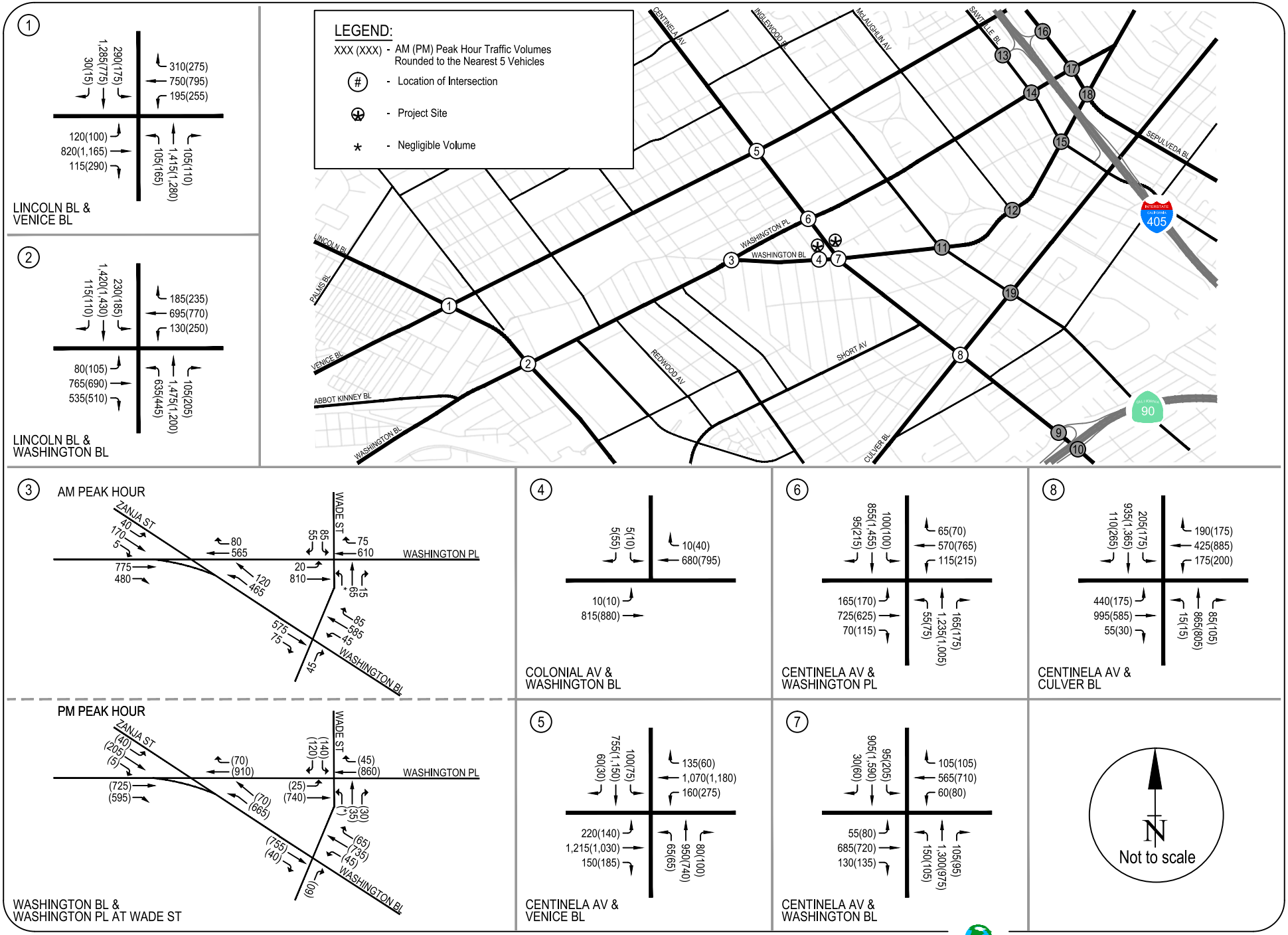

FIGURE 7A
EXISTING (2017) PLUS PROJECT CONDITIONS - PEAK HOUR TRAFFIC VOLUMES

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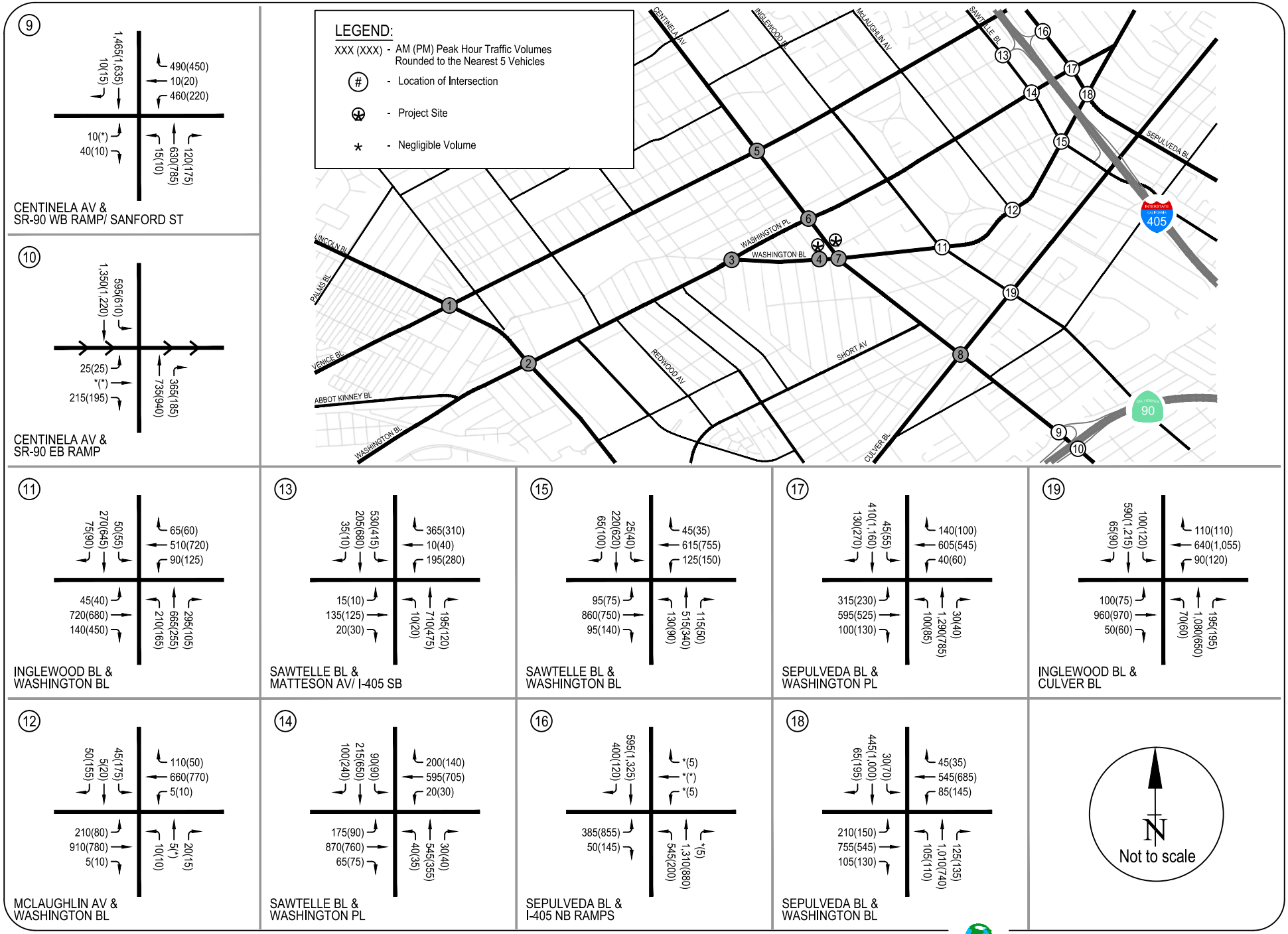

FIGURE 7B
EXISTING (2017) PLUS PROJECT CONDITIONS - PEAK HOUR TRAFFIC VOLUMES

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IV. FUTURE YEAR 2019 TRAFFIC PROJECTIONS

In order to properly evaluate the potential impact of the Proposed Project on the local street system, estimates of the Future Year 2019 traffic volumes both with and without the Project were developed. The Future Year 2019 without the Project was first developed including estimates for background growth in area-wide trip making and trips generated by future developments (related projects) in the vicinity of the study area. The Future (2019) without Project traffic represents the cumulative base conditions. Next, the traffic generated by the Proposed Project was estimated and assigned separately to the street system. The addition of Project traffic and the cumulative base traffic volumes provides traffic volume estimates for the Future Cumulative (2019) plus Project scenario. Each of these future traffic scenarios is described further in this chapter.

CUMULATIVE (2019) BASE TRAFFIC PROJECTIONS

The Cumulative (2019) Base traffic projections reflect growth in traffic from two primary sources: Firstly, the background or ambient growth to reflect the effects of overall area-wide regional growth both within and outside the study area; and secondly, from traffic generated by specific related (cumulative) projects located within, or in the vicinity of, the study area. Each of these components is described below.

Area-wide Ambient Traffic Growth

The traffic in the vicinity of the study area was estimated to increase at a rate of about 1.0% per year per the Memorandum of Understanding. Future increases in background traffic volumes due to regional growth and development are expected to continue at this rate. With the assumed completion date of 2019, the Existing 2017 traffic volumes were adjusted upward by a factor equivalent to 1% per year compounded annually to reflect this area-wide regional growth. The resulting Existing plus Ambient Growth (2019) traffic volumes are illustrated in Figures 8A and 8B.

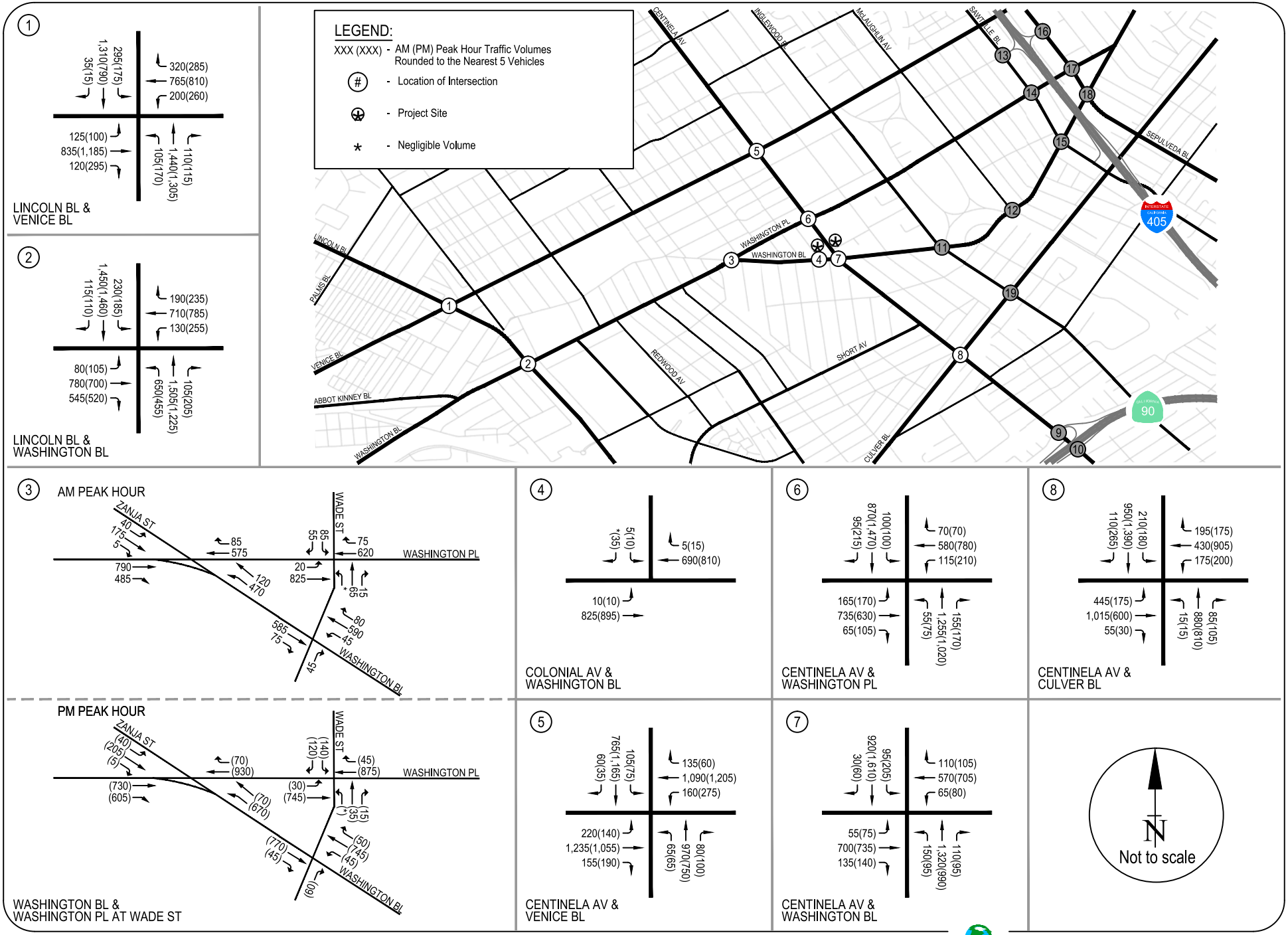

FIGURE 8A
EXISTING WITH AMBIENT GROWTH (2019) CONDITIONS - PEAK HOUR TRAFFIC VOLUMES

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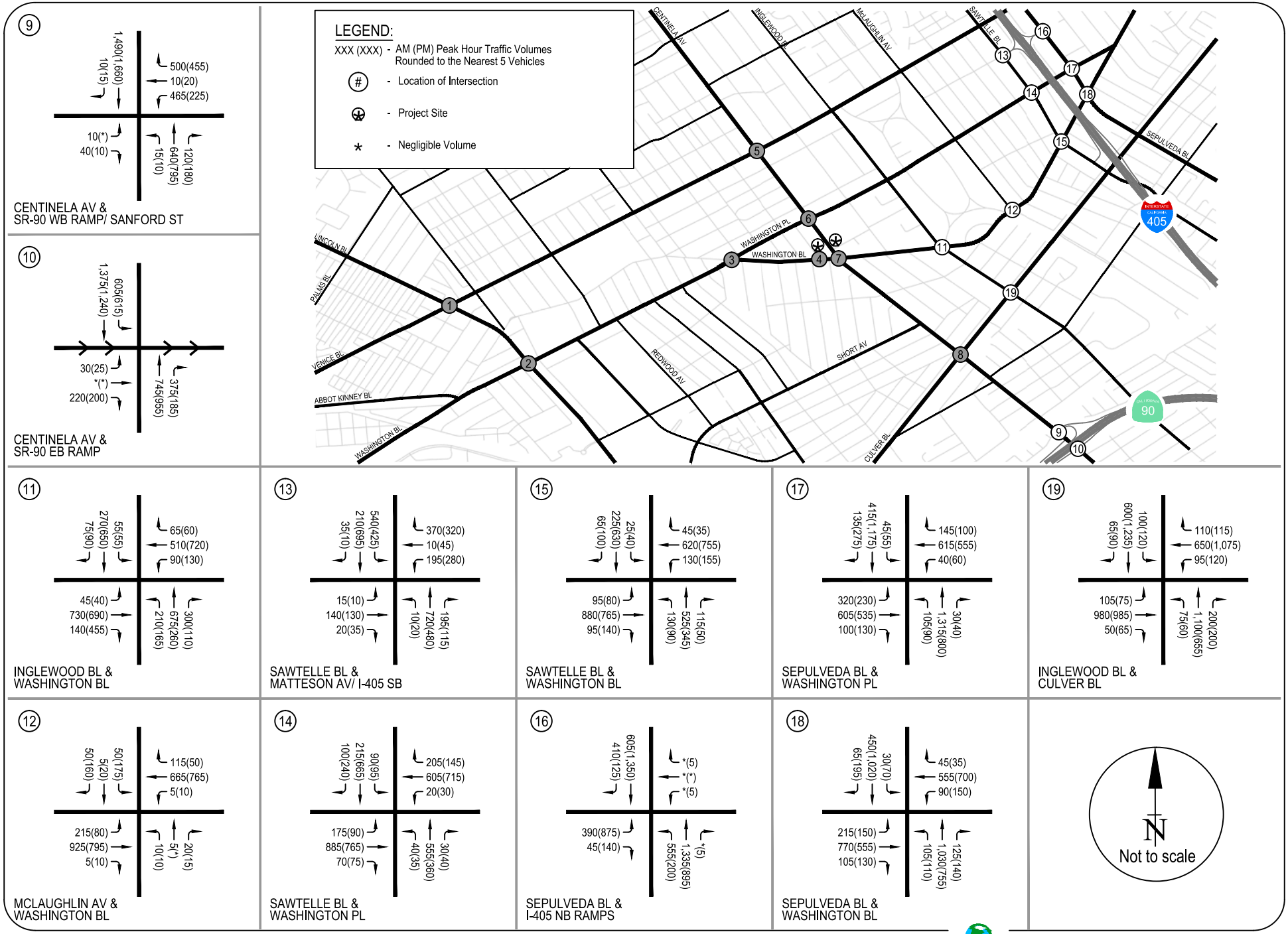

FIGURE 8B
EXISTING WITH AMBIENT GROWTH (2019) CONDITIONS - PEAK HOUR TRAFFIC VOLUMES

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Related Projects Traffic Generation and Assignment

As indicated, the second potential source of traffic growth in the study area is that expected from other future development projects in the vicinity. These related or "cumulative" projects are those developments that are planned and expected to be in place within the same timeframe as the Proposed Project. Data describing related projects in the area was solicited from the City of Culver City and the City of Los Angeles. Fifty-two (52) related projects were identified within the study area and are listed in Table 6. The locations of these projects are shown in Figure 9.

The trip generation estimates for the related projects were based on different sources including trip generation rates contained in the ITE's *Trip Generation Manual*, 9th Edition, trip generation estimates provided by the recently completed traffic studies for projects in Culver City, and trip generation estimates for the related projects within the City of Los Angeles provided by the City of Los Angeles Department of Transportation. The trip generation estimates for the related projects are shown in Table 6. The geographic distribution and the traffic assignment of the related projects were performed and the results are shown in Figures 10A and 10B.

Cumulative (2019) Base Traffic Volumes

The related projects' traffic estimates were added to the Existing plus Ambient Growth traffic to obtain the Cumulative (2019) Base traffic volumes. Figures 11A and 11B provides the Cumulative (2019) Base traffic volumes at each of the analysis intersections during both AM and PM peak hours. These volumes represent Future (2019) Cumulative Base (without project) conditions.

CUMULATIVE (2019) PLUS PROJECT TRAFFIC VOLUMES

Utilizing the project-only traffic estimates developed for both AM and PM peak hours, traffic forecasts for the Future Year 2019 plus Project conditions were developed. The Cumulative (2019) Base traffic forecasts were combined with the project-only traffic volumes to obtain the Future with Project traffic volume forecasts. The Future Year 2019 Cumulative plus Project traffic volumes during both AM and PM peak hours are presented in Figures 12A and 12B.

TABLE 6
ESTIMATED WEEKDAY TRIP GENERATION OF RELATED PROJECTS

Map No.	Project Name	Location	Description	Daily	AM Peak Hour			PM Peak Hour		
					IN	OUT	TOTAL	IN	OUT	TOTAL
City of Culver City [1]										
1	Arora Condominium Project	3837 Bentley Avenue	3 new condominium dwelling units, resulting in 2 net new dwellings.	12	0	1	1	1	0	1
2	Bentley Condos	3873 Bentley Avenue	3 new condominium dwelling units, resulting in 2 net new dwellings.	12	0	1	1	1	0	1
3	Radisson (Entrada) Office Project	6161 W. Centinela Avenue	342,409 s.f. of commercial office use.	3,442	442	60	502	79	383	462
4	Union 76 Gas Station	10638 Culver Boulevard	2,676 s.f. gas station and convenience store	651	21	20	41	9	45	54
5	The Wende Museum	10808 Culver Boulevard	Tenant improvements to convert existing 12,596 s.f. armory building into a museum.	57	4	1	5	0	8	8
6	Globe Housing Project	4044-4068 Globe Avenue	A total of 10 new, for sale, residential dwelling units on currently vacant land. The site was previously developed with 7 single family homes.	29	1	1	2	2	1	3
7	Grandview Apartments	4025 Grand View Boulevard	New 36 townhome rental units. Previous/existing use includes 20 mobile home units.	109	1	6	7	6	1	7
8	Orchard Supply Hardware	11441 Jefferson Boulevard	Addition of 12,163 s.f. to an existing 19,057 s.f. commercial space used as a retail office supply store, to be used as a home improvement store, within an existing 34,438 s.f. multi-tenant commercial building, and conversion of an existing 5,139 s.f. paint store into a nursery area.	1,727	27	16	43	70	76	146
9	Boutique Hotel	11469 Jefferson Boulevard	Demolition of 12,958 sq. ft. commercial shopping center. New 5-story hotel of 144 rooms with restaurant and outdoor dining.	1,284	56	40	96	49	52	101
10	Westside Bake and Tires	4215 Sepulveda Boulevard	Convert existing 2,068 s.f. retail building into auto repair facility with three service bays.	70	3	2	5	5	2	7
11	Harbor Freight [2]	4545 Sepulveda Boulevard	Renovation of 28,534 s.f. of former ice rink into a two tenant commercial space including home retail outlet.	1,190	16	13	29	45	51	96
12	HB Dental	5450 Sepulveda Boulevard	New 14,800 s.f. commercial/retail building.	1,962	30	19	49	80	87	167
13	Shell Car Wash [3]	11224 Venice Boulevard	New 3,150 s.f. commercial building, which includes a 2,285 s.f. convenience store and 864 s.f. automated car wash facility.	1,092	16	15	31	18	16	34
14	Sony Pictures	10202 Washington Boulevard	New 8-story, 218,450 s.f. office building, a new 4-story, 51,716 s.f. Production Services support building, and expansion of an existing parking structure. Total demolition of 57,642 s.f. Net New square feet is 212,524 s.f.	2,328	308	42	350	54	262	316
15	Sony Pictures	10202 Washington Boulevard	New 22,929 s.f. 4- story office building (net new 9,758 s.f.).	109	13	2	15	3	12	15
16	Culver Center Shopping Center - New Restaurant	10799 Washington Blvd	New 2,000 sq. ft. restaurant at existing commercial shopping center	254	12	10	22	12	8	20
17	Auto Dealership Expansion	11215 Washington Boulevard	5,492 s.f. addition to Mazda Dealership.	177	8	3	11	6	8	14
18	Culver City Christian School	11828 Washington Boulevard	Private school with grades K-8th for approximately 128 students.	317	63	41	104	9	13	22
19	Pennylane Mixed-Use Project [4]	11924-11960 Washington Boulevard	Mixed Use with 3,750 s.f. of restaurant, 11,250 s.f. of specialty retail and 98 for lease dwelling units. Previous use includes 26,445 s.f. of commercial uses.	1,481	21	47	68	66	46	112
20	Marcasel Mixed-Use Project [5]	11957 Washington Boulevard	Mixed-Use Project with 30 d.u. and 8,682 s.f. Retail.	590	14	13	27	21	21	42
21	Office Project	12038 Washington Boulevard	New 2,685 s.f. office building.	30	4	0	4	1	3	4
22	Kayvon Mixed-Use Project	12712-12718 Washington Boulevard	New 4-story mixed-use building with 5 for lease residential units, 3,308 s.f. retail, and subterranean parking. Approximately 2,340 s.f. existing/previous commercial uses.	179	2	3	5	8	8	16
23	Baldwin Site Mixed-Use Project	12803 Washington Boulevard	Mixed-use project consisting of 27 dwelling units and 7,293 s.f. of retail.	1,525	23	26	49	71	66	137
24	Washington/Tivoli Mixed-Use Project	13112-13114 Washington Boulevard	Construction of 1,536 s.f. retail/restaurant, 3,702 s.f. of office and 2 for-lease residential dwelling units.	265	14	10	24	11	11	22
25	Costco Expansion [6]	13463 Washington Boulevard	A 31,023 s.f. expansion of an existing 142,152 s.f. retail warehouse and demolition of an existing 63,213 s.f. grocery store/supermarket. Addition of two fuel pumps at existing fueling station.	-4,354	-205	-186	-391	-244	-233	-477
26	Gas Station Car Wash [7]	11197 Washington Place	Conversion of existing vehicle repair and mini-mart into drive-through car wash and construction of new 2,500 s.f. convenience store.	957	44	44	88	35	33	68

TABLE 6 (continued)
ESTIMATED WEEKDAY TRIP GENERATION OF RELATED PROJECTS

Map No.	Project Name	Location	Description	Daily	AM Peak Hour			PM Peak Hour		
					IN	OUT	TOTAL	IN	OUT	TOTAL
27	Commercial Building	11198 Washington Place	New 3,850 s.f. commercial building and 500 s.f. outdoor dining.	881	16	10	26	36	37	73
28	Mixed-Use Project	11281 Washington Place	New 4-story mixed-use project with 4,898 s.f. retail and 14 residential dwelling units.	985	17	14	31	43	43	86
City of Los Angeles [8]										
29	Marina Island Mixed-Use: Apartment & Office	5000 S. Beethoven Street	Mixed-Use: 156-Unit Apartment and 33,484 s.f. Office.	1,406	62	70	132	102	101	203
30	Mixed-Use: Apartment, Mini-Warehouse & Office	4040 S. Del Rey Avenue	New 195-Unit Apartment; 15,000 sf Office & 80,000 s.f. Mini-Warehouse (Option 1) or 235-Unit Apartment & 15,000 s.f. Office (Option 2 Preferred).	931	16	31	47	36	26	62
31	Apartment	4090 S. Del Rey Avenue	51 d.u. apartments	339	5	21	26	23	13	36
32	Apartment	4100 S. Del Rey Avenue	77 d.u. apartments	512	8	31	39	35	19	54
33	Mixed-Use: Condominium & Office	4210 S. Del Rey Avenue	Proposed 136 Condominium Units & 20,000 s.f. Commercial Office.	627	29	42	71	44	41	85
34	Mixed-Use: Apartment & Office	4140 S. Glencoe Avenue	67 d.u. apartments & 3,211 s.f. of office use	481	11	28	39	33	23	56
35	Office [9]	12777 W. Jefferson Boulevard	Commercial Office Expansion (49,950 s.f.).	550	68	9	77	17	83	100
36	Mixed-Use: Condominium & Retail [10]	4363 S. Lincoln Boulevard	Consultation: proposed 10-Story, 80 Condominium Units & 15,100 s.f. Supermarket.	695	11	28	39	42	26	68
37	LMU Master Plan	1 LMU Drive	Increase enrollment capacity to 7,800 students.	2,540	146	30	176	129	128	257
38	Mixed-Use: residential & retail	13488 W. Maxella Avenue	The Villa Marina Mixed-Use: 244 Condominium Units and 9,000 s.f. Retail.	896	27	68	95	48	35	83
39	Mixed-Use: Apartment & Automotive Dealership	5748 S. Mesmer Avenue	New 400-Unit Apartment & 250,000 s.f. Automotive Dealership (West LA Hooman) - 5 Auto Dealers.	8,866	350	243	593	475	581	1056
40	Mixed-Use: Apartment & Restaurant	3644 S. Overland Ave.	New Mixed-Use: 92-Unit Apartment & 1,573 sf Restaurant use (110 spaces).	750	13	46	59	39	21	60
41	Mixed-Use: Condominium & Office	4091 S. Redwood Avenue	67 d.u. condominium & 7,525 s.f. commercial office building with 141 parking spaces	391	4	21	25	29	22	51
42	Condominium	11131 Rose Ave	227-unit condominium. Existing 89-unit apartment to be removed	897	9	50	59	55	26	81
43	LADPW Maintenance Yard	3233 Thatcher Avenue	Improve/expansion of the existing LADPW maintenance yard plus addition of 30 new employees to site.	100	12	2	14	2	12	14
44	Residential & Retail	580 Venice Boulevard	(Preliminary) 5-unit residential plus 5,700 s.f. retail space.	1,084	17	12	29	45	47	92
45	Restaurant	1020 W. Venice Boulevard	Proposed House of Pies Sit-Down Restaurant land use (3,895 s.f.).	396	17	16	33	20	13	33
46	Starbucks w/o Drive Thru	12404 Venice Boulevard	2,195 s.f. Starbucks Coffee Shop w/o Drive Thru.	899	61	58	119	23	22	45
47	LAUSD Elementary School	2224 S. Walgrove Avenue	New 567-Student Elementary School (K-5) Immersive Mandarin Language program.	3,400	286	224	510	153	187	340
48	Mixed-use: Apartment, office, retail, and restaurant	10601 Washington Boulevard	126-unit apartment, 23,000 s.f. office, 9,000 s.f. retail, 9,000 s.f. restaurant. Existing 10,000 s.f. office to be removed.	3,007	25	67	92	156	102	258
49	Playa Vista Phase I [11]	Jefferson Boulevard b/t Lincoln Boulevard and Centinela Avenue	Includes 3,246 d.u., 1,570,000 s.f. of office use, 25,000 s.f. of retail use and 65,000 s.f. of community serving use.	28,257	2,464	1,328	3,792	1,541	2,462	4,003
50	Playa Vista Plant Site (Spruce Goose) [11]	Campus Center Drive/Bluff Creek Drive	Includes 1,129,900 s.f of production and staging support and 572,050 s.f. of office use.	n/a	1,456	198	1,654	259	1,267	1,526
51	The Village at Playa Vista (Phase II) [12]	s/o Jefferson Boulevard/Westlawn Avenue	include 2,600 d.u., 175,000 s.f. of office use,150,000 s.f. of retail use, and 40,000 s.f. of community serving uses.	24,220	577	1,049	1,626	1,275	1,027	2,302
County of Los Angeles										
52	Marina Del Rey Local Coastal Plan [13]	Marina del Rey	Development contained within Local Coastal Plan	34,098	622	1,085	1,707	1378	1,125	2,503

[1] Source: Related projects obtained *Culver City Planning Division - Active Projects List October 2016* . Trip generation estimates based on *Trip Generation Manual* , 9th Edition, ITE 2012 , unless noted otherwise.
[2] Trip generation from *Harbor Freight Development Final Report Traffic Impact Analysis* , Kimley Horn and Associates, August 2015.
[3] Trip generation from *Trip Generation for Proposed Gas Station in City of Culver City,* Kimley Horn and Associates, October 2015.
[4] Trip generation from *11960 Washington Boulevard Mixed-Use Project Traffic Impact Analysis* , RBF Consulting, August 2015.
[5] Trip generation from *11957 Washington Boulevard Mixed-Use Project Traffic Impact Analysis* , RBF Consulting, November 2011.
[6] Trip generation from *Culver City Costco Traffic Analysis* , Kittleson and Associates, October 2015.
[7] Trip generation from *Proposed Chevron Service Station Project in City of Culver City* , Kimley Horn and Associates, July 2013.
[8] Source: Los Angeles Department of Transportation. List of related projects and their trip generation totals provided by LADOT, unless noted otherwise. Trip directionality (in%/out%) based on *Trip Generation Manual, 9th Edition, ITE 2012* .
[9] Trip generation from *Traffic Study for the Playa Jefferson Building E Office Project - 12777 Jefferson Boulevard* , Raju Associates, Inc., December 2014.
[10] Trip generation from *Traffic Study for the 4363 Lincoln Boulevard Mixed-Use Project* , Raju Associates, Inc., June 2015.
[11] Source: *Playa Vista Traffic Impact Assessment Culver City Agreement-Third Amendment, Kaku Associates, May 2002* .
[12] Source: *The Village at Playa Vista Transportation Plan, Raju Associates, Inc. and Kaku Associates, July 2003* .
[13] Trip generation from *Traffic Study for the Marina del Rey Local Coastal Program Amendment* , Raju Associates, Inc., April 2010.

FIGURE 9
LOCATION OF RELATED PROJECTS

RAJU Associates, Inc.

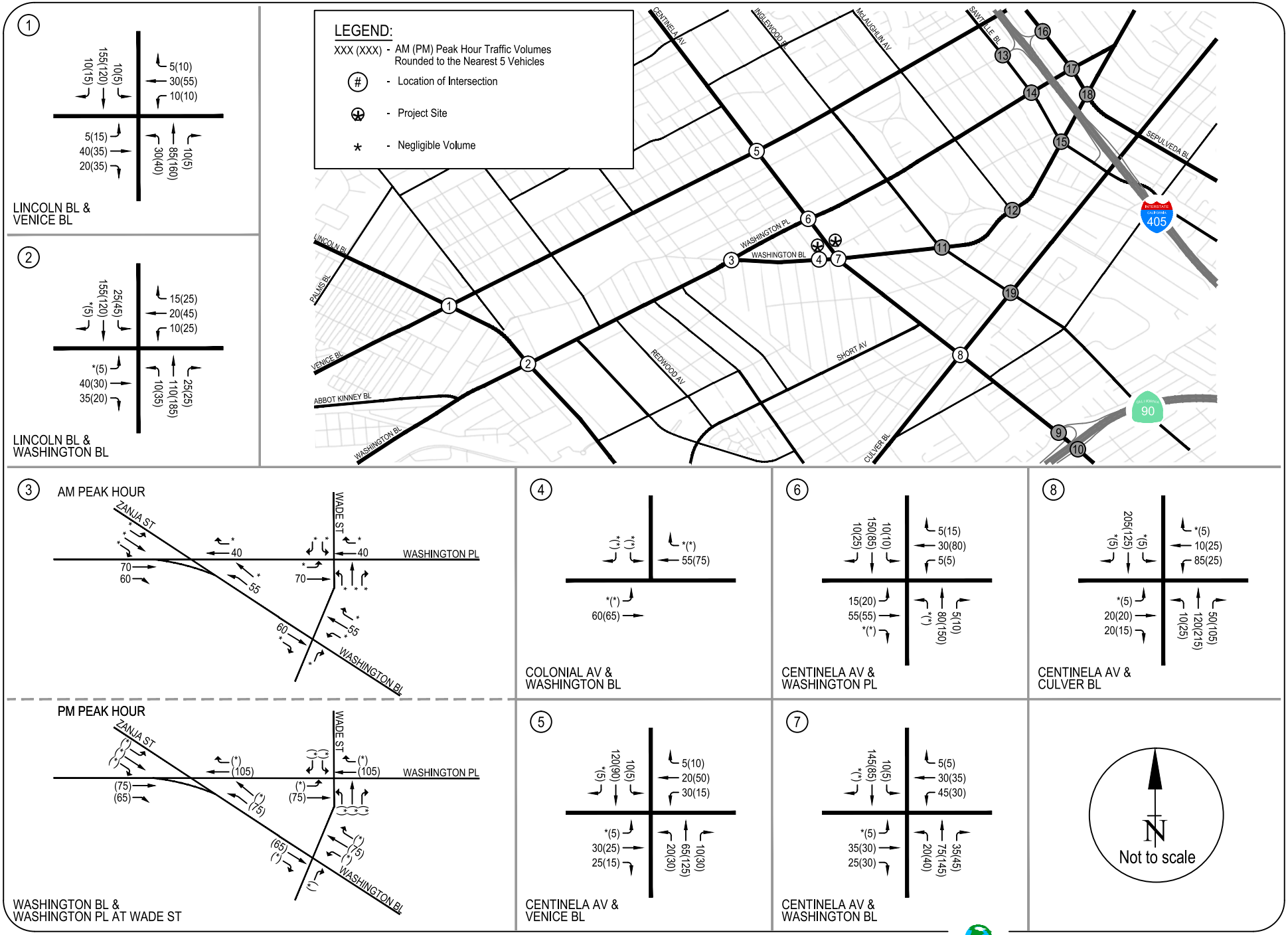


FIGURE 10A
RELATED PROJECTS ONLY - PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

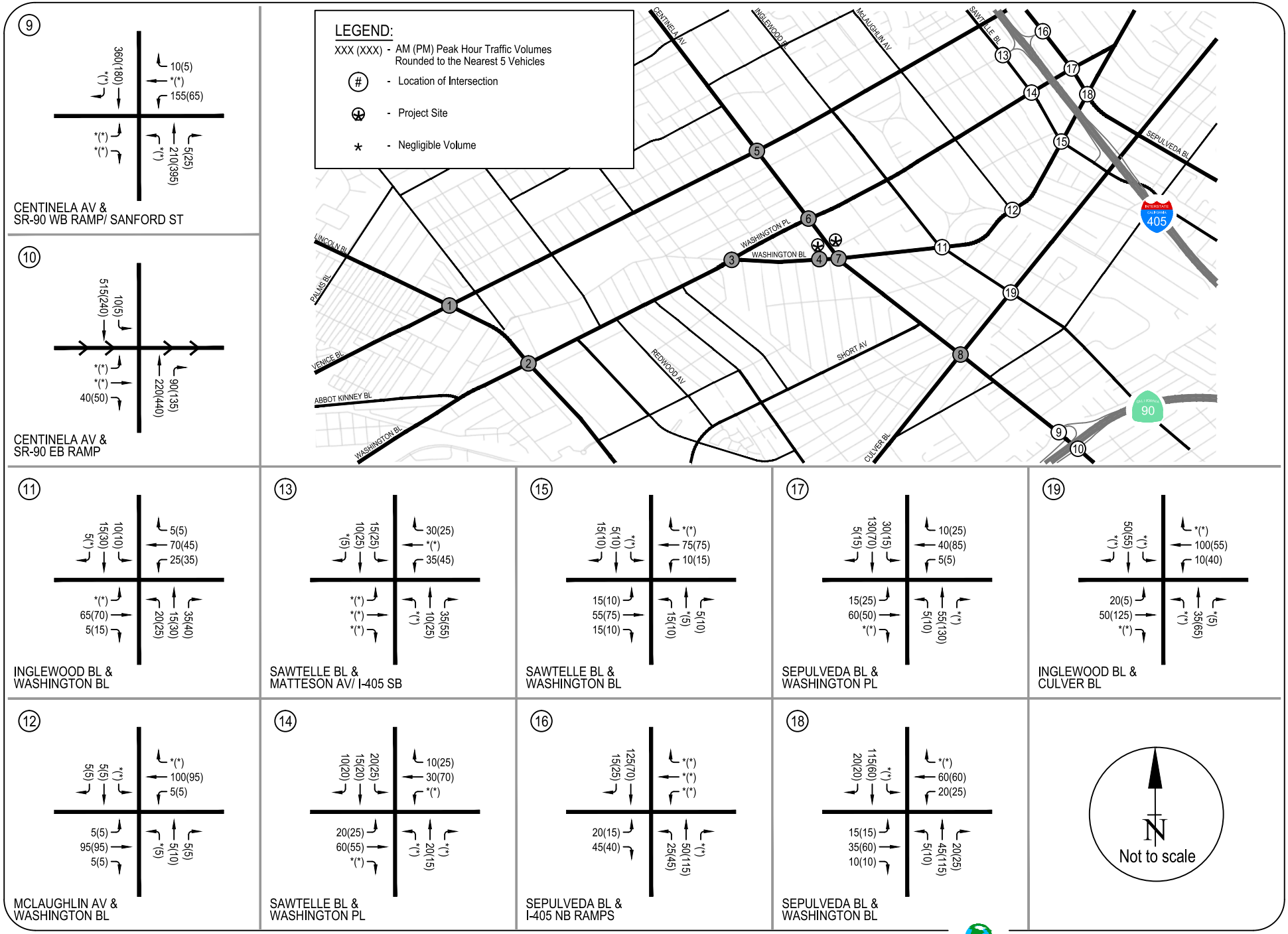


FIGURE 10B
RELATED PROJECTS ONLY - PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

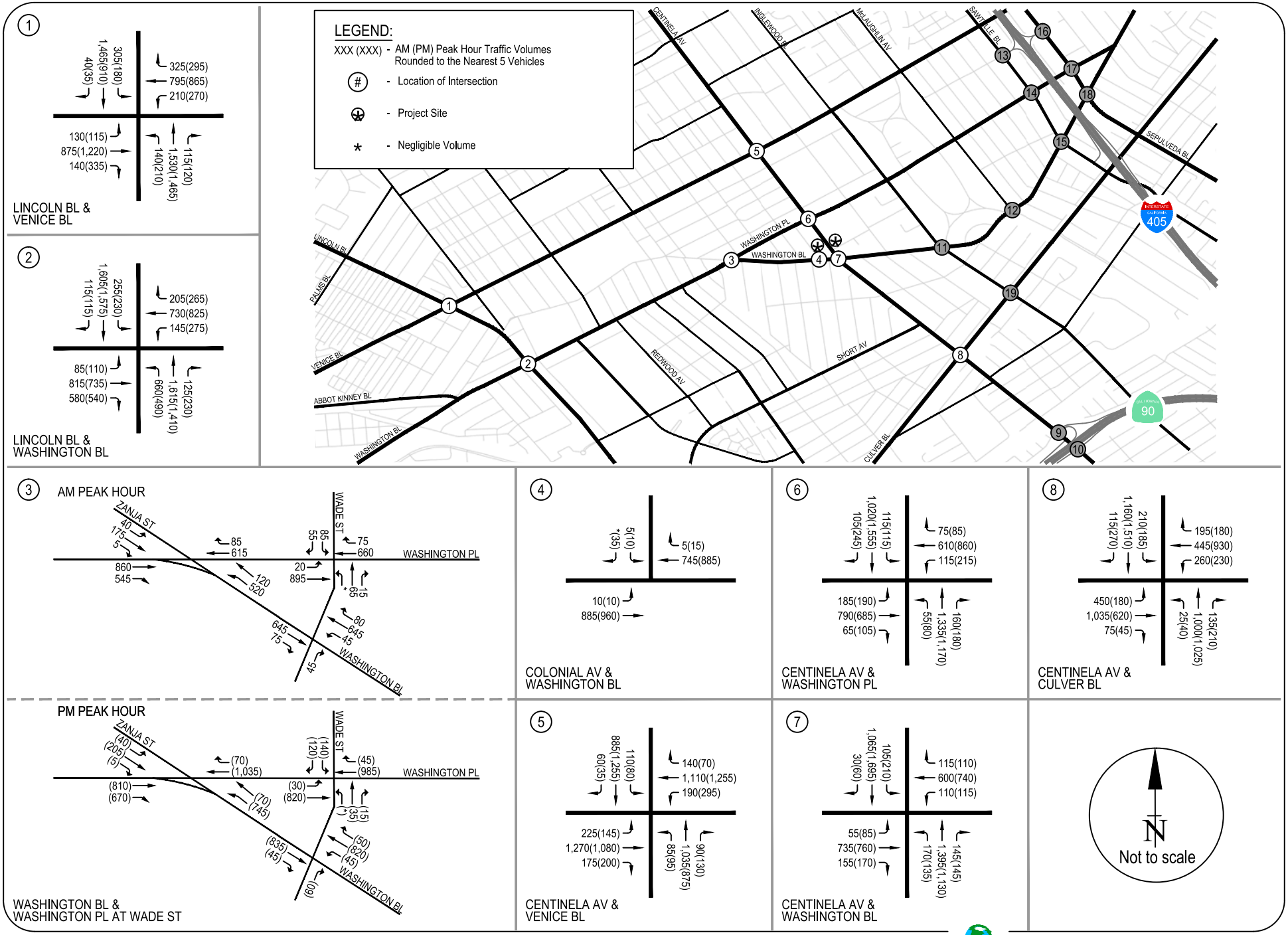


FIGURE 11A
CUMULATIVE (2019) BASE CONDITIONS - PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

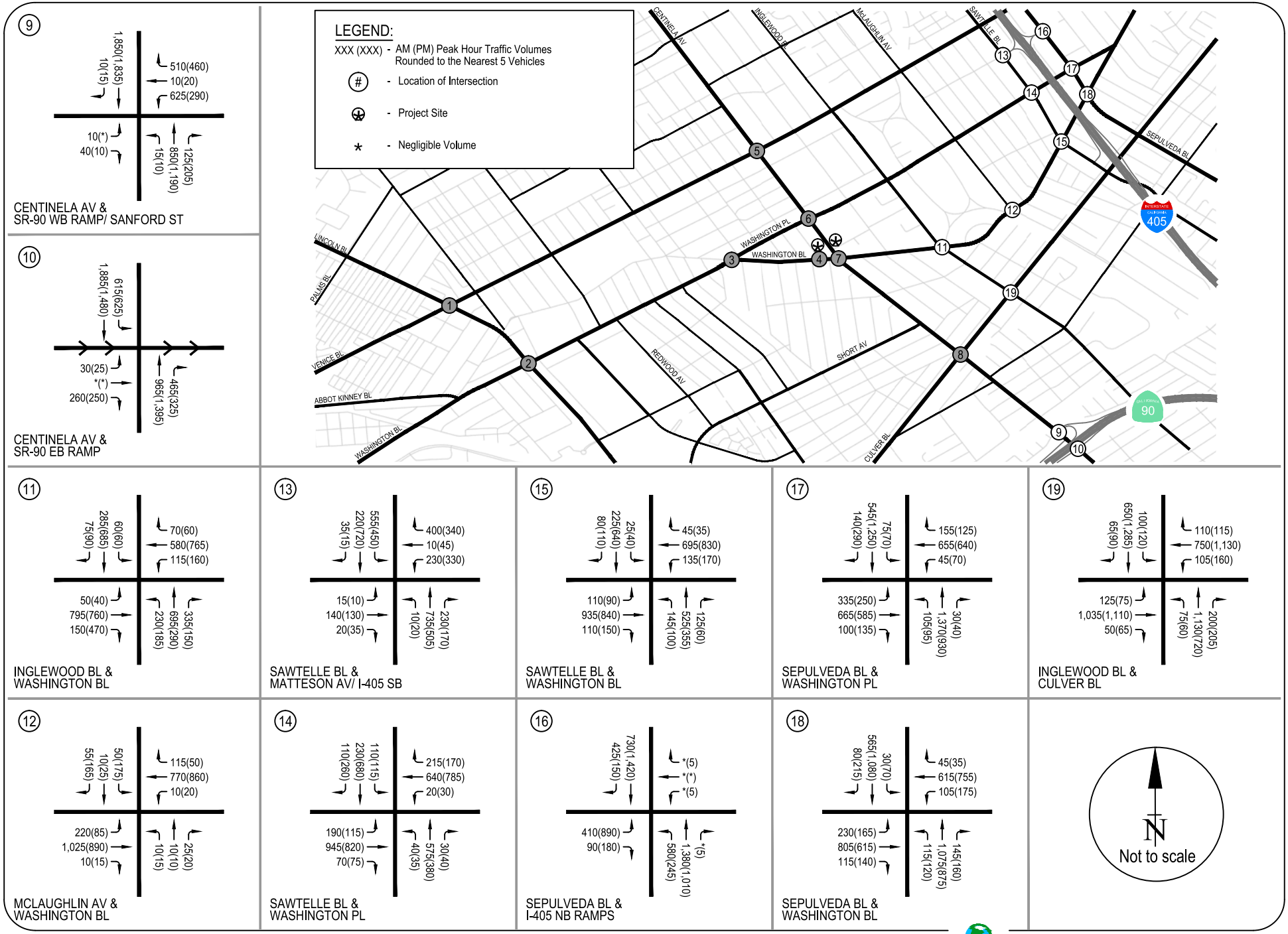


FIGURE 11B
CUMULATIVE (2019) BASE CONDITIONS - PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

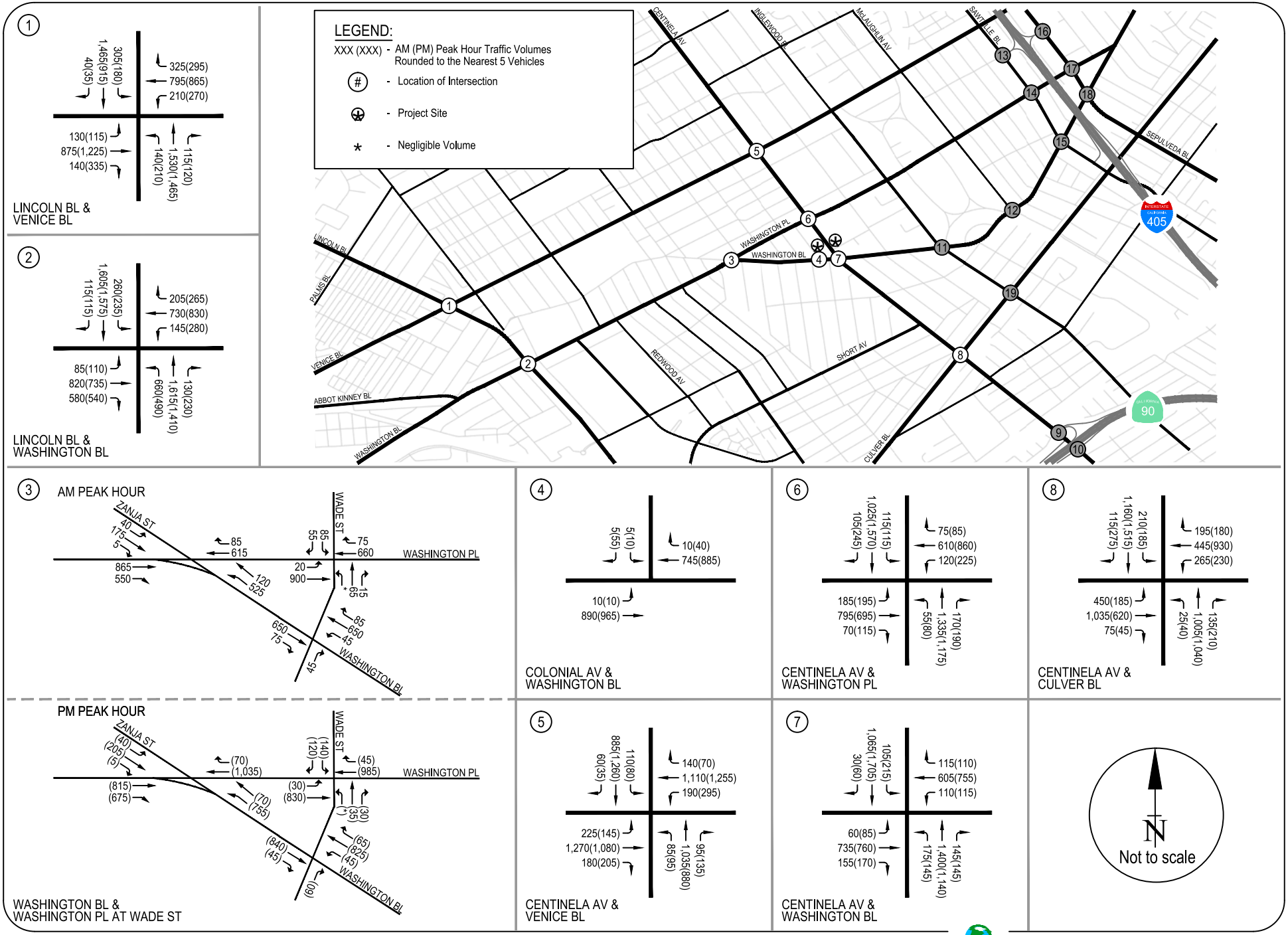


FIGURE 12A
CUMULATIVE (2019) PLUS PROJECT CONDITIONS - PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

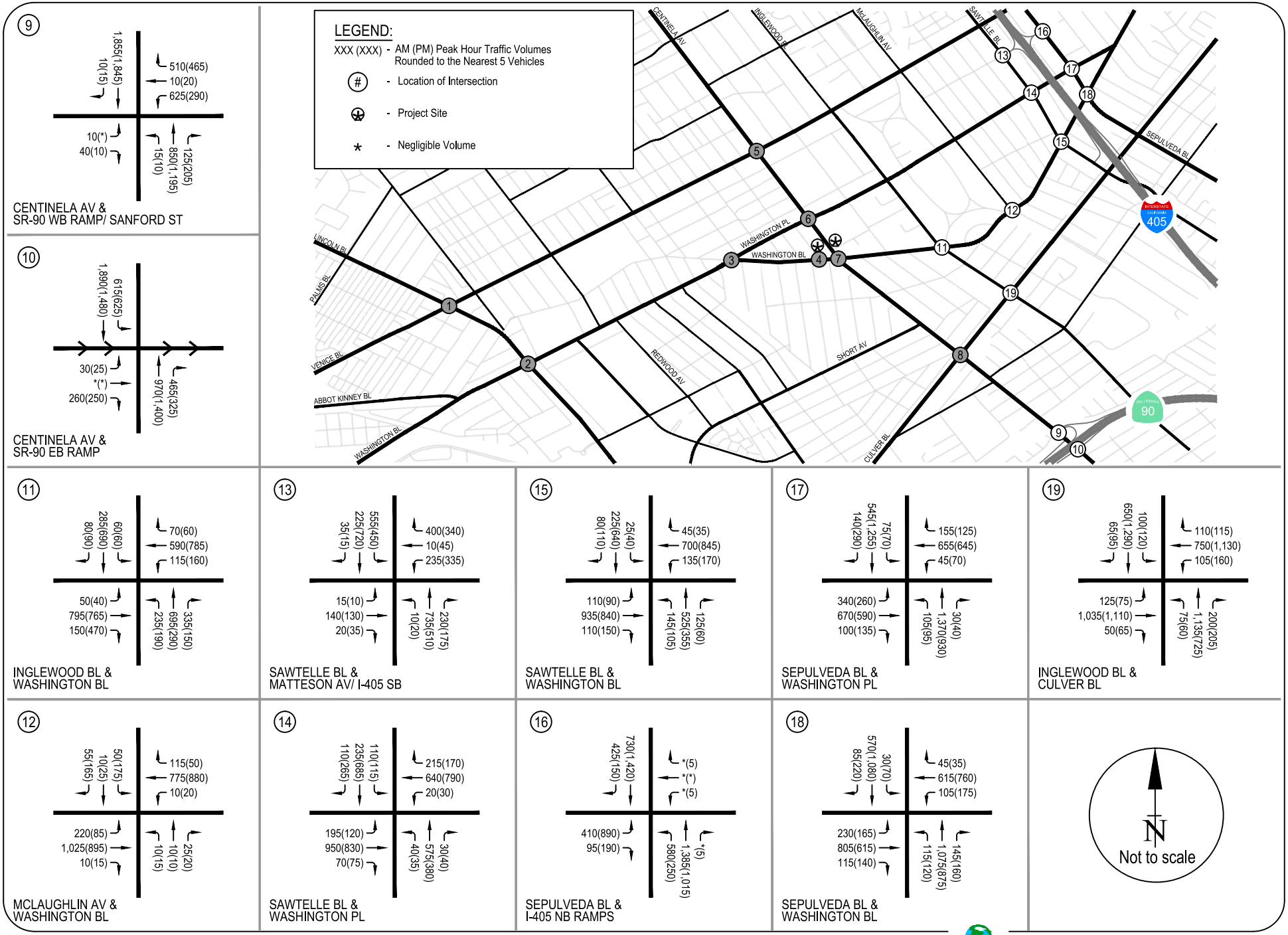


FIGURE 12B
CUMULATIVE (2019) PLUS PROJECT CONDITIONS - PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

V. TRAFFIC CONDITIONS & IMPACT ANALYSIS

The Existing (2017) and Future Year (2019) Cumulative conditions without and with the Project were analyzed utilizing the methodologies and assumptions per the City of Culver City traffic study guidelines. The results were then used to assess the potential impact of the proposed project on the local street system.

The traffic impact analysis compares the volume to capacity (V/C) ratios at each study location under the cumulative base and cumulative plus project conditions to determine the incremental difference in V/C ratios caused by the proposed project. This provides the information needed to assess the potential impact of the project using significance criteria established by the Cities of Culver City and Los Angeles.

SIGNIFICANT TRAFFIC IMPACT CRITERIA

City of Culver City Significant Impact Criteria

For intersections under the City of Culver City jurisdiction, the City of Culver City has established threshold criteria[1] for determining the significance of impacts of a project at a specific location. According to the criteria provided by the City of Culver City, a project impact is considered significant if the following conditions are met:

Intersection Condition With Project Traffic		Project-Related Increase in V/C Ratio
LOS	V/C Ratio	
C	0.701 – 0.800	equal to or greater than 0.050
D	0.801 – 0.900	equal to or greater than 0.040
E, F	> 0.900	equal to or greater than 0.020

Using these criteria, for example, a project would not have a significant impact at an intersection if it is operating at LOS D after the addition of project traffic and the incremental change in the V/C

[1] *Traffic Study Criteria for the Review of Proposed Development Projects within the City of Culver City, July 2012*, City of Culver City Public Works Department/Engineering Division and Community Development Department/Planning Division.

ratio is less than 0.040. However, if the intersection is operating at LOS F after the addition of project traffic and the incremental change in the V/C ratio is 0.020 or greater, the project would be considered to have a significant impact.

City of Los Angeles Significant Impact Criteria

Intersections under the jurisdiction of the City of Los Angeles are evaluated using threshold criteria[2] established by the City of Los Angeles to determine if a project has a significant traffic impact. According to the criteria provided by the City of Los Angeles, a project impact is considered significant if the following conditions are met:

Intersection Condition With Project Traffic		Project-Related Increase in V/C Ratio
LOS	V/C Ratio	
C	0.701 – 0.800	equal to or greater than 0.040
D	0.801 – 0.900	equal to or greater than 0.020
E, F	> 0.900	equal to or greater than 0.010

EXISTING (2017) PLUS PROJECT TRAFFIC CONDITIONS

The Existing (2017) plus Project peak hour traffic volumes were analyzed at each of the study intersections to determine the V/C ratio and corresponding level of service. Table 7 presents the results of the Existing (2017) plus Project traffic analysis. As illustrated in the table, 18 of the 19 study intersections are currently operating at LOS D or better during the morning peak hour. During the evening peak hour, 16 of the 19 study intersections are operating at LOS D or better. The remaining location would operate at LOS E or F and includes:

- Centinela Avenue & Washington Boulevard – PM Peak Hour: LOS E
- Centinela Avenue & Culver Boulevard – AM Peak Hour: LOS E, PM Peak Hour: LOS F
- Sepulveda Boulevard & I-405 Northbound Ramps – PM Peak Hour: LOS E

Capacity calculation worksheets for Existing (2017) plus Project conditions are attached in Appendix D of the report.

[2] *Transportation Impact Study Guidelines, December 2016*, City of Los Angeles Department of Transportation.

TABLE 7
SUMMARY OF INTERSECTION LEVEL OF SERVICE ANALYSIS

No.	Intersection	Peak Hour	Existing (2017) Conditions V/C	Existing (2017) Conditions LOS	Existing (2017) Plus Project Conditions V/C	Existing (2017) Plus Project Conditions LOS	Project Increase in V/C	Significant Project Impact	Cumulative (2019) Base Conditions V/C	Cumulative (2019) Base Conditions LOS	Cumulative (2019) Plus Project Conditions V/C	Cumulative (2019) Plus Project Conditions LOS	Project Increase in V/C	Significant Project Impact
1.	Lincoln Boulevard & Venice Boulevard [1]	AM	0.891	D	0.891	D	0.000	No	0.961	E	0.963	E	0.002	No
		PM	0.857	D	0.859	D	0.002	No	0.952	E	0.955	E	0.003	No
2.	Lincoln Boulevard & Washington Boulevard	AM	0.856	D	0.858	D	0.002	No	0.937	E	0.939	E	0.002	No
		PM	0.801	D	0.804	D	0.003	No	0.884	D	0.887	D	0.003	No
3.	Washington Boulevard & Washington Place at Wade St	AM	0.701	C	0.706	C	0.005	No	0.753	C	0.757	C	0.004	No
		PM	0.883	D	0.885	D	0.002	No	0.956	E	0.958	E	0.002	No
4.	Colonial Avenue & Washington Boulevard [2]	AM	20.2 s	C	21.7 s	C	0.005	No	22.8 s	C	24.4 s	C	0.005	No
		PM	15.6 s	C	16.8 s	C	0.019	No	17.3 s	C	18.4 s	C	0.019	No
		AM	0.446	[3]	0.451	[3]	-	-	0.477	[3]	0.482	[3]	-	-
		PM	0.502	[3]	0.521	[3]	-	-	0.538	[3]	0.557	[3]	-	-
5.	Centinela Avenue & Venice Boulevard [1]	AM	0.798	C	0.800	C	0.002	No	0.854	D	0.856	D	0.002	No
		PM	0.809	D	0.816	D	0.007	No	0.899	D	0.907	E	0.008	No
6.	Centinela Avenue & Washington Place	AM	0.790	C	0.797	C	0.007	No	0.857	D	0.864	D	0.007	No
		PM	0.892	D	0.897	D	0.005	No	0.976	E	0.981	E	0.005	No
7.	Centinela Avenue & Washington Boulevard	AM	0.821	D	0.823	D	0.002	No	0.922	E	0.925	E	0.003	No
		PM	0.918	E	0.926	E	0.008	No	1.025	F	1.035	F	0.010	No
8.	Centinela Avenue & Culver Boulevard	AM	0.904	E	0.908	E	0.004	No	1.012	F	1.015	F	0.004	No
		PM	1.012	F	1.019	F	0.007	No	1.110	F	1.117	F	0.007	No
9.	Centinela Avenue & SR-90 Westbound Ramps	AM	0.515	A	0.516	A	0.001	No	0.651	B	0.652	B	0.001	No
		PM	0.461	A	0.466	A	0.005	No	0.529	A	0.533	A	0.004	No
10.	Centinela Avenue & SR-90 Eastbound Ramps	AM	0.537	A	0.538	A	0.001	No	0.744	C	0.744	C	0.000	No
		PM	0.490	A	0.493	A	0.003	No	0.643	B	0.647	B	0.004	No
11.	Inglewood Boulevard & Washington Boulevard	AM	0.756	C	0.757	C	0.001	No	0.823	D	0.824	D	0.001	No
		PM	0.819	D	0.826	D	0.007	No	0.913	E	0.919	E	0.006	No
12.	McLaughlin Avenue & Washington Boulevard	AM	0.466	A	0.469	A	0.003	No	0.517	A	0.520	A	0.003	No
		PM	0.554	A	0.560	A	0.006	No	0.607	B	0.613	B	0.006	No
13.	Sawtelle Boulevard & Matteson Avenue/I-405 SB Ramps	AM	0.781	C	0.784	C	0.003	No	0.841	D	0.843	D	0.002	No
		PM	0.843	D	0.848	D	0.006	No	0.933	E	0.937	E	0.004	No
14.	Sawtelle Boulevard & Washington Place	AM	0.584	A	0.585	A	0.001	No	0.631	B	0.633	B	0.002	No
		PM	0.633	B	0.637	B	0.004	No	0.700	B	0.707	C	0.007	No
15.	Sawtelle Boulevard & Washington Boulevard	AM	0.659	B	0.659	B	0.000	No	0.704	C	0.706	C	0.002	No
		PM	0.692	B	0.695	B	0.003	No	0.756	C	0.760	C	0.004	No
16.	Sepulveda Boulevard & I-405 Northbound Ramps	AM	0.707	C	0.709	C	0.002	No	0.796	C	0.797	C	0.001	No
		PM	0.916	E	0.922	E	0.006	No	1.003	F	1.009	F	0.006	No
17.	Sepulveda Boulevard & Washington Place	AM	0.855	D	0.857	D	0.002	No	0.928	E	0.930	E	0.002	No
		PM	0.838	D	0.845	D	0.007	No	0.929	E	0.936	E	0.007	No
18.	Sepulveda Boulevard & Washington Boulevard	AM	0.725	C	0.725	C	0.000	No	0.785	C	0.785	C	0.000	No
		PM	0.785	C	0.790	C	0.005	No	0.860	D	0.865	D	0.005	No
19.	Inglewood Boulevard & Culver Boulevard	AM	0.788	C	0.789	C	0.001	No	0.843	D	0.844	D	0.001	No
		PM	0.808	D	0.811	D	0.003	No	0.897	D	0.900	D	0.003	No

V/C - Volume to Capacity Ratio; LOS - Level of Service
[1] Los Angeles County Congestion Management Program monitoring location.
[2] Unsignalized intersection - stop-controlled on minor approach. Worst case approach delay (in seconds) reported.
[3] V/C ratio was calculated, based on signalized LOS methodology, to determine project impacts.

CUMULATIVE (2019) BASE TRAFFIC CONDITIONS

The Cumulative (2019) Base without proposed project peak hour traffic volumes were analyzed at each of the study intersections to determine the V/C ratio and corresponding level of service. Table 7 presents the results of the Year 2019 Cumulative Base (without project) traffic analysis. As indicated in the table, 14 of the 19 analyzed intersections are projected to operate at LOS D or better during the morning peak hour. During the evening peak hour, 10 of the 19 analyzed intersections are projected to operate at LOS D or better. Eleven of the 19 intersections are projected to be operating at LOS E or F during the morning and/or evening peak hours and include the following:

- Lincoln Boulevard & Venice Boulevard – AM and PM Peak Hours: LOS E
- Lincoln Boulevard & Washington Boulevard – AM Peak Hour: LOS E
- Washington Boulevard & Washington Place at Wade Street – PM Peak Hour: LOS E
- Centinela Avenue & Washington Place – PM Peak Hour: LOS E
- Centinela Avenue & Washington Boulevard – AM Peak Hour: LOS E
  PM Peak Hour: LOS F
- Centinela Avenue & Culver Boulevard – AM and PM Peak Hours: LOS F
- Inglewood Boulevard & Washington Boulevard – PM Peak Hour: LOS E
- Sawtelle Boulevard & Matteson Avenue/I-405 SB Ramps – PM Peak Hour: LOS E
- Sepulveda Boulevard & I-405 Northbound Ramps – PM Peak Hour: LOS F
- Sepulveda Boulevard & Washington Place – AM and PM Peak Hours: LOS E

Capacity calculation worksheets for Cumulative (2019) Base conditions are attached in Appendix D of the report.

CUMULATIVE (2019) PLUS PROJECT TRAFFIC CONDITIONS

The Cumulative (2019) Plus Project peak hour traffic volumes were analyzed to determine the V/C ratio and corresponding level of service at each of the analyzed intersections. The results of this analysis are also summarized on Table 7. As in indicated in Table 7, both the morning and evening peak hour operating conditions would be similar to those projected for the Cumulative Base conditions with the exception of the intersection of Centinela Avenue/Venice Boulevard which is projected to operate at LOS E during the evening peak hour under Cumulative plus Project conditions compared to LOS D under Cumulative Base conditions.

Fourteen of the 19 analyzed intersections are projected to operate at LOS D or better during the morning peak hour. During the evening peak hour, 9 of the 19 analyzed intersections are projected to operate at LOS D or better.

Eleven of the 19 intersections are projected to be operating at LOS E or F during the morning and/or evening peak hours and include the following:

- Lincoln Boulevard & Venice Boulevard – AM and PM Peak Hours: LOS E
- Lincoln Boulevard & Washington Boulevard – AM Peak Hour: LOS E
- Washington Boulevard & Washington Place at Wade Street – PM Peak Hour: LOS E
- Centinela Avenue & Venice Boulevard – PM Peak Hour: LOS E
- Centinela Avenue & Washington Place – PM Peak Hour: LOS E
- Centinela Avenue & Washington Boulevard – AM Peak Hour: LOS E
  PM Peak Hour: LOS F
- Centinela Avenue & Culver Boulevard – AM and PM Peak Hours: LOS F
- Inglewood Boulevard & Washington Boulevard – PM Peak Hour: LOS E
- Sawtelle Boulevard & Matteson Avenue/I-405 SB Ramps – PM Peak Hour: LOS E
- Sepulveda Boulevard & I-405 Northbound Ramps – PM Peak Hour: LOS F
- Sepulveda Boulevard & Washington Place – AM and PM Peak Hours: LOS E

Capacity calculation worksheets for Cumulative (2019) plus Project conditions are attached in Appendix D of the report.

PROJECT IMPACTS

Using the specified significant impact criteria, the traffic impacts at the analysis locations were determined. Table 7 identifies the individual impacts during both AM and PM peak hours at each of the analysis locations. It can be observed that the Proposed Project does not cause significant impacts at any of the analyzed intersections under both existing and future conditions. Therefore, no project-specific mitigation measures would be required.

VI. STREET SEGMENT ANALYSIS

This chapter provides an analysis of roadway segments in the vicinity of the Project. This analysis is targeted towards assessment of potential neighborhood traffic intrusion impacts as a result of the Proposed Project.

RESIDENTIAL STREET SEGMENT TRAFFIC IMPACT ANALYSIS

Working closely with the City of Culver City staff, three roadway segment locations were identified for analysis and assessment of conditions with the Project. These street segments include:

- Colonial Avenue, north of South Alley
- Boise Avenue, north of Washington Boulevard
- Wasatch Avenue, north of Washington Boulevard

Existing Street Segment Traffic Volumes

Daily traffic counts were conducted in July 2015 using machine counters. These counts were factored upward 1% per year to reflect existing 2017 conditions. The segment count data for the analyzed segments are included in Appendix C.

Existing daily traffic volumes are summarized in Table 8. As indicated in the table, the existing daily traffic volumes on the analyzed street segments are as follows:

1. Colonial Avenue, north of South Alley – 402 ADT
2. Boise Avenue, north of Washington Boulevard – 1,055 ADT
3. Wasatch Avenue, north of Washington Boulevard – 532 ADT

TABLE 8
RESIDENTIAL STREET TRAFFIC ANALYSIS

Street Segment	Time Period	Two-Way Traffic Volume				Project % Increase	Significant Impact
		Existing (2017) Conditions	Cumulative (2019) Base Conditions	Project Traffic	Cumulative (2019) Plus Project		
Colonial Avenue	ADT	402	410	0	410	0%	No
north of South Alley	AM	18	18	0	18	0%	No
	PM	41	42	0	42	0%	No
Boise Avenue	ADT	1,055	1,076	0	1,076	0%	No
north of Washington Boulevard	AM	62	63	0	63	0%	No
	PM	90	92	0	92	0%	No
Wasatch Avenue	ADT	532	543	0	543	0%	No
north of Washington Boulevard	AM	34	35	0	35	0%	No
	PM	53	54	0	54	0%	No

Cumulative (2019) Base - Street Segment Traffic Volumes

Future daily traffic volumes were projected for the residential streets in a manner similar to that used for the intersections described earlier. Firstly, with the assumed completion date of 2019, the existing 2017 traffic volumes were adjusted upward by a factor of 2% (1% per year compounded annually) to reflect this area-wide regional growth. Secondly, from traffic generated by specific cumulative projects located within, or in the vicinity of, the study area was added to the existing plus ambient growth traffic to obtain the Cumulative (2019) Base traffic volumes. The resulting Cumulative (2019) Base street segment daily and peak hour traffic volumes are summarized in Table 8.

Cumulative (2019) plus Project - Street Segment Traffic Volumes

The Proposed Project as part of its design features would implement neighborhood protection measures that would allow southbound flow of traffic only along Colonial Avenue, just north of the project site and make design provisions along its driveways to prevent traffic from driving through the residential neighborhood north of the project site.

Based on the distribution assumptions (included in Figures 5A and 5B) and the daily trip generation estimates (approximately 1,802 daily trips) for the Proposed Project, daily traffic estimates of project-only trips were developed. It was determined that the Project would not add vehicular trips to the study segments. The Cumulative (2019) plus Project daily traffic volumes resulting from the addition of trips generated by the Proposed Project are shown in Table 8.

Street Segment Significant Impact Criteria

As outlined in the City of Culver City Traffic Study Criteria, the following specific threshold criteria for project impacts to any street segment detailed below were used in this study:

Projected Avenue Daily Traffic (ADT) with Project	Project-Related Increase in Average Daily (ADT) Volume
999 Less	120 or more
1,000 to 1,999	12% or more of final ADT
2,000 to 2,999	10% or more of final ADT
3,000 or more	8% or more of final ADT

Assessment of Significant Impacts

As shown in Table 8, the Proposed Project would not cause increase in traffic on the analyzed roadway segments. The potential impacts of the Proposed Project traffic on the adjacent neighborhood residential streets were assessed using the City of Culver City criteria specified earlier in the chapter. The results of the analysis, which are summarized in Table 8, indicate that the Proposed Project would not have a significant impact on the residential streets in the local neighborhood.

VII. ACCESS AND CIRCULATION EVALUATION

This chapter provides an evaluation of the Project's access and egress and consists of a review of vehicular access/egress driveways and adjacent roadways to ascertain that adequate provisions are provided by the Project.

VEHICULAR ACCESS AND CIRCULATION

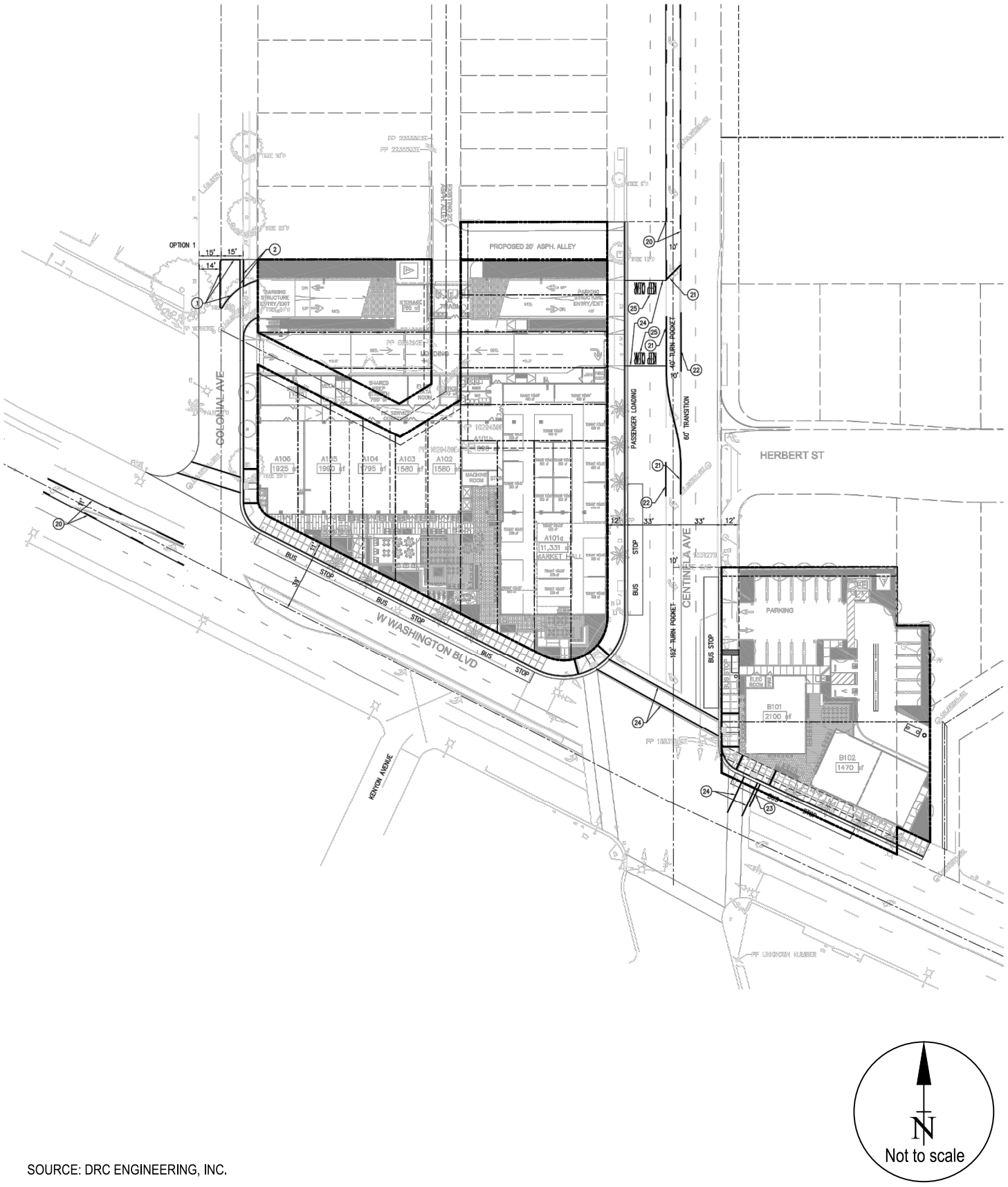
The Proposed Project is located on two sites along the northwest (Site A) and northeast (Site B) corners of the intersection of Centinela Avenue and Washington Boulevard in the City of Culver City. The west project site (Site A) is located on the north side of Washington Boulevard between Colonial Avenue and Centinela Avenue. The east project site (Site B) is located on the north side of Washington Boulevard east of Centinela Avenue.

Project Site A Access and Circulation

Driveways located along Centinela Avenue and Colonial Avenue, both north of Washington Boulevard, would provide access to Project Site A. The Project driveway at Centinela Avenue will provide full access and egress movements. This driveway would be located approximately 250 feet north of the Centinela Avenue/Washington Boulevard intersection.

In order to determine the traffic control at this intersection, traffic signal warrants were conducted for this location and the results indicated no signal warrants were satisfied. Therefore, the Project Driveway/Centinela Avenue intersection would be controlled by a stop-sign at the driveway approach at Centinela Avenue. Centinela Avenue would be uncontrolled at this driveway intersection. The traffic signal warrant sheets are included in Appendix E.

Figure 13 shows the conceptual striping plan along Centinela Avenue and Washington Boulevard. As shown in Figure 13, this location would provide a northbound left-turn lane measuring



SOURCE: DRC ENGINEERING, INC.

FIGURE 13
CONCEPTUAL STRIPING PLAN
CENTINELA AVENUE AND WASHINGTON BOULEVARD

RAJU Associates, Inc.

approximately 40 feet in length. The addition of this northbound left-turn lane at the Project Driveway and Centinela Avenue would result in a 152-foot (approximate) southbound left-turn lane at the intersection of Centinela Avenue and Washington Boulevard along with a 60-foot transition between the northbound left-turn lane at the driveway and the southbound left-turn lane at Washington Boulevard.

A micro-simulation evaluation was performed using Synchro 8 and SimTraffic programs to determine the adequacy of these two left-turn lanes. The results of the micro-simulation indicate that both the northbound left-turn lane at the Centinela Avenue/Project driveway intersection and the southbound left-turn lane at the Centinela Avenue/Washington Boulevard intersection have adequate storage length to accommodate the projected Cumulative (2019) plus Project peak hour traffic volumes. The micro-simulation results and worksheets are included in Appendix F.

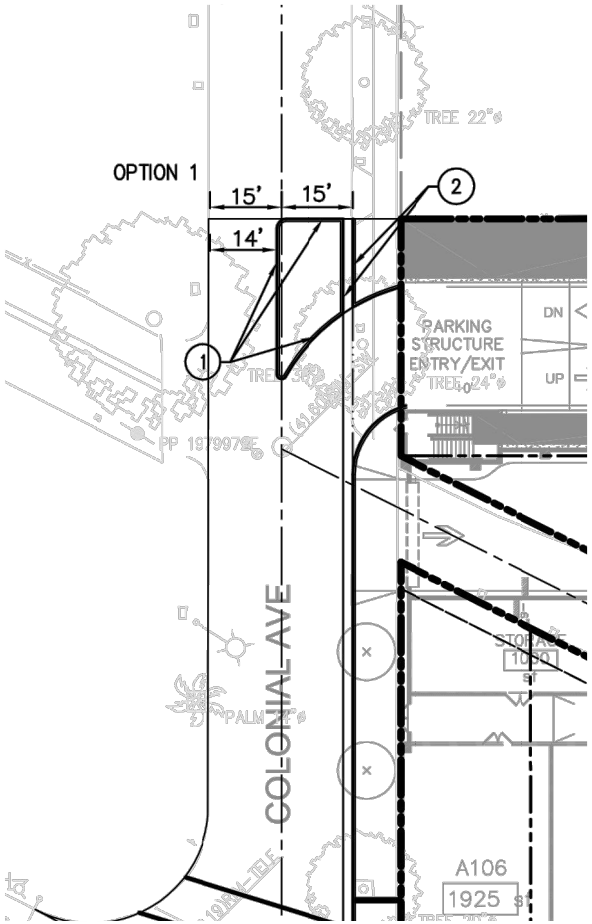
The driveway on Colonial Avenue would provide a right-turn in and a left-turn out driveway to and from the Colonial Avenue roadway to and from the south only. The driveway design to the parking structure would be coordinated with the City to prevent project traffic from using neighborhood streets and alleys. Three alternative design options at the Colonial Avenue driveway to prevent neighborhood traffic intrusion have been developed in conjunction with the City of Culver City staff. These options are shown in Figure 14 and include the following:

1. Option 1 provides for a 15-foot wide median that would extend from the curb adjacent to the Project's driveway to the centerline of Colonial Avenue. This option would prevent northbound traffic on Colonial Avenue north of the Project's driveway. A 14-foot southbound lane would be provided along this section. The Project driveway would be angled/curved so that southbound left-turns into the site and westbound right-turns out of the driveway would be prevented. This option would result in the loss of two on-street parking spaces on the west side of the Colonial Avenue roadway just north of the Project driveway.

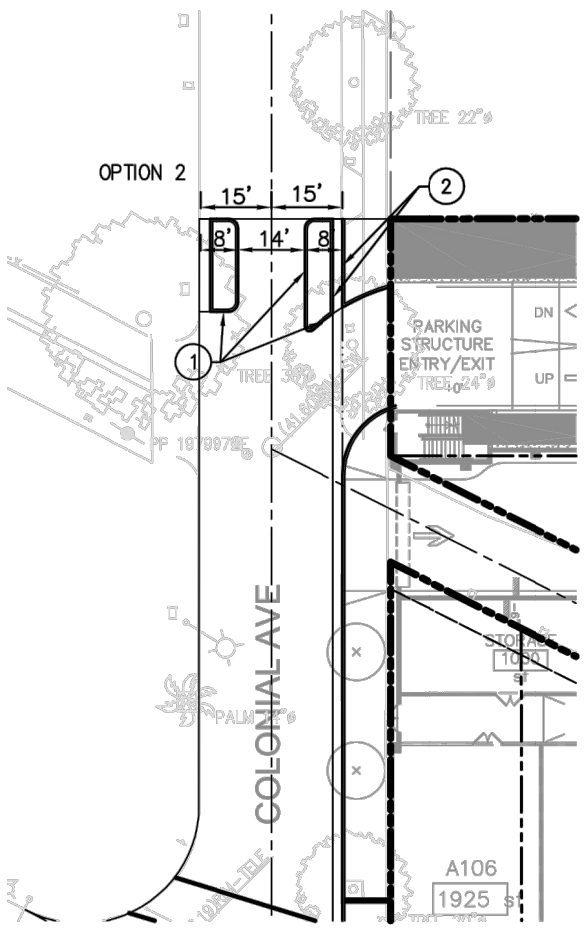
2. Under Option 2, two 8-foot wide mountable curbs would be constructed on both sides of the street just north of the Project driveway. This treatment would result in a single 14-foot southbound-only lane. Northbound traffic would be prohibited north of the Project driveway. The Project driveway would be angled/curved so that southbound left-turns into the site and westbound right-turns out of the driveway would be prevented. This option does not result in any loss of on-street parking.

3. Option 3 would continue to allow northbound traffic (two-way traffic). The Project driveway would be angled/curved so that southbound left-turns into the driveway and westbound right-turns out of the driveway would be prohibited, as shown in Figure 14. This option also does not result in any loss of on-street parking. This is the preferred option. Per the City of

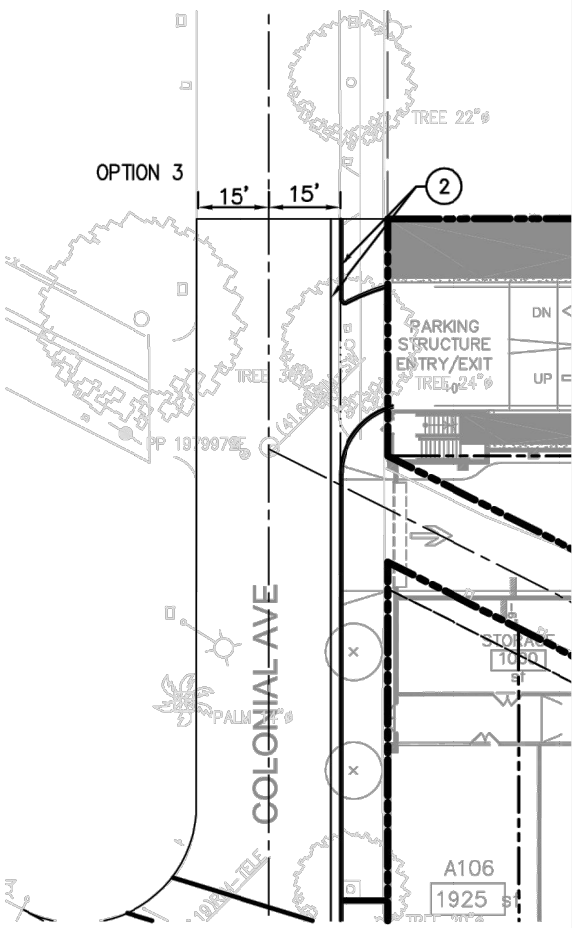
OPTION 1

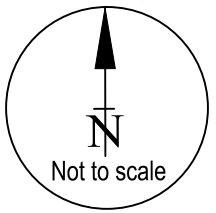


OPTION 2



OPTION 3





SOURCE: DRC ENGINEERING, INC.

FIGURE 14
COLONIAL AVENUE NEIGHBORHOOD INTRUSION REDUCTION OPTIONS

RAJU Associates, Inc.

Culver City's requirements, the following project measures to ensure implementation of the improvements under this preferred option are suggested:

a. The Project shall provide the required improvements to only allow northbound right turn traffic along Colonial Avenue from just south of the Project driveway and westbound left-turn traffic out of the project driveway. The project shall be responsible for the preparation of design plans and to implement the construction of the required improvements to the satisfaction of the City Engineer. No parking spaces will be removed along Colonial Avenue to implement the improvements. The Project shall conduct a traffic study no later than six months "after" 85 percent project occupancy to determine if Option #3 is effective in preventing Project traffic to and from the residential neighborhood along Colonial Avenue. The Project shall obtain before and after-Project traffic counts, speed checks and parking occupancy data to determine the effectiveness of the no-right-turn restriction. If the City Engineer determines that additional measures are necessary to prevent Project traffic from turning right onto Colonial Avenue towards the residential neighborhood, the Project shall be responsible for the design and implementation of those measures.
b. The Project shall be responsible to repave that portion of Colonial Avenue fronting the project to the satisfaction of the City Engineer.
c. The Project shall be responsible to process any alley and street dedications and vacations required for the Project.
d. The Project shall prepare striping plans and implement the restriping of Washington Boulevard to provide a two-way left-turn lane between Colonial Avenue and Chase Avenue.
e. The Project shall be responsible for the preparation of striping plans and the restriping of Centinela Avenue from the Project's main driveway to Washington Boulevard.
f. The Project shall conduct a traffic study no later six months "after" 85 percent project occupancy to determine the amount of left-turn traffic at the main driveway along Centinela Avenue, the amount of eastbound traffic on Washington Boulevard left turning into Colonial Avenue, the amount of southbound traffic left turning out of Colonial Avenue onto Washington Boulevard, and the amount of westbound traffic on Washington Boulevard left turning onto Chase Avenue. The intent of the "after" study would be to ensure safe operations at these locations. The "after" study shall include traffic counts, accident data and observations of traffic during peak times of the day to determine the potential conflict due to these turning movements. Any of these movements may be restricted in the future during peak times based on the findings of the "after" traffic study and the City Engineer's determination. If the City Engineer determines that any additional traffic control measures are necessary as a result of the Project's traffic, the Project shall be responsible for the design and implementation of those measures.
g. Before release of any Certificate of Occupancy, the Applicant, or property owner, shall be required to establish a letter of credit or other financial instrument acceptable to the City Attorney for $100,000 to cover the potential cost of traffic modifications for items a. and f. above. The letter of credit shall remain in place for three years after the final CO was issued, after which time the balance will be returned to the Applicant or property owner.
h. Traffic study fees of $8,600 must be paid before the traffic study is approved.

Project Site B Access and Circulation

Project Site B has one driveway on Centinela Avenue, north of Washington Boulevard, and one driveway on the alley connecting to Washington Boulevard, east of Centinela Avenue. Both driveways would provide right-turns in and out access/egress only.

Truck Loading / Unloading Access and Circulation

A second driveway on Centinela Avenue and a second driveway on Colonial Avenue would provide access to the truck loading area. These driveways would be located just south of the driveways providing access to the loading area. These loading/unloading access driveways would be gate-controlled and would be right in at Colonial Avenue and right out at Centinela Avenue. Delivery trucks would turn right to enter from Colonial Avenue and turn right to exit to Centinela Avenue.

VIII. REGIONAL/CMP ANALYSIS

This section presents the Congestion Management Program (CMP) transportation impact analysis. This analysis was conducted in accordance with the procedures outlined in the *2010 Congestion Management Program for Los Angeles County* (Los Angeles County Metropolitan Transportation Authority, 2010). The CMP requires that when a traffic impact report is prepared for a project, traffic impact analyses be conducted for select regional facilities based on the quantity of project traffic expected to use these facilities.

CMP TRAFFIC IMPACT ANALYSIS

The CMP guidelines for determining the study area for analysis of CMP arterial monitoring intersections and for freeway monitoring locations are as follows:

- All CMP arterial monitoring intersections where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours of adjacent street traffic.
- All CMP mainline freeway monitoring locations where the proposed project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.

The CMP arterial monitoring intersections within three miles from the Project site include the following:

- Lincoln Boulevard/Venice Boulevard (Study Int. 1) – City of Los Angeles jurisdiction
- Centinela Avenue/Venice Boulevard (Study Int. 5) – City of Los Angeles jurisdiction
- Overland Avenue/Venice Boulevard – City of Culver City jurisdiction

Based on the Proposed Project trip generation estimates presented in Chapter III, the Project is not expected to add 50 or more new trips per hour to any of these locations. Therefore, no further analysis of these CMP monitoring intersections would be required. However, two of the CMP arterial monitoring intersections listed above, Lincoln Boulevard/Venice Boulevard and Centinela Avenue/Venice Boulevard have been included in the traffic analysis and it was determined that the Project would not have a significant intersection traffic impact at either of these locations.

The CMP mainline freeway monitoring locations within a three-mile radius from the Project site includes the following:

- Santa Monica Freeway (I-10) east of Overland Avenue
- San Diego Freeway (I-405) north of Venice Boulevard

Based on the incremental Project trip generation estimates, the Proposed Project will not add 150 or more new trips per hour to these locations in either direction. Therefore, no further analysis of CMP freeway monitoring stations is required.

IX. SUMMARY OF CONCLUSIONS

This study was undertaken to assess existing traffic conditions with and without the Proposed Project, estimate future conditions with and without the Proposed Project, analyze potential traffic impacts of the Proposed Project, assess required improvements and identify/recommend project mitigation to alleviate the significant traffic impacts on the transportation system, if needed. Raju Associates, Inc. performed this detailed study and the following summarizes the results of the analysis:

- A total of 19 intersections were analyzed within the study area for this project. The study area is bounded by Venice Boulevard on the north, Marina Expressway (SR-90) on the south, Lincoln Boulevard on the west, and Sepulveda Boulevard on the east.

- Currently, 18 of the 19 analyzed intersection locations are operating at levels of service (LOS) D or better during the morning peak hours and 16 of the 19 analyzed intersection locations are operating at levels of service (LOS) D or better during the evening peak hours.

- In the Cumulative (Future Year 2019) Base conditions, i.e., future conditions without the implementation of the Proposed Project, 14 of the 19 study intersections are projected to operate at LOS D or better during the morning peak hour. During the evening peak hour, 10 of the 19 study intersections are projected to operate at LOS D or better.

- The Proposed Project (Sites A and B) consists of approximately 15,526 square feet of specialty retail use, 14,680 square feet of quality restaurant use and 5,210 square feet of high-turnover restaurant use. The Project is estimated to generate a total of 58 trips during the morning peak hour and 137 trips during the evening peak hour.

- In the Existing (2017) plus Project conditions, both the morning and evening peak hour operating conditions would be similar to those for the Existing Conditions. During the morning peak hour, 18 of the 19 analyzed intersection locations would be operating at levels of service (LOS) D or better. During the evening peak hour, 16 of the 19 analyzed intersection locations would be operating at levels of service (LOS) D or better.

- The Existing (2017) plus Project traffic conditions indicate that the Proposed Project would not cause significant traffic impacts at any of the analysis locations during the weekday morning and evening peak hours.

- In the Cumulative (Future Year 2019) plus Project conditions, both the morning and evening peak hour operating conditions would be similar to those projected for the Cumulative Base conditions. Fourteen of the 19 study intersections are projected to operate at LOS D or better during the morning peak hour. During the evening peak hour, 9 of the 19 study intersections are projected to operate at LOS D or better.

- The Cumulative (Future Year 2019) plus Project traffic conditions indicate that the Proposed Project would not cause significant traffic impacts at any of the analysis locations during both the weekday morning and evening peak hours.

- The Proposed Project would add less than 50 trips to the nearest Congestion Management Program (CMP) arterial monitoring locations and would add less than 150 trips in either direction to the nearest CMP mainline freeway monitoring locations during both the weekday morning and evening peak hours. Per CMP guidelines, no further CMP analysis is required.

- Access and circulation systems were assessed as part of this study. A review of the proposed site plan was also conducted. This review indicates that they would all function adequately.

- In order to protect the residential neighborhood from project traffic intrusion, three options for traffic circulation at the Proposed Project's driveway along Colonial Avenue were evaluated. Option 3, where the Proposed Project would provide the required improvements to allow only northbound Colonial Avenue right-turn traffic (inbound) and westbound driveway left-turn traffic (outbound) at the project driveway, was selected.

Summarizing, the Proposed Project would not cause any significant impacts at any of the analyzed intersections. Therefore, no project-specific mitigation measures would be required.

APPENDIX A

Memorandum of Understanding

Attachment A

Memorandum Of Understanding For Traffic Study

This Memorandum of Understanding (MOU) acknowledges and agrees to all of the City of Culver City requirements and fees for the preparation of a traffic study for the following project:

Project Name: Market Hall Project
Project Address: 12405 Washington Boulevard, Culver City, CA
Project Description: _____GFA Office / _____ GFA Bank
_____ GFA Retail /_____ Residential Units
19,890 s.f _____ GFA Restaurant / 15,526 s.f _ GFA Specialty Retail

* Gross Floor Area (GFA) shall be as defined in the most recent ITE publication.

Project Horizon Year: ___2019__ _____ Ambient Growth Rate: One (1.0) % Per Year
Directional Distribution: N: 30 ___% S: 30% _% E: 25 ___% W: 15 ___%
[Attach map(s) illustrating directional distribution percentages at all intersections and driveways.]
Please see Attachment A.

Trip Generation Rate(s): ITE Latest Edition / Other: **Please see Attachment B.**
Land Use:

	ITE Code #:_____	ITE Code #:_____	
	In / Out	In / Out	Total In / Total Out
AM Trips:	_____ / _____	_____ / _____	_____ / _____
PM Trips:	_____ / _____	_____ / _____	_____ / _____

Use additional pages if necessary.

Prior to the start of any proposed project analysis, the Traffic Consultant shall:

1) Obtain a list of related projects from the City of Culver City Planning Division and from all other affected jurisdictions;
2) Prepare a draft list of "related projects specific to the proposed project"; and **Please see Attachment C.**
3) Obtain written approval from the City of the "related projects specific to the proposed project" list.

Intersections To Be Studied: **19 intersections, please also see Attachment D.**

No.	Intersection:	/ Jurisdiction:
1.	Lincoln Boulevard & Venice Boulevard	/ City of Los Angeles/Caltrans
2.	Lincoln Boulevard & Washington Boulevard	/ City of Los Angeles/Caltrans
3.	Zanja St/Wade St/Washington Bl & Washington Pl	/ Culver City
4.	Colonial Avenue & Washington Boulevard	/ Culver City
5.	Centinela Avenue & Venice Boulevard	/ City of Los Angeles/Caltrans
6.	Centinela Avenue & Washington Place	/ Culver City
7.	Centinela Avenue & Washington Boulevard	/ Culver City
8.	Centinela Avenue & Culver Boulevard	/ City of Los Angeles
9.	Centinela Avenue & Sanford/SR-90 WB Ramps	/ City of Los Angeles/Caltrans
10.	Centinela Avenue & SR-90 EB Ramps	/ City of Los Angeles/Caltrans
11.	Inglewood Boulevard & Washington Boulevard	/ Culver City
12.	McLaughlin Avenue & Washington Boulevard	/ Culver City

13. Sawtelle Boulevard & Matteson St/I-405 SB Ramps / Culver City/Caltrans
14. Sawtelle Boulevard & Washington Place / Culver City
15. Sawtelle Boulevard & Washington Boulevard / Culver City
16. Sepulveda Boulevard & I-405 NB On-Off Ramps / Culver City/Caltrans
17. Sepulveda Boulevard & Washington Place / Culver City
18. Sepulveda Boulevard & Washington Boulevard / Culver City
19. Inglewood Boulevard & Culver Boulevard / City of Los Angeles

Use additional pages if necessary. Additionally, indicate any intersections that are subject to capacity analysis credit for advanced traffic signal control synchronization. Indicate any non-signalized intersections to be studied.

Residential Streets To Be Studied

No.	Street Segment:	/ Jurisdiction:
1.	Colonial Avenue n/o Washington Boulevard, n/o S. Alley	/ Culver City
2.	Boise Avenue n/o Washington Boulevard	/ Culver City
3.	Wasatch Avenue n/o Washington Boulevard	/ Culver City
4.		/
5.		/

Use additional pages if necessary. Additionally, all intersection and street segment traffic count data shall be submitted both in written format and in an electronic format acceptable to the City.

Indicate trip credits to be requested (Amount subject to City approval):	Yes	No
1. Existing Uses:	□	X
2. Pass-By Trips:	X	□
3. Internal Trip Capture:	X	□
4. Transit Oriented Developments (TOD):	□	X
5. Transportation Demand Management (TDM):	□	X

Proposed Traffic Mitigation

Any proposed traffic mitigation measure shall be listed and accompanied by a drawing of the existing and proposed improvements [including city boundary lines and existing / proposed property lines] and plans shall be of a minimum scale of one inch (1") equal to forty feet (40'-0").

Post-Occupancy Traffic Counts

By signing below, the Property Owner / Developer / Applicant hereby agrees to pay for and submit to the City a post-occupancy traffic count analysis of the development to the satisfaction of the City. The analysis shall determine the amount of actual traffic generated by the development compared to the ITE trip generation rates. The analysis shall include traffic counts of all onsite driveways to be taken upon reaching eighty five percent (85.0%) occupancy of the total building gross floor area or within one (1) year of the issuance of the first Temporary Certificate of Occupancy (TCO), as determined by the City. The data shall be used to confirm the findings in the approved traffic study, and shall not result in any additional traffic mitigation measures and/or conditions of approval on the subject project.

Congestion Management Plan (CMP)

This project shall also be subject to all City imposed CMP developer fees if the Planning Commission approval date is on or after the effective date of any City Council imposed CMP developer fees or as may be otherwise imposed by the City.

Signatures

	Property Owner / Applicant:	Developer / Applicant:
Name [Signed]:		
Name [Printed]:		Mr. John Nahas
Company:		Regency Centers
Address:		915 Wilshire Boulevard, Ste 2200
City / State / Zip:		Los Angeles, CA, 90017
Office:	( )	(213) 553-2275
Fax:	( )	( )
Cell:	( )	( )
E-Mail:		johnnahas@regencycenters.com

Name:	Srinath Raju, P.E.
Company:	Raju Associates, Inc.
Address:	505 E. Colorado Bl, Suite 202
City / State / Zip:	Pasadena, CA, 91101
Office:	(626) 792-2700
Fax:	(626) 792-2772
Cell:	(310) 569-7559
E-Mail:	srinath.raju@rajuassociates.com

If any of the intersection(s) to be studied as part of this traffic study are located within the City of Los Angeles, the unincorporated areas of Los Angeles County and/or impact any other public agency [i.e., CalTrans], then this MOU shall also be approved by the reviewing staff representative from each agency:

	City of Los Angeles:	County of Los Angeles:
Name [Signed]:		
Name [Printed]:		
Company:		
Address:		
City / State / Zip:		
Office:	( )	( )
Fax:	( )	( )
Cell:	( )	( )
E-Mail:		

	Other Public Agency:	Other Public Agency:

	Other Public Agency:	Other Public Agency:
Name [Signed]:		
Name [Printed]:		
Company:		
Address:		
City / State / Zip:		
Office:	( )	( )
Fax:	( )	( )
Cell:	( )	( )
E-Mail:		

Approved by:

Property Owner – Applicant / Date

Developer – Applicant / 2/13/17 / Date

Traffic Consultant / 1/24/2017 / Date

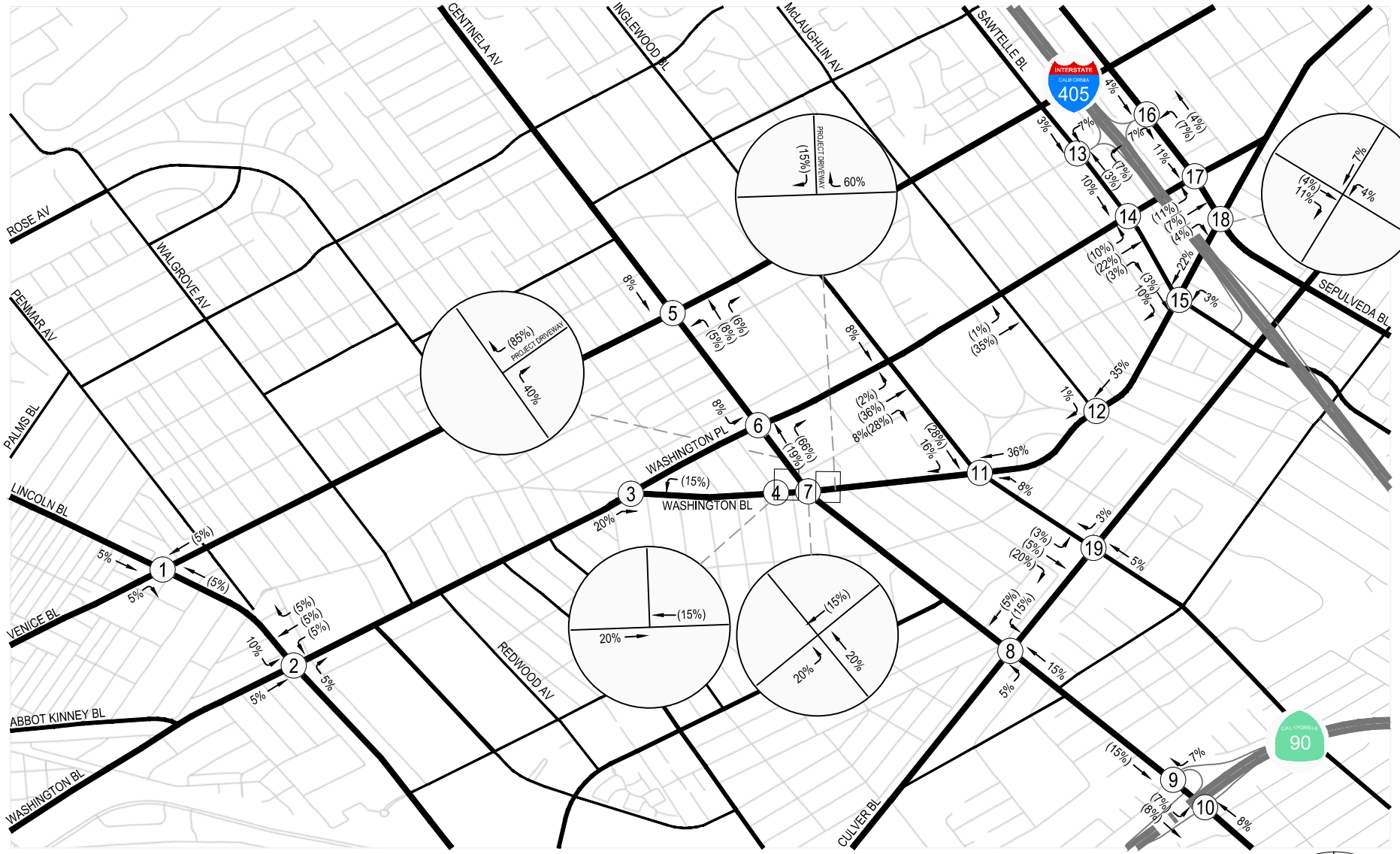
City of Culver City / 1/31/2017 / Date

Note: This MOU shall become valid as of the date of the City's signature and shall expire one (1) year thereafter. If the "administrative draft" of the traffic study has not been filed with the City by the expiration date, this MOU shall expire and a new MOU filing, review and approval process shall be required.

BK-JM/abn

ATTACHMENT A-1
PROJECT TRIP DISTRIBUTION - PROJECT SITE ON NWC OF CENTINELA AV/ WASHINGTON BL

RAJU Associates, Inc.



ATTACHMENT A-2
PROJECT TRIP DISTRIBUTION - PROJECT SITE ON NEC OF CENTINELA AV/ WASHINGTON BL

RAJU Associates, Inc.

ATTACHMENT B
ESTIMATED PROJECT TRIP GENERATION

	Size	Daily	AM Peak Hour			PM Peak Hour		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Proposed Project - NWC of Centinela Av/Washington Bl								
Specialty Retail	15,526 s.f.	688	11	8	19	18	24	42
Restaurant (Quality)	14,680 s.f.	1,320	6	6	12	74	36	110
Internal Capture (10%)		(201)	(2)	(1)	(3)	(9)	(6)	(15)
Pass-By (25%) Trips*		(452)	(4)	(3)	(7)	(21)	(13)	(34)
Project Net Trip Generation Total		**1,355**	**11**	**10**	**21**	**62**	**41**	**103**
Proposed Project - NEC of Centinela Av/Washington Bl								
Restaurant (High-Turnover)	5,210 s.f.	662	31	25	56	31	20	51
Internal Capture (10%)		(66)	(3)	(3)	(6)	(3)	(2)	(5)
Pass-By (25%) Trips*		(149)	(7)	(6)	(13)	(7)	(5)	(12)
Project Net Trip Generation Total		**447**	**21**	**16**	**37**	**21**	**13**	**34**
Overall Proposed Project								
Specialty Retail	15,526 s.f.							
Restaurant	19,890 s.f.							
Overall Project Net Trip Generation Total		**1,802**	**32**	**26**	**58**	**83**	**54**	**137**
Trip Rates [1]								
Quality Restaurant (ITE Land Use 931)	Trips per 1,000 s.f.	89.95	50%	50%	0.81	67%	33%	7.49
High-Turnover Restaurant (ITE Land Use 932)	Trips per 1,000 s.f.	127.15	55%	45%	10.81	60%	40%	9.85
Specialty Retail (ITE Land Use 826) [2]	Trips per 1,000 s.f.	44.32	60%	40%	1.20	44%	56%	2.71

* Pass-by trips determined after reduction of internal capture.
[1] Trip Generation Manual, 9th Edition, ITE 2012

[2] ITE does not provide AM peak hour trip rates for this use. Therefore, the AM peak hour trip rate from *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region* , SANDAG, April 2002 was utilized.

ATTACHMENT C
ESTIMATED WEEKDAY TRIP GENERATION OF RELATED PROJECTS

Map No.	Project Name	Location	Description	Daily	AM Peak Hour			PM Peak Hour		
					IN	OUT	TOTAL	IN	OUT	TOTAL
City of Culver City [1]										
1	Arora Condominium Project	3837 Bentley Avenue	3 new condominium dwelling units, resulting in 2 net new dwellings.	12	0	1	1	1	0	1
2	Bentley Condos	3873 Bentley Avenue	3 new condominium dwelling units, resulting in 2 net new dwellings.	12	0	1	1	1	0	1
3	Radisson (Entrada) Office Project	6161 W. Centinela Avenue	342,409 s.f. of commercial office use.	3,442	442	60	502	79	383	462
4	Union 76 Gas Station	10638 Culver Boulevard	2,676 s.f. gas station and convenience store	651	21	20	41	9	45	54
5	The Wende Museum	10808 Culver Boulevard	Tenant improvements to convert existing 12,596 s.f. armory building into a museum.	57	4	1	5	0	8	8
6	Globe Housing Project	4044-4068 Globe Avenue	A total of 10 new, for sale, residential dwelling units on currently vacant land. The site was previously developed with 7 single family homes.	29	1	1	2	2	1	3
7	Grandview Apartments	4025 Grand View Boulevard	New 36 townhome rental units. Previous/existing use includes 20 mobile home units.	109	1	6	7	6	1	7
8	Orchard Supply Hardware	11441 Jefferson Boulevard	Addition of 12,163 s.f. to an existing 19,057 s.f. commercial space used as a retail office supply store, to be used as a home improvement store, within an existing 34,438 s.f. multi-tenant commercial building, and conversion of an existing 5,139 s.f. paint store into a nursery area.	1,727	27	16	43	70	76	146
9	Boutique Hotel	11469 Jefferson Boulevard	Demolition of 12,958 sq. ft. commercial shopping center. New 5-story hotel of 144 rooms with restaurant and outdoor dining.	1,284	56	40	96	49	52	101
10	Westside Bake and Tires	4215 Sepulveda Boulevard	Convert existing 2,068 s.f. retail building into auto repair facility with three service bays.	70	3	2	5	5	2	7
11	Harbor Freight [2]	4545 Sepulveda Boulevard	Renovation of 28,534 s.f. of former ice rink into a two tenant commercial space including home retail outlet.	1,190	16	13	29	45	51	96
12	HB Dental	5450 Sepulveda Boulevard	New 14,800 s.f. commercial/retail building.	1,962	30	19	49	80	87	167
13	Shell Car Wash [3]	11224 Venice Boulevard	New 3,150 s.f. commercial building, which includes a 2,285 s.f. convenience store and 864 s.f. automated car wash facility.	1,092	16	15	31	18	16	34
14	Sony Pictures	10202 Washington Boulevard	New 8-story, 218,450 s.f. office building, a new 4-story, 51,716 s.f. Production Services support building, and expansion of an existing parking structure. Total demolition of 57,642 s.f. Net New square feet is 212,524 s.f.	2,328	308	42	350	54	262	316
15	Sony Pictures	10202 Washington Boulevard	New 22,929 s.f. 4- story office building (net new 9,758 s.f.).	109	13	2	15	3	12	15
16	Culver Center Shopping Center - New Restaurant	10799 Washington Blvd	New 2,000 sq. ft. restaurant at existing commercial shopping center	254	12	10	22	12	8	20
17	Auto Dealership Expansion	11215 Washington Boulevard	5,492 s.f. addition to Mazda Dealership	177	8	3	11	6	8	14
18	Culver City Christian School	11828 Washington Boulevard	Private school with grades K-8th for approximately 128 students.	317	63	41	104	9	13	22
19	Pennylane Mixed-Use Project [4]	11924-11960 Washington Boulevard	Mixed Use with 3,750 s.f. of restaurant, 11,250 s.f. of specialty retail and 98 for lease dwelling units. Previous use includes 26,445 s.f. of commercial uses.	1,481	21	47	68	66	46	112
20	Marcasel Mixed-Use Project [5]	11957 Washington Boulevard	Mixed-Use Project with 30 d.u. and 8,682 s.f. Retail.	590	14	13	27	21	21	42
21	Office Project	12038 Washington Boulevard	New 2,685 s.f. office building.	30	4	0	4	1	3	4
22	Kayvon Mixed-Use Project	12712-12718 Washington Boulevard	New 4-story mixed-use building with 5 for lease residential units, 3,308 s.f. retail, and subterranean parking. Approximately 2,340 s.f. existing/previous commercial uses.	179	2	3	5	8	8	16
23	Baldwin Site Mixed-Use Project	12803 Washington Boulevard	Mixed-use project consisting of 27 dwelling units and 7,293 s.f. of retail.	1,525	23	26	49	71	66	137
24	Washington/Tivoli Mixed-Use Project	13112-13114 Washington Boulevard	Construction of 1,536 s.f. retail/restaurant, 3,702 s.f. of office and 2 for-lease residential dwelling units.	265	14	10	24	11	11	22
25	Costco Expansion [6]	13463 Washington Boulevard	A 31,023 s.f. expansion of an existing 142,152 s.f. retail warehouse and demolition of an existing 63,213 s.f. grocery store/supermarket. Addition of two fuel pumps at existing fueling station.	-4,354	-205	-186	-391	-244	-233	-477
26	Gas Station Car Wash [7]	11197 Washington Place	Conversion of existing vehicle repair and mini-mart into drive-through car wash and construction of new 2,500 s.f. convenience store.	957	44	44	88	35	33	68

ATTACHMENT C
ESTIMATED WEEKDAY TRIP GENERATION OF RELATED PROJECTS

Map No.	Project Name	Location	Description	Daily	AM Peak Hour			PM Peak Hour		
					IN	OUT	TOTAL	IN	OUT	TOTAL
27	Commercial Building	11198 Washington Place	New 3,850 s.f. commercial building and 500 s.f. outdoor dining.	881	16	10	26	36	37	73
28	Mixed-Use Project	11281 Washington Place	New 4-story mixed-use project with 4,898 s.f. retail and 14 residential dwelling units.	985	17	14	31	43	43	86
City of Los Angeles [8]										
29	Marina Island Mixed-Use: Apartment & Office	5000 S. Beethoven Street	Mixed-Use: 156-Unit Apartment and 33,484 s.f. Office.	1,406	62	70	132	102	101	203
30	Mixed-Use: Apartment, Mini-Warehouse & Office	4040 S. Del Rey Avenue	New 195-Unit Apartment; 15,000 sf Office & 80,000 s.f. Mini-Warehouse (Option 1) or 235-Unit Apartment & 15,000 s.f. Office (Option 2 Preferred).	931	16	31	47	36	26	62
31	Apartment	4090 S. Del Rey Avenue	51 d.u. apartments	339	5	21	26	23	13	36
32	Apartment	4100 S. Del Rey Avenue	77 d.u. apartments	512	8	31	39	35	19	54
33	Mixed-Use: Condominium & Office	4210 S. Del Rey Avenue	Proposed 136 Condominium Units & 20,000 s.f. Commercial Office.	627	29	42	71	44	41	85
34	Mixed-Use: Apartment & Office	4140 S. Glencoe Avenue	67 d.u. apartments & 3,211 s.f. of office use	481	11	28	39	33	23	56
35	Office [9]	12777 W. Jefferson Boulevard	Commercial Office Expansion (49,950 s.f.).	550	68	9	77	17	83	100
36	Mixed-Use: Condominium & Retail [10]	4363 S. Lincoln Boulevard	Consultation: proposed 10-Story, 80 Condominium Units & 15,100 s.f. Supermarket.	695	11	28	39	42	26	68
37	LMU Master Plan	1 LMU Drive	Increase enrollment capacity to 7,800 students.	2,540	146	30	176	129	128	257
38	Mixed-Use: residential & retail	13488 W. Maxella Avenue	The Villa Marina Mixed-Use: 244 Condominium Units and 9,000 s.f. Retail.	896	27	68	95	48	35	83
39	Mixed-Use: Apartment & Automotive Dealership	5748 S. Mesmer Avenue	New 400-Unit Apartment & 250,000 s.f. Automotive Dealership (West LA Hooman) - 5 Auto Dealers.	8,866	350	243	593	475	581	1056
40	Mixed-Use: Apartment & Restaurant	3644 S. Overland Ave.	New Mixed-Use: 92-Unit Apartment & 1,573 sf Restaurant use (110 spaces).	750	13	46	59	39	21	60
41	Mixed-Use: Condominium & Office	4091 S. Redwood Avenue	67 d.u. condominium & 7,525 s.f. commercial office building with 141 parking spaces	391	4	21	25	29	22	51
42	Condominium	11131 Rose Ave	227-unit condominium. Existing 89-unit apartment to be removed	897	9	50	59	55	26	81
43	LADPW Maintenance Yard	3233 Thatcher Avenue	Improve/expansion of the existing LADPW maintenance yard plus addition of 30 new employees to site.	100	12	2	14	2	12	14
44	Residential & Retail	580 Venice Boulevard	(Preliminary) 5-unit residential plus 5,700 s.f. retail space.	1,084	17	12	29	45	47	92
45	Restaurant	1020 W. Venice Boulevard	Proposed House of Pies Sit-Down Restaurant land use (3,895 s.f.).	396	17	16	33	20	13	33
46	Starbucks w/o Drive Thru	12404 Venice Boulevard	2,195 s.f. Starbucks Coffee Shop w/o Drive Thru.	899	61	58	119	23	22	45
47	LAUSD Elementary School	2224 S. Walgrove Avenue	New 567-Student Elementary School (K-5) Immersive Mandarin Language program.	3,400	286	224	510	153	187	340
48	Mixed-use: Apartment, office, retail, and restaurant	10601 Washington Boulevard	126-unit apartment, 23,000 s.f. office, 9,000 s.f. retail, 9,000 s.f. restaurant. Existing 10,000 s.f. office to be removed.	3,007	25	67	92	156	102	258
49	Playa Vista Phase I [11]	Jefferson Boulevard b/t Lincoln Boulevard and Centinela Avenue	Includes 3,246 d.u., 1,570,000 s.f. of office use, 25,000 s.f. of retail use and 65,000 s.f. of community serving use.	28,257	2,464	1,328	3,792	1,541	2,462	4,003
50	Playa Vista Plant Site (Spruce Goose) [11]	Campus Center Drive/Bluff Creek Drive	Includes 1,129,900 s.f of production and staging support and 572,050 s.f. of office use.	n/a	1,456	198	1,654	259	1,267	1,526
51	The Village at Playa Vista (Phase II) [12]	s/o Jefferson Boulevard/Westlawn Avenue	include 2,600 d.u., 175,000 s.f. of office use,150,000 s.f. of retail use, and 40,000 s.f. of community serving uses.	24,220	577	1,049	1,626	1,275	1,027	2,302
County of Los Angeles										
52	Marina Del Rey Local Coastal Plan [13]	Marina del Rey	Development contained within Local Coastal Plan	34,098	622	1,085	1,707	1378	1,125	2,503

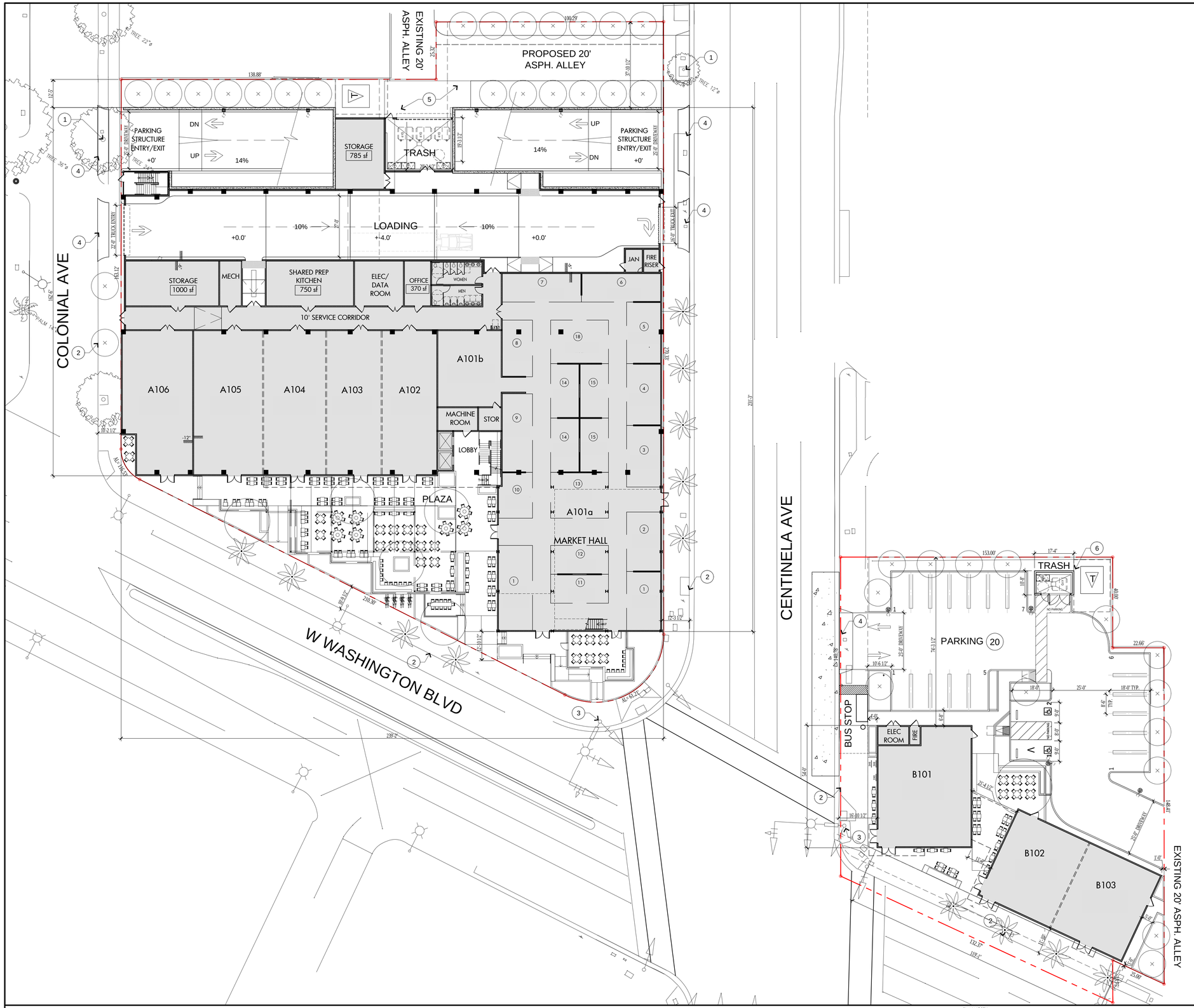
[1] Source: Related projects obtained *Culver City Planning Division - Active Projects List October 2016.* Trip generation estimates based on *Trip Generation Manual*, 9th Edition, ITE 2012 , unless noted otherwise.
[2] Trip generation from *Harbor Freight Development Final Report Traffic Impact Analysis*, Kimley Horn and Associates, August 2015.
[3] Trip generation from *Trip Generation for Proposed Gas Station in City of Culver City,* Kimley Horn and Associates, October 2015.
[4] Trip generation from *11960 Washington Boulevard Mixed-Use Project Traffic Impact Analysis*, RBF Consulting, August 2015.
[5] Trip generation from *11957 Washington Boulevard Mixed-Use Project Traffic Impact Analysis*, RBF Consulting, November 2011.
[6] Trip generation from *Culver City Costco Traffic Analysis*, Kittleson and Associates, October 2015.
[7] Trip generation from *Proposed Chevron Service Station Project in City of Culver City*, Kimley Horn and Associates, July 2013.
[8] Source: Los Angeles Department of Transportation. List of related projects and their trip generation totals provided by LADOT, unless noted otherwise. Trip directionality (in%/out%) based on *Trip Generation Manual, 9th Edition, ITE 2012* .
[9] Trip generation from *Traffic Study for the Playa Jefferson Building E Office Project - 12777 Jefferson Boulevard,* Raju Associates, Inc., December 2014.
[10] Trip generation from *Traffic Study for the 4363 Lincoln Boulevard Mixed-Use Project*, Raju Associates, Inc., June 2015.
[11] Source: *Playa Vista Traffic Impact Assessment Culver City Agreement-Third Amendment, Kaku Associates, May 2002.*
[12] Source: *The Village at Playa Vista Transportation Plan, Raju Associates, Inc. and Kaku Associates, July 2003*.
[13] Trip generation from *Traffic Study for the Marina del Rey Local Coastal Program Amendmen*t, Raju Associates, Inc., April 2010.

ATTACHMENT D
LIST OF STUDY INTERSECTIONS

#	Intersection		Jurisdiction	Signalized?	Signal System Control
	Northbound/Southbound	Eastbound/Westbound			
1.	Lincoln Boulevard	Venice Boulevard [1]	City of Los Angeles/Caltrans	Yes	ATSAC/ATCS
2.	Lincoln Boulevard	Washington Boulevard	City of Los Angeles/Caltrans	Yes	ATSAC/ATCS
3.	Zanja St/Wade St/Washington Bl	Washington Boulevard/Washington Pl	Culver City	Yes	ATSAC*
4.	Colonial Avenue	Washington Boulevard	Culver City	No	-
5.	Centinela Avenue	Venice Boulevard [1]	City of Los Angeles/Caltrans	Yes	ATSAC/ATCS
6.	Centinela Avenue	Washington Place	Culver City	Yes	ATSAC*
7.	Centinela Avenue	Washington Boulevard	Culver City	Yes	ATSAC*
8.	Centinela Avenue	Culver Boulevard	City of Los Angeles	Yes	ATSAC/ATCS
9.	Centinela Avenue	Sandford/SR-90 Westbound Ramps	City of Los Angeles/Caltrans	Yes	ATSAC/ATCS
10.	Centinela Avenue	SR-90 Eastbound On-/Off-Ramps	City of Los Angeles/Caltrans	Yes	ATSAC/ATCS
11.	Inglewood Boulevard	Washington Boulevard	Culver City	Yes	ATSAC*
12.	McLaughlin Avenue	Washington Boulevard	Culver City	Yes	ATSAC*
13.	Sawtelle Boulevard	Matteson Street/I-405 Southbound Ramps	Culver City/Caltrans	Yes	ATSAC*
14.	Sawtelle Boulevard	Washington Place	Culver City	Yes	ATSAC*
15.	Sawtelle Boulevard	Washington Boulevard	Culver City	Yes	ATSAC*
16.	Sepulveda Boulevard	I-405 Northbound On-/Off-Ramps	Culver City/Caltrans	Yes	ATSAC*
17.	Sepulveda Boulevard	Washington Place	Culver City	Yes	ATSAC*
18.	Sepulveda Boulevard	Washington Boulevard	Culver City	Yes	ATSAC*
19.	Inglewood Boulevard	Culver Boulevard	City of Los Angeles	Yes	ATSAC/ATCS

* Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.

[1] Los Angeles County Congestion Management Program monitoring location.



KEYED NOTES

1. EXISTING SIDEWALK TREE TO BE REMOVED
2. EXISTING CURB
3. EXISTING TRAFFIC SIGNAL AND POLE
4. PROPOSED CURB CUT
5. CONCRETE PAVEMENT ADJACENT TO TRASH ROOM.
6. 10' CLEAR TO BOTTOM OF CANOPY OVER TRASH ENCLOSURE

ABBREVIATIONS

STOR	STORAGE
JAN	JANITOR
MECH	MECHANICAL ROOM
ASHP	ASPHALT PAVEMENT

LEGEND

- PROPERTY LINE
- KEYED NOTE
- LIGHT POLE ON CONC. BASE
- ACCESSIBLE SIGN
- TRUNCATED DOMES
- MOVEABLE OUTDOOR DINING FURNITURE
- BIKE — SINGLE BIKE RACK
- PROPOSED 10'x12' TRANSFORMER PAD, AND CLEAR SPACE
- PROPOSED SIDEWALK TREE IN R.O.W.

0 25 100'
5 50

ARCHTIECTURAL SITE PLAN 01
1"=20'-0"

DRAWING FILE = N:\Projects\Contracted Projects\123 Regency\123-101 WCVACAD\SHEETS\CUL_AS101.dwg
PLOTTED AT 4:20pm on Jan 13, 2017 by AaronBenefiel

OWNER

A Collaboration Between Regency Centers and Community Company

SCHEMATIC DESIGN

CULVER PUBLIC MARKET

W. WASHINGTON BLVD. AND CENTINELA AVE.
CULVER CITY, CA

No	Date	Revision

ARCHITECT

jrdv ARCHITECTS
JRDV Architects, Inc
The Cathedral Building
Broadway and Telegraph
PO Box 70126
Oakland, CA 94612 USA
510.295.4302 T
www. jrdv.com

CONSULTANTS

PARKING CONSULTANT - **INTERNATIONAL PARKING DESIGN** OAKLAND, CA

MEP ENGINEERING - **LEVINE / SEEGEL** SANTA MONICA, CA

CIVIL ENGINEERING - **DRC ENGINEERING** ANAHEIM, CA

STRUCTURAL ENGINEERING - **RICCARDINTI WAGGONER AND CASTLE** IRVINE, CA

LANDSCAPE ARCHITECT - **LRM** CULVER CITY, CA

FOR DESIGN INTENT ONLY
NOT FOR CONSTRUCTION

PROJECT NO: 148-201 CUL
DATE: 01/13/2017

ARCHITECTURAL SITE PLAN

AS101

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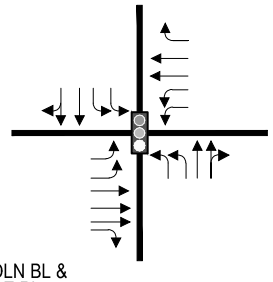
APPENDIX B

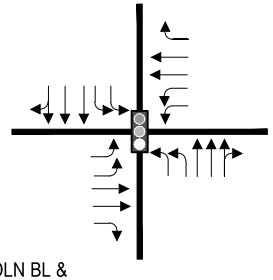
Intersection Lane Configurations

1



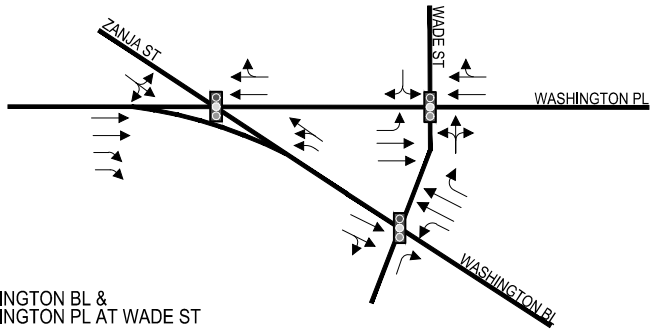
LINCOLN BL &
VENICE BL

2



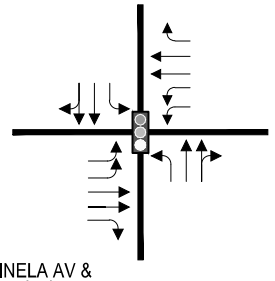
LINCOLN BL &
WASHINGTON BL

3



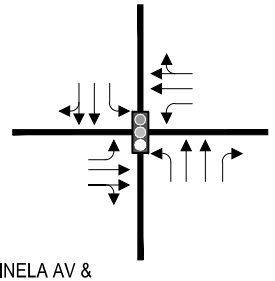
WASHINGTON BL &
WASHINGTON PL AT WADE ST

6



CENTINELA AV &
WASHINGTON PL

8



CENTINELA AV &
CULVER BL

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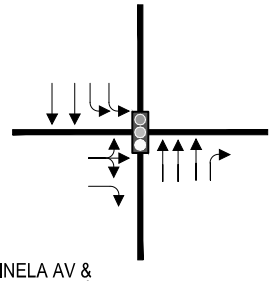

CENTINELA AV &
SR-90 EB RAMPS

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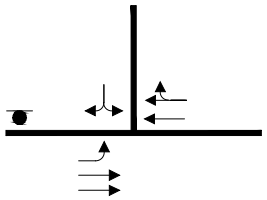

COLONIAL AV &
WASHINGTON BL

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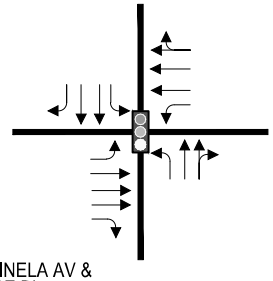

CENTINELA AV &
VENICE BL

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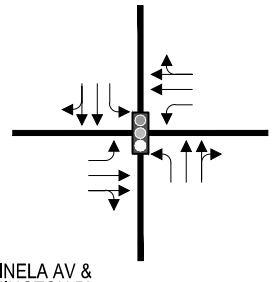

CENTINELA AV &
WASHINGTON BL

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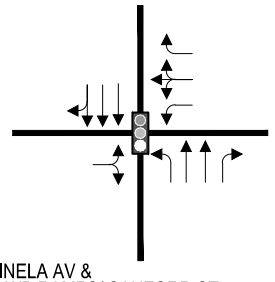
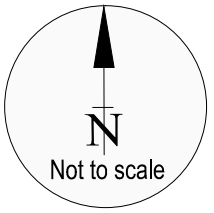
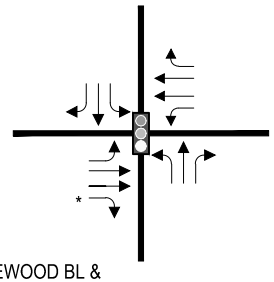


CENTINELA AV &
SR-90 WB RAMPS/ SANFORD ST



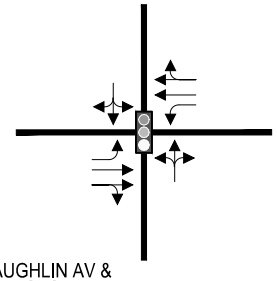
APPENDIX B-1
INTERSECTION LANE CONFIGURATIONS

RAJU Associates, Inc.

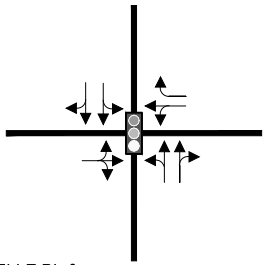


INGLEWOOD BL &
WASHINGTON BL

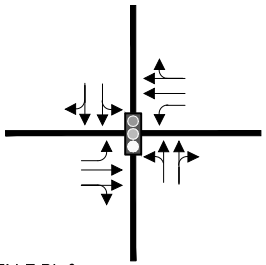
* DEFACTO RIGHT-TURN LANE



MCLAUGHLIN AV &
WASHINGTON BL



SAWTELLE BL &
I-405 SB RAMPS/ MATTESON AV



SAWTELLE BL &
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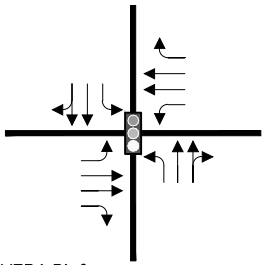
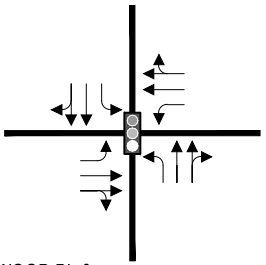
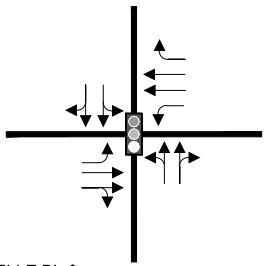


SEPULVEDA BL &
WASHINGTON PL



INGLEWOOD BL &
CULVER BL



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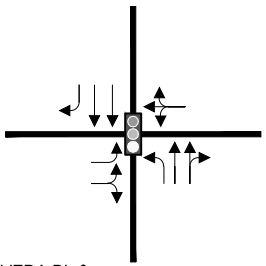
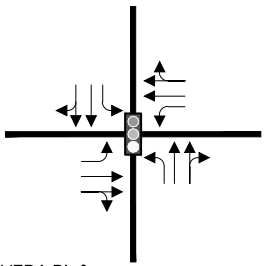
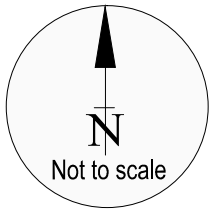
WASHINGTON PL



SEPULVEDA BL &
I-405 NB RAMPS



SEPULVEDA BL &
WASHINGTON BL



APPENDIX B-2
INTERSECTION LANE CONFIGURATIONS

RAJU Associates, Inc.

APPENDIX C

Traffic Counts

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Lincoln Blvd

East/West Venice Blvd

Day: Wednesday Date: March 25, 2015 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	236	130	74	91
BIKES	86	65	155	154
BUSES	65	54	63	81

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	436	7.15	405	8.45	276	8.15	338	9.45
PM PK 15 MIN	401	15.45	275	16.30	386	17.00	353	17.45
AM PK HOUR	1688	7.15	1575	8.00	1049	7.45	1252	9.00
PM PK HOUR	1540	16.30	998	16.00	1520	17.00	1298	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	91	1467	96	1654
8-9	103	1385	104	1592
9-10	164	1335	130	1629
15-16	198	1188	136	1522
16-17	175	1203	124	1502
17-18	164	1252	109	1525
TOTAL	895	7830	699	9424

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	144	923	24	1091
8-9	285	1259	31	1575
9-10	212	1127	71	1410
15-16	148	755	25	928
16-17	168	817	13	998
17-18	170	758	17	945
TOTAL	1127	5639	181	6947

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
2745	61	19	17	0
3167	72	7	5	0
3039	53	0	23	0
2450	63	4	73	3
2500	52	0	52	0
2470	43	1	45	0
16371	344	31	215	3

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	95	517	94	706
8-9	119	804	114	1037
9-10	110	726	102	938
15-16	103	992	260	1355
16-17	94	1036	250	1380
17-18	97	1139	284	1520
TOTAL	618	5214	1104	6936

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	221	482	261	964
8-9	191	736	306	1233
9-10	191	771	290	1252
15-16	295	644	225	1164
16-17	234	668	221	1123
17-18	249	777	272	1298
TOTAL	1381	4078	1575	7034

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
1670	76	0	45	8
2270	41	0	40	0
2190	40	0	50	0
2519	55	0	86	2
2503	52	0	75	0
2818	39	0	61	3
13970	303	0	357	13

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Lincoln Blvd and Venice Blvd , Los Angeles

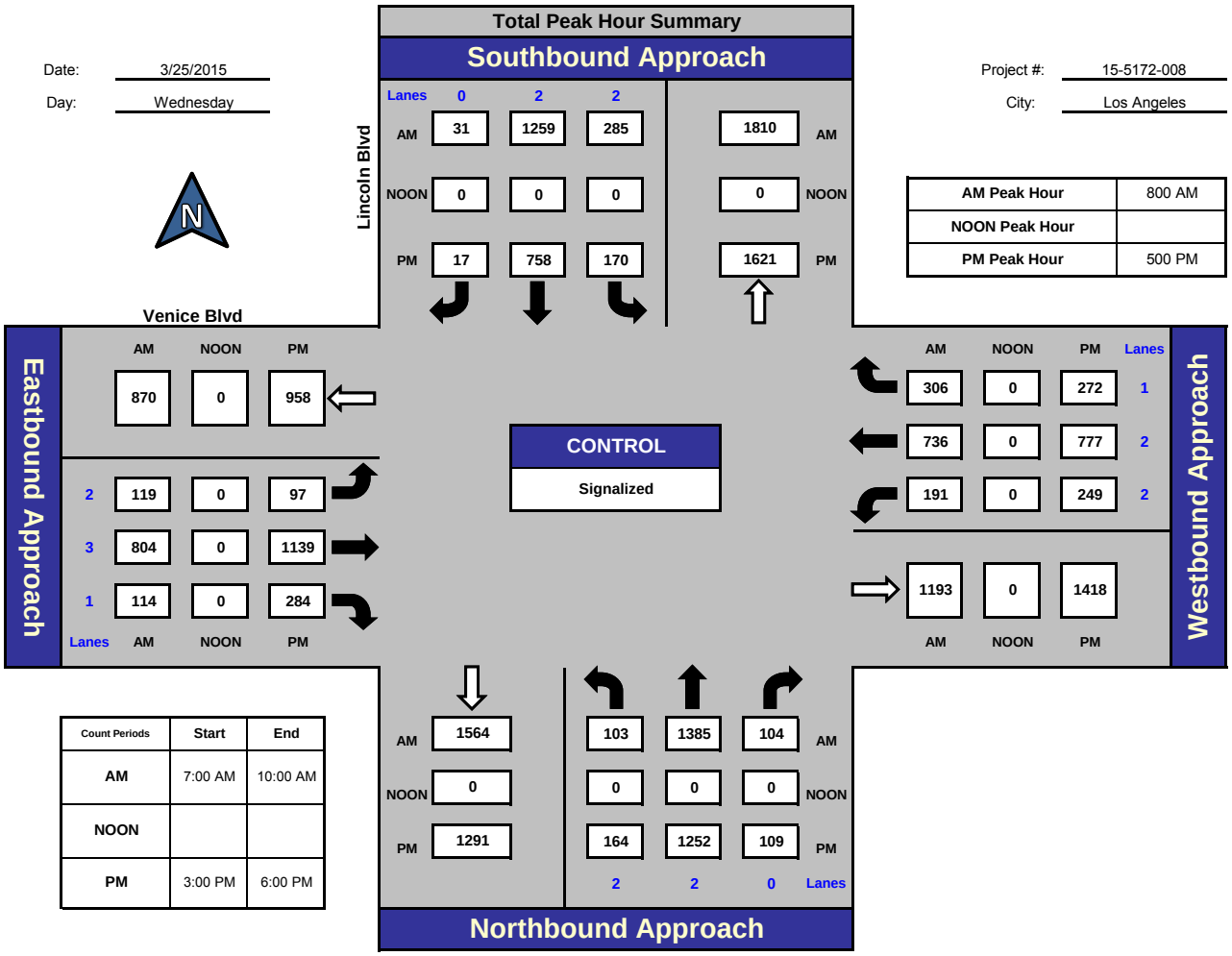
Date: 3/25/2015

Day: Wednesday

Project #: 15-5172-008

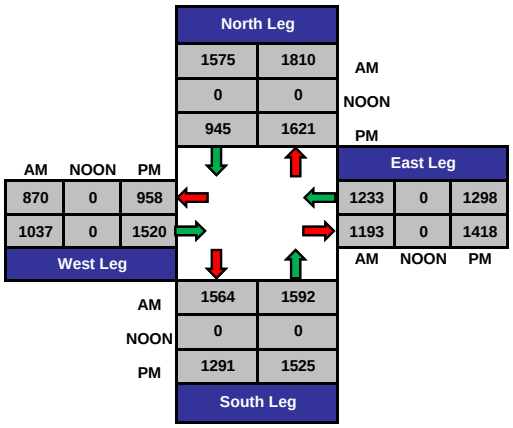
City: Los Angeles

AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	500 PM

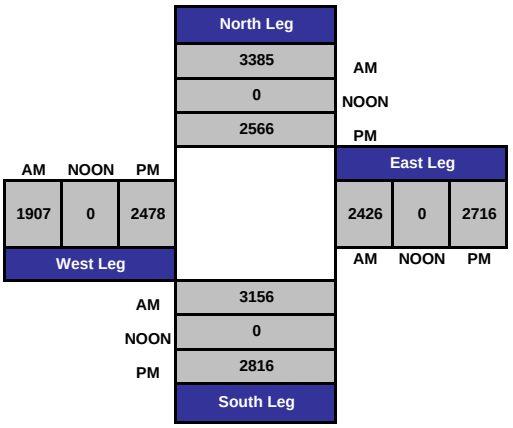


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON		
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5172-008 **Day:** Wednesday

TOTALS

City: Los Angeles **Date:** 3/25/2015

AM

NS/EW Streets:	Lincoln Blvd			Lincoln Blvd			Venice Blvd			Venice Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	2	0	2	2	0	2	3	1	2	2	1	
7:00 AM	15	342	17	22	158	6	14	77	23	43	91	51	859
7:15 AM	19	394	23	23	200	6	24	84	18	50	101	50	992
7:30 AM	21	367	25	46	254	6	31	152	27	59	118	82	1188
7:45 AM	36	364	31	53	311	6	26	204	26	69	172	78	1376
8:00 AM	21	364	23	79	307	7	27	192	31	61	182	90	1384
8:15 AM	30	353	26	63	313	7	25	222	29	44	170	86	1368
8:30 AM	23	321	26	77	312	5	36	200	31	41	174	56	1302
8:45 AM	29	347	29	66	327	12	31	190	23	45	210	74	1383
9:00 AM	42	349	25	56	275	18	20	194	25	52	205	77	1338
9:15 AM	39	331	33	46	311	16	38	196	25	51	169	62	1317
9:30 AM	29	317	40	62	251	20	24	175	28	43	183	72	1244
9:45 AM	54	338	32	48	290	17	28	161	24	45	214	79	1330
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	358	4187	330	641	3309	126	324	2047	310	603	1989	857	15081
APPROACH %'s :	7.34%	85.89%	6.77%	15.73%	81.18%	3.09%	12.09%	76.35%	11.56%	17.48%	57.67%	24.85%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	103	1385	104	285	1259	31	119	804	114	191	736	306	5437
PEAK HR FACTOR :		0.973			0.972			0.939			0.926		0.982

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5172-008 **Day:** Wednesday

TOTALS

City: Los Angeles **Date:** 3/25/2015

PM

NS/EW Streets:	Lincoln Blvd			Lincoln Blvd			Venice Blvd			Venice Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	2	0	2	2	0	2	3	1	2	2	1	
3:00 PM	52	268	33	35	201	5	27	303	54	77	160	52	1267
3:15 PM	51	313	33	43	164	9	36	239	70	65	161	56	1240
3:30 PM	48	295	28	37	210	7	23	205	68	76	146	50	1193
3:45 PM	47	312	42	33	180	4	17	245	68	77	177	67	1269
4:00 PM	39	289	40	30	191	1	29	286	57	61	151	53	1227
4:15 PM	35	294	26	43	218	6	17	247	68	52	164	54	1224
4:30 PM	53	302	33	54	220	1	28	255	58	59	174	62	1299
4:45 PM	48	318	25	41	188	5	20	248	67	62	179	52	1253
5:00 PM	39	308	29	36	181	5	23	284	79	71	202	60	1317
5:15 PM	34	325	26	47	173	5	24	284	73	57	186	69	1303
5:30 PM	50	308	26	42	199	1	20	289	73	62	177	61	1308
5:45 PM	41	311	28	45	205	6	30	282	59	59	212	82	1360
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	537	3643	369	486	2330	55	294	3167	794	778	2089	718	15260
APPROACH %'s :	11.80%	80.08%	8.11%	16.93%	81.16%	1.92%	6.91%	74.43%	18.66%	21.70%	58.27%	20.03%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	164	1252	109	170	758	17	97	1139	284	249	777	272	5288
PEAK HR FACTOR :		0.990			0.923			0.984			0.919		0.972

CONTROL : Signalized

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Lincoln Blvd

East/West Washington Blvd

Day: Tuesday Date: April 21, 2015 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	183	137	92	73
BIKES	63	84	107	108
BUSES	66	60	41	43

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	591	7.45	459	8.15	355	8.45	282	8.00
PM PK 15 MIN	479	17.45	438	16.45	327	16.00	318	15.15
AM PK HOUR	2266	9.00	1736	8.15	1372	8.00	989	7.45
PM PK HOUR	1808	17.00	1707	16.45	1277	17.00	1224	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	570	1514	98	2182
8-9	628	1408	104	2140
9-10	672	1406	188	2266
15-16	410	1085	206	1701
16-17	458	1158	174	1790
17-18	437	1176	195	1808
TOTAL	3175	7747	965	11887

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	157	1016	75	1248
8-9	209	1397	106	1712
9-10	259	1220	107	1586
15-16	234	1310	79	1623
16-17	217	1364	98	1679
17-18	176	1401	108	1685
TOTAL	1252	7708	573	9533

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
3430	52	2	39	1
3852	64	1	35	2
3852	42	2	50	0
3324	79	7	59	0
3469	73	5	40	0
3493	0	0	0	0
21420	396	25	270	3

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	66	621	445	1132
8-9	90	763	519	1372
9-10	103	665	500	1268
15-16	92	649	497	1238
16-17	109	641	492	1242
17-18	102	674	501	1277
TOTAL	562	4013	2954	7529

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	87	563	139	789
8-9	137	659	181	977
9-10	138	566	200	904
15-16	266	607	311	1184
16-17	268	659	243	1170
17-18	244	754	226	1224
TOTAL	1140	3808	1300	6248

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
1921	39	1	57	2
2349	41	0	52	1
2172	38	1	42	2
2422	61	2	82	1
2412	40	2	56	1
2501	0	0	0	0
13777	314	14	365	8

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5237-011

Day: Tuesday

TOTALS

City: Los Angeles

Date: 4/21/2015

AM

NS/EW Streets:	Lincoln Blvd			Lincoln Blvd			Washington Blvd			Washington Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	3	0	2	3	0	2	2	1	2	2	1	
7:00 AM	110	356	33	18	165	16	15	120	97	19	96	25	1070
7:15 AM	135	410	21	26	242	23	19	151	100	25	122	36	1310
7:30 AM	138	365	23	54	289	10	20	161	116	21	163	37	1397
7:45 AM	187	383	21	59	320	26	12	189	132	22	182	41	1574
8:00 AM	160	355	23	60	339	22	17	195	128	43	184	55	1581
8:15 AM	137	358	30	55	370	34	20	185	139	23	164	42	1557
8:30 AM	140	349	25	48	365	30	29	180	124	38	152	43	1523
8:45 AM	191	346	26	46	323	20	24	203	128	33	159	41	1540
9:00 AM	149	357	37	69	350	26	20	164	115	34	155	50	1526
9:15 AM	181	367	29	57	284	24	20	180	141	40	145	53	1521
9:30 AM	172	348	53	68	280	28	32	175	124	31	130	56	1497
9:45 AM	170	334	69	65	306	29	31	146	120	33	136	41	1480
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	1870	4328	390	625	3633	288	259	2049	1464	362	1788	520	17576
APPROACH %'s :	28.38%	65.70%	5.92%	13.75%	79.92%	6.34%	6.87%	54.32%	38.81%	13.56%	66.97%	19.48%	
PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	624	1445	99	222	1394	112	78	749	523	126	682	181	6235
PEAK HR FACTOR :		0.917			0.941			0.981			0.877		0.986

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5237-011

Day: Tuesday

TOTALS

City: Los Angeles

Date: 4/21/2015

PM

NS/EW Streets:	Lincoln Blvd			Lincoln Blvd			Washington Blvd			Washington Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	3	0	2	3	0	2	2	1	2	2	1	
3:00 PM	101	284	62	55	339	23	27	168	129	66	133	78	1465
3:15 PM	106	272	37	58	304	16	27	153	118	72	163	83	1409
3:30 PM	107	268	52	71	322	22	15	161	130	75	150	66	1439
3:45 PM	96	261	55	50	345	18	23	167	120	53	161	84	1433
4:00 PM	117	284	50	61	325	26	27	168	132	49	162	69	1470
4:15 PM	109	273	42	58	330	23	32	166	126	72	168	49	1448
4:30 PM	116	299	34	49	350	19	25	146	117	73	166	62	1456
4:45 PM	116	302	48	49	359	30	25	161	117	74	163	63	1507
5:00 PM	98	259	54	52	353	25	33	171	118	61	182	52	1458
5:15 PM	113	296	52	34	350	24	24	166	130	81	181	55	1506
5:30 PM	108	306	43	46	353	32	25	169	121	48	196	54	1501
5:45 PM	118	315	46	44	345	27	20	168	132	54	195	65	1529
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	1305	3419	575	627	4075	285	303	1964	1490	778	2020	780	17621
APPROACH %'s :	24.63%	64.52%	10.85%	12.57%	81.71%	5.71%	8.06%	52.28%	39.66%	21.74%	56.46%	21.80%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	437	1176	195	176	1401	108	102	674	501	244	754	226	5994
PEAK HR FACTOR :		0.944			0.977			0.991			0.965		0.980

CONTROL : Signalized

INTERSECTION TURNING MOVEMENT COUNTS

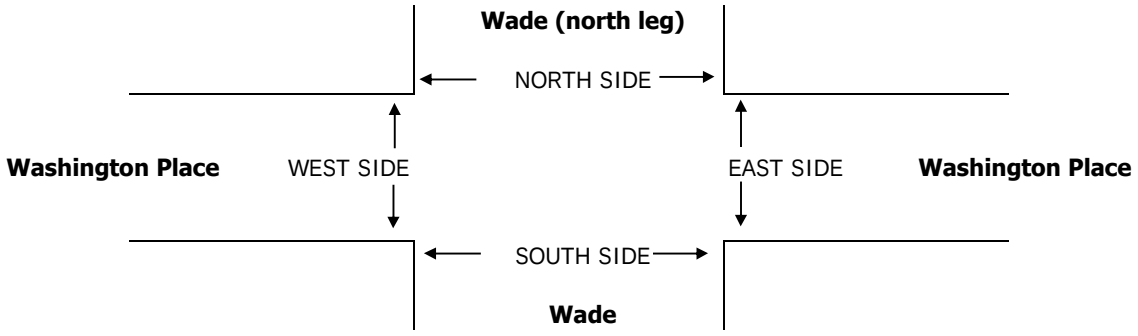
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:					
Thu, May 21, 15	LOCATION:	Culver City	PROJECT #:	SC0627
	NORTH & SOUTH:	Wade (north leg)	LOCATION #:	7
	EAST & WEST:	Washington Place	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Wade			SOUTHBOUND Wade			EASTBOUND Washington Place			WESTBOUND Washington Place			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	0	1	0	0.5	X	0.5	1	2	X	X	2	0	
AM	7:00 AM	0	5	0	9	0	6	4	135	0	0	78	6	243
	7:15 AM	0	8	2	15	0	6	3	136	0	0	101	10	281
	7:30 AM	0	15	0	14	0	10	7	168	0	0	130	19	363
	7:45 AM	0	30	4	31	0	12	6	227	0	0	137	19	466
	8:00 AM	0	20	0	16	0	13	8	191	0	0	135	23	406
	8:15 AM	0	5	5	13	0	11	2	172	0	0	153	16	377
	8:30 AM	0	9	4	22	0	17	6	203	0	0	172	14	447
	8:45 AM	0	7	5	17	0	15	5	200	0	0	176	18	443
	VOLUMES	0	99	20	137	0	90	41	1,432	0	0	1,082	125	3,026
	APPROACH %	0%	83%	17%	60%	0%	40%	3%	97%	0%	0%	90%	10%	
	APP/DEPART	119	/	264	227	/	0	1,473	/	1,589	1,207	/	1,173	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	64	13	82	0	53	22	793	0	0	597	72	1,696
	APPROACH %	0%	83%	17%	61%	0%	39%	3%	97%	0%	0%	89%	11%	
	PEAK HR FACTOR		0.566			0.785			0.874			0.899		0.910
	APP/DEPART	77	/	158	135	/	0	815	/	888	669	/	650	0
PM	4:00 PM	0	10	5	28	0	17	8	180	0	0	194	13	455
	4:15 PM	0	7	2	25	0	19	9	170	0	0	203	13	448
	4:30 PM	1	11	6	26	0	23	4	190	0	0	195	13	469
	4:45 PM	0	2	2	31	0	25	11	172	0	0	203	15	461
	5:00 PM	2	5	4	23	0	32	8	186	0	0	183	17	460
	5:15 PM	0	13	2	35	0	26	8	167	0	0	224	10	485
	5:30 PM	0	8	5	31	0	29	5	189	0	0	208	6	481
	5:45 PM	0	6	3	46	0	30	5	174	0	0	228	10	502
	VOLUMES	3	62	29	245	0	201	58	1,428	0	0	1,638	97	3,761
	APPROACH %	3%	66%	31%	55%	0%	45%	4%	96%	0%	0%	94%	6%	
	APP/DEPART	94	/	217	446	/	0	1,486	/	1,702	1,735	/	1,842	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	2	32	14	135	0	117	26	716	0	0	843	43	1,928
	APPROACH %	4%	67%	29%	54%	0%	46%	4%	96%	0%	0%	95%	5%	
	PEAK HR FACTOR		0.800			0.829			0.956			0.931		0.960
	APP/DEPART	48	/	101	252	/	0	742	/	865	886	/	962	0



INTERSECTION TURNING MOVEMENT COUNTS

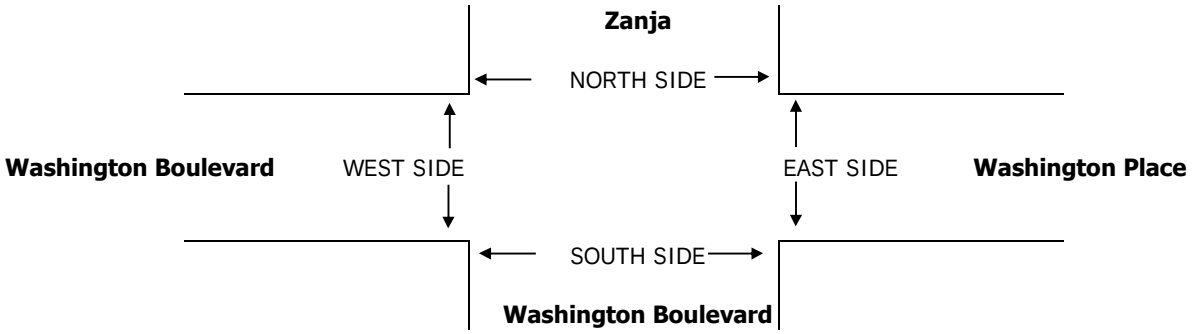
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Culver City	PROJECT #:	SC0627
Thu, May 21, 15	NORTH & SOUTH:	Zanja	LOCATION #:	7
	EAST & WEST:	Washington Boulevard	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Zanja			SOUTHBOUND Zanja			EASTBOUND Washington Boulevard			WESTBOUND Washington Place			
	LANES:	NL 0	NT 2	NR X	SL 0	ST 1	SR 0	EL X	ET 2	ER 2	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	76	24	0	4	11	0	0	141	48	0	76	11	391
	7:15 AM	82	46	0	2	19	0	0	143	74	0	95	16	477
	7:30 AM	118	53	0	9	40	0	0	199	117	0	155	26	717
	7:45 AM	108	48	0	11	42	0	0	225	134	0	148	27	743
	8:00 AM	100	33	0	13	50	2	0	169	124	0	134	14	639
	8:15 AM	107	16	0	8	39	1	0	180	98	0	130	16	595
	8:30 AM	135	21	0	8	37	2	0	185	110	0	143	23	664
	8:45 AM	140	23	0	13	42	1	0	165	93	0	142	20	639
	VOLUMES	866	264	0	68	280	6	0	1,407	798	0	1,023	153	4,865
	APPROACH %	77%	23%	0%	19%	79%	2%	0%	64%	36%	0%	87%	13%	
	APP/DEPART	1,130	/	417	354	/	1,078	2,205	/	1,475	1,176	/	1,895	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	450	118	0	40	168	5	0	759	466	0	555	80	2,641
	APPROACH %	79%	21%	0%	19%	79%	2%	0%	62%	38%	0%	87%	13%	
	PEAK HR FACTOR		0.830			0.819			0.853			0.877		0.889
	APP/DEPART	568	/	198	213	/	634	1,225	/	799	635	/	1,010	0
PM	4:00 PM	106	14	0	9	47	1	0	183	124	0	204	14	702
	4:15 PM	132	21	0	10	44	0	0	176	140	0	205	21	749
	4:30 PM	135	16	0	9	45	1	0	174	134	0	195	18	727
	4:45 PM	135	27	0	11	54	1	0	171	144	0	213	11	767
	5:00 PM	176	20	0	8	50	3	0	187	150	0	214	12	820
	5:15 PM	157	18	0	10	54	3	0	153	153	0	230	23	801
	5:30 PM	155	15	0	12	43	1	0	189	139	0	225	14	793
	5:45 PM	158	16	0	8	52	0	0	175	138	0	223	21	791
	VOLUMES	1,154	147	0	77	389	10	0	1,408	1,122	0	1,709	134	6,150
	APPROACH %	89%	11%	0%	16%	82%	2%	0%	56%	44%	0%	93%	7%	
	APP/DEPART	1,301	/	281	476	/	1,511	2,530	/	1,485	1,843	/	2,873	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	646	69	0	38	199	7	0	704	580	0	892	70	3,205
	APPROACH %	90%	10%	0%	16%	82%	3%	0%	55%	45%	0%	93%	7%	
	PEAK HR FACTOR		0.912			0.910			0.953			0.951		0.977
	APP/DEPART	715	/	139	244	/	779	1,284	/	742	962	/	1,545	0



INTERSECTION TURNING MOVEMENT COUNTS

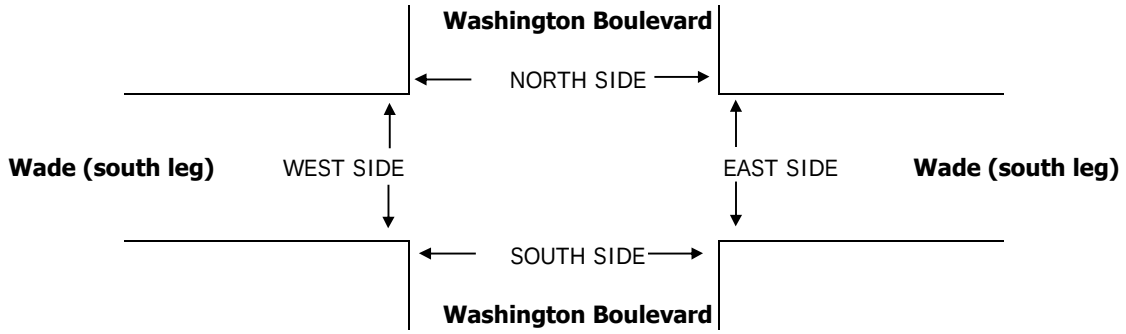
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	Culver City	PROJECT #:	SC0627
Tue, Mar 24, 15	NORTH & SOUTH:	Washington Boulevard	LOCATION #:	7
	EAST & WEST:	Wade (south leg)	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Washington			SOUTHBOUND Washington			EASTBOUND Wade			WESTBOUND Wade			
	LANES:	WL 0	WT 1	WR 0	EL 0	ET 1	ER 0	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	TOTAL
AM	7:00 AM	4	0	0	0	0	13	0	0	6	0	0	0	23
	7:15 AM	4	0	0	0	0	7	0	0	2	0	0	0	13
	7:30 AM	7	0	0	0	0	16	0	0	5	0	0	0	28
	7:45 AM	7	0	0	0	0	14	0	0	7	0	0	0	28
	8:00 AM	10	0	0	0	0	19	0	0	10	0	0	0	39
	8:15 AM	13	0	0	0	0	20	0	0	12	0	0	0	45
	8:30 AM	15	0	0	0	0	19	0	0	13	0	0	0	47
	8:45 AM	11	0	0	0	0	17	0	0	22	0	0	0	50
	VOLUMES	71	0	0	0	0	125	0	0	77	0	0	0	273
	APPROACH %	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	71	/	0	125	/	77	77	/	0	0	/	196	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	45	0	0	0	0	72	0	0	42	0	0	0	181
	APPROACH %	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.900			0.477			0.000		0.905
	APP/DEPART	45	/	0	72	/	42	42	/	0	0	/	117	0
PM	4:00 PM	4	0	0	0	0	8	0	0	8	0	0	0	20
	4:15 PM	16	0	0	0	0	7	0	0	5	0	0	0	28
	4:30 PM	10	0	0	0	0	10	0	0	18	0	0	0	38
	4:45 PM	8	0	0	0	0	9	0	0	16	0	0	0	33
	5:00 PM	12	0	0	0	0	6	0	0	8	0	0	0	26
	5:15 PM	14	0	0	0	0	9	0	0	18	0	0	0	41
	5:30 PM	11	0	0	0	0	10	0	0	18	0	0	0	39
	5:45 PM	5	0	0	0	0	16	0	0	14	0	0	0	35
	VOLUMES	80	0	0	0	0	75	0	0	105	0	0	0	260
	APPROACH %	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	80	/	0	75	/	105	105	/	0	0	/	155	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	42	0	0	0	0	41	0	0	58	0	0	0	141
	APPROACH %	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.641			0.806			0.000		0.860
	APP/DEPART	42	/	0	41	/	58	58	/	0	0	/	83	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Thu, May 21, 15

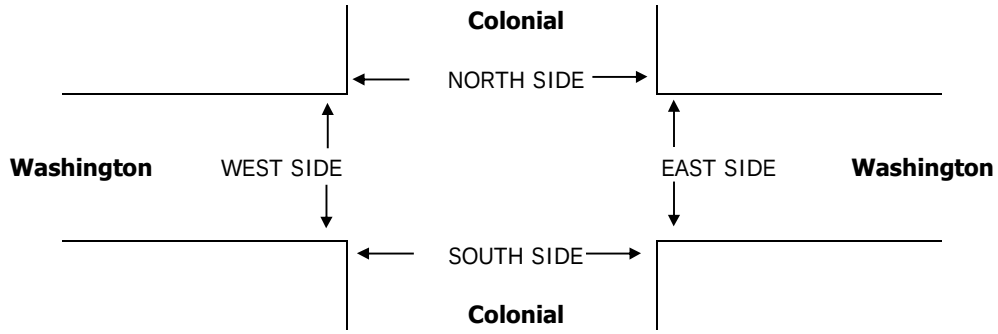
LOCATION: Culver City
NORTH & SOUTH: Colonial
EAST & WEST: Washington

PROJECT #: SC0627
LOCATION #: 8
CONTROL: STOP S

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Colonial			SOUTHBOUND Colonial			EASTBOUND Washington			WESTBOUND Washington			
	LANES:	NL X	NT X	NR X	SL 0.5	ST X	SR 0.5	EL 0	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	3	0	1	1	76	0	0	95	2	178
	7:15 AM	0	0	0	1	0	1	1	83	0	0	110	1	197
	7:30 AM	0	0	0	1	0	1	0	153	0	0	192	1	348
	7:45 AM	0	0	0	1	0	0	4	219	0	0	174	1	399
	8:00 AM	0	0	0	2	0	0	2	192	0	0	180	2	378
	8:15 AM	0	0	0	3	0	0	2	202	0	0	139	1	347
	8:30 AM	0	0	0	1	0	2	1	181	0	0	171	3	359
	8:45 AM	0	0	0	3	0	2	1	165	0	0	164	6	341
	VOLUMES	0	0	0	15	0	7	12	1,271	0	0	1,225	17	2,547
	APPROACH %	0%	0%	0%	68%	0%	32%	1%	99%	0%	0%	99%	1%	
	APP/DEPART	0	/	28	22	/	0	1,283	/	1,288	1,242	/	1,233	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	0	7	0	2	9	794	0	0	664	7	1,483
	APPROACH %	0%	0%	0%	78%	0%	22%	1%	99%	0%	0%	99%	1%	
	PEAK HR FACTOR		0.000			0.750			0.901			0.923		0.929
	APP/DEPART	0	/	15	9	/	0	803	/	802	671	/	667	0
PM	4:00 PM	0	0	0	4	0	3	4	217	0	0	155	1	384
	4:15 PM	0	0	0	4	0	5	1	198	0	0	181	4	393
	4:30 PM	0	0	0	4	0	5	4	211	0	0	156	2	382
	4:45 PM	0	0	0	1	0	11	1	199	0	0	197	3	412
	5:00 PM	0	0	0	1	0	5	2	222	0	0	189	0	419
	5:15 PM	0	0	0	3	0	7	3	204	0	0	211	5	433
	5:30 PM	0	0	0	4	0	11	4	219	0	0	188	3	429
	5:45 PM	0	0	0	2	0	9	2	216	0	0	191	5	425
	VOLUMES	0	0	0	23	0	56	21	1,686	0	0	1,468	23	3,277
	APPROACH %	0%	0%	0%	29%	0%	71%	1%	99%	0%	0%	98%	2%	
	APP/DEPART	0	/	39	79	/	0	1,707	/	1,711	1,491	/	1,529	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	0	10	0	32	11	861	0	0	779	13	1,706
	APPROACH %	0%	0%	0%	24%	0%	76%	1%	99%	0%	0%	98%	2%	
	PEAK HR FACTOR		0.000			0.700			0.969			0.917		0.985
	APP/DEPART	0	/	20	42	/	0	872	/	875	792	/	811	0



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:
North / Sounth: Centinela

East/West: Venice

Day: TUESDAY Date: May 24, 2016 Weather: Sunny

Hours:

School Day: Yes District I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	295	315	368	404
BIKES	42	37	169	162
BUSES	41	37	102	80

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	362	7:00 AM	241	8:30 AM	399	8:15 AM	419	9:45 AM
PM PK 15 MIN	242	5:45 PM	299	8:30 AM	399	8:15 AM	419	9:45 AM
AM PK HOUR	1286	7:00 AM	926	8:15 AM	1566	7:45 AM	1471	9:00 AM
PM PK HOUR	887	5:00 PM	1286	4:30 PM	1342	5:00 PM	1498	5:00 PM

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	102	1128	56	1286
8-9	70	933	87	1090
9-10	81	895	84	1060
3-4	72	684	113	869
4-5	69	603	95	767
5-6	63	729	95	887
TOTAL	457	4972	530	5959

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	59	490	70	619
8-9	100	944	56	1100
9-10	111	673	68	852
3-4	99	1098	50	1247
4-5	90	1154	41	1285
5-6	73	1130	32	1235
TOTAL	532	5489	317	6338

TOTAL	XING S/L		XING N/L	
N-S	Ped	Sch	Ped	Sch
1905	81	1	19	0
2190	66	18	5	1
1912	44	8	11	3
2116	92	42	38	12
2052	79	15	47	8
2122	82	9	46	3
12297	444	93	166	27

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	176	883	91	1150
8-9	207	2050	150	2407
9-10	215	1002	115	1332
3-4	114	934	206	1254
4-5	104	905	169	1178
5-6	138	1022	182	1342
TOTAL	954	6796	913	8663

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	104	1054	139	1297
8-9	172	1049	126	1347
9-10	187	1172	112	1471
3-4	224	922	60	1206
4-5	235	970	81	1286
5-6	268	1170	60	1498
TOTAL	1190	6337	578	8105

TOTAL	XING W/L		XING E/L	
E-W	Ped	Sch	Ped	Sch
2447	23	0	23	2
3754	15	9	20	7
2803	13	4	21	7
2460	35	7	39	16
2464	50	8	25	5
2840	57	5	48	5
16768	193	33	176	42

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:					
Tue, May 24, 16	LOCATION:	LA	PROJECT #:	SC0968	
	NORTH & SOUTH:	Centinela	LOCATION #:	1	
	EAST & WEST:	Venice	CONTROL:	SIGNAL	

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Centinela			SOUTHBOUND Centinela			EASTBOUND Venice			WESTBOUND Venice			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
AM	7:00 AM	32	311	19	12	90	17	38	167	16	24	161	33	920
	7:15 AM	25	295	13	9	99	13	40	183	13	13	259	35	997
	7:30 AM	29	289	10	15	119	20	44	223	29	31	316	23	1,148
	7:45 AM	16	233	14	23	182	20	54	310	33	36	318	48	1,287
	8:00 AM	14	263	24	24	169	13	61	298	34	40	248	25	1,213
	8:15 AM	13	194	24	29	189	12	43	311	45	46	286	32	1,224
	8:30 AM	20	250	17	24	204	13	58	282	37	35	206	27	1,173
	8:45 AM	23	226	22	19	200	18	45	273	34	51	309	42	1,262
	9:00 AM	37	233	24	22	182	14	54	271	29	53	265	21	1,205
	9:15 AM	13	217	22	22	156	21	57	235	25	41	307	33	1,149
	9:30 AM	16	245	23	42	183	13	56	272	36	37	262	33	1,218
	9:45 AM	15	200	15	25	152	20	48	224	25	56	338	25	1,143
	VOLUMES	253	2,956	227	266	1,925	194	598	3,049	356	463	3,275	377	13,939
	APPROACH %	7%	86%	7%	11%	81%	8%	15%	76%	9%	11%	80%	9%	
	APP/DEPART	3,436	/	3,907	2,385	/	2,699	4,003	/	3,587	4,115	/	3,746	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	63	940	79	100	744	58	216	1,201	149	157	1,058	132	4,897
	APPROACH %	6%	87%	7%	11%	82%	6%	14%	77%	10%	12%	79%	10%	
	PEAK HR FACTOR		0.899			0.936			0.981			0.838		0.951
	APP/DEPART	1,082	/	1,282	902	/	1,035	1,566	/	1,395	1,347	/	1,185	0
PM	03:00 PM	21	152	28	20	269	10	40	266	55	53	232	21	1,167
	3:15 PM	15	193	34	33	294	8	20	221	42	45	187	15	1,107
	3:30 PM	17	186	21	23	251	16	35	242	52	61	262	10	1,176
	3:45 PM	19	153	30	23	284	16	19	205	57	65	241	14	1,126
	4:00 PM	18	141	32	28	267	10	44	253	35	66	217	20	1,131
	4:15 PM	14	157	19	20	291	7	15	166	41	65	262	18	1,075
	4:30 PM	18	156	24	19	268	13	26	258	53	45	240	24	1,144
	4:45 PM	20	149	20	23	328	11	19	228	40	59	251	19	1,167
	5:00 PM	16	165	25	12	264	13	29	237	45	65	292	13	1,176
	5:15 PM	14	190	26	28	303	4	32	291	29	63	307	11	1,298
	5:30 PM	20	169	31	13	277	8	43	260	61	68	281	21	1,252
	5:45 PM	13	205	13	20	286	7	34	234	47	72	290	15	1,236
	VOLUMES	205	2,016	303	262	3,382	123	356	2,861	557	727	3,062	201	14,055
	APPROACH %	8%	80%	12%	7%	90%	3%	9%	76%	15%	18%	77%	5%	
	APP/DEPART	2,524	/	2,545	3,767	/	4,625	3,774	/	3,467	3,990	/	3,418	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	63	729	95	73	1,130	32	138	1,022	182	268	1,170	60	4,962
	APPROACH %	7%	82%	11%	6%	91%	3%	10%	76%	14%	18%	78%	4%	
	PEAK HR FACTOR		0.960			0.922			0.922			0.983		0.956
	APP/DEPART	887	/	920	1,235	/	1,571	1,342	/	1,199	1,498	/	1,272	0

Centinela

NORTH SIDE

Venice WEST SIDE EAST SIDE **Venice**

SOUTH SIDE

Centinela

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5172-017 **Day:** Wednesday

TOTALS

City: Culver City **Date:** 3/25/2015

AM

NS/EW Streets:	Centinela Ave			Centinela Ave			Washington Pl			Washington Pl			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	1	2	2	0	2	2	1	
7:00 AM	11	360	27	5	110	19	42	67	5	12	58	13	729
7:15 AM	7	346	18	5	110	15	41	154	8	16	89	23	832
7:30 AM	19	362	36	10	143	24	37	129	8	17	114	17	916
7:45 AM	11	310	36	22	209	22	46	168	15	26	160	20	1045
8:00 AM	12	308	39	23	212	16	43	191	14	29	130	22	1039
8:15 AM	20	266	35	28	191	19	43	182	19	31	133	12	979
8:30 AM	9	322	39	25	225	36	29	167	17	24	135	12	1040
8:45 AM	13	290	32	26	231	42	39	167	15	26	140	20	1041
9:00 AM	14	327	38	19	181	29	32	125	15	18	132	23	953
9:15 AM	14	277	30	20	180	28	42	153	25	29	116	15	929
9:30 AM	20	290	25	17	204	40	33	128	8	27	123	15	930
9:45 AM	20	276	20	16	138	39	49	122	20	25	120	9	854
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	170	3734	375	216	2134	329	476	1753	169	280	1450	201	11287
APPROACH %'s :	3.97%	87.26%	8.76%	8.06%	79.66%	12.28%	19.85%	73.10%	7.05%	14.50%	75.09%	10.41%	
PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	52	1206	149	98	837	93	161	708	65	110	558	66	4103
PEAK HR FACTOR :		0.951			0.899			0.942			0.891		0.982

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5172-017 **Day:** Wednesday

TOTALS

City: Culver City **Date:** 3/25/2015

PM

NS/EW Streets:	Centinela Ave			Centinela Ave			Washington Pl			Washington Pl			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	1	2	2	0	2	2	1	
3:00 PM	15	197	21	30	361	29	42	139	14	35	129	13	1025
3:15 PM	19	238	39	22	367	26	42	139	34	41	159	13	1139
3:30 PM	14	182	41	22	329	37	40	147	25	40	135	15	1027
3:45 PM	17	203	47	19	347	39	36	116	20	42	183	12	1081
4:00 PM	21	236	46	18	353	35	54	148	26	55	146	10	1148
4:15 PM	14	217	41	23	354	41	42	136	26	40	167	10	1111
4:30 PM	20	229	46	22	363	35	38	154	23	63	151	16	1160
4:45 PM	19	217	37	25	380	30	41	130	26	50	177	17	1149
5:00 PM	17	244	33	27	343	57	36	166	26	43	179	14	1185
5:15 PM	18	232	37	23	355	45	37	137	20	49	190	18	1161
5:30 PM	18	236	42	23	348	59	46	154	27	52	169	19	1193
5:45 PM	21	267	51	25	369	48	44	147	29	56	211	16	1284
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	213	2698	481	279	4269	481	498	1713	296	566	1996	173	13663
APPROACH %'s :	6.28%	79.54%	14.18%	5.55%	84.89%	9.56%	19.86%	68.33%	11.81%	20.69%	72.98%	6.33%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	74	979	163	98	1415	209	163	604	102	200	749	67	4823
PEAK HR FACTOR :		0.897			0.974			0.953			0.898		0.939

CONTROL : Signalized

INTERSECTION TURNING MOVEMENT COUNTS

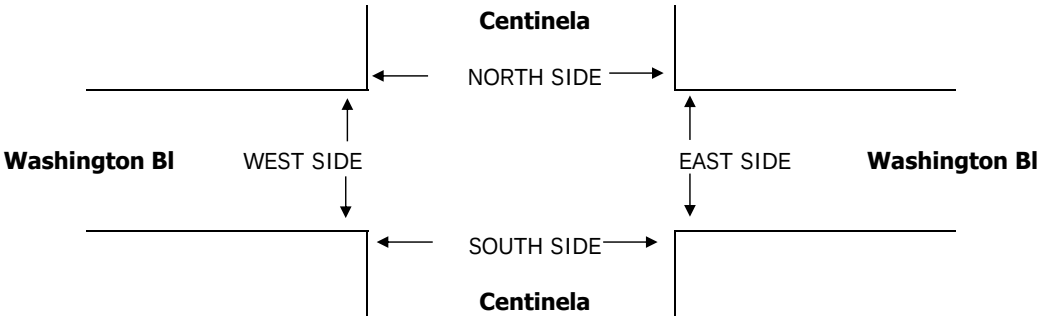
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	LA	PROJECT #:	SC0575
Tue, Apr 14, 15	NORTH & SOUTH:	Centinela	LOCATION #:	39
	EAST & WEST:	Washington Bl	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Centinela			SOUTHBOUND Centinela			EASTBOUND Washington Bl			WESTBOUND Washington Bl			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	11	292	22	11	81	3	18	57	13	12	64	24	608
	7:15 AM	31	340	16	15	100	3	15	70	22	6	66	9	693
	7:30 AM	36	341	22	12	150	7	21	162	22	15	138	31	957
	7:45 AM	50	336	25	24	248	4	5	182	39	15	160	25	1,113
	8:00 AM	37	298	28	19	224	7	12	174	34	15	138	19	1,005
	8:15 AM	31	330	18	23	203	11	15	173	31	14	112	29	990
	8:30 AM	26	304	34	25	210	6	19	144	24	17	137	32	978
	8:45 AM	33	327	29	25	250	9	13	125	40	21	120	27	1,019
	VOLUMES	255	2,568	194	154	1,466	50	118	1,087	225	115	935	196	7,363
	APPROACH %	8%	85%	6%	9%	88%	3%	8%	76%	16%	9%	75%	16%	
	APP/DEPART	3,017	/	2,880	1,670	/	1,806	1,430	/	1,435	1,246	/	1,242	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	144	1,268	105	91	885	28	51	673	128	61	547	105	4,086
	APPROACH %	9%	84%	7%	9%	88%	3%	6%	79%	15%	9%	77%	15%	
	PEAK HR FACTOR		0.923			0.909			0.944			0.891		0.918
	APP/DEPART	1,517	/	1,423	1,004	/	1,074	852	/	870	713	/	719	0
PM	4:00 PM	24	200	20	29	366	13	19	176	42	26	173	28	1,116
	4:15 PM	25	177	23	44	398	14	22	186	41	18	140	30	1,118
	4:30 PM	20	182	24	39	331	19	20	181	42	18	184	35	1,095
	4:45 PM	29	220	19	37	329	19	16	141	36	18	126	30	1,020
	5:00 PM	18	272	28	42	354	18	20	186	33	24	217	30	1,242
	5:15 PM	23	226	24	61	397	18	17	183	41	12	146	27	1,175
	5:30 PM	21	225	19	45	390	14	22	195	26	21	164	23	1,165
	5:45 PM	28	227	22	47	408	9	15	141	32	21	151	21	1,122
	VOLUMES	188	1,729	179	344	2,973	124	151	1,389	293	158	1,301	224	9,053
	APPROACH %	9%	82%	9%	10%	86%	4%	8%	76%	16%	9%	77%	13%	
	APP/DEPART	2,096	/	2,100	3,441	/	3,424	1,833	/	1,912	1,683	/	1,617	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	90	950	93	195	1,549	59	74	705	132	78	678	101	4,704
	APPROACH %	8%	84%	8%	11%	86%	3%	8%	77%	14%	9%	79%	12%	
	PEAK HR FACTOR		0.891			0.947			0.938			0.791		0.946
	APP/DEPART	1,133	/	1,124	1,803	/	1,759	911	/	994	857	/	827	0



City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Centinela Ave

East/West Culver Blvd

Day: Tuesday Date: April 21, 2015 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	52	79	52	36
BIKES	21	32	43	50
BUSES	35	46	15	45

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	296	9.15	359	7.45	416	8.00	235	7.45
PM PK 15 MIN	247	17.45	471	16.30	203	17.00	338	17.30
AM PK HOUR	1045	8.30	1223	7.45	1471	7.15	771	7.45
PM PK HOUR	896	17.00	1829	15.45	774	17.00	1231	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	17	944	75	1036
8-9	17	832	106	955
9-10	17	888	111	1016
15-16	26	646	95	767
16-17	18	700	113	831
17-18	15	778	103	896
TOTAL	110	4788	603	5501

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	154	662	86	902
8-9	215	903	87	1205
9-10	163	767	82	1012
15-16	179	1183	177	1539
16-17	197	1365	228	1790
17-18	172	1334	257	1763
TOTAL	1080	6214	917	8211

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
1938	29	0	73	4
2160	13	0	43	0
2028	11	0	19	0
2306	18	0	57	1
2621	20	0	58	5
2659	0	0	0	0
13712	102	0	292	10

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	385	960	30	1375
8-9	415	1007	48	1470
9-10	329	739	18	1086
15-16	151	366	28	545
16-17	147	425	21	593
17-18	170	575	29	774
TOTAL	1597	4072	174	5843

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	128	295	163	586
8-9	156	414	183	753
9-10	148	306	176	630
15-16	140	637	190	967
16-17	161	809	170	1140
17-18	193	868	170	1231
TOTAL	926	3329	1052	5307

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
1961	37	0	51	3
2223	23	0	38	0
1716	13	0	37	1
1512	20	1	35	1
1733	13	0	31	1
2005	0	0	0	0
11150	126	1	220	6

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Centinela Ave and Culver Blvd , Los Angeles

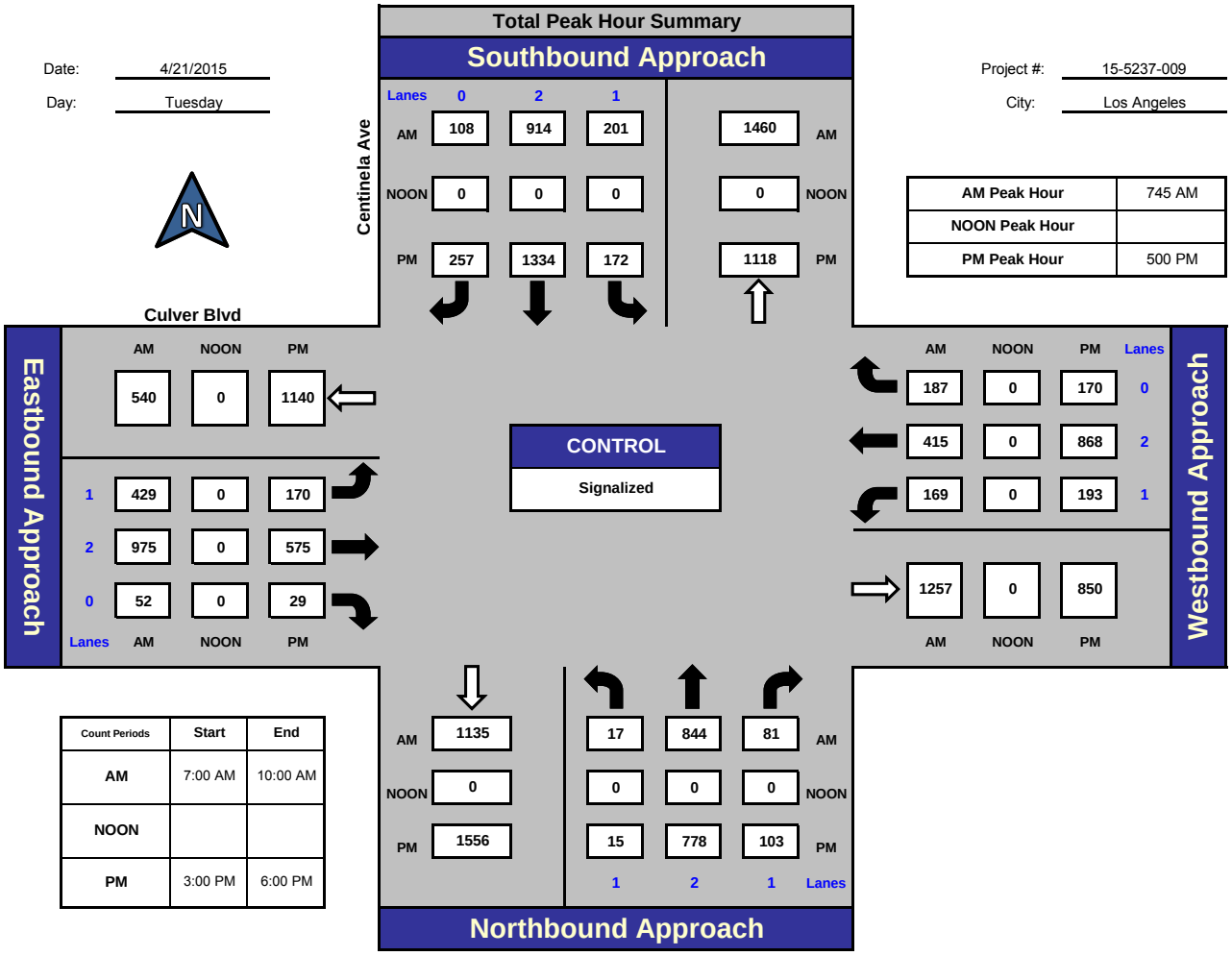
Date: 4/21/2015

Day: Tuesday

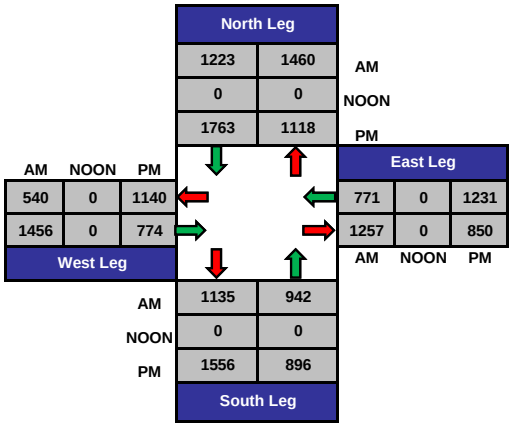
Project #: 15-5237-009

City: Los Angeles

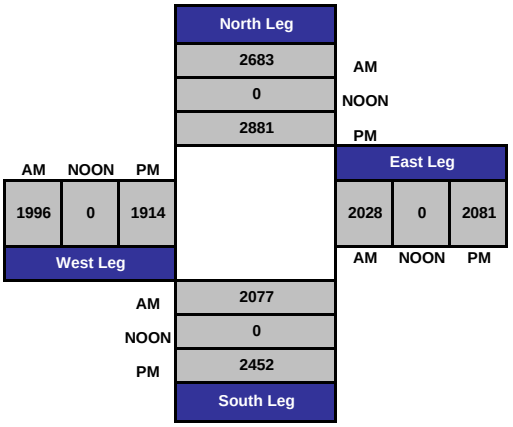
AM Peak Hour	745 AM
NOON Peak Hour	
PM Peak Hour	500 PM



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5237-009 **Day:** Tuesday

TOTALS

City: Los Angeles **Date:** 4/21/2015

AM

NS/EW Streets:	Centinela Ave			Centinela Ave			Culver Blvd			Culver Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	0	1	2	0	1	2	0	
7:00 AM	7	223	15	31	100	14	76	236	8	14	47	23	794
7:15 AM	3	259	20	32	130	11	103	240	4	20	54	42	918
7:30 AM	5	249	26	43	162	20	82	271	9	31	71	49	1018
7:45 AM	2	213	14	48	270	41	124	213	9	63	123	49	1169
8:00 AM	2	204	17	43	210	20	115	285	16	37	106	49	1104
8:15 AM	6	208	19	51	227	23	108	212	16	32	102	54	1058
8:30 AM	7	219	31	59	207	24	82	265	11	37	84	35	1061
8:45 AM	2	201	39	62	259	20	110	245	5	50	122	45	1160
9:00 AM	3	220	27	48	207	27	100	207	8	53	79	41	1020
9:15 AM	9	253	34	43	210	19	82	196	3	42	85	47	1023
9:30 AM	3	204	29	37	185	19	59	205	2	33	68	37	881
9:45 AM	2	211	21	35	165	17	88	131	5	20	74	51	820
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	51	2664	292	532	2332	255	1129	2706	96	432	1015	522	12026
APPROACH %'s :	1.70%	88.59%	9.71%	17.06%	74.77%	8.18%	28.72%	68.84%	2.44%	21.94%	51.55%	26.51%	
PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	17	844	81	201	914	108	429	975	52	169	415	187	4392
PEAK HR FACTOR :		0.916			0.852			0.875			0.820		0.939

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5237-009 **Day:** Tuesday

TOTALS

City: Los Angeles **Date:** 4/21/2015

PM

NS/EW Streets:	Centinela Ave			Centinela Ave			Culver Blvd			Culver Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	0	1	2	0	1	2	0	
3:00 PM	8	160	31	42	282	45	40	95	7	24	132	56	922
3:15 PM	4	156	24	46	303	45	43	74	3	44	148	43	933
3:30 PM	5	176	18	44	249	34	38	94	5	33	167	48	911
3:45 PM	9	154	22	47	349	53	30	103	13	39	190	43	1052
4:00 PM	3	156	40	63	345	55	35	83	4	42	170	55	1051
4:15 PM	3	176	20	48	361	37	35	116	5	33	205	44	1083
4:30 PM	8	174	29	42	350	79	40	113	4	36	214	30	1119
4:45 PM	4	194	24	44	309	57	37	113	8	50	220	41	1101
5:00 PM	7	178	23	43	335	65	39	150	14	44	218	38	1154
5:15 PM	5	168	25	35	337	72	41	146	8	46	187	41	1111
5:30 PM	1	219	23	55	354	59	36	152	4	52	239	47	1241
5:45 PM	2	213	32	39	308	61	54	127	3	51	224	44	1158
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	59	2124	311	548	3882	662	468	1366	78	494	2314	530	12836
APPROACH %'s :	2.37%	85.16%	12.47%	10.76%	76.24%	13.00%	24.48%	71.44%	4.08%	14.80%	69.32%	15.88%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	15	778	103	172	1334	257	170	575	29	193	868	170	4664
PEAK HR FACTOR :		0.907			0.942			0.953			0.911		0.940

CONTROL : Signalized

City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:
North / Sounth: Centinela

East/West: SR-90 WB Ramps

Day: WEDNESDAY Date: January 18, 2017 Weather: Sunny

Hours:

School Da: Yes District: I/S CODE:

	N/B	S/B	E/B	W/B
DUAL-WHEELED	153	293	11	185
BIKES	30	66	0	3
BUSES	48	86	2	11

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	209	7:45:00 AM	392	8:45:00 AM	23	7:30:00 AM	363	9:00:00 AM
PM PK 15 MIN	283	5:15:00 PM	392	8:45:00 AM	23	7:30:00 AM	363	9:00:00 AM
AM PK HOUR	787	7:30:00 AM	1472	8:00:00 AM	68	7:30:00 AM	1233	9:00:00 AM
PM PK HOUR	966	5:00:00 PM	1638	5:00:00 PM	35	3:00:00 PM	737	3:15:00 PM

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	6	577	113	696
8-9	14	626	119	759
9-10	16	546	113	675
3-4	15	536	94	645
4-5	13	546	116	675
5-6	11	778	177	966
TOTAL	75	3609	732	4416

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	854	10	864
8-9	0	1770	11	1781
9-10	0	1117	9	1126
3-4	0	1562	13	1575
4-5	0	1507	19	1526
5-6	0	1625	13	1638
TOTAL	0	8435	75	8510

TOTAL	XING S/L		XING N/L	
N-S	Ped	Sch	Ped	Sch
1560	0	0	1	0
2540	0	0	0	1
1801	0	0	1	0
2220	0	0	0	0
2201	0	0	0	0
2604	0	0	4	0
12926	0	0	6	1

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	21	0	36	57
8-9	12	0	40	52
9-10	12	0	41	53
3-4	13	0	22	35
4-5	9	0	18	27
5-6	2	0	9	11
TOTAL	69	0	166	235

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	305	4	691	1000
8-9	458	11	490	959
9-10	643	8	582	1233
3-4	215	9	495	719
4-5	237	12	420	669
5-6	222	19	444	685
TOTAL	2080	63	3122	5265

TOTAL	XING W/L		XING E/L	
E-W	Ped	Sch	Ped	Sch
1057	5	0	4	3
1011	3	1	3	1
1286	5	0	3	1
754	3	0	3	0
696	4	0	1	0
696	3	0	1	1
5500	23	1	15	6

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

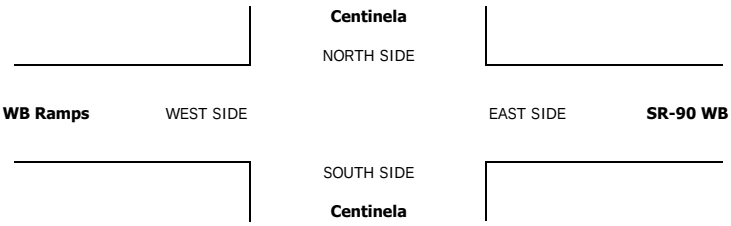
DATE:	LOCATION:	LA	PROJECT #:	SC1181
Wed, Jan 18, 17	NORTH & SOUTH:	Centinela	LOCATION #:	1
	EAST & WEST:	SR-90 WB Ramps	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND (Centinela)			SOUTHBOUND (Centinela)			EASTBOUND (SR-90 WB Ramps)			WESTBOUND (SR-90 WB Ramps)				U-TURNS				
	LANES:	NL 1	NT 2	NR 1	SL X	ST 2.5	SR 0.5	EL 0.5	ET X	ER 0.5	WL 1.3	WT 0.3	WR 1.3	TOTAL	NB X	SB X	EB X	WB X	TTL
AM	7:00 AM	2	99	18	0	120	2	4	0	5	53	3	174	480	0	0	0	0	0
	7:15 AM	2	152	23	0	188	2	4	0	9	62	0	170	612	0	0	0	0	0
	7:30 AM	0	162	29	0	237	4	9	0	14	80	1	178	714	0	0	0	0	0
	7:45 AM	2	164	43	0	309	2	4	0	8	110	0	169	811	0	0	0	0	0
	8:00 AM	5	167	36	0	369	3	5	0	12	143	4	163	907	0	0	0	0	0
	8:15 AM	1	154	24	0	367	3	2	0	14	85	2	94	746	0	0	0	0	0
	8:30 AM	4	139	25	0	336	2	4	0	10	98	1	113	732	0	0	0	0	0
	8:45 AM	4	166	34	0	389	3	1	0	4	132	4	120	857	0	0	0	0	0
	9:00 AM	4	149	40	0	274	4	1	0	9	207	4	152	844	0	0	0	0	0
	9:15 AM	3	138	35	0	322	1	4	0	13	139	2	141	798	0	0	0	0	0
	9:30 AM	7	138	23	0	227	2	5	0	12	150	1	152	717	0	0	0	0	0
	9:45 AM	2	121	15	0	294	2	2	0	7	147	1	137	728	0	0	0	0	0
	VOLUMES	36	1,749	345	0	3,432	30	45	0	117	1,406	23	1,763	8,946	0	0	0	0	0
	APPROACH %	2%	82%	16%	0%	99%	1%	28%	0%	72%	44%	1%	55%						
	APP/DEPART	2,130	/	3,557	3,462	/	4,955	162	/	345	3,192	/	89	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	14	626	119	0	1,461	11	12	0	40	458	11	490	3,242					
	APPROACH %	2%	82%	16%	0%	99%	1%	23%	0%	77%	48%	1%	51%						
	PEAK HR FACTOR		0.912			0.939			0.765			0.773		0.894					
	APP/DEPART	759	/	1,128	1,472	/	1,959	52	/	119	959	/	36	0					
PM	03:00 PM	5	130	19	0	371	1	3	0	8	58	2	96	693	0	0	0	0	0
	3:15 PM	3	138	23	0	382	4	1	0	4	49	3	120	727	0	0	0	0	0
	3:30 PM	4	118	29	0	403	5	6	0	4	59	1	154	783	0	0	0	0	0
	3:45 PM	3	150	23	0	406	3	3	0	6	49	3	125	771	0	0	0	0	0
	4:00 PM	2	121	27	0	345	4	1	0	4	67	2	105	678	0	0	0	0	0
	4:15 PM	5	143	21	0	402	2	1	0	2	60	3	90	729	0	0	0	0	0
	4:30 PM	3	144	23	0	365	5	5	0	6	58	2	128	739	0	0	0	0	0
	4:45 PM	1	138	45	0	395	8	2	0	6	52	5	97	749	0	0	0	0	0
	5:00 PM	4	154	32	0	384	0	0	0	3	57	5	111	750	0	0	0	0	0
	5:15 PM	3	226	54	0	381	4	2	0	2	46	5	127	850	0	0	0	0	0
	5:30 PM	2	209	49	0	447	4	0	0	2	66	7	111	897	0	0	0	0	0
	5:45 PM	2	189	42	0	413	5	0	0	2	53	2	95	803	0	0	0	0	0
	VOLUMES	37	1,860	387	0	4,694	45	24	0	49	674	40	1,359	9,169	0	0	0	0	0
	APPROACH %	2%	81%	17%	0%	99%	1%	33%	0%	67%	33%	2%	66%						
	APP/DEPART	2,284	/	3,243	4,739	/	5,417	73	/	387	2,073	/	122	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	11	778	177	0	1,625	13	2	0	9	222	19	444	3,300					
	APPROACH %	1%	81%	18%	0%	99%	1%	18%	0%	82%	32%	3%	65%						
	PEAK HR FACTOR		0.853			0.908			0.688			0.931		0.920					
	APP/DEPART	966	/	1,224	1,638	/	1,856	11	/	177	685	/	43	0					



		PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS					SCHOOL AGE PED				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0
	7:30 AM	0	0	2	0	2	0	0	0	1	1	0	0	0	0	0
	7:45 AM	1	0	2	3	6	0	0	2	8	10	0	0	3	0	3
	8:00 AM	0	0	1	0	1	0	0	0	2	2	0	0	0	0	0
	8:15 AM	0	0	2	1	3	0	0	3	4	7	0	0	1	0	1
	8:30 AM	0	0	0	0	0	0	0	1	3	4	1	0	0	1	2
	8:45 AM	0	0	0	2	2	0	0	0	10	10	0	0	0	0	0
	9:00 AM	1	0	0	2	3	0	0	2	5	7	0	0	0	0	0
	9:15 AM	0	0	1	1	2	0	0	2	5	7	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0
	9:45 AM	0	0	2	2	4	0	0	0	3	3	0	0	1	0	1
	TOTAL	2	0	10	13	25	0	0	10	47	57	1	0	5	1	7
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	1	1	2	1	0	0	1	2	0	0	0	0	0
	3:30 PM	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	1	0	1	0	0	0	2	2	0	0	0	0	0
	4:00 PM	0	0	0	1	1	0	0	4	0	4	0	0	0	0	0
	4:15 PM	0	0	0	1	1	0	0	0	3	3	0	0	0	0	0
	4:30 PM	0	0	1	1	2	0	0	0	2	2	0	0	0	0	0
	4:45 PM	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0
	5:00 PM	2	0	1	2	5	1	0	0	4	5	0	0	1	0	1
	5:15 PM	1	0	0	0	1	1	0	9	4	14	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0
	5:45 PM	1	0	0	1	2	0	0	4	1	5	0	0	0	0	0
	TOTAL	4	0	5	10	19	3	0	20	19	42	0	0	1	0	1

City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:
North / Sounth: Centinela

East/West: SR-90 EB Ramps

Day: WEDNESDAY Date: January 18, 2017 Weather: Sunny

Hours:

School Da: Yes District: I/S CODE:

	N/B	S/B	E/B	W/B
DUAL-WHEELED	201	386	17	0
BIKES	28	69	0	0
BUSES	50	87	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	335	8:00:00 AM	525	8:00:00 AM	76	8:45:00 AM	0	9:45:00 AM
PM PK 15 MIN	299	5:30:00 PM	525	8:00:00 AM	76	8:45:00 AM	0	9:45:00 AM
AM PK HOUR	1161	7:30:00 AM	1940	8:00:00 AM	271	8:30:00 AM	0	9:45:00 AM
PM PK HOUR	1118	5:00:00 PM	1819	5:00:00 PM	222	5:00:00 PM	0	5:45:00 PM

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	684	314	998
8-9	0	731	367	1098
9-10	0	649	248	897
3-4	0	601	186	787
4-5	0	646	133	779
5-6	0	935	183	1118
TOTAL	0	4246	1431	5677

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	407	734	0	1141
8-9	594	1614	0	2208
9-10	390	1338	0	1728
3-4	719	1051	0	1770
4-5	625	1091	0	1716
5-6	605	1214	0	1819
TOTAL	3340	7042	0	10382

TOTAL / XING S/L / XING N/L

N-S	S/L Ped	S/L Sch	N/L Ped	N/L Sch
2139	0	0	0	0
3306	0	0	0	0
2625	0	0	0	0
2557	0	0	0	0
2495	0	0	0	0
2937	0	0	0	0
16059	0	0	0	0

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	11	0	95	106
8-9	27	1.3	215	243.3
9-10	25	0	218	243
3-4	36	3	133	172
4-5	26	0	162	188
5-6	25	1	196	222
TOTAL	150	5.3	1019	1174.3

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

TOTAL / XING W/L / XING E/L

E-W	W/L Ped	W/L Sch	E/L Ped	E/L Sch
106	2	0	6	0
243.3	5	0	4	0
243	3	0	1	0
172	4	0	2	0
188	3	0	1	0
222	1	0	2	0
1174.3	18	0	16	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

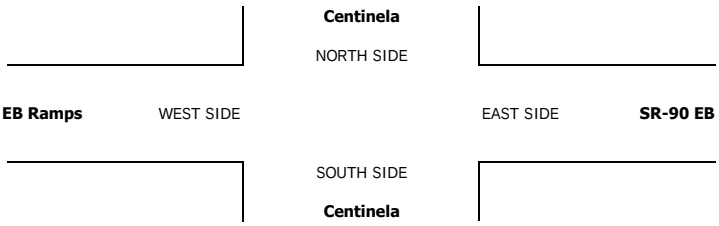
DATE:	LOCATION:	LA	PROJECT #:	SC1181
Wed, Jan 18, 17	NORTH & SOUTH:	Centinela	LOCATION #:	2
	EAST & WEST:	SR-90 EB Ramps	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Centinela			SOUTHBOUND Centinela			EASTBOUND SR-90 EB Ramps			WESTBOUND SR-90 EB Ramps				U-TURNS				
	LANES:	NL X	NT 3	NR 0	SL 2	ST 2	SR X	EL 0.3	ET 0.3	ER 1.3	WL X	WT X	WR X	TOTAL	NB X	SB X	EB X	WB X	TTL
AM	7:00 AM	0	122	54	72	103	0	1	0	9	0	0	0	361	0	0	0	0	0
	7:15 AM	0	177	73	100	153	0	3	0	14	0	0	0	520	0	0	0	0	0
	7:30 AM	0	187	81	110	211	0	2	0	31	0	0	0	622	0	0	0	0	0
	7:45 AM	0	198	106	125	267	0	5	0	41	0	0	0	742	0	0	0	0	0
	8:00 AM	0	209	126	191	334	0	10	0	38	0	0	0	908	0	0	0	0	0
	8:15 AM	0	166	88	156	318	0	4	0	55	0	0	0	787	0	0	0	0	0
	8:30 AM	0	182	78	122	316	0	7	0	53	0	0	0	758	0	0	0	0	0
	8:45 AM	0	174	75	124	379	0	6	1	69	0	0	0	828	0	0	0	0	0
	9:00 AM	0	201	57	97	380	0	7	0	64	0	0	0	806	0	0	0	0	0
	9:15 AM	0	166	67	101	331	0	4	0	60	0	0	0	729	0	0	0	0	0
	9:30 AM	0	154	76	92	300	0	11	0	37	0	0	0	670	0	0	0	0	0
	9:45 AM	0	128	48	100	327	0	3	0	57	0	0	0	663	0	0	0	0	0
	VOLUMES	0	2,064	929	1,390	3,419	0	63	1	528	0	0	0	8,394	0	0	0	0	0
	APPROACH %	0%	69%	31%	29%	71%	0%	11%	0%	89%	0%	0%	0%						
	APP/DEPART	2,993	/	2,127	4,809	/	3,947	592	/	2,320	0	/	0	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	731	367	593	1,347	0	27	1	215	0	0	0	3,281					
	APPROACH %	0%	67%	33%	31%	69%	0%	11%	0%	88%	0%	0%	0%						
	PEAK HR FACTOR		0.819			0.924			0.799			0.000		0.903					
	APP/DEPART	1,098	/	758	1,940	/	1,562	243	/	961	0	/	0	0					
PM	03:00 PM	0	148	63	176	263	0	7	2	32	0	0	0	691	0	0	0	0	0
	3:15 PM	0	148	44	198	235	0	10	1	32	0	0	0	668	0	0	0	0	0
	3:30 PM	0	149	47	192	272	0	10	0	31	0	0	0	701	0	0	0	0	0
	3:45 PM	0	156	32	153	281	0	9	0	38	0	0	0	669	0	1	0	0	1
	4:00 PM	0	145	47	160	255	0	6	0	29	0	0	0	642	0	0	0	0	0
	4:15 PM	0	152	33	190	261	0	11	0	42	0	0	0	689	0	0	0	0	0
	4:30 PM	0	172	27	141	273	0	4	0	42	0	0	0	659	0	0	0	0	0
	4:45 PM	0	177	26	134	302	0	5	0	49	0	0	0	693	0	0	0	0	0
	5:00 PM	0	200	61	161	270	0	7	0	50	0	0	0	749	0	0	0	0	0
	5:15 PM	0	258	34	144	286	0	9	1	37	0	0	0	769	0	0	0	0	0
	5:30 PM	0	258	41	169	328	0	4	0	49	0	0	0	849	0	0	0	0	0
	5:45 PM	0	219	47	131	330	0	5	0	60	0	0	0	792	0	0	0	0	0
	VOLUMES	0	2,182	502	1,949	3,356	0	87	4	491	0	0	0	8,571	0	1	0	0	1
	APPROACH %	0%	81%	19%	37%	63%	0%	15%	1%	84%	0%	0%	0%						
	APP/DEPART	2,684	/	2,270	5,305	/	3,847	582	/	2,454	0	/	0	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	0	935	183	605	1,214	0	25	1	196	0	0	0	3,159					
	APPROACH %	0%	84%	16%	33%	67%	0%	11%	0%	88%	0%	0%	0%						
	PEAK HR FACTOR		0.935			0.915			0.854			0.000		0.930					
	APP/DEPART	1,118	/	960	1,819	/	1,410	222	/	789	0	/	0	0					



		PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS					SCHOOL AGE PED				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	7:45 AM	0	0	6	1	7	0	0	2	8	10	0	0	0	0	0
	8:00 AM	0	0	1	1	2	0	0	0	2	2	0	0	0	0	0
	8:15 AM	0	0	3	1	4	0	0	3	4	7	0	0	0	0	0
	8:30 AM	0	0	0	1	1	0	0	1	3	4	0	0	0	0	0
	8:45 AM	0	0	0	2	2	0	0	0	10	10	0	0	0	0	0
	9:00 AM	0	0	1	1	2	0	0	1	7	8	0	0	0	0	0
	9:15 AM	0	0	0	1	1	0	0	1	5	6	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0
	9:45 AM	0	0	0	1	1	0	0	0	3	3	0	0	0	0	0
	TOTAL	0	0	11	10	21	0	0	8	49	57	0	0	0	0	0
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	1	1	2	0	0	0	1	1	0	0	0	0	0
	3:30 PM	0	0	1	2	3	0	0	0	1	1	0	0	0	0	0
	3:45 PM	0	0	0	1	1	0	0	2	1	3	0	0	0	0	0
	4:00 PM	0	0	0	1	1	0	0	2	1	3	0	0	0	0	0
	4:15 PM	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0
	4:30 PM	0	0	1	1	2	0	0	0	2	2	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0
	5:00 PM	0	0	2	1	3	0	0	1	5	6	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	8	3	11	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	3	1	4	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	4	1	5	0	0	0	0	0
	TOTAL	0	0	5	8	13	0	0	20	20	40	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Thu, May 21, 15

LOCATION: Culver City
NORTH & SOUTH: Inglewood
EAST & WEST: Washington Bl

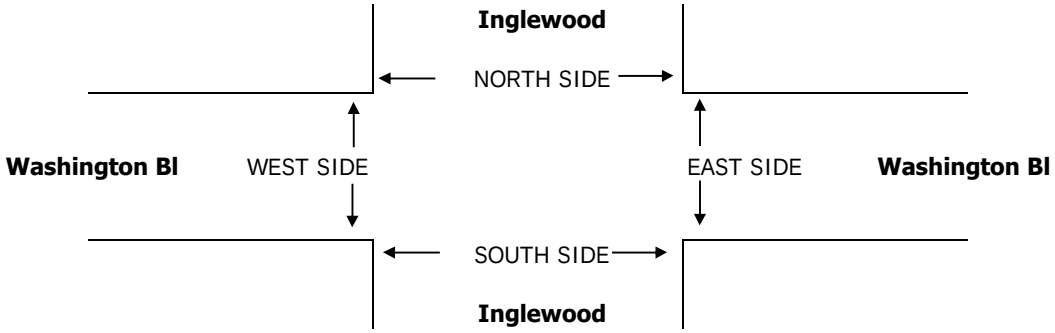
PROJECT #: SC0627
LOCATION #: 11
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N
◄ W E ►
S ▼

		NORTHBOUND Inglewood			SOUTHBOUND Inglewood			EASTBOUND Washington Bl			WESTBOUND Washington Bl			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 1	TOTAL
AM	7:00 AM	27	114	39	2	26	2	3	65	9	9	62	6	364
	7:15 AM	41	124	48	4	26	2	4	97	17	15	95	8	481
	7:30 AM	46	148	66	9	50	10	5	137	22	15	105	12	625
	7:45 AM	53	161	72	13	68	10	13	222	41	23	122	17	815
	8:00 AM	42	183	59	8	74	15	12	155	37	20	112	17	734
	8:15 AM	51	153	85	18	58	23	11	172	26	22	132	15	766
	8:30 AM	57	153	72	12	59	23	9	155	31	21	126	16	734
	8:45 AM	61	150	48	14	77	36	9	165	26	22	132	17	757
	VOLUMES	378	1,186	489	80	438	121	66	1,168	209	147	886	108	5,276
	APPROACH %	18%	58%	24%	13%	69%	19%	5%	81%	14%	13%	78%	9%	
	APP/DEPART	2,053	/	1,360	639	/	794	1,443	/	1,737	1,141	/	1,385	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	203	650	288	51	259	71	45	704	135	86	492	65	3,049
	APPROACH %	18%	57%	25%	13%	68%	19%	5%	80%	15%	13%	77%	10%	
	PEAK HR FACTOR		0.987			0.962			0.801			0.951		0.935
	APP/DEPART	1,141	/	760	381	/	480	884	/	1,043	643	/	766	0
PM	4:00 PM	45	73	29	18	175	19	4	160	84	23	143	6	779
	4:15 PM	36	73	24	19	156	22	5	164	108	25	142	7	781
	4:30 PM	40	66	29	17	146	15	9	199	121	32	168	17	859
	4:45 PM	42	63	18	11	166	18	14	151	98	33	153	18	785
	5:00 PM	42	67	30	10	160	27	9	161	99	28	188	10	831
	5:15 PM	34	54	27	14	154	25	7	150	119	30	181	12	807
	5:30 PM	43	57	24	9	159	13	7	168	119	30	163	6	798
	5:45 PM	35	66	34	10	175	16	6	162	97	24	140	6	771
	VOLUMES	317	519	215	108	1,291	155	61	1,315	845	225	1,278	82	6,411
	APPROACH %	30%	49%	20%	7%	83%	10%	3%	59%	38%	14%	81%	5%	
	APP/DEPART	1,051	/	662	1,554	/	2,361	2,221	/	1,638	1,585	/	1,750	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	158	250	104	52	626	85	39	661	437	123	690	57	3,282
	APPROACH %	31%	49%	20%	7%	82%	11%	3%	58%	38%	14%	79%	7%	
	PEAK HR FACTOR		0.921			0.968			0.864			0.962		0.955
	APP/DEPART	512	/	346	763	/	1,186	1,137	/	817	870	/	933	0



INTERSECTION TURNING MOVEMENT COUNTS

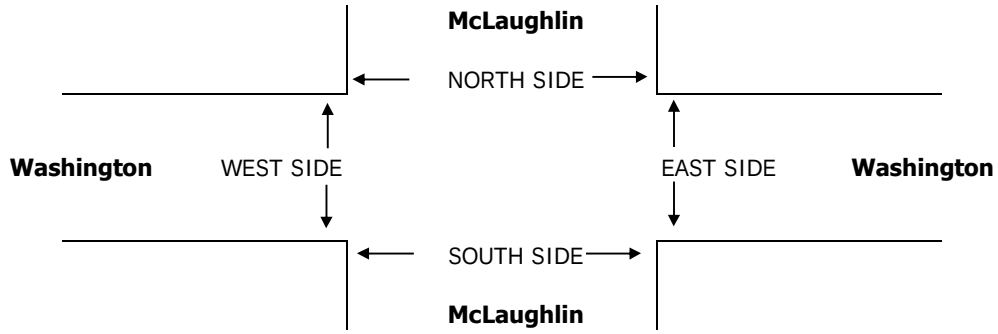
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:					
Thu, May 21, 15	LOCATION:	Culver City	PROJECT #:	SC0627
	NORTH & SOUTH:	McLaughlin	LOCATION #:	12
	EAST & WEST:	Washington	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND McLaughlin			SOUTHBOUND McLaughlin			EASTBOUND Washington			WESTBOUND Washington			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	3	2	0	6	24	120	1	0	72	12	240
	7:15 AM	2	2	1	3	0	3	39	127	0	1	113	21	312
	7:30 AM	2	4	5	8	0	4	52	205	3	1	130	20	434
	7:45 AM	5	4	6	12	1	7	39	193	3	0	157	39	466
	8:00 AM	2	1	7	17	1	9	52	250	1	4	151	27	522
	8:15 AM	1	0	8	4	1	11	58	235	2	0	163	24	507
	8:30 AM	2	3	1	5	0	14	58	224	2	1	154	22	486
	8:45 AM	3	1	4	20	1	13	37	182	2	0	172	36	471
	VOLUMES	17	15	35	71	4	67	359	1,536	14	7	1,112	201	3,438
	APPROACH %	25%	22%	52%	50%	3%	47%	19%	80%	1%	1%	84%	15%	
	APP/DEPART	67	/	575	142	/	24	1,909	/	1,643	1,320	/	1,196	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	8	5	20	46	3	47	205	891	7	5	640	109	1,986
	APPROACH %	24%	15%	61%	48%	3%	49%	19%	81%	1%	1%	85%	14%	
	PEAK HR FACTOR		0.825			0.706			0.910			0.907		0.949
	APP/DEPART	33	/	319	96	/	14	1,103	/	957	754	/	696	0
PM	4:00 PM	2	0	5	29	5	20	27	200	1	6	169	12	476
	4:15 PM	1	0	0	35	0	24	17	180	4	4	157	14	436
	4:30 PM	2	0	5	41	6	48	20	194	2	4	178	14	514
	4:45 PM	4	0	2	43	3	45	15	194	2	2	185	17	512
	5:00 PM	3	0	4	34	5	42	22	190	5	4	191	10	510
	5:15 PM	1	0	4	53	5	19	19	184	0	1	182	7	475
	5:30 PM	1	2	6	47	5	49	15	190	3	3	175	12	508
	5:45 PM	5	2	3	55	4	24	14	205	4	4	166	16	502
	VOLUMES	19	4	29	337	33	271	149	1,537	21	28	1,403	102	3,933
	APPROACH %	37%	8%	56%	53%	5%	42%	9%	90%	1%	2%	92%	7%	
	APP/DEPART	52	/	255	641	/	80	1,707	/	1,905	1,533	/	1,693	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	10	0	15	171	19	154	76	762	9	11	736	48	2,011
	APPROACH %	40%	0%	60%	50%	6%	45%	9%	90%	1%	1%	93%	6%	
	PEAK HR FACTOR		0.893			0.905			0.976			0.966		0.978
	APP/DEPART	25	/	124	344	/	38	847	/	948	795	/	901	0



INTERSECTION TURNING MOVEMENT COUNTS

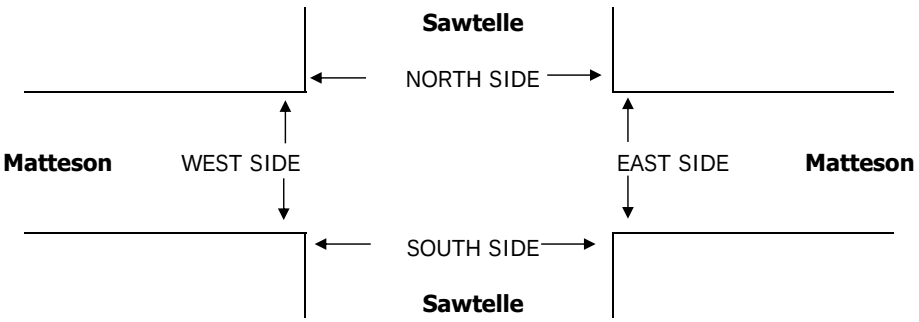
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:					
Tue, Apr 14, 15	LOCATION:	LA	PROJECT #:	SC0575	
	NORTH & SOUTH:	Sawtelle	LOCATION #:	65	
	EAST & WEST:	Matteson	CONTROL:	SIGNAL	

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Sawtelle			SOUTHBOUND Sawtelle			EASTBOUND Matteson			WESTBOUND Matteson			
	LANES:	NL 0	NT 2	NR 0	SL 0	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	2	129	32	108	8	4	1	15	4	27	2	61	393
	7:15 AM	1	160	32	130	19	3	0	17	4	49	4	69	488
	7:30 AM	4	203	38	164	29	1	3	26	7	41	1	69	586
	7:45 AM	1	183	47	143	55	4	5	30	5	30	0	84	587
	8:00 AM	1	190	45	153	47	9	4	34	6	50	3	80	622
	8:15 AM	2	154	50	130	45	4	5	29	6	51	3	78	557
	8:30 AM	4	167	45	94	55	15	1	39	5	57	4	115	601
	8:45 AM	2	173	38	124	56	8	4	29	4	55	6	85	584
	VOLUMES	17	1,359	327	1,046	314	48	23	219	41	360	23	641	4,418
	APPROACH %	1%	80%	19%	74%	22%	3%	8%	77%	14%	35%	2%	63%	
	APP/DEPART	1,703	/	2,023	1,408	/	716	283	/	1,592	1,024	/	87	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	8	694	187	520	202	32	15	132	22	188	10	357	2,367
	APPROACH %	1%	78%	21%	69%	27%	4%	9%	78%	13%	34%	2%	64%	
	PEAK HR FACTOR		0.942			0.902			0.939			0.788		0.951
	APP/DEPART	889	/	1,066	754	/	412	169	/	839	555	/	50	0
PM	4:00 PM	3	116	21	121	152	4	3	35	10	65	10	64	604
	4:15 PM	3	105	15	120	158	3	1	28	5	72	9	86	605
	4:30 PM	4	104	26	75	185	6	2	29	6	79	8	68	592
	4:45 PM	1	142	30	110	162	2	5	34	10	61	10	84	651
	5:00 PM	10	111	41	104	162	1	2	33	10	59	14	68	615
	5:15 PM	4	90	21	105	170	8	1	29	7	72	12	61	580
	5:30 PM	9	89	21	120	162	5	2	28	6	78	6	80	606
	5:45 PM	5	108	26	111	166	2	1	37	5	67	6	71	605
	VOLUMES	39	865	201	866	1,317	31	17	253	59	553	75	582	4,858
	APPROACH %	4%	78%	18%	39%	59%	1%	5%	77%	18%	46%	6%	48%	
	APP/DEPART	1,105	/	1,464	2,214	/	1,929	329	/	1,320	1,210	/	145	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	18	462	112	409	667	12	10	124	31	271	41	306	2,463
	APPROACH %	3%	78%	19%	38%	61%	1%	6%	75%	19%	44%	7%	50%	
	PEAK HR FACTOR		0.855			0.968			0.842			0.925		0.946
	APP/DEPART	592	/	778	1,088	/	969	165	/	645	618	/	71	0



INTERSECTION TURNING MOVEMENT COUNTS

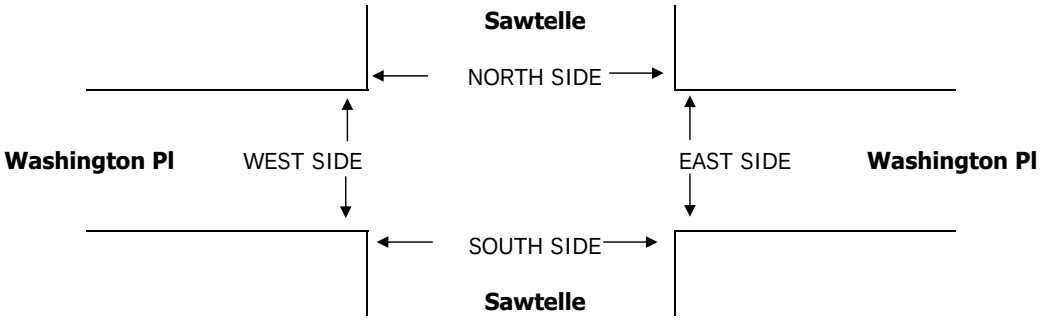
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:					
Tue, Apr 14, 15	LOCATION:	LA	PROJECT #:	SC0575	
	NORTH & SOUTH:	Sawtelle	LOCATION #:	68	
	EAST & WEST:	Washington Pl	CONTROL:	SIGNAL	

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Sawtelle			SOUTHBOUND Sawtelle			EASTBOUND Washington Pl			WESTBOUND Washington Pl			
	LANES:	NL 0	NT 2	NR 0	SL 0	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 1	TOTAL
AM	7:00 AM	5	90	7	12	10	27	23	119	6	1	77	29	406
	7:15 AM	8	111	4	15	20	31	30	147	1	1	102	42	512
	7:30 AM	3	160	6	12	33	35	48	174	12	4	115	48	650
	7:45 AM	10	132	4	26	55	11	43	205	12	5	165	41	709
	8:00 AM	10	144	6	22	49	13	50	198	12	5	166	43	718
	8:15 AM	8	127	10	20	50	51	35	197	21	3	137	50	709
	8:30 AM	10	132	9	20	54	22	39	249	21	9	114	61	740
	8:45 AM	13	120	10	15	62	42	31	173	8	6	139	41	660
	VOLUMES	67	1,016	56	142	333	232	299	1,462	93	34	1,015	355	5,104
	APPROACH %	6%	89%	5%	20%	47%	33%	16%	79%	5%	2%	72%	25%	
	APP/DEPART	1,139	/	1,670	707	/	460	1,854	/	1,660	1,404	/	1,314	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	38	535	29	88	208	97	167	849	66	22	582	195	2,876
	APPROACH %	6%	89%	5%	22%	53%	25%	15%	78%	6%	3%	73%	24%	
	PEAK HR FACTOR		0.941			0.812			0.875			0.933		0.972
	APP/DEPART	602	/	897	393	/	296	1,082	/	966	799	/	717	0
PM	4:00 PM	18	93	1	17	149	58	18	163	12	8	124	29	690
	4:15 PM	13	88	11	16	159	60	28	159	15	7	121	19	696
	4:30 PM	16	77	5	22	178	71	30	205	22	6	145	28	805
	4:45 PM	6	100	5	14	136	61	28	140	13	5	121	33	662
	5:00 PM	8	114	9	20	165	42	17	179	18	5	154	47	778
	5:15 PM	10	75	6	22	159	66	14	190	22	10	177	39	790
	5:30 PM	8	85	10	25	160	63	26	169	19	8	167	24	764
	5:45 PM	6	74	13	22	153	58	28	196	15	7	189	29	790
	VOLUMES	85	706	60	158	1,259	479	189	1,401	136	56	1,198	248	5,975
	APPROACH %	10%	83%	7%	8%	66%	25%	11%	81%	8%	4%	80%	17%	
	APP/DEPART	851	/	1,143	1,896	/	1,451	1,726	/	1,619	1,502	/	1,762	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	32	348	38	89	637	229	85	734	74	30	687	139	3,122
	APPROACH %	8%	83%	9%	9%	67%	24%	10%	82%	8%	4%	80%	16%	
	PEAK HR FACTOR		0.798			0.963			0.934			0.947		0.988
	APP/DEPART	418	/	572	955	/	741	893	/	861	856	/	948	0



INTERSECTION TURNING MOVEMENT COUNTS

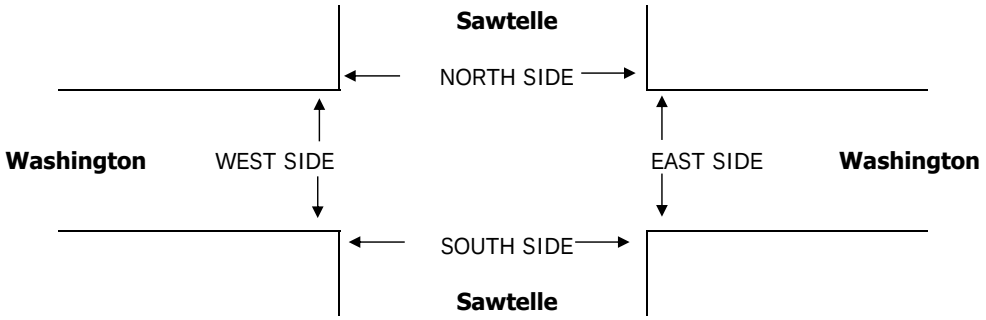
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	LA	PROJECT #:	SC0575
Tue, Apr 14, 15	NORTH & SOUTH:	Sawtelle	LOCATION #:	67
	EAST & WEST:	Washington	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Sawtelle			SOUTHBOUND Sawtelle			EASTBOUND Washington			WESTBOUND Washington			
	LANES:	NL 0	NT 2	NR 0	SL 0	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 3	WR 1	TOTAL
AM	7:00 AM	14	80	17	1	13	3	19	103	20	12	61	10	353
	7:15 AM	16	96	22	0	16	10	20	122	14	17	75	5	413
	7:30 AM	25	146	14	4	30	10	24	180	13	23	110	19	598
	7:45 AM	33	123	25	6	49	19	16	215	13	26	114	16	655
	8:00 AM	46	143	28	6	44	15	16	217	25	28	140	14	722
	8:15 AM	29	111	38	0	54	13	30	212	27	32	160	5	711
	8:30 AM	29	130	24	10	60	14	24	191	17	36	134	8	677
	8:45 AM	22	120	23	7	57	21	22	224	24	28	162	15	725
	VOLUMES	214	949	191	34	323	105	171	1,464	153	202	956	92	4,854
	APPROACH %	16%	70%	14%	7%	70%	23%	10%	82%	9%	16%	76%	7%	
	APP/DEPART	1,354	/	1,212	462	/	678	1,788	/	1,689	1,250	/	1,275	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	126	504	113	23	215	63	92	844	93	124	596	42	2,835
	APPROACH %	17%	68%	15%	8%	71%	21%	9%	82%	9%	16%	78%	6%	
	PEAK HR FACTOR		0.856			0.885			0.953			0.929		0.978
	APP/DEPART	743	/	638	301	/	432	1,029	/	980	762	/	785	0
PM	4:00 PM	29	96	7	8	151	25	13	168	24	36	181	8	746
	4:15 PM	29	85	9	10	147	20	10	172	29	54	160	15	740
	4:30 PM	27	88	11	9	172	27	17	168	40	28	166	5	758
	4:45 PM	31	104	12	5	161	15	15	173	38	27	177	7	765
	5:00 PM	22	93	14	12	142	25	20	180	29	38	209	10	794
	5:15 PM	21	67	9	12	152	26	15	206	35	22	167	7	739
	5:30 PM	12	69	15	8	152	30	25	175	33	61	174	10	764
	5:45 PM	24	80	15	7	140	29	16	146	36	32	178	8	711
	VOLUMES	195	682	92	71	1,217	197	131	1,388	264	298	1,412	70	6,017
	APPROACH %	20%	70%	9%	5%	82%	13%	7%	78%	15%	17%	79%	4%	
	APP/DEPART	969	/	883	1,485	/	1,779	1,783	/	1,551	1,780	/	1,804	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	86	333	50	37	607	96	75	734	135	148	727	34	3,062
	APPROACH %	18%	71%	11%	5%	82%	13%	8%	78%	14%	16%	80%	4%	
	PEAK HR FACTOR		0.798			0.974			0.922			0.884		0.964
	APP/DEPART	469	/	442	740	/	890	944	/	821	909	/	909	0



INTERSECTION TURNING MOVEMENT COUNTS

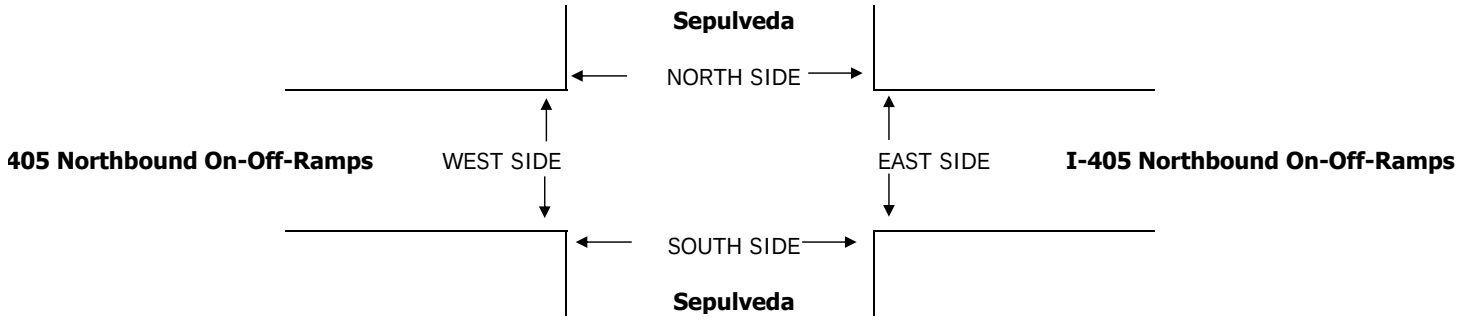
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	LA	PROJECT #:	SC0575
Tue, Apr 14, 15	NORTH & SOUTH:	Sepulveda	LOCATION #:	71
	EAST & WEST:	I-405 Northbound On-Off-Ramps	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Sepulveda			SOUTHBOUND Sepulveda			EASTBOUND I-405 Northbound On-Off-Ramps			WESTBOUND Hotel Dwy			
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 1	EL 1.5	ET X	ER 0.5	WL X	WT X	WR X	TOTAL
AM	7:00 AM	116	306	0	0	73	93	60	0	8	0	0	2	658
	7:15 AM	143	327	0	0	101	96	80	0	11	0	0	0	758
	7:30 AM	145	278	0	0	121	108	83	0	3	0	0	1	739
	7:45 AM	129	330	0	0	162	84	111	0	9	0	0	0	825
	8:00 AM	136	284	0	0	136	103	95	0	5	0	0	0	759
	8:15 AM	141	313	1	0	138	87	79	0	12	1	0	0	772
	8:30 AM	137	337	0	0	146	103	83	0	15	0	0	0	821
	8:45 AM	120	348	1	0	163	101	119	0	13	0	0	0	865
	VOLUMES	1,067	2,523	2	0	1,040	775	710	0	76	1	0	3	6,197
	APPROACH %	30%	70%	0%	0%	57%	43%	90%	0%	10%	25%	0%	75%	
	APP/DEPART	3,592	/	3,236	1,815	/	1,117	786	/	2	4	/	1,842	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	534	1,282	2	0	583	394	376	0	45	1	0	0	3,217
	APPROACH %	29%	71%	0%	0%	60%	40%	89%	0%	11%	100%	0%	0%	
	PEAK HR FACTOR		0.959			0.925			0.797			0.250		0.930
	APP/DEPART	1,818	/	1,658	977	/	629	421	/	2	1	/	928	0
PM	4:00 PM	54	214	2	0	289	37	166	0	25	0	0	0	787
	4:15 PM	47	206	1	1	276	39	209	0	29	1	0	2	811
	4:30 PM	54	208	1	0	309	40	227	0	23	0	0	0	862
	4:45 PM	41	235	0	0	326	35	187	1	27	0	0	1	853
	5:00 PM	50	196	1	0	321	36	192	0	37	0	0	1	834
	5:15 PM	49	227	1	0	343	24	207	1	28	1	0	1	882
	5:30 PM	51	197	2	0	325	24	232	0	34	1	1	0	867
	5:45 PM	43	240	1	0	309	35	207	0	36	1	0	1	873
	VOLUMES	389	1,723	9	1	2,498	270	1,627	2	239	4	1	6	6,769
	APPROACH %	18%	81%	0%	0%	90%	10%	87%	0%	13%	36%	9%	55%	
	APP/DEPART	2,121	/	3,356	2,769	/	2,741	1,868	/	12	11	/	660	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	193	860	5	0	1,298	119	838	1	135	3	1	3	3,456
	APPROACH %	18%	81%	0%	0%	92%	8%	86%	0%	14%	43%	14%	43%	
	PEAK HR FACTOR		0.931			0.965			0.915			0.875		0.980
	APP/DEPART	1,058	/	1,701	1,417	/	1,436	974	/	6	7	/	313	0



INTERSECTION TURNING MOVEMENT COUNTS

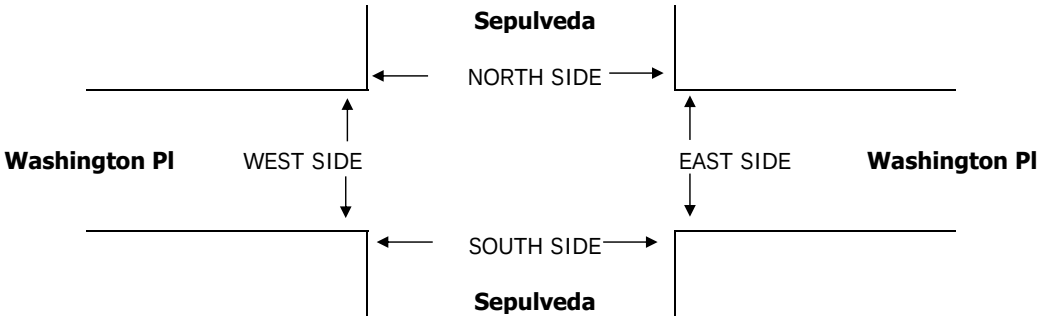
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	LA	PROJECT #:	SC0575
Tue, Apr 14, 15	NORTH & SOUTH:	Sepulveda	LOCATION #:	70
	EAST & WEST:	Washington Pl	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sepulveda			SOUTHBOUND Sepulveda			EASTBOUND Washington Pl			WESTBOUND Washington Pl			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
AM	7:00 AM	18	321	8	4	44	18	58	63	13	8	75	33	663
	7:15 AM	15	360	9	2	76	14	83	67	13	7	94	33	773
	7:30 AM	17	351	5	7	95	24	85	93	14	7	137	21	856
	7:45 AM	16	341	7	6	96	33	74	139	29	5	148	38	932
	8:00 AM	32	276	5	7	94	31	75	130	29	11	163	23	876
	8:15 AM	26	330	8	10	116	30	75	136	16	10	156	43	956
	8:30 AM	25	317	8	21	93	34	83	176	21	11	126	34	949
	8:45 AM	17	322	4	11	126	24	73	135	12	14	134	56	928
	VOLUMES	166	2,618	54	68	740	208	606	939	147	73	1,033	281	6,933
	APPROACH %	6%	92%	2%	7%	73%	20%	36%	55%	9%	5%	74%	20%	
	APP/DEPART	2,838	/	3,505	1,016	/	960	1,692	/	1,061	1,387	/	1,407	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	99	1,264	28	44	399	128	307	581	95	37	593	138	3,713
	APPROACH %	7%	91%	2%	8%	70%	22%	31%	59%	10%	5%	77%	18%	
	PEAK HR FACTOR		0.955			0.915			0.878			0.919		0.971
	APP/DEPART	1,391	/	1,709	571	/	531	983	/	653	768	/	820	0
PM	4:00 PM	21	218	10	26	254	41	50	118	27	16	103	22	906
	4:15 PM	19	187	14	14	283	38	61	108	27	7	105	18	881
	4:30 PM	17	187	12	13	236	48	59	125	35	11	109	25	877
	4:45 PM	25	197	8	20	260	61	54	103	39	8	102	17	894
	5:00 PM	20	214	8	17	279	64	52	142	29	13	105	15	958
	5:15 PM	25	206	13	8	290	79	55	125	24	22	138	18	1,003
	5:30 PM	19	164	11	12	279	53	51	118	39	13	137	34	930
	5:45 PM	20	185	8	15	282	68	62	128	34	12	152	30	996
	VOLUMES	166	1,558	84	125	2,163	452	444	967	254	102	951	179	7,445
	APPROACH %	9%	86%	5%	5%	79%	16%	27%	58%	15%	8%	77%	15%	
	APP/DEPART	1,808	/	2,182	2,740	/	2,519	1,665	/	1,175	1,232	/	1,569	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	84	769	40	52	1,130	264	220	513	126	60	532	97	3,887
	APPROACH %	9%	86%	4%	4%	78%	18%	26%	60%	15%	9%	77%	14%	
	PEAK HR FACTOR		0.915			0.959			0.959			0.888		0.969
	APP/DEPART	893	/	1,086	1,446	/	1,316	859	/	605	689	/	880	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Jan 18, 17

LOCATION: Culver City
NORTH & SOUTH: Sepulveda
EAST & WEST: Washington

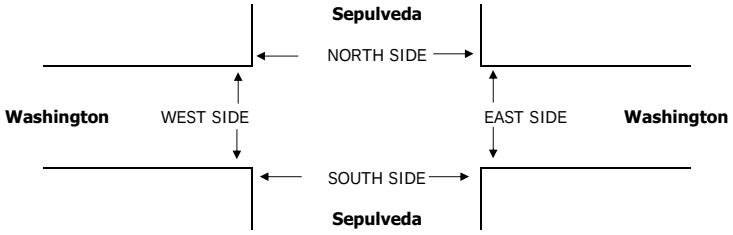
PROJECT #: SC1181
LOCATION #: 3
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — N / W / E / S

☑ Add U-Turns to Left Turns

		NORTHBOUND Sepulveda			SOUTHBOUND Sepulveda			EASTBOUND Washington			WESTBOUND Washington				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	16	321	32	5	45	6	39	81	12	12	79	5	653	0	0	0	0	0
	7:15 AM	27	324	20	5	66	8	44	93	12	11	109	9	728	0	0	0	0	0
	7:30 AM	30	263	18	6	91	11	51	130	22	16	94	13	745	0	0	0	0	0
	7:45 AM	29	231	34	8	107	17	54	147	28	21	122	14	812	0	0	0	0	0
	8:00 AM	27	281	34	8	106	14	55	166	21	18	112	11	853	1	0	0	0	1
	8:15 AM	30	256	35	9	116	15	48	198	24	18	145	11	905	0	0	0	0	0
	8:30 AM	28	238	25	4	120	15	53	201	22	30	156	13	905	0	0	0	0	0
	8:45 AM	20	235	30	10	100	19	54	188	36	20	130	11	853	0	0	0	0	0
	VOLUMES	207	2,149	228	55	751	105	398	1,204	177	146	947	87	6,454	1	0	0	0	1
	APPROACH %	8%	83%	9%	6%	82%	12%	22%	68%	10%	12%	80%	7%						
	APP/DEPART	2,584	/	2,634	911	/	1,075	1,779	/	1,487	1,180	/	1,258	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	105	1,010	124	31	442	63	210	753	103	86	543	46	3,516					
	APPROACH %	8%	82%	10%	6%	82%	12%	20%	71%	10%	13%	80%	7%						
	PEAK HR FACTOR		0.906			0.957			0.959			0.848		0.971					
	APP/DEPART	1,239	/	1,266	536	/	632	1,066	/	908	675	/	710	0					
PM	4:00 PM	24	170	32	29	237	35	35	119	35	35	134	14	899	0	0	0	0	0
	4:15 PM	19	158	27	18	275	33	28	150	30	30	152	14	934	0	0	0	0	0
	4:30 PM	24	174	34	16	252	47	34	131	36	35	161	14	958	0	0	0	0	0
	4:45 PM	26	170	32	12	249	50	40	145	42	35	155	12	968	0	0	0	0	0
	5:00 PM	26	197	32	18	273	51	35	130	35	43	154	9	1,003	0	0	0	0	0
	5:15 PM	27	174	35	14	242	40	36	137	29	36	170	7	947	1	0	0	0	1
	5:30 PM	30	195	28	18	234	47	36	159	31	35	178	8	999	0	0	0	0	0
	5:45 PM	23	176	40	18	252	51	41	117	32	33	182	10	975	0	0	0	0	0
	VOLUMES	199	1,414	260	143	2,014	354	285	1,088	270	282	1,286	88	7,683	1	0	0	0	1
	APPROACH %	11%	75%	14%	6%	80%	14%	17%	66%	16%	17%	78%	5%						
	APP/DEPART	1,873	/	1,787	2,511	/	2,567	1,643	/	1,491	1,656	/	1,838	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	106	742	135	68	1,001	189	148	543	127	147	684	34	3,924					
	APPROACH %	11%	75%	14%	5%	80%	15%	18%	66%	16%	17%	79%	4%						
	PEAK HR FACTOR		0.964			0.920			0.905			0.961		0.978					
	APP/DEPART	983	/	924	1,258	/	1,276	818	/	746	865	/	978	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	7	1	2	4	14	6	0	1	3	10	1	1	1	1	4
	7:15 AM	5	6	9	6	26	5	5	7	5	22	0	1	2	1	4
	7:30 AM	2	16	9	7	34	2	16	9	7	34	0	0	0	0	0
	7:45 AM	2	7	8	5	22	2	6	8	5	21	0	1	0	0	1
	8:00 AM	4	7	8	5	24	4	6	8	5	23	0	1	0	0	1
	8:15 AM	1	9	8	5	23	1	9	8	4	22	0	0	0	1	1
	8:30 AM	4	9	8	7	28	4	6	7	6	23	0	3	1	1	5
	8:45 AM	2	1	5	1	9	2	1	4	1	8	0	0	1	0	1
	TOTAL	27	56	57	40	180	26	49	52	36	163	1	7	5	4	17
PM	4:00 PM	4	7	13	14	38	4	5	12	10	31	0	2	1	4	7
	4:15 PM	6	12	10	14	42	4	11	10	12	37	2	1	0	2	5
	4:30 PM	4	11	15	7	37	4	11	9	7	31	0	0	6	0	6
	4:45 PM	9	15	12	15	51	9	12	12	15	48	0	3	0	0	3
	5:00 PM	3	23	8	16	50	2	22	6	14	44	1	1	2	2	6
	5:15 PM	1	15	6	10	32	1	13	6	9	29	0	2	0	1	3
	5:30 PM	1	12	7	8	28	1	9	5	5	20	0	3	2	3	8
	5:45 PM	0	4	1	12	17	0	3	1	12	16	0	1	0	0	1
	TOTAL	28	99	72	96	295	25	86	61	84	256	3	13	11	12	39

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Inglewood Blvd

East/West Culver Blvd

Day: Tuesday Date: June 7, 2016 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	38	46	40	51
BIKES	69	49	78	88
BUSES	7	7	12	12

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	347	7.30	212	7.45	299	8.30	238	7.45
PM PK 15 MIN	245	17.15	368	17.00	300	16.00	331	16.30
AM PK HOUR	1346	8.00	741	7.45	1149	8.00	829	7.45
PM PK HOUR	893	16.45	1423	16.45	1090	16.30	1269	16.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	60	949	148	1157
8-9	64	1081	201	1346
9-10	52	676	170	898
15-16	59	533	137	729
16-17	49	601	179	829
17-18	45	609	204	858
TOTAL	329	4449	1039	5817

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	83	405	38	526
8-9	89	513	61	663
9-10	106	456	52	614
15-16	111	975	95	1181
16-17	115	1131	85	1331
17-18	122	1216	80	1418
TOTAL	626	4696	411	5733

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
1683	66	15	105	5
2009	67	1	54	1
1512	44	0	31	0
1910	79	11	67	0
2160	61	4	29	5
2276	58	4	53	3
11550	375	35	339	14

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	82	874	40	996
8-9	105	999	45	1149
9-10	79	811	47	937
15-16	65	718	65	848
16-17	77	928	63	1068
17-18	86	937	64	1087
TOTAL	494	5267	324	6085

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	77	443	103	623
8-9	102	612	93	807
9-10	103	531	111	745
15-16	155	897	109	1161
16-17	114	998	98	1210
17-18	115	992	118	1225
TOTAL	666	4473	632	5771

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
1619	83	24	86	1
1956	66	6	65	0
1682	29	3	31	0
2009	89	15	71	1
2278	58	13	55	7
2312	46	8	65	3
11856	371	69	373	12

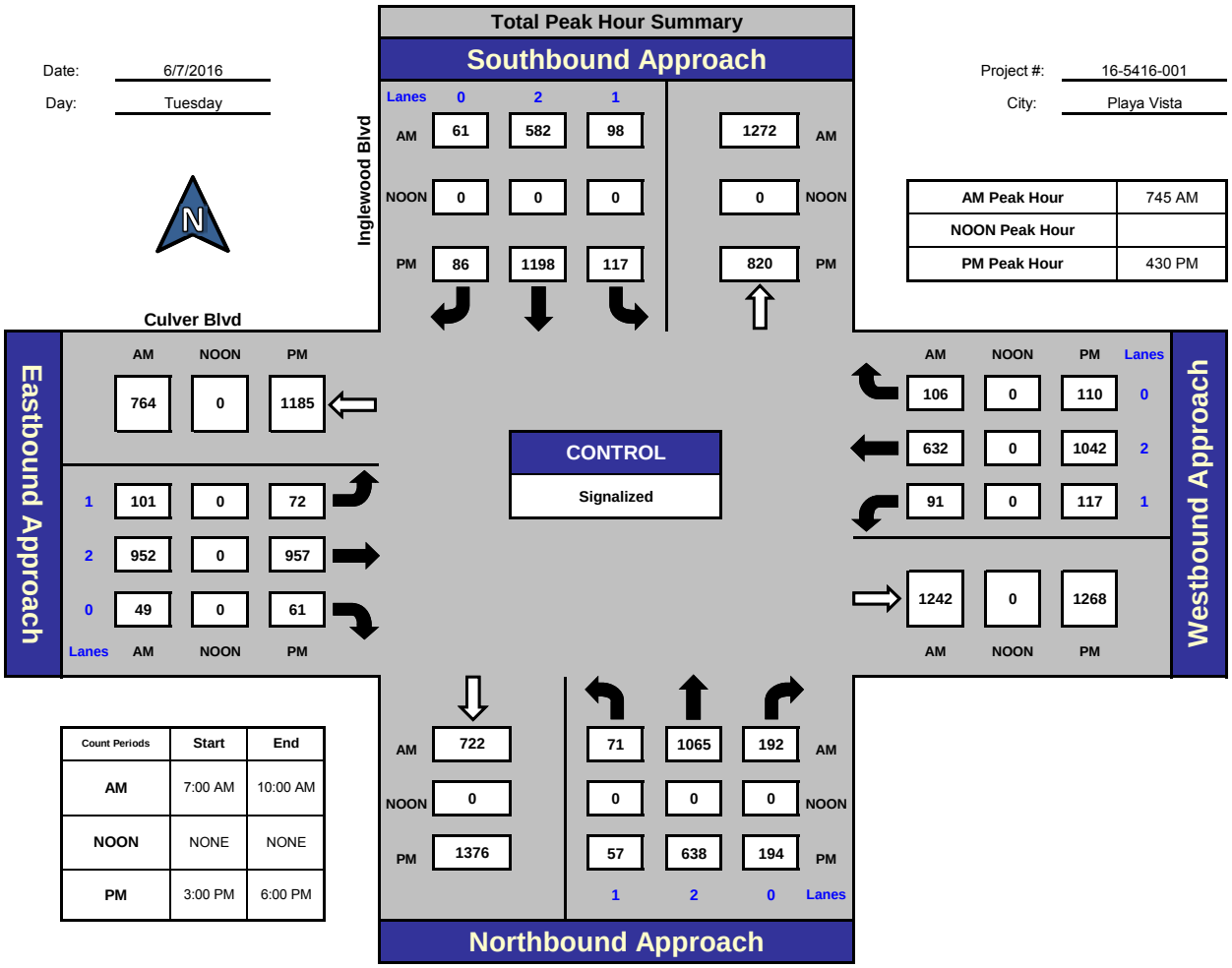
ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Inglewood Blvd and Culver Blvd , Playa Vista

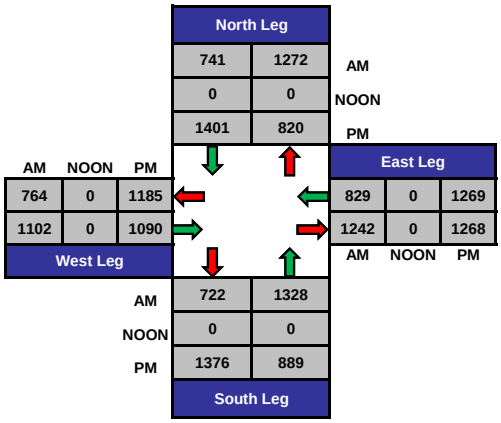
Date: 6/7/2016
Day: Tuesday
Project #: 16-5416-001
City: Playa Vista



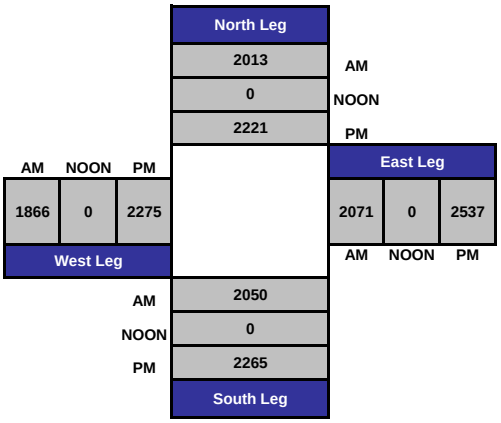
AM Peak Hour	745 AM
NOON Peak Hour	
PM Peak Hour	430 PM

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	NONE	NONE
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5416-001

Day: Tuesday

City: Playa Vista

Date: 6/7/2016

TOTALS

AM

NS/EW Streets:	Inglewood Blvd			Inglewood Blvd			Culver Blvd			Culver Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	2	0	1	2	0	
7:00 AM	9	174	35	15	57	4	18	222	9	13	75	15	646
7:15 AM	11	234	38	27	66	5	19	229	8	16	69	24	746
7:30 AM	17	284	46	18	109	13	20	213	12	26	118	29	905
7:45 AM	23	257	29	23	173	16	25	210	11	22	181	35	1005
8:00 AM	18	282	41	25	157	14	33	235	15	23	162	25	1030
8:15 AM	16	258	58	27	133	13	18	247	9	21	150	25	975
8:30 AM	14	268	64	23	119	18	25	260	14	25	139	21	990
8:45 AM	16	273	38	14	104	16	29	257	7	33	161	22	970
9:00 AM	8	216	33	31	136	9	14	202	17	34	147	29	876
9:15 AM	16	171	53	23	126	12	24	207	16	23	123	20	814
9:30 AM	15	155	45	22	97	17	23	208	6	26	136	35	785
9:45 AM	13	134	39	30	97	14	18	194	8	20	125	27	719
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	176	2706	519	278	1374	151	266	2684	132	282	1586	307	10461
APPROACH %'s :	5.17%	79.56%	15.26%	15.42%	76.21%	8.37%	8.63%	87.09%	4.28%	12.97%	72.92%	14.11%	
PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	71	1065	192	98	582	61	101	952	49	91	632	106	4000
PEAK HR FACTOR :		0.960			0.874			0.921			0.871		0.971

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5416-001 **Day:** Tuesday

TOTALS

City: Playa Vista **Date:** 6/7/2016

PM

NS/EW Streets:	Inglewood Blvd			Inglewood Blvd			Culver Blvd			Culver Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	2	0	1	2	0	
3:00 PM	11	124	36	34	234	22	14	148	12	33	210	22	900
3:15 PM	14	148	34	22	265	23	15	186	21	32	218	20	998
3:30 PM	15	130	27	36	244	29	21	183	14	47	236	24	1006
3:45 PM	19	131	40	19	232	21	15	201	18	43	233	43	1015
4:00 PM	9	145	39	33	275	21	24	256	20	20	234	21	1097
4:15 PM	10	123	49	25	291	18	17	212	14	33	243	27	1062
4:30 PM	13	156	51	32	270	23	17	237	18	30	274	27	1148
4:45 PM	17	177	40	25	295	23	19	223	11	31	247	23	1131
5:00 PM	11	132	47	39	315	14	20	242	17	29	256	33	1155
5:15 PM	16	173	56	21	318	26	16	255	15	27	265	27	1215
5:30 PM	10	167	47	30	291	26	20	217	14	33	264	25	1144
5:45 PM	8	137	54	32	292	14	30	223	18	26	207	33	1074
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	153	1743	520	348	3322	260	228	2583	192	384	2887	325	12945
APPROACH %'s :	6.33%	72.14%	21.52%	8.85%	84.53%	6.62%	7.59%	86.01%	6.39%	10.68%	80.28%	9.04%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	57	638	194	117	1198	86	72	957	61	117	1042	110	4649
PEAK HR FACTOR :		0.907			0.952			0.953			0.958		0.957

CONTROL : Signalized

Prepared by NDS/ATD

VOLUME

Colonial Ave N/O S Alley

Day: Wednesday
Date: 7/8/2015

City: Culver City
Project #: CA15_5421_001

DAILY TOTALS	NB	SB	EB	WB	Total
	240	154	0	0	394

AM Period	NB		SB		EB		WB		TOTAL	
00:00	0		1						1	
00:15	1		0						1	
00:30	1		1						2	
00:45	1	3	1	3					2	6
01:00	0		1						1	
01:15	1		0						1	
01:30	0		0						0	
01:45	1	2	1	2					2	4
02:00	0		0						0	
02:15	0		0						0	
02:30	1		0						1	
02:45	0	1	0						0	1
03:00	0		1						1	
03:15	0		1						1	
03:30	0		0						0	
03:45	0		0	2					0	2
04:00	0		0						0	
04:15	0		0						0	
04:30	0		0						0	
04:45	1	1	0						1	1
05:00	0		1						1	
05:15	0		0						0	
05:30	2		0						2	
05:45	0	2	0	1					0	3
06:00	1		0						1	
06:15	2		0						2	
06:30	0		1						1	
06:45	2	5	0	1					2	6
07:00	2		0						2	
07:15	0		1						1	
07:30	3		1						4	
07:45	0	5	0	2					0	7
08:00	0		2						2	
08:15	3		2						5	
08:30	3		1						4	
08:45	7	13	0	5					7	18
09:00	3		1						4	
09:15	4		2						6	
09:30	0		0						0	
09:45	1	8	5	8					6	16
10:00	1		1						2	
10:15	1		1						2	
10:30	2		2						4	
10:45	3	7	4	8					7	15
11:00	6		4						10	
11:15	2		1						3	
11:30	2		3						5	
11:45	1	11	4	12					5	23
TOTALS		58		44						102
SPLIT %		56.9%		43.1%						25.9%

PM Period	NB		SB		EB		WB		TOTAL	
12:00	3		3						6	
12:15	5		2						7	
12:30	5		4						9	
12:45	1	14	4	13					5	27
13:00	2		1						3	
13:15	4		2						6	
13:30	4		3						7	
13:45	2	12	5	11					7	23
14:00	7		3						10	
14:15	1		3						4	
14:30	5		2						7	
14:45	0	13	1	9					1	22
15:00	3		0						3	
15:15	1		2						3	
15:30	1		2						3	
15:45	3	8	2	6					5	14
16:00	7		1						8	
16:15	3		4						7	
16:30	4		1						5	
16:45	3	17	4	10					7	27
17:00	3		3						6	
17:15	10		2						12	
17:30	10		5						15	
17:45	3	26	3	13					6	39
18:00	7		4						11	
18:15	8		1						9	
18:30	11		5						16	
18:45	10	36	2	12					12	48
19:00	17		0						17	
19:15	6		2						8	
19:30	3		5						8	
19:45	6	32	5	12					11	44
20:00	5		2						7	
20:15	2		2						4	
20:30	0		1						1	
20:45	0	7	6	11					6	18
21:00	3		0						3	
21:15	2		2						4	
21:30	3		4						7	
21:45	3	11	0	6					3	17
22:00	3		1						4	
22:15	1		2						3	
22:30	0		2						2	
22:45	0	4	0	5					0	9
23:00	0		1						1	
23:15	0		1						1	
23:30	1		0						1	
23:45	1	2	0	2					1	4
TOTALS		182		110						292
SPLIT %		62.3%		37.7%						74.1%

DAILY TOTALS	NB	SB	EB	WB	Total
	240	154	0	0	394

AM Peak Hour	08:30	11:45			11:45
AM Pk Volume	17	13			27
Pk Hr Factor	0.607	0.813			0.750
7 - 9 Volume	18	7	0	0	25
7 - 9 Peak Hour	08:00	07:30			08:00
7 - 9 Pk Volume	13	5	0	0	18
Pk Hr Factor	0.464	0.625	0.000	0.000	0.643

PM Peak Hour	18:15	13:30			18:15
PM Pk Volume	46	14			54
Pk Hr Factor	0.676	0.700			0.794
4 - 6 Volume	43	23	0	0	66
4 - 6 Peak Hour	16:45	16:45			16:45
4 - 6 Pk Volume	26	14	0	0	40
Pk Hr Factor	0.650	0.700	0.000	0.000	0.667

Prepared by NDS/ATD

VOLUME

Boise Ave N/O Washington Blvd

Day: Wednesday
Date: 7/8/2015

City: Culver City
Project #: CA15_5421_003

DAILY TOTALS	NB	SB	EB	WB	Total
	628	406	0	0	1,034

AM Period	NB		SB		EB		WB		TOTAL	
00:00	1		4						5	
00:15	3		3						6	
00:30	1		5						6	
00:45	1	6	1	13					2	19
01:00	1		3						4	
01:15	0		1						1	
01:30	2		0						2	
01:45	0	3	0	4					0	7
02:00	1		0						1	
02:15	1		0						1	
02:30	1		0						1	
02:45	1	4	0						1	4
03:00	1		0						1	
03:15	1		1						2	
03:30	0		0						0	
03:45	0	2	1	2					1	4
04:00	0		0						0	
04:15	0		0						0	
04:30	0		0						0	
04:45	2	2	0						2	2
05:00	0		1						1	
05:15	0		2						2	
05:30	2		1						3	
05:45	1	3	0	4					1	7
06:00	2		2						4	
06:15	1		1						2	
06:30	0		1						1	
06:45	6	9	2	6					8	15
07:00	4		0						4	
07:15	5		4						9	
07:30	1		5						6	
07:45	4	14	6	15					10	29
08:00	9		7						16	
08:15	11		3						14	
08:30	9		4						13	
08:45	7	36	11	25					18	61
09:00	6		11						17	
09:15	6		9						15	
09:30	12		5						17	
09:45	5	29	2	27					7	56
10:00	6		9						15	
10:15	6		6						12	
10:30	3		6						9	
10:45	12	27	3	24					15	51
11:00	9		3						12	
11:15	7		3						10	
11:30	8		5						13	
11:45	4	28	2	13					6	41
TOTALS		163		133						296
SPLIT %		55.1%		44.9%						28.6%

PM Period	NB		SB		EB		WB		TOTAL	
12:00	10		3						13	
12:15	14		6						20	
12:30	11		7						18	
12:45	13	48	2	18					15	66
13:00	7		12						19	
13:15	4		11						15	
13:30	14		1						15	
13:45	7	32	6	30					13	62
14:00	8		2						10	
14:15	14		8						22	
14:30	7		6						13	
14:45	14	43	5	21					19	64
15:00	5		4						9	
15:15	12		6						18	
15:30	14		5						19	
15:45	10	41	5	20					15	61
16:00	11		4						15	
16:15	14		6						20	
16:30	18		7						25	
16:45	11	54	9	26					20	80
17:00	8		9						17	
17:15	13		5						18	
17:30	17		7						24	
17:45	20	58	9	30					29	88
18:00	19		6						25	
18:15	14		7						21	
18:30	11		4						15	
18:45	20	64	7	24					27	88
19:00	23		14						37	
19:15	14		11						25	
19:30	10		9						19	
19:45	7	54	6	40					13	94
20:00	10		5						15	
20:15	9		6						15	
20:30	7		4						11	
20:45	5	31	3	18					8	49
21:00	4		4						8	
21:15	4		9						13	
21:30	4		9						13	
21:45	2	14	0	22					2	36
22:00	7		4						11	
22:15	3		8						11	
22:30	6		1						7	
22:45	2	18	3	16					5	34
23:00	2		0						2	
23:15	1		1						2	
23:30	2		3						5	
23:45	3	8	4	8					7	16
TOTALS		465		273						738
SPLIT %		63.0%		37.0%						71.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	628	406	0	0	1,034

AM Peak Hour	11:45	08:45			08:45
AM Pk Volume	39	36			67
Pk Hr Factor	0.696	0.818			0.931
7 - 9 Volume	50	40	0	0	90
7 - 9 Peak Hour	08:00	08:00			08:00
7 - 9 Pk Volume	36	25	0	0	61
Pk Hr Factor	0.818	0.568	0.000	0.000	0.847

PM Peak Hour	17:30	18:45			18:45
PM Pk Volume	70	41			108
Pk Hr Factor	0.875	0.732			0.730
4 - 6 Volume	112	56	0	0	168
4 - 6 Peak Hour	17:00	16:15			17:00
4 - 6 Pk Volume	58	31	0	0	88
Pk Hr Factor	0.725	0.861	0.000	0.000	0.759

Prepared by NDS/ATD

VOLUME

Wasatch Ave N/O Washington Blvd

Day: Wednesday
Date: 7/8/2015

City: Culver City
Project #: CA15_5421_004

DAILY TOTALS	NB	SB	EB	WB	Total
	288	234	0	0	522

AM Period	NB		SB		EB		WB		TOTAL	
00:00	3		1						4	
00:15	0		0						0	
00:30	0		1						1	
00:45	0	3	0	2					0	5
01:00	0		0						0	
01:15	0		0						0	
01:30	0		0						0	
01:45	0		0						0	
02:00	0		0						0	
02:15	1		0						1	
02:30	1		0						1	
02:45	0	2	1	1					1	3
03:00	0		0						0	
03:15	0		2						2	
03:30	0		0						0	
03:45	0		1	3					1	3
04:00	0		0						0	
04:15	0		0						0	
04:30	0		1						1	
04:45	0		1	2					1	2
05:00	0		0						0	
05:15	2		0						2	
05:30	0		0						0	
05:45	1	3	1	1					2	4
06:00	0		0						0	
06:15	0		1						1	
06:30	2		1						3	
06:45	0	2	0	2					0	4
07:00	2		0						2	
07:15	1		4						5	
07:30	3		4						7	
07:45	5	11	4	12					9	23
08:00	3		5						8	
08:15	3		6						9	
08:30	1		4						5	
08:45	1	8	7	22					8	30
09:00	3		1						4	
09:15	5		6						11	
09:30	5		1						6	
09:45	1	14	4	12					5	26
10:00	2		3						5	
10:15	1		4						5	
10:30	3		4						7	
10:45	3	9	2	13					5	22
11:00	3		2						5	
11:15	6		1						7	
11:30	3		3						6	
11:45	4	16	3	9					7	25
TOTALS		68		79						**147**
SPLIT %		46.3%		53.7%						**28.2%**

PM Period	NB		SB		EB		WB		TOTAL	
12:00	6		2						8	
12:15	6		3						9	
12:30	2		4						6	
12:45	1	15	5	14					6	29
13:00	6		1						7	
13:15	5		4						9	
13:30	5		3						8	
13:45	5	21	0	8					5	29
14:00	2		2						4	
14:15	1		6						7	
14:30	3		4						7	
14:45	4	10	10	22					14	32
15:00	4		0						4	
15:15	3		5						8	
15:30	4		2						6	
15:45	8	19	3	10					11	29
16:00	8		3						11	
16:15	7		6						13	
16:30	2		5						7	
16:45	6	23	5	19					11	42
17:00	8		5						13	
17:15	8		4						12	
17:30	8		0						8	
17:45	15	39	4	13					19	52
18:00	10		7						17	
18:15	10		9						19	
18:30	8		9						17	
18:45	13	41	0	25					13	66
19:00	6		5						11	
19:15	7		1						8	
19:30	6		5						11	
19:45	5	24	4	15					9	39
20:00	5		3						8	
20:15	3		0						3	
20:30	3		4						7	
20:45	1	12	1	8					2	20
21:00	2		2						4	
21:15	0		3						3	
21:30	2		2						4	
21:45	1	5	1	8					2	13
22:00	0		2						2	
22:15	2		1						3	
22:30	2		0						2	
22:45	0	4	3	6					3	10
23:00	1		0						1	
23:15	1		2						3	
23:30	2		4						6	
23:45	3	7	1	7					4	14
TOTALS		220		155						**375**
SPLIT %		58.7%		41.3%						**71.8%**

DAILY TOTALS	NB	SB	EB	WB	Total
	288	234	0	0	522

AM Peak Hour	11:15	08:00			**07:30**
AM Pk Volume	19	22			**33**
Pk Hr Factor	0.792	0.786			**0.917**
7 - 9 Volume	19	34	0	0	**53**
7 - 9 Peak Hour	07:30	08:00			**07:30**
7 - 9 Pk Volume	14	22	0	0	**33**
Pk Hr Factor	0.700	0.786	0.000	0.000	**0.917**

PM Peak Hour	17:30	17:45			**17:45**
PM Pk Volume	43	29			**72**
Pk Hr Factor	0.717	0.806			**0.947**
4 - 6 Volume	62	32	0	0	**94**
4 - 6 Peak Hour	17:00	16:15			**17:00**
4 - 6 Pk Volume	39	21	0	0	**52**
Pk Hr Factor	0.650	0.875	0.000	0.000	**0.684**

APPENDIX D

Level of Service Worksheets

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lincoln Boulevard	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	RA	Date:	1/3/2017
1	East-West Street:	Venice Boulevard	Projection Year:	2019	Peak Hour:	AM	Reviewed by:	RA	Project:	RA488

No. of Phases			4			4			4			4			4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB --	0	SB -- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB--	0
	EB --	3	WB -- 3	EB--	3	WB-- 3	EB--	3	WB-- 3	EB--	3	WB-- 3	EB--	3	WB-- 3	EB--	3	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2				2
Override Capacity			0			0			0			0			0				0

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	105	2	58	0	105	58	32	139	2	76	0	139	2	76		139	2	76
Left-Through		0							0				0				0	
Through	1413	1	**760**	1	1414	**760**	87	1528	1	**822**	1	1529	1	**823**		1529	1	**823**
Through-Right		1							1				1				1	
Right	106	0	106	0	106	106	8	116	0	116	0	116	0	116		116	0	116
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	291	2	**160**	0	291	**160**	8	305	2	**168**	0	305	2	**168**		305	2	**168**
Left-Through		0							0				0				0	
Through	1284	1	658	2	1286	659	154	1464	1	753	2	1466	1	754		1466	1	754
Through-Right		1							1				1				1	
Right	32	0	32	0	32	32	9	42	0	42	0	42	0	42		42	0	42
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	121	2	**67**	0	121	**67**	7	130	2	**72**	0	130	2	**72**		130	2	**72**
Left-Through		0							0				0				0	
Through	820	3	273	1	821	274	40	876	3	292	1	877	3	292		877	3	292
Through-Right		0							0				0				0	
Right	116	1	58	1	117	59	20	138	1	62	1	139	1	63		139	1	63
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	195	2	107	0	195	107	9	208	2	114	0	208	2	114		208	2	114
Left-Through		0							0				0				0	
Through	751	2	**376**	1	752	**376**	28	794	2	**397**	1	795	2	**398**		795	2	**398**
Through-Right		0							0				0				0	
Right	312	1	152	0	312	152	6	324	1	156	0	324	1	156		324	1	156
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		920	*North-South:*		920	*North-South:*			990	*North-South:*			991	*North-South:*			991
	East-West:		443	*East-West:*		443	*East-West:*			469	*East-West:*			470	*East-West:*			470
	SUM:		1363	*SUM:*		1363	*SUM:*			1459	*SUM:*			1461	*SUM:*			1461
VOLUME/CAPACITY *(V/C)* RATIO:			0.991			0.991				1.061				1.063				1.063
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.891**			**0.891**				**0.961**				**0.963**				**0.963**
LEVEL OF SERVICE (LOS):			D			D				E				E				E

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	Δ*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lincoln Boulevard	Year of Count:	2017	Ambient Growth (%):	1	Conducted by:	RA	Date:	1/3/2017
1	East-West Street:	Venice Boulevard	Projection Year:	2019	Peak Hour:	PM	Reviewed by:	RA	Project:	RA488

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			4			4			4				4				4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB-- 0	0	NB-- 0	SB-- 0	0	NB-- 0	SB-- 0	0		NB-- 0	SB-- 0	0		NB-- 0	SB-- 0	0	
	EB-- 3	WB-- 3	3	EB-- 3	WB-- 3	3	EB-- 3	WB-- 3	3		EB-- 3	WB-- 3	3		EB-- 3	WB-- 3	3	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	167	2	92	0	167	92	40	210	2	116	0	210	2	116	0	210	2	116
	Left-Through		0							0				0				0	
	Through	1277	1	**694**	3	1280	**696**	161	1464	1	**791**	3	1467	1	**793**	0	1467	1	**793**
	Through-Right		1							1				1				1	
	Right	111	0	111	0	111	111	5	118	0	118	0	118	0	118	0	118	0	118
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	173	2	**95**	0	173	**95**	5	181	2	**100**	0	181	2	**100**	0	181	2	**100**
	Left-Through		0							0				0				0	
	Through	773	1	395	4	777	397	120	909	1	471	4	913	1	473	0	913	1	473
	Through-Right		1							1				1				1	
	Right	17	0	17	0	17	17	16	33	0	33	0	33	0	33	0	33	0	33
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	99	2	54	0	99	54	15	116	2	64	0	116	2	64	0	116	2	64
	Left-Through		0							0				0				0	
	Through	1162	3	**387**	3	1165	**388**	35	1220	3	**407**	3	1223	3	**408**	0	1223	3	**408**
	Through-Right		0							0				0				0	
	Right	290	1	198	1	291	199	37	333	1	217	1	334	1	218	0	334	1	218
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	254	2	**140**	0	254	**140**	11	270	2	**149**	0	270	2	**149**	0	270	2	**149**
	Left-Through		0							0				0				0	
	Through	793	2	397	3	796	398	54	863	2	432	3	866	2	433	0	866	2	433
	Through-Right		0							0				0				0	
	Right	277	1	182	0	277	182	12	295	1	195	0	295	1	195	0	295	1	195
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		789	North-South:		791	North-South:			891	North-South:			893	North-South:			893
		East-West:		527	East-West:		528	East-West:			556	East-West:			557	East-West:			557
		SUM:		1316	SUM:		1319	SUM:			1447	SUM:			1450	SUM:			1450
VOLUME/CAPACITY (V/C) RATIO:				0.957			0.959				1.052				1.055				1.055
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.857			0.859				0.952				0.955				0.955
LEVEL OF SERVICE (LOS):				D			D				E				E				E

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.003	Δ*v/c* after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Year of Count:	Ambient Growth: (%):	Conducted by:	Date:
2	Lincoln Boulevard	2017	1	RA	1/3/2017
	East-West Street: Washington Boulevard	Projection Year: 2019	Peak Hour: AM	Reviewed by: RA	Project: RA488

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			4			4			4				4					4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0					0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 3 WB--		0	NB-- 0 SB-- EB-- 3 WB--		0	NB-- 0 SB-- EB-- 3 WB--		0		NB-- 0 SB-- EB-- 3 WB--		0		NB-- 0 SB-- EB-- 3 WB--		0
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2					2
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	637	2	**350**	0	637	**350**	12	662	2	**364**	0	662	2	**364**		662	2	**364**
	Left-Through		0							0				0				0	
	Through	1474	2	525	0	1474	526	112	1616	2	581	0	1616	2	581		1616	2	581
	Through-Right		1							1				1				1	
	Right	101	0	101	2	103	103	23	126	0	126	2	128	0	128		128	0	128
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	226	2	124	3	229	126	26	257	2	141	3	260	2	143		260	2	143
	Left-Through		0							0				0				0	
	Through	1422	2	**512**	0	1422	**512**	153	1604	2	**574**	0	1604	2	**574**		1604	2	**574**
	Through-Right		1							1				1				1	
	Right	114	0	114	0	114	114	1	117	0	117	0	117	0	117		117	0	117
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	80	2	44	0	80	44	2	84	2	46	0	84	2	46		84	2	46
	Left-Through		0							0				0				0	
	Through	764	2	**382**	2	766	**383**	38	817	2	**409**	2	819	2	**410**		819	2	**410**
	Through-Right		0							0				0				0	
	Right	534	1	184	0	534	184	37	582	1	218	0	582	1	218		582	1	218
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	129	2	**71**	1	130	**72**	12	144	2	**79**	1	145	2	**80**		145	2	**80**
	Left-Through		0							0				0				0	
	Through	696	2	348	1	697	349	21	731	2	366	1	732	2	366		732	2	366
	Through-Right		0							0				0				0	
	Right	185	1	61	1	186	60	14	203	1	62	1	204	1	61		204	1	61
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	North-South:		862	North-South:		862	North-South:			938	North-South:			938		North-South:		938
		East-West:		453	East-West:		455	East-West:			488	East-West:			490		East-West:		490
		SUM:		1315	SUM:		1317	SUM:			1426	SUM:			1428		SUM:		1428
	VOLUME/CAPACITY (V/C) RATIO:			0.956			0.958				1.037				1.039				1.039
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.856			0.858				0.937				0.939				0.939
	LEVEL OF SERVICE (LOS):			D			D				E				E				E

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.002 — Δ*v/c* after mitigation: 0.002

Significant impacted? NO — Fully mitigated? N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lincoln Boulevard	Year of Count:	2017	Ambient Growth (%):	1	Conducted by:	RA	Date:	1/3/2017
2	East-West Street:	Washington Boulevard	Projection Year:	2019	Peak Hour:	PM	Reviewed by:	RA	Project:	RA488

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	446	2	**245**	0	446	**245**	36	491	2	**270**	0	491	2	**270**	0	491	2	**270**
Left-Through		0							0				0				0	
Through	1200	2	466	0	1200	468	186	1410	2	546	0	1410	2	547	0	1410	2	547
Through-Right		1							1				1				1	
Right	199	0	199	4	203	203	25	228	0	228	4	232	0	232	0	232	0	232
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	180	2	99	5	185	102	44	228	2	125	5	233	2	128	0	233	2	128
Left-Through		0							0				0				0	
Through	1429	2	**513**	0	1429	**513**	119	1577	2	**564**	0	1577	2	**564**	0	1577	2	**564**
Through-Right		1							1				1				1	
Right	110	0	110	0	110	110	3	115	0	115	0	115	0	115	0	115	0	115
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	104	2	57	0	104	57	3	109	2	60	0	109	2	60	0	109	2	60
Left-Through		0							0				0				0	
Through	688	2	**344**	4	692	**346**	31	733	2	**367**	4	737	2	**369**	0	737	2	**369**
Through-Right		0							0				0				0	
Right	511	1	266	0	511	266	20	541	1	271	0	541	1	271	0	541	1	271
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	249	2	**137**	3	252	**139**	23	277	2	**152**	3	280	2	**154**	0	280	2	**154**
Left-Through		0							0				0				0	
Through	769	2	385	3	772	386	43	827	2	414	3	830	2	415	0	830	2	415
Through-Right		0							0				0				0	
Right	231	1	132	3	234	132	27	263	1	138	3	266	1	138	0	266	1	138
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		758	*North-South:*		758	*North-South:*			834	*North-South:*			834	*North-South:*			834
	East-West:		481	*East-West:*		485	*East-West:*			519	*East-West:*			523	*East-West:*			523
	SUM:		1239	*SUM:*		1243	*SUM:*			1353	*SUM:*			1357	*SUM:*			1357
VOLUME/CAPACITY *(V/C)* RATIO:			0.901			0.904				0.984				0.987				0.987
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.801**			**0.804**				**0.884**				**0.887**				**0.887**
LEVEL OF SERVICE (LOS):			**D**			**D**				**D**				**D**				**D**

	NB--	SB--	EB--	WB--
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	0	3	3
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	0	3	3
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	0	3	3
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	0	3	3
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	0	3	3

No. of Phases	4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0
ATSAC-1 or ATSAC+ATCS-2?	2
Override Capacity	0

REMARKS:

Version: 1i Beta; 8/4/2011

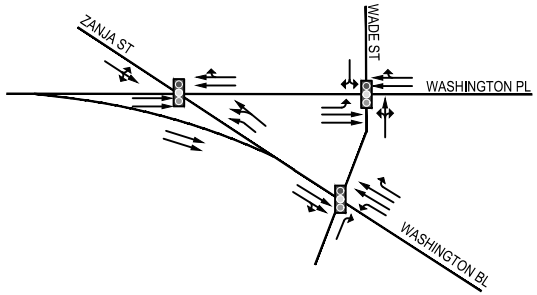
PROJECT IMPACT

Change in *v/c* due to project:	0.003	Δ*v/c* after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

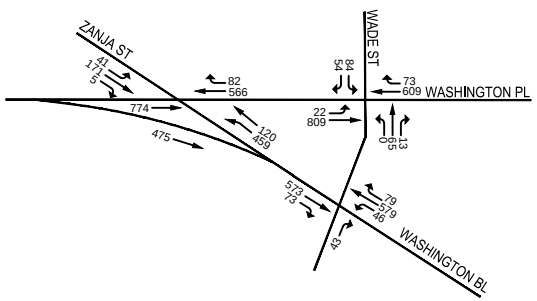
ICU METHODOLOGY
EXISTING (2017) CONDITIONS
AM PEAK HOUR

Int # 3 - Washington Boulevard & Washington Place at Wade Street

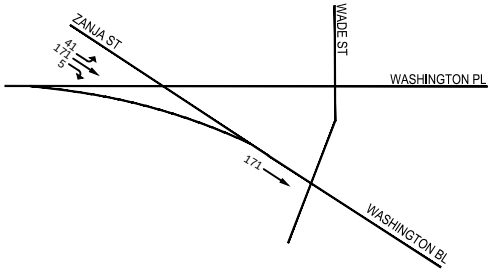
Intersection Lane Configuration



Intersection Peak Hour Traffic Volumes



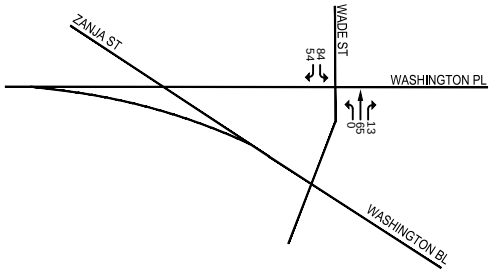
LOS Calculations



(1) 5 + 171 + 41 = 217

or

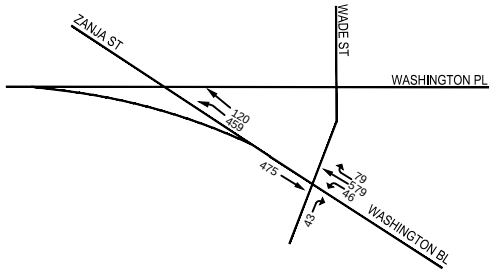
$\frac{171}{2}$ = 86



(3) 0 + (84+54) = 138

or

84 + (65+13+0) = 162



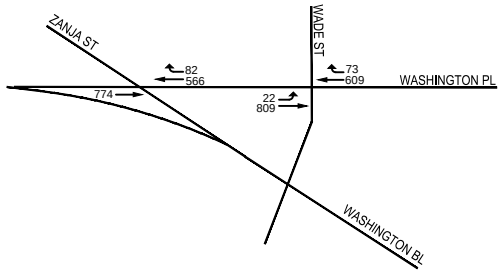
(2) 46 + $\frac{475}{2}$ + (43 - 46) = 284

or

$\frac{579}{2}$ = 290 or $\frac{459+120}{2}$ = 290

or

79



(4) $\frac{774}{2}$ = 387

or

$\frac{566+82}{2}$ = 324

or

22 + $\frac{609+73}{2}$ = 363

or

$\frac{809}{2}$ = 405

CRITICAL VOLUMES = 217 + 290 + 162 + 405 = 1,074

V/C = $\frac{1,074}{1,600}$ = 0.671

Lost Time = 0.100

ATSAC = -0.070

ICU = 0.701 LOS C

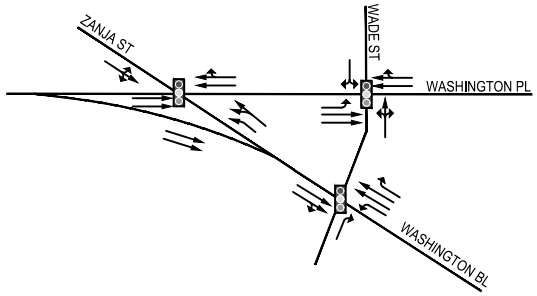
N

Not to scale

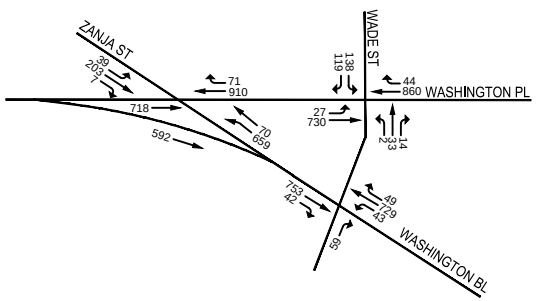
ICU METHODOLOGY
EXISTING (2017) CONDITIONS
PM PEAK HOUR

Int # 3 - Washington Boulevard & Washington Place at Wade Street

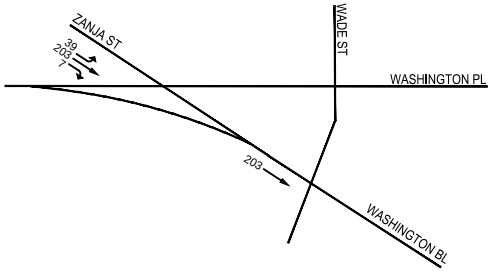
Intersection Lane Configuration



Intersection Peak Hour Traffic Volumes



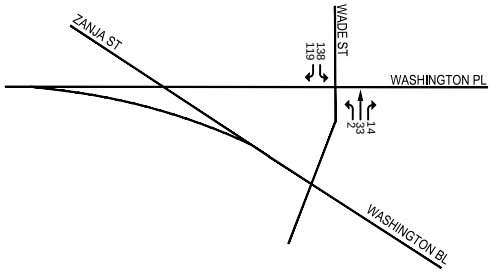
LOS Calculations



(1) 7 + 203 + 39 = 249

or

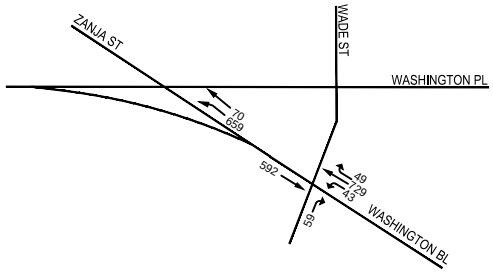
$\frac{203}{2}$ = 102



(3) 0 + (138 + 119) = 259

or

138 + (33+14+2) = 187



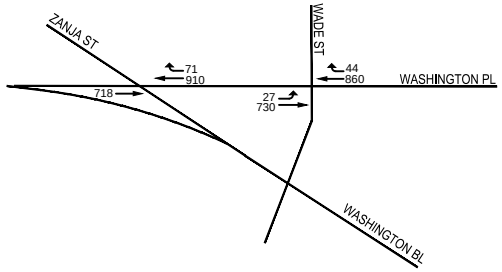
(2) 43 + $\frac{592}{2}$ + (59 - 43) = 355

or

$\frac{729}{2}$ = 365 or $\frac{659+70}{2}$ = 365

or

49



(4) $\frac{718}{2}$ = 359

or

$\frac{910+71}{2}$ = 491

or

27 + $\frac{860+44}{2}$ = 479

or

$\frac{730}{2}$ = 365

CRITICAL VOLUMES = 249 + 365 + 259 + 491 = 1,364

V/C = $\frac{1,364}{1,600}$ = 0.853

Lost Time = 0.100

ATSAC = -0.070

ICU = 0.883	LOS D

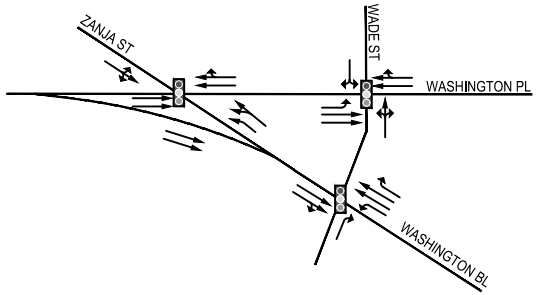
N

Not to scale

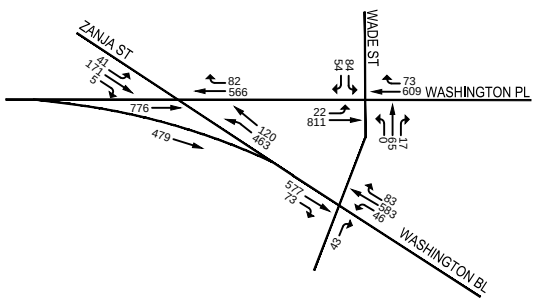
ICU METHODOLOGY
EXISTING (2017) PLUS PROJECT CONDITIONS
AM PEAK HOUR

Int # 3 - Washington Boulevard & Washington Place at Wade Street

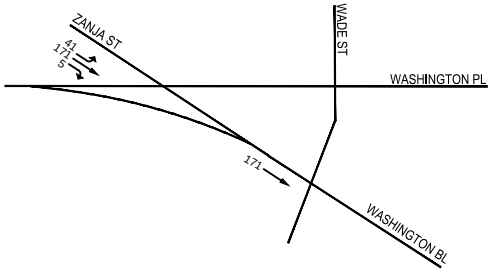
Intersection Lane Configuration



Intersection Peak Hour Traffic Volumes



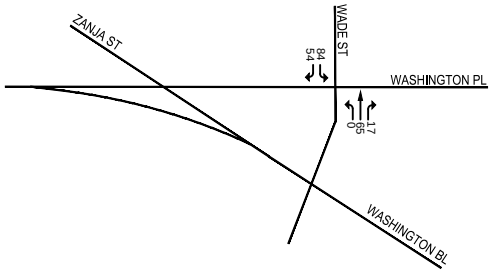
LOS Calculations



(1) 5 + 171 + 41 = 217

or

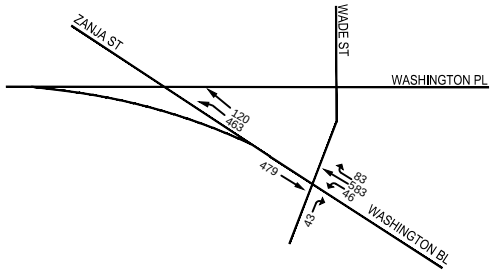
$\frac{171}{2}$ = 86



(3) 0 + (84+54) = 138

or

84 + (65+17+0) = 166



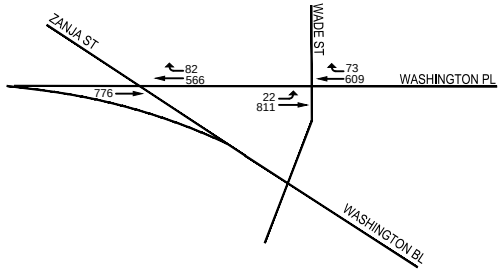
(2) 46 + $\frac{479}{2}$ + (43 - 46) = 286

or

$\frac{583}{2}$ = 292 or $\frac{463+120}{2}$ = 292

or

83



(4) $\frac{776}{2}$ = 388

or

$\frac{566+82}{2}$ = 324

or

22 + $\frac{609+73}{2}$ = 363

or

$\frac{811}{2}$ = 406

CRITICAL VOLUMES = 217 + 292 + 166 + 406 = 1,081

V/C = $\frac{1,081}{1,600}$ = 0.676

Lost Time = 0.100

ATSAC = -0.070

ICU	= 0.706	LOS C

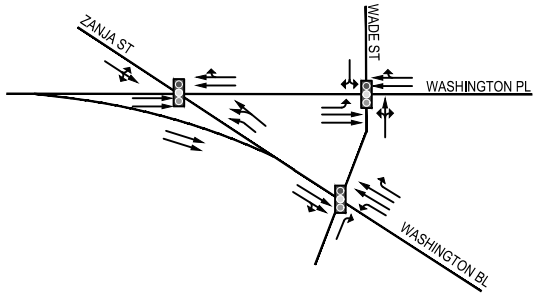
N

Not to scale

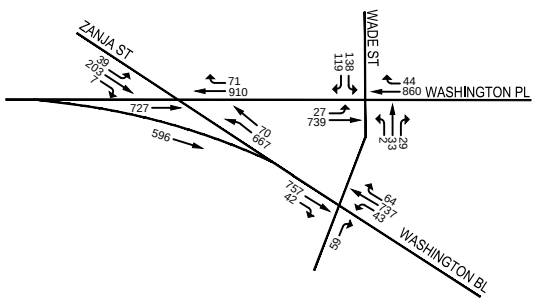
ICU METHODOLOGY
EXISTING (2017) PLUS PROJECT CONDITIONS
PM PEAK HOUR

Int # 3 - Washington Boulevard & Washington Place at Wade Street

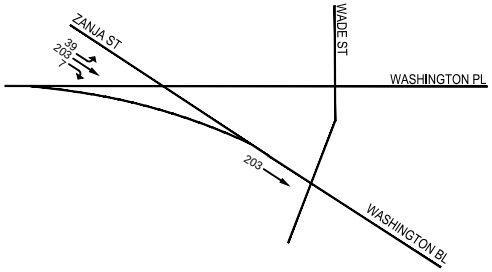
Intersection Lane Configuration



Intersection Peak Hour Traffic Volumes



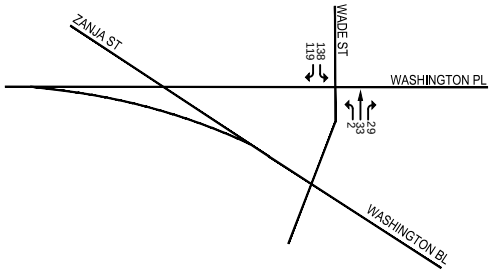
LOS Calculations



(1) 7 + 203 + 39 = 249

or

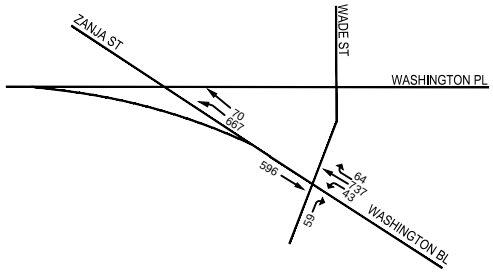
$\frac{203}{2}$ = 102



(3) 2 + (138 + 119) = 259

or

138 + (33 + 29 + 2) = 202



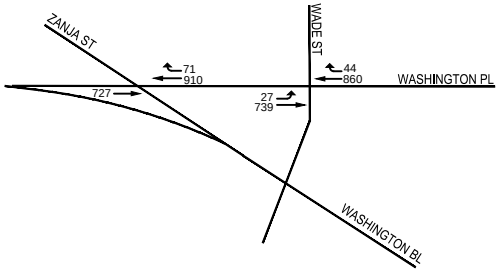
(2) 43 + $\frac{596}{2}$ + (59 - 43) = 357

or

$\frac{737}{2}$ = 369 or $\frac{667 + 70}{2}$ = 369

or

64



(4) $\frac{727}{2}$ = 364

or

$\frac{910 + 71}{2}$ = 491

or

27 + $\frac{860 + 44}{2}$ = 479

or

$\frac{739}{2}$ = 370

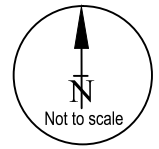
CRITICAL VOLUMES = 249 + 369 + 259 + 491 = 1,368

V/C = $\frac{1,368}{1,600}$ = 0.855

Lost Time = 0.100

ATSAC = -0.070

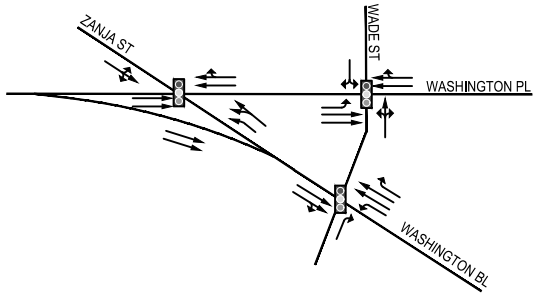
ICU = 0.885 LOS D



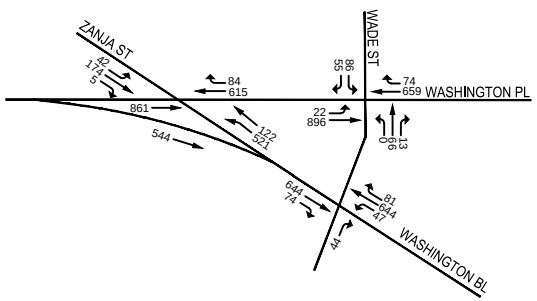
ICU METHODOLOGY
CUMULATIVE (2019) BASE CONDITIONS
AM PEAK HOUR

Int # 3 - Washington Boulevard & Washington Place at Wade Street

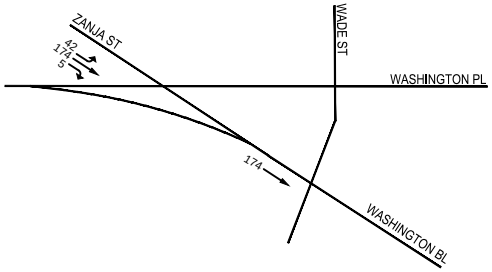
Intersection Lane Configuration



Intersection Peak Hour Traffic Volumes



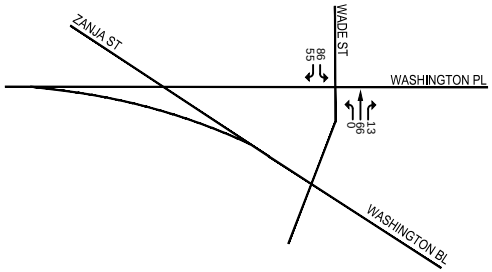
LOS Calculations



(1) 5 + 174 + 42 = 221

or

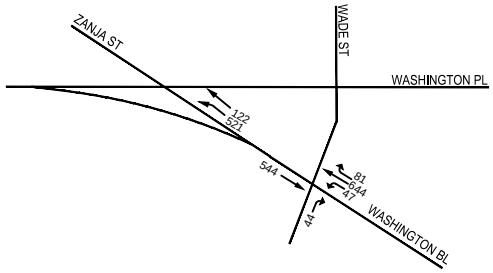
$\frac{174}{2}$ = 87



(3) 0 + (86+55) = 141

or

86 + (66+13+0) = 165



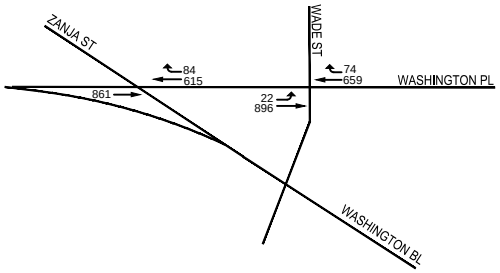
(2) 47 + $\frac{544}{2}$ + (44 - 47) = 319

or

$\frac{644}{2}$ = 322 or $\frac{521+122}{2}$ = 322

or

81



(4) $\frac{861}{2}$ = 431

or

$\frac{615+84}{2}$ = 350

or

22 + $\frac{659+74}{2}$ = 389

or

$\frac{896}{2}$ = 448

CRITICAL VOLUMES = 221 + 322 + 165 + 448 = 1,156

V/C = $\frac{1,156}{1,600}$ = 0.723

Lost Time = 0.100

ATSAC = -0.070

ICU	= 0.753	LOS C

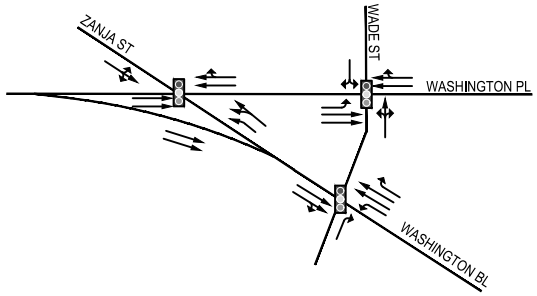
N

Not to scale

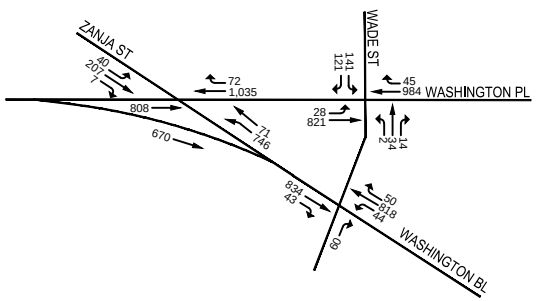
ICU METHODOLOGY
CUMULATIVE (2019) BASE CONDITIONS
PM PEAK HOUR

Int # 3 - Washington Boulevard & Washington Place at Wade Street

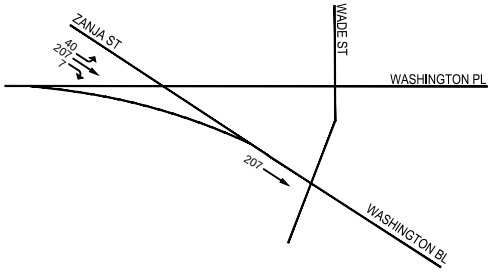
Intersection Lane Configuration



Intersection Peak Hour Traffic Volumes



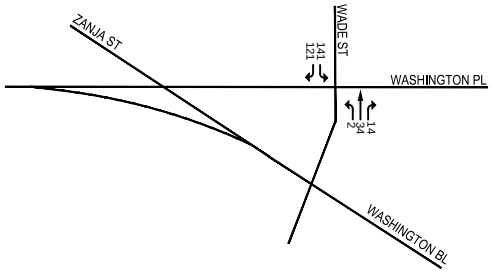
LOS Calculations



(1) 7 + 207 + 40 = 254

or

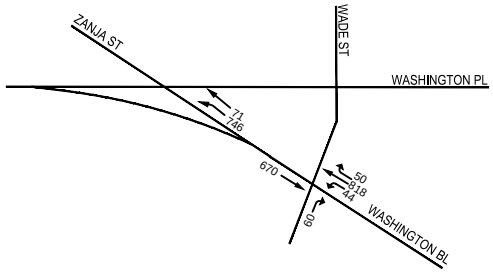
$\frac{207}{2}$ = 104



(3) 2 + (141 + 121) = 264

or

141 + (34+14+2) = 191



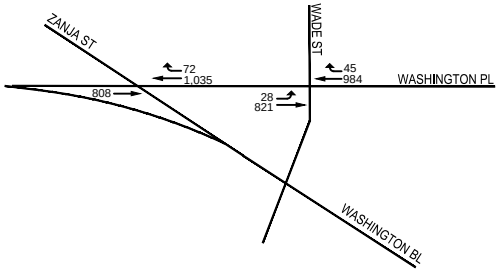
(2) 44 + $\frac{670}{2}$ + (60 - 44) = 395

or

$\frac{818}{2}$ = 409 or $\frac{746 + 71}{2}$ = 409

or

50



(4) $\frac{808}{2}$ = 404

or

$\frac{1,035 + 72}{2}$ = 554

or

28 + $\frac{984 + 45}{2}$ = 543

or

$\frac{821}{2}$ = 411

CRITICAL VOLUMES = 254 + 409 + 264 + 554 = 1,481

V/C = $\frac{1,481}{1,600}$ = 0.926

Lost Time = 0.100

ATSAC = -0.070

ICU = 0.956	LOS E

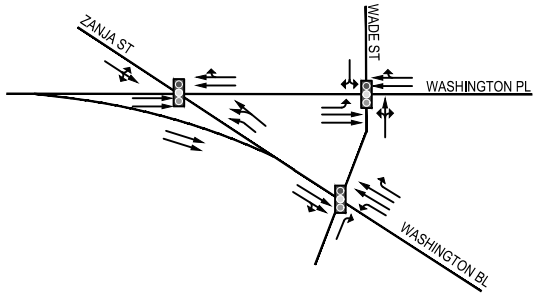
N

Not to scale

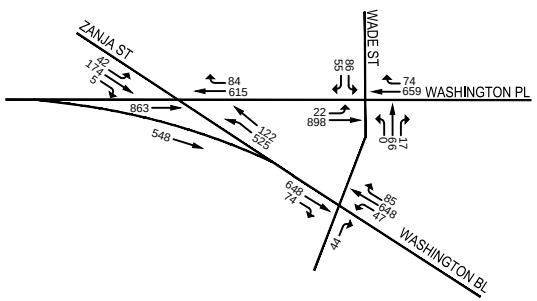
ICU METHODOLOGY
CUMULATIVE (2019) PLUS PROJECT CONDITIONS
AM PEAK HOUR

Int # 3 - Washington Boulevard & Washington Place at Wade Street

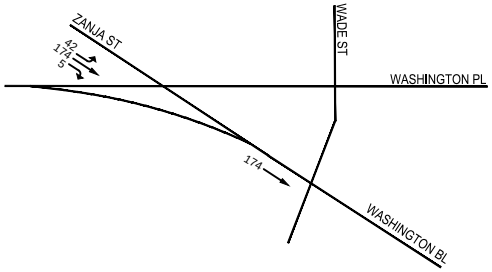
Intersection Lane Configuration



Intersection Peak Hour Traffic Volumes



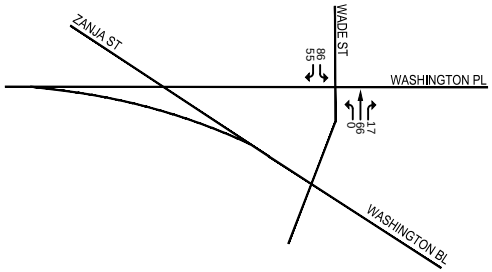
LOS Calculations



(1) 5 + 174 + 42 = 221

or

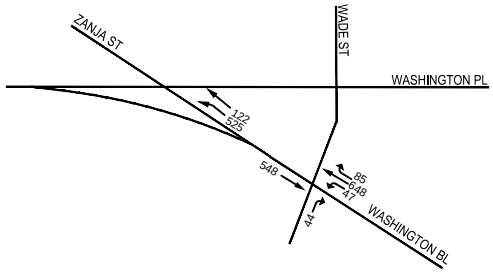
$\frac{174}{2}$ = 87



(3) 0 + (86+55) = 141

or

86 + (66+17+0) = 169



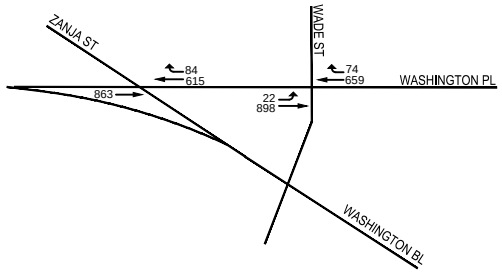
(2) 47 + $\frac{548}{2}$ + (44 - 47) = 321

or

$\frac{648}{2}$ = 324 or $\frac{525+122}{2}$ = 324

or

85



(4) $\frac{863}{2}$ = 432

or

$\frac{615+84}{2}$ = 350

or

22 + $\frac{659+74}{2}$ = 389

or

$\frac{898}{2}$ = 449

CRITICAL VOLUMES = 221 + 324 + 169 + 449 = 1,163

V/C = $\frac{1,163}{1,600}$ = 0.727

Lost Time = 0.100

ATSAC = -0.070

ICU = 0.757 LOS C

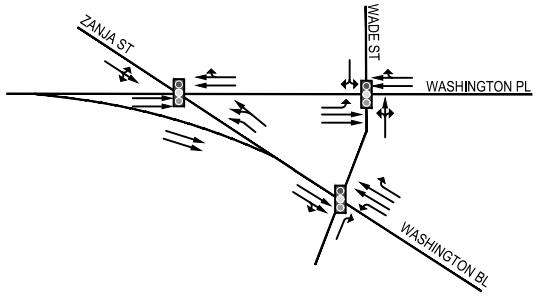
N

Not to scale

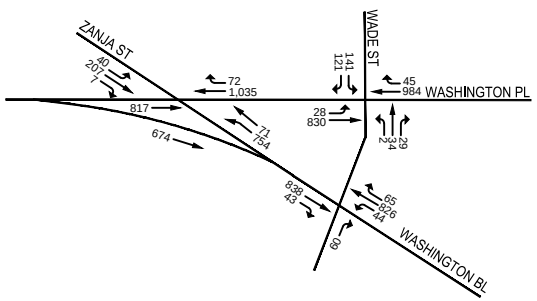
ICU METHODOLOGY
CUMULATIVE (2019) PLUS PROJECT CONDITIONS
PM PEAK HOUR

Int # 3 - Washington Boulevard & Washington Place at Wade Street

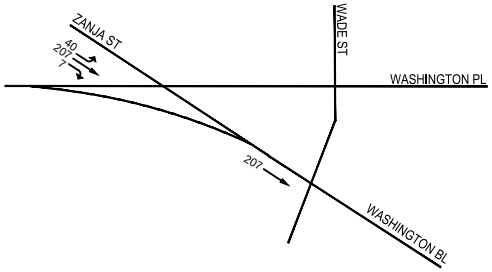
Intersection Lane Configuration



Intersection Peak Hour Traffic Volumes



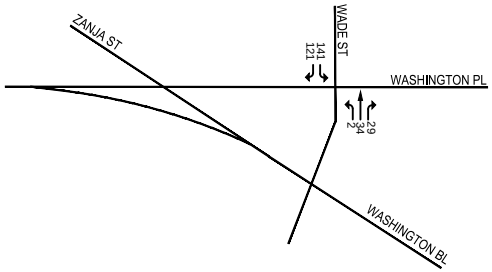
LOS Calculations



(1) 7 + 207 + 40 = 254

or

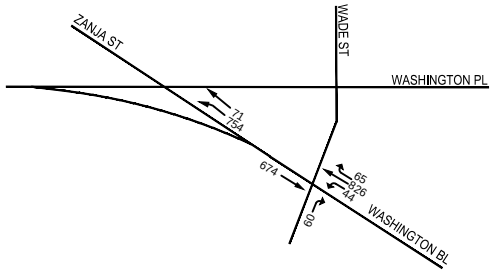
$\frac{207}{2}$ = 104



(3) 2 + (141 + 121) = 264

or

141 + (34+29+2) = 206



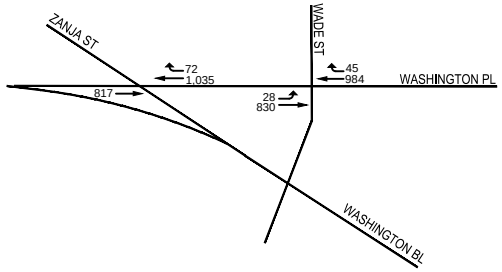
(2) 44 + $\frac{674}{2}$ + (60 - 44) = 397

or

$\frac{826}{2}$ = 413 or $\frac{754+71}{2}$ = 413

or

65



(4) $\frac{817}{2}$ = 409

or

$\frac{1,035+72}{2}$ = 554

or

28 + $\frac{984+45}{2}$ = 543

or

$\frac{830}{2}$ = 415

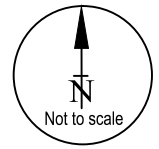
CRITICAL VOLUMES = 254 + 413 + 264 + 554 = 1,485

V/C = $\frac{1,485}{1,600}$ = 0.928

Lost Time = 0.100

ATSAC = -0.070

ICU = 0.958	LOS E



TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*CLM*
Agency/Co.	*RA*
Date Performed	*1/3/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*Colonial Av/Washington Bl*
Jurisdiction	*Culver City*
Analysis Year	*Existing (2017)*

Project Description *Market Hall*

East/West Street: *Washington Boulevard* | North/South Street: *Colonial Avenue*

Intersection Orientation: *East-West* | Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*9*	*810*			*677*	*7*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*9*	*810*	*0*	*0*	*677*	*7*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*2*	*0*
Configuration	*L*	*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*7*		*2*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*7*	*0*	*2*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*9*						*9*	
C (m) (veh/h)	*919*						*246*	
v/c	*0.01*						*0.04*	
95% queue length	*0.03*						*0.11*	
Control Delay (s/veh)	*9.0*						*20.2*	
LOS	*A*						*C*	
Approach Delay (s/veh)	--	--					*20.2*	
Approach LOS	--	--					*C*	

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*CLM*
Agency/Co.	*RA*
Date Performed	*1/3/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Colonial Av/Washington Bl*
Jurisdiction	*Culver City*
Analysis Year	*Existing (2017)*

Project Description *Market Hall*

East/West Street: *Washington Boulevard* | North/South Street: *Colonial Avenue*

Intersection Orientation: *East-West* | Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*11*	*878*			*795*	*13*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*11*	*878*	*0*	*0*	*795*	*13*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*2*	*0*
Configuration	*L*	*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*10*		*33*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*10*	*0*	*33*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*11*						*43*	
C (m) (veh/h)	*826*						*382*	
v/c	*0.01*						*0.11*	
95% queue length	*0.04*						*0.38*	
Control Delay (s/veh)	*9.4*						*15.6*	
LOS	*A*						*C*	
Approach Delay (s/veh)	--	--					*15.6*	
Approach LOS	--	--					*C*	

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Project: MARKET HALL PROJECT
INT # 4
North/South Street: COLONIAL AVENUE
East/West Street: WASHINGTON BOULEVARD

Scenario: EXISTING (2017) CONDITIONS

Thru Lane:	1200 vph	N-S Split Phase :	N
Left-Turn Lane:	1200 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.22	2	267	0.000	N-S(1):	0.008 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	0.78	7	933	0.008 *	E-W(1):	0.338 *
Westbound	RT	0.00	7	0	0.000	E-W(2):	0.293
	TH	2.00	677	2,400	0.285		
	LT	0.00	0	0	0.000 *	V/C:	0.346
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.100
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.446
	TH	2.00	810	2,400	0.338 *		
	LT	1.00	9	1,200	0.008	LOS:	A

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.77	33	921	0.024	N-S(1):	0.036 *
	TH	0.00	0	0	0.000	N-S(2):	0.024
	LT	0.23	10	279	0.036 *	E-W(1):	0.366 *
Westbound	RT	0.00	13	0	0.000	E-W(2):	0.346
	TH	2.00	795	2,400	0.337		
	LT	0.00	0	0	0.000 *	V/C:	0.402
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.100
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.502
	TH	2.00	878	2,400	0.366 *		
	LT	1.00	11	1,200	0.009	LOS:	A

* = Critical Movement

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*CLM*
Agency/Co.	*RA*
Date Performed	*1/3/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*Colonial Av/Washington Bl*
Jurisdiction	*Culver City*
Analysis Year	*Existing (2017) + Project*

Project Description *Market Hall*

East/West Street: *Washington Boulevard* | North/South Street: *Colonial Avenue*

Intersection Orientation: *East-West* | Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*9*	*814*			*679*	*11*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*9*	*814*	*0*	*0*	*679*	*11*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*2*	*0*
Configuration	*L*	*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*7*		*7*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*7*	*0*	*7*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*9*						*14*	
C (m) (veh/h)	*716*						*229*	
v/c	*0.01*						*0.06*	
95% queue length	*0.04*						*0.19*	
Control Delay (s/veh)	*10.1*						*21.7*	
LOS	*B*						*C*	
Approach Delay (s/veh)	--	--					*21.7*	
Approach LOS	--	--					*C*	

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*CLM*
Agency/Co.	*RA*
Date Performed	*1/3/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Colonial Av/Washington Bl*
Jurisdiction	*Culver City*
Analysis Year	*Existing (2017) + Project*

Project Description *Market Hall*

East/West Street: *Washington Boulevard* | North/South Street: *Colonial Avenue*

Intersection Orientation: *East-West* | Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*11*	*882*			*797*	*38*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*11*	*882*	*0*	*0*	*797*	*38*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*2*	*0*
Configuration	*L*	*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*10*		*54*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*10*	*0*	*54*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*11*						*64*	
C (m) (veh/h)	*716*						*370*	
v/c	*0.02*						*0.17*	
95% queue length	*0.05*						*0.62*	
Control Delay (s/veh)	*10.1*						*16.8*	
LOS	*B*						*C*	
Approach Delay (s/veh)	--	--					*16.8*	
Approach LOS	--	--					*C*	

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Project: MARKET HALL PROJECT
INT # 4
North/South Street: COLONIAL AVENUE
East/West Street: WASHINGTON BOULEVARD

Scenario: EXISTING (2017) PLUS PROJECT CONDITIONS

Thru Lane:	1200 vph	N-S Split Phase :	N
Left-Turn Lane:	1200 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.50	7	600	0.000	N-S(1):	0.012 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	0.50	7	600	0.012 *	E-W(1):	0.339 *
Westbound	RT	0.00	11	0	0.000	E-W(2):	0.296
	TH	2.00	679	2,400	0.288		
	LT	0.00	0	0	0.000 *	V/C:	0.351
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.100
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.451
	TH	2.00	814	2,400	0.339 *		
	LT	1.00	9	1,200	0.008	LOS:	A

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.84	54	1,013	0.042	N-S(1):	0.053 *
	TH	0.00	0	0	0.000	N-S(2):	0.042
	LT	0.16	10	188	0.053 *	E-W(1):	0.368 *
Westbound	RT	0.00	38	0	0.000	E-W(2):	0.357
	TH	2.00	797	2,400	0.348		
	LT	0.00	0	0	0.000 *	V/C:	0.421
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.100
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.521
	TH	2.00	882	2,400	0.368 *		
	LT	1.00	11	1,200	0.009	LOS:	A

* = Critical Movement

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*CLM*
Agency/Co.	*RA*
Date Performed	*1/3/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*Colonial Av/Washington Bl*
Jurisdiction	*Culver City*
Analysis Year	*Cumulative (2019) Base*

Project Description *Market Hall*

East/West Street: *Washington Boulevard* | North/South Street: *Colonial Avenue*

Intersection Orientation: *East-West* | Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*9*	*885*			*744*	*7*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*9*	*885*	*0*	*0*	*744*	*7*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*2*	*0*
Configuration	*L*	*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*7*		*2*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*7*	*0*	*2*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*9*						*9*	
C (m) (veh/h)	*868*						*211*	
v/c	*0.01*						*0.04*	
95% queue length	*0.03*						*0.13*	
Control Delay (s/veh)	*9.2*						*22.8*	
LOS	*A*						*C*	
Approach Delay (s/veh)	--	--					*22.8*	
Approach LOS	--	--					*C*	

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*CLM*
Agency/Co.	*RA*
Date Performed	*1/3/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Colonial Av/Washington Bl*
Jurisdiction	*Culver City*
Analysis Year	*Cumulative (2019) Base*

Project Description *Market Hall*

East/West Street: *Washington Boulevard* | North/South Street: *Colonial Avenue*

Intersection Orientation: *East-West* | Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*11*	*962*			*885*	*13*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*11*	*962*	*0*	*0*	*885*	*13*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*2*	*0*
Configuration	*L*	*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*10*		*34*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*10*	*0*	*34*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*11*						*44*	
C (m) (veh/h)	*765*						*337*	
v/c	*0.01*						*0.13*	
95% queue length	*0.04*						*0.45*	
Control Delay (s/veh)	*9.8*						*17.3*	
LOS	*A*						*C*	
Approach Delay (s/veh)	--	--					*17.3*	
Approach LOS	--	--					*C*	

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Project: MARKET HALL PROJECT
INT # 4
North/South Street: COLONIAL AVENUE
East/West Street: WASHINGTON BOULEVARD

Scenario: CUMULATIVE (2019) BASE CONDITIONS

Thru Lane:	1200 vph	N-S Split Phase :	N
Left-Turn Lane:	1200 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.22	2	267	0.000	N-S(1):	0.008 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	0.78	7	933	0.008 *	E-W(1):	0.369 *
Westbound	RT	0.00	7	0	0.000	E-W(2):	0.321
	TH	2.00	744	2,400	0.313		
	LT	0.00	0	0	0.000 *	V/C:	0.377
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.100
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.477
	TH	2.00	885	2,400	0.369 *		
	LT	1.00	9	1,200	0.008	LOS:	A

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.77	34	927	0.025	N-S(1):	0.037 *
	TH	0.00	0	0	0.000	N-S(2):	0.025
	LT	0.23	10	273	0.037 *	E-W(1):	0.401 *
Westbound	RT	0.00	13	0	0.000	E-W(2):	0.383
	TH	2.00	885	2,400	0.374		
	LT	0.00	0	0	0.000 *	V/C:	0.438
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.100
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.538
	TH	2.00	962	2,400	0.401 *		
	LT	1.00	11	1,200	0.009	LOS:	A

* = Critical Movement

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*CLM*
Agency/Co.	*RA*
Date Performed	*1/3/2017*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*Colonial Av/Washington Bl*
Jurisdiction	*Culver City*
Analysis Year	*Cumulative (2019) + Project*

Project Description *Market Hall*

East/West Street: *Washington Boulevard* | North/South Street: *Colonial Avenue*

Intersection Orientation: *East-West* | Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*9*	*889*			*746*	*11*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*9*	*889*	*0*	*0*	*746*	*11*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*2*	*0*
Configuration	*L*	*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*7*		*7*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*7*	*0*	*7*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*9*						*14*	
C (m) (veh/h)	*676*						*200*	
v/c	*0.01*						*0.07*	
95% queue length	*0.04*						*0.23*	
Control Delay (s/veh)	*10.4*						*24.4*	
LOS	*B*						*C*	
Approach Delay (s/veh)	--	--					*24.4*	
Approach LOS	--	--					*C*	

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*CLM*
Agency/Co.	*RA*
Date Performed	*1/3/2017*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Colonial Av/Washington Bl*
Jurisdiction	*Culver City*
Analysis Year	*Cumulative (2019) + Project*

Project Description *Market Hall*

East/West Street: *Washington Boulevard* | North/South Street: *Colonial Avenue*

Intersection Orientation: *East-West* | Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*11*	*966*			*887*	*38*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*11*	*966*	*0*	*0*	*887*	*38*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*2*	*0*
Configuration	*L*	*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*10*		*55*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*10*	*0*	*55*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*11*						*65*	
C (m) (veh/h)	*668*						*333*	
v/c	*0.02*						*0.20*	
95% queue length	*0.05*						*0.72*	
Control Delay (s/veh)	*10.5*						*18.4*	
LOS	*B*						*C*	
Approach Delay (s/veh)	--	--				*18.4*		
Approach LOS	--	--				*C*		

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Project: MARKET HALL PROJECT
INT # 4
North/South Street: COLONIAL AVENUE
East/West Street: WASHINGTON BOULEVARD

Scenario: CUMULATIVE (2019) PLUS PROJECT CONDITIONS

Thru Lane:	1200 vph	N-S Split Phase :	N
Left-Turn Lane:	1200 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.50	7	600	0.000	N-S(1):	0.012 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	0.50	7	600	0.012 *	E-W(1):	0.370 *
Westbound	RT	0.00	11	0	0.000	E-W(2):	0.323
	TH	2.00	746	2,400	0.315		
	LT	0.00	0	0	0.000 *	V/C:	0.382
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.100
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.482
	TH	2.00	889	2,400	0.370 *		
	LT	1.00	9	1,200	0.008	LOS:	A

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.85	55	1,015	0.043	N-S(1):	0.054 *
	TH	0.00	0	0	0.000	N-S(2):	0.043
	LT	0.15	10	185	0.054 *	E-W(1):	0.403 *
Westbound	RT	0.00	38	0	0.000	E-W(2):	0.394
	TH	2.00	887	2,400	0.385		
	LT	0.00	0	0	0.000 *	V/C:	0.457
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.100
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.557
	TH	2.00	966	2,400	0.403 *		
	LT	1.00	11	1,200	0.009	LOS:	A

* = Critical Movement

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Centinela Avenue	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	RA	Date:	1/3/2017
5	East-West Street:	Venice Boulevard	Projection Year:	2019	Peak Hour:	AM	Reviewed by:	RA	Project:	RA488

No. of Phases			4			4			4			4			4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB --	0	SB -- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB--	0
	EB --	0	WB -- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2				2
Override Capacity			0			0			0			0			0				0

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	64	1	64	1	65	65	21	86	1	86	1	87	1	87		87	1	87
Left-Through		0							0				0				0	
Through	949	1	**515**	2	951	**517**	65	1033	1	**562**	2	1035	1	**564**		1035	1	**564**
Through-Right		1							1				1				1	
Right	80	0	80	2	82	82	9	91	0	91	2	93	0	93		93	0	93
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	101	1	**101**	0	101	**101**	8	111	1	**111**	0	111	1	**111**		111	1	**111**
Left-Through		0							0				0				0	
Through	751	2	376	3	754	377	118	884	2	442	3	887	2	444		887	2	444
Through-Right		0							0				0				0	
Right	59	1	0	0	59	0	2	62	1	0	0	62	1	0		62	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	218	1	**218**	0	218	**218**	1	223	1	**223**	0	223	1	**223**		223	1	**223**
Left-Through		0							0				0				0	
Through	1213	3	404	0	1213	404	31	1268	3	423	0	1268	3	423		1268	3	423
Through-Right		0							0				0				0	
Right	150	1	118	1	151	119	24	177	1	134	1	178	1	135		178	1	135
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	159	1	159	1	160	160	28	190	1	190	1	191	1	191		191	1	191
Left-Through		0							0				0				0	
Through	1069	2	**401**	0	1069	**401**	20	1110	2	**416**	0	1110	2	**416**		1110	2	**416**
Through-Right		1							1				1				1	
Right	133	0	133	0	133	133	3	139	0	139	0	139	0	139		139	0	139
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		616	*North-South:*		618	*North-South:*			673	*North-South:*			675	*North-South:*			675
	East-West:		619	*East-West:*		619	*East-West:*			639	*East-West:*			639	*East-West:*			639
	SUM:		1235	*SUM:*		1237	*SUM:*			1312	*SUM:*			1314	*SUM:*			1314
VOLUME/CAPACITY *(V/C)* RATIO:			0.898			0.900				0.954				0.956				0.956
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.798**			**0.800**				**0.854**				**0.856**				**0.856**
LEVEL OF SERVICE (LOS):			C			C				D				D				D

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	Δ*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Centinela Avenue	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	RA	Date:	1/3/2017
5	East-West Street:	Venice Boulevard	Projection Year:	2019	Peak Hour:	PM	Reviewed by:	RA	Project:	RA488

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	64	1	**64**	3	67	**67**	28	93	1	**93**	3	96	1	**96**	0	96	1	**96**
Left-Through		0							0				0				0	
Through	736	1	416	4	740	420	123	874	1	502	4	878	1	506	0	878	1	506
Through-Right		1							1				1				1	
Right	96	0	96	3	99	99	32	130	0	130	3	133	0	133	0	133	0	133
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	74	1	74	0	74	74	5	80	1	80	0	80	1	80	0	80	1	80
Left-Through		0							0				0				0	
Through	1141	2	**571**	7	1148	**574**	90	1254	2	**627**	7	1261	2	**631**	0	1261	2	**631**
Through-Right		0							0				0				0	
Right	32	1	0	0	32	0	3	36	1	0	0	36	1	0	0	36	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	139	1	139	0	139	139	3	145	1	145	0	145	1	145	0	145	1	145
Left-Through		0							0				0				0	
Through	1032	3	**344**	0	1032	**344**	27	1080	3	**360**	0	1080	3	**360**	0	1080	3	**360**
Through-Right		0							0				0				0	
Right	184	1	152	3	187	154	13	201	1	155	3	204	1	156	0	204	1	156
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	271	1	**271**	4	275	**275**	17	293	1	**293**	4	297	1	**297**	0	297	1	**297**
Left-Through		0							0				0				0	
Through	1182	2	414	0	1182	414	49	1255	2	442	0	1255	2	442	0	1255	2	442
Through-Right		1							1				1				1	
Right	61	0	61	0	61	61	9	71	0	71	0	71	0	71	0	71	0	71
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		635	*North-South:*		641	*North-South:*			720	*North-South:*			727	*North-South:*			727
	East-West:		615	*East-West:*		619	*East-West:*			653	*East-West:*			657	*East-West:*			657
	SUM:		1250	*SUM:*		1260	*SUM:*			1373	*SUM:*			1384	*SUM:*			1384
VOLUME/CAPACITY *(V/C)* RATIO:			0.909			0.916				0.999				1.007				1.007
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.809			0.816				0.899				0.907				0.907
LEVEL OF SERVICE (LOS):			D			D				D				E				E

	NB--	SB--	EB--	WB--		NB--	SB--	EB--	WB--		NB--	SB--	EB--	WB--		NB--	SB--	EB--	WB--	
No. of Phases					4					4					4					4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0					0					0					0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATSAC-1 or ATSAC+ATCS-2?					2					2					2					2
Override Capacity					0					0					0					0

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.008	Δ*v/c* after mitigation:	0.008
Significant impacted?	NO	Fully mitigated?	N/A

Project: MARKET HALL PROJECT
INT # 6
North/South Street: CENTINELA AVENUE
East/West Street: WASHINGTON PLACE

Scenario: EXISTING (2017) CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	95	0	0.000	N-S(1):	0.495 *
	TH	2.00	854	3,200	0.297	N-S(2):	0.330
	LT	1.00	100	1,600	0.063 *	E-W(1):	0.265 *
Westbound	RT	1.00	67	1,600	0.000	E-W(2):	0.235
	TH	2.00	569	3,200	0.178		
	LT	2.00	112	2,880	0.039 *	V/C:	0.760
Northbound	RT	0.00	152	0	0.000	Lost Time:	0.100
	TH	2.00	1,230	3,200	0.432 *	ATSAC:	-0.070
	LT	1.00	53	1,600	0.033		
Eastbound	RT	1.00	66	1,600	0.008	ICU:	0.790
	TH	2.00	722	3,200	0.226 *		
	LT	2.00	164	2,880	0.057	LOS:	C

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	213	0	0.000	N-S(1):	0.427
	TH	2.00	1,443	3,200	0.518 *	N-S(2):	0.565 *
	LT	1.00	100	1,600	0.063	E-W(1):	0.264
Westbound	RT	1.00	68	1,600	0.000	E-W(2):	0.297 *
	TH	2.00	764	3,200	0.239 *		
	LT	2.00	204	2,880	0.071	V/C:	0.862
Northbound	RT	0.00	166	0	0.000	Lost Time:	0.100
	TH	2.00	999	3,200	0.364	ATSAC:	-0.070
	LT	1.00	75	1,600	0.047 *		
Eastbound	RT	1.00	104	1,600	0.018	ICU:	0.892
	TH	2.00	616	3,200	0.193		
	LT	2.00	166	2,880	0.058 *	LOS:	D

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 6
North/South Street: CENTINELA AVENUE
East/West Street: WASHINGTON PLACE

Scenario: EXISTING (2017) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	95	0	0.000	N-S(1):	0.501 *
	TH	2.00	856	3,200	0.297	N-S(2):	0.330
	LT	1.00	102	1,600	0.064 *	E-W(1):	0.266 *
Westbound	RT	1.00	67	1,600	0.000	E-W(2):	0.235
	TH	2.00	569	3,200	0.178		
	LT	2.00	114	2,880	0.040 *	V/C:	0.767
Northbound	RT	0.00	163	0	0.000	Lost Time:	0.100
	TH	2.00	1,234	3,200	0.437 *	ATSAC:	-0.070
	LT	1.00	53	1,600	0.033		
Eastbound	RT	1.00	68	1,600	0.009	ICU:	0.797
	TH	2.00	724	3,200	0.226 *		
	LT	2.00	165	2,880	0.057	LOS:	C

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	213	0	0.000	N-S(1):	0.433
	TH	2.00	1,455	3,200	0.521 *	N-S(2):	0.568 *
	LT	1.00	102	1,600	0.064	E-W(1):	0.270
Westbound	RT	1.00	68	1,600	0.000	E-W(2):	0.299 *
	TH	2.00	764	3,200	0.239 *		
	LT	2.00	217	2,880	0.075	V/C:	0.867
Northbound	RT	0.00	177	0	0.000	Lost Time:	0.100
	TH	2.00	1,004	3,200	0.369	ATSAC:	-0.070
	LT	1.00	75	1,600	0.047 *		
Eastbound	RT	1.00	113	1,600	0.024	ICU:	0.897
	TH	2.00	625	3,200	0.195		
	LT	2.00	172	2,880	0.060 *	LOS:	D

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 6
North/South Street: CENTINELA AVENUE
East/West Street: WASHINGTON PLACE

Scenario: CUMULATIVE (2019) BASE CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	106	0	0.000	N-S(1):	0.538 *
	TH	2.00	1,021	3,200	0.352	N-S(2):	0.386
	LT	1.00	114	1,600	0.071 *	E-W(1):	0.289 *
Westbound	RT	1.00	75	1,600	0.000	E-W(2):	0.254
	TH	2.00	608	3,200	0.190		
	LT	2.00	117	2,880	0.041 *	V/C:	0.827
Northbound	RT	0.00	161	0	0.000	Lost Time:	0.100
	TH	2.00	1,333	3,200	0.467 *	ATSAC:	-0.070
	LT	1.00	55	1,600	0.034		
Eastbound	RT	1.00	67	1,600	0.008	ICU:	0.857
	TH	2.00	792	3,200	0.248 *		
	LT	2.00	183	2,880	0.064	LOS:	D

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	243	0	0.000	N-S(1):	0.493
	TH	2.00	1,557	3,200	0.563 *	N-S(2):	0.612 *
	LT	1.00	113	1,600	0.071	E-W(1):	0.288
Westbound	RT	1.00	85	1,600	0.000	E-W(2):	0.334 *
	TH	2.00	858	3,200	0.268 *		
	LT	2.00	213	2,880	0.074	V/C:	0.946
Northbound	RT	0.00	181	0	0.000	Lost Time:	0.100
	TH	2.00	1,168	3,200	0.422	ATSAC:	-0.070
	LT	1.00	79	1,600	0.049 *		
Eastbound	RT	1.00	106	1,600	0.017	ICU:	0.976
	TH	2.00	684	3,200	0.214		
	LT	2.00	189	2,880	0.066 *	LOS:	E

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 6
North/South Street: CENTINELA AVENUE
East/West Street: WASHINGTON PLACE

Scenario: CUMULATIVE (2019) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	106	0	0.000	N-S(1):	0.545 *
	TH	2.00	1,023	3,200	0.353	N-S(2):	0.387
	LT	1.00	116	1,600	0.073 *	E-W(1):	0.289 *
Westbound	RT	1.00	75	1,600	0.000	E-W(2):	0.254
	TH	2.00	608	3,200	0.190		
	LT	2.00	119	2,880	0.041 *	V/C:	0.834
Northbound	RT	0.00	172	0	0.000	Lost Time:	0.100
	TH	2.00	1,337	3,200	0.472 *	ATSAC:	-0.070
	LT	1.00	55	1,600	0.034		
Eastbound	RT	1.00	69	1,600	0.009	ICU:	0.864
	TH	2.00	794	3,200	0.248 *		
	LT	2.00	184	2,880	0.064	LOS:	D

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	243	0	0.000	N-S(1):	0.499
	TH	2.00	1,569	3,200	0.566 *	N-S(2):	0.615 *
	LT	1.00	115	1,600	0.072	E-W(1):	0.295
Westbound	RT	1.00	85	1,600	0.000	E-W(2):	0.336 *
	TH	2.00	858	3,200	0.268 *		
	LT	2.00	226	2,880	0.078	V/C:	0.951
Northbound	RT	0.00	192	0	0.000	Lost Time:	0.100
	TH	2.00	1,173	3,200	0.427	ATSAC:	-0.070
	LT	1.00	79	1,600	0.049 *		
Eastbound	RT	1.00	115	1,600	0.023	ICU:	0.981
	TH	2.00	693	3,200	0.217		
	LT	2.00	195	2,880	0.068 *	LOS:	E

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 7
North/South Street: CENTINELA AVENUE
East/West Street: WASHINGTON BOULEVARD

Scenario: EXISTING (2017) CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	29	0	0.000	N-S(1):	0.496 *
	TH	2.00	903	3,200	0.291	N-S(2):	0.383
	LT	1.00	93	1,600	0.058 *	E-W(1):	0.295 *
Westbound	RT	0.00	107	0	0.000	E-W(2):	0.241
	TH	2.00	558	3,200	0.208		
	LT	1.00	62	1,600	0.039 *	V/C:	0.791
Northbound	RT	0.00	107	0	0.000	Lost Time:	0.100
	TH	2.00	1,293	3,200	0.438 *	ATSAC:	-0.070
	LT	1.00	147	1,600	0.092		
Eastbound	RT	0.00	131	0	0.000	ICU:	0.821
	TH	2.00	687	3,200	0.256 *		
	LT	1.00	52	1,600	0.033	LOS:	D

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	60	0	0.000	N-S(1):	0.457
	TH	2.00	1,580	3,200	0.513 *	N-S(2):	0.571 *
	LT	1.00	199	1,600	0.124	E-W(1):	0.317 *
Westbound	RT	0.00	103	0	0.000	E-W(2):	0.295
	TH	2.00	692	3,200	0.248		
	LT	1.00	80	1,600	0.050 *	V/C:	0.888
Northbound	RT	0.00	95	0	0.000	Lost Time:	0.100
	TH	2.00	969	3,200	0.333	ATSAC:	-0.070
	LT	1.00	92	1,600	0.058 *		
Eastbound	RT	0.00	135	0	0.000	ICU:	0.918
	TH	2.00	719	3,200	0.267 *		
	LT	1.00	75	1,600	0.047	LOS:	E

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 7
North/South Street: CENTINELA AVENUE
East/West Street: WASHINGTON BOULEVARD

Scenario: EXISTING (2017) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	29	0	0.000	N-S(1):	0.498 *
	TH	2.00	905	3,200	0.292	N-S(2):	0.385
	LT	1.00	95	1,600	0.059 *	E-W(1):	0.295 *
Westbound	RT	0.00	107	0	0.000	E-W(2):	0.244
	TH	2.00	563	3,200	0.209		
	LT	1.00	62	1,600	0.039 *	V/C:	0.793
Northbound	RT	0.00	107	0	0.000	Lost Time:	0.100
	TH	2.00	1,298	3,200	0.439 *	ATSAC:	-0.070
	LT	1.00	149	1,600	0.093		
Eastbound	RT	0.00	131	0	0.000	ICU:	0.823
	TH	2.00	687	3,200	0.256 *		
	LT	1.00	56	1,600	0.035	LOS:	D

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	60	0	0.000	N-S(1):	0.463
	TH	2.00	1,589	3,200	0.515 *	N-S(2):	0.579 *
	LT	1.00	205	1,600	0.128	E-W(1):	0.317 *
Westbound	RT	0.00	103	0	0.000	E-W(2):	0.302
	TH	2.00	708	3,200	0.253		
	LT	1.00	80	1,600	0.050 *	V/C:	0.896
Northbound	RT	0.00	95	0	0.000	Lost Time:	0.100
	TH	2.00	976	3,200	0.335	ATSAC:	-0.070
	LT	1.00	103	1,600	0.064 *		
Eastbound	RT	0.00	135	0	0.000	ICU:	0.926
	TH	2.00	719	3,200	0.267 *		
	LT	1.00	79	1,600	0.049	LOS:	E

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 7
North/South Street: CENTINELA AVENUE
East/West Street: WASHINGTON BOULEVARD

Scenario: CUMULATIVE (2019) BASE CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	30	0	0.000	N-S(1):	0.546 *
	TH	2.00	1,064	3,200	0.342	N-S(2):	0.450
	LT	1.00	104	1,600	0.065 *	E-W(1):	0.346 *
Westbound	RT	0.00	116	0	0.000	E-W(2):	0.258
	TH	2.00	601	3,200	0.224		
	LT	1.00	109	1,600	0.068 *	V/C:	0.892
Northbound	RT	0.00	144	0	0.000	Lost Time:	0.100
	TH	2.00	1,396	3,200	0.481 *	ATSAC:	-0.070
	LT	1.00	172	1,600	0.108		
Eastbound	RT	0.00	157	0	0.000	ICU:	0.922
	TH	2.00	734	3,200	0.278 *		
	LT	1.00	55	1,600	0.034	LOS:	E

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	61	0	0.000	N-S(1):	0.529
	TH	2.00	1,695	3,200	0.549 *	N-S(2):	0.633 *
	LT	1.00	210	1,600	0.131	E-W(1):	0.362 *
Westbound	RT	0.00	110	0	0.000	E-W(2):	0.318
	TH	2.00	740	3,200	0.266		
	LT	1.00	114	1,600	0.071 *	V/C:	0.995
Northbound	RT	0.00	144	0	0.000	Lost Time:	0.100
	TH	2.00	1,131	3,200	0.398	ATSAC:	-0.070
	LT	1.00	134	1,600	0.084 *		
Eastbound	RT	0.00	168	0	0.000	ICU:	1.025
	TH	2.00	762	3,200	0.291 *		
	LT	1.00	83	1,600	0.052	LOS:	F

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 7
North/South Street: CENTINELA AVENUE
East/West Street: WASHINGTON BOULEVARD

Scenario: CUMULATIVE (2019) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	30	0	0.000	N-S(1):	0.549 *
	TH	2.00	1,066	3,200	0.343	N-S(2):	0.452
	LT	1.00	106	1,600	0.066 *	E-W(1):	0.346 *
Westbound	RT	0.00	116	0	0.000	E-W(2):	0.263
	TH	2.00	606	3,200	0.226		
	LT	1.00	109	1,600	0.068 *	V/C:	0.895
Northbound	RT	0.00	144	0	0.000	Lost Time:	0.100
	TH	2.00	1,401	3,200	0.483 *	ATSAC:	-0.070
	LT	1.00	174	1,600	0.109		
Eastbound	RT	0.00	157	0	0.000	ICU:	0.925
	TH	2.00	734	3,200	0.278 *		
	LT	1.00	59	1,600	0.037	LOS:	E

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	61	0	0.000	N-S(1):	0.536
	TH	2.00	1,704	3,200	0.552 *	N-S(2):	0.643 *
	LT	1.00	216	1,600	0.135	E-W(1):	0.362 *
Westbound	RT	0.00	110	0	0.000	E-W(2):	0.325
	TH	2.00	756	3,200	0.271		
	LT	1.00	114	1,600	0.071 *	V/C:	1.005
Northbound	RT	0.00	144	0	0.000	Lost Time:	0.100
	TH	2.00	1,138	3,200	0.401	ATSAC:	-0.070
	LT	1.00	145	1,600	0.091 *		
Eastbound	RT	0.00	168	0	0.000	ICU:	1.035
	TH	2.00	762	3,200	0.291 *		
	LT	1.00	87	1,600	0.054	LOS:	F

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Centinela Avenue	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	RA	Date:	1/3/2017
8	East-West Street:	Culver Boulevard	Projection Year:	2019	Peak Hour:	AM	Reviewed by:	RA	Project:	RA488

No. of Phases			4			4			4			4			4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB -- 0	WB --	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2				2
Override Capacity			0			0			0			0			0				0

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	17	1	17	0	17	17	8	25	1	25	0	25	1	25		25	1	25
Left-Through		0							0				0				0	
Through	861	2	**431**	5	866	**433**	121	999	2	**500**	5	1004	2	**502**		1004	2	**502**
Through-Right		0							0				0				0	
Right	83	1	0	0	83	0	51	136	1	5	0	136	1	4		136	1	4
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	205	1	**205**	0	205	**205**	1	210	1	**210**	0	210	1	**210**		210	1	**210**
Left-Through		0							0				0				0	
Through	932	1	521	2	934	523	207	1158	1	636	2	1160	1	638		1160	1	638
Through-Right		1							1				1				1	
Right	110	0	110	1	111	111	2	114	0	114	1	115	0	115		115	0	115
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	438	1	**438**	2	440	**440**	1	448	1	448	2	450	1	450		450	1	450
Left-Through		0							0				0				0	
Through	995	1	524	0	995	524	22	1037	1	**557**	0	1037	1	**557**		1037	1	**557**
Through-Right		1							1				1				1	
Right	53	0	53	0	53	53	22	76	0	76	0	76	0	76		76	0	76
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	172	1	172	2	174	174	87	262	1	**262**	2	264	1	**264**		264	1	**264**
Left-Through		0							0				0				0	
Through	423	1	**307**	1	424	**308**	11	443	1	320	1	444	1	320		444	1	320
Through-Right		1							1				1				1	
Right	191	0	191	0	191	191	1	196	0	196	0	196	0	196		196	0	196
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		636	*North-South:*		638	*North-South:*			710	*North-South:*			712	*North-South:*			712
	East-West:		745	*East-West:*		748	*East-West:*			819	*East-West:*			821	*East-West:*			821
	SUM:		1381	*SUM:*		1386	*SUM:*			1529	*SUM:*			1533	*SUM:*			1533
VOLUME/CAPACITY (*V/C*) RATIO:			1.004			1.008				1.112				1.115				1.115
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.904			0.908				1.012				1.015				1.015
LEVEL OF SERVICE (LOS):			E			E				F				F				F

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.003	Δ*v/c* after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Centinela Avenue	Year of Count:	2017	Ambient Growth (%):	1	Conducted by:	RA	Date:	1/3/2017
8	East-West Street:	Culver Boulevard	Projection Year:	2019	Peak Hour:	PM	Reviewed by:	RA	Project:	RA488

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases		4			4			4				4				4		
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0			0				0				0		
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 0 WB--	0		NB-- 0 SB-- EB-- 0 WB--	0		NB-- 0 SB-- EB-- 0 WB--	0			NB-- 0 SB-- EB-- 0 WB--	0			NB-- 0 SB-- EB-- 0 WB--	0		
	ATSAC-1 or ATSAC+ATCS-2?		2			2			2				2				2		
	Override Capacity		0			0			0				0				0		
NORTHBOUND	Left	15	1	**15**	0	15	**15**	23	38	1	**38**	0	38	1	**38**	0	38	1	**38**
	Left-Through		0							0				0				0	
	Through	794	2	397	12	806	403	217	1027	2	514	12	1039	2	520	0	1039	2	520
	Through-Right		0							0				0				0	
	Right	105	1	7	0	105	6	105	212	1	98	0	212	1	97	0	212	1	97
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	175	1	175	1	176	176	4	183	1	183	1	184	1	184	0	184	1	184
	Left-Through		0							0				0				0	
	Through	1361	1	**812**	6	1367	**816**	123	1511	1	**891**	6	1517	1	**895**	0	1517	1	**895**
	Through-Right		1							1				1				1	
	Right	262	0	262	2	264	264	4	271	0	271	2	273	0	273	0	273	0	273
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	173	1	**173**	4	177	**177**	4	180	1	**180**	4	184	1	**184**	0	184	1	**184**
	Left-Through		0							0				0				0	
	Through	587	1	309	0	587	309	19	618	1	332	0	618	1	332	0	618	1	332
	Through-Right		1							1				1				1	
	Right	30	0	30	0	30	30	14	45	0	45	0	45	0	45	0	45	0	45
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	197	1	197	2	199	199	27	228	1	228	2	230	1	230	0	230	1	230
	Left-Through		0							0				0				0	
	Through	885	1	**529**	1	886	**531**	26	929	1	**555**	1	930	1	**556**	0	930	1	**556**
	Through-Right		1							1				1				1	
	Right	173	0	173	2	175	175	4	180	0	180	2	182	0	182	0	182	0	182
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		827	*North-South:*		831	*North-South:*			929	*North-South:*			933	*North-South:*			933
		East-West:		702	*East-West:*		708	*East-West:*			735	*East-West:*			740	*East-West:*			740
		SUM:		1529	*SUM:*		1539	*SUM:*			1664	*SUM:*			1673	*SUM:*			1673
	VOLUME/CAPACITY *(V/C)* RATIO:			1.112			1.119				1.210				1.217				1.217
	V/C LESS ATSAC/ATCS ADJUSTMENT:			1.012			1.019				1.110				1.117				1.117
	LEVEL OF SERVICE (LOS):			F			F				F				F				F

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.007	Δ*v/c* after mitigation:	0.007
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Centinela Avenue	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	RA	Date:	1/3/2017
9	East-West Street:	Sanford Street/SR-90 WB Ramps	Projection Year:	2019	Peak Hour:	AM	Reviewed by:	RA	Project:	RA488

No. of Phases			3			3			3			3			3			3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2			2			2			2	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 1	SB -- 0	0	NB-- 1	SB-- 0	0	NB-- 1	SB-- 0	0	NB-- 1	SB-- 0	0	NB-- 1	SB-- 0	0	NB-- 1	SB-- 0	0	
	EB -- 0	WB -- 2	2	EB-- 0	WB-- 2	2	EB-- 0	WB-- 2	2	EB-- 0	WB-- 2	2	EB-- 0	WB-- 2	2	EB-- 0	WB-- 2	2	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	12	1	**12**	0	12	**12**	0	12	1	**12**	0	12	1	**12**		12	1	**12**
Left-Through		0							0				0				0	
Through	565	2	283	3	568	284	209	785	2	393	3	788	2	394		788	2	394
Through-Right		0							0				0				0	
Right	88	1	0	0	88	0	4	94	1	0	0	94	1	0		94	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
Left-Through		0							0				0				0	
Through	1222	2	**411**	4	1226	**412**	361	1608	2	**539**	4	1612	2	**541**		1612	2	**541**
Through-Right		1							1				1				1	
Right	10	0	10	0	10	10	0	10	0	10	0	10	0	10		10	0	10
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	18	0	18	0	18	18	0	18	0	18	0	18	0	18		18	0	18
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
Through-Right		0							0				0				0	
Right	34	0	**52**	0	34	**52**	1	36	0	**54**	0	36	0	**54**		36	0	**54**
Left-Through-Right		0							0				0				0	
Left-Right		1							1				1				1	
WESTBOUND																		
Left	438	1	**346**	0	438	**346**	157	604	1	**408**	0	604	1	**409**		604	1	**409**
Left-Through		0							0				0				0	
Through	7	0	346	0	7	346	0	7	0	408	0	7	0	409		7	0	409
Through-Right		0							0				0				0	
Right	592	1	0	2	594	0	9	613	1	0	2	615	1	0		615	1	0
Left-Through-Right		1							1				1				1	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		423	*North-South:*		424	*North-South:*			551	*North-South:*			553	*North-South:*			553
	East-West:		398	*East-West:*		398	*East-West:*			462	*East-West:*			463	*East-West:*			463
	SUM:		821	*SUM:*		822	*SUM:*			1013	*SUM:*			1016	*SUM:*			1016
VOLUME/CAPACITY *(V/C)* RATIO:			0.576			0.577				0.711				0.713				0.713
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.476			0.477				0.611				0.613				0.613
LEVEL OF SERVICE (LOS):			A			A				B				B				B

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	Δ*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Centinela Avenue	Year of Count:	2017	Ambient Growth (%):	1	Conducted by:	RA	Date:	1/3/2017
9	East-West Street:	Sanford Street/SR-90 WB Ramps	Projection Year:	2019	Peak Hour:	PM	Reviewed by:	RA	Project:	RA488

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	19	1	**19**	0	19	**19**	1	20	1	**20**	0	20	1	**20**	0	20	1	**20**
Left-Through		0							0				0				0	
Through	644	2	322	7	651	326	395	1052	2	526	7	1059	2	530	0	1059	2	530
Through-Right		0							0				0				0	
Right	105	1	0	0	105	0	25	132	1	0	0	132	1	0	0	132	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	1589	2	**537**	8	1597	**540**	178	1799	2	**607**	8	1807	2	**610**	0	1807	2	**610**
Through-Right		1							1				1				1	
Right	22	0	22	0	22	22	0	22	0	22	0	22	0	22	0	22	0	22
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	9	0	9	0	9	9	0	9	0	9	0	9	0	9	0	9	0	9
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	18	0	**27**	0	18	**27**	1	19	0	**28**	0	19	0	**28**	0	19	0	**28**
Left-Through-Right		0							0				0				0	
Left-Right		1							1				1				1	
WESTBOUND																		
Left	225	1	**209**	0	225	**211**	66	296	1	**238**	0	296	1	**240**	0	296	1	**240**
Left-Through		0							0				0				0	
Through	15	0	209	0	15	211	0	15	0	238	0	15	0	240	0	15	0	240
Through-Right		0							0				0				0	
Right	388	1	0	6	394	0	7	403	1	0	6	409	1	0	0	409	1	0
Left-Through-Right		1							1				1				1	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		556	*North-South:*		559	*North-South:*			627	*North-South:*			630	*North-South:*			630
	East-West:		236	*East-West:*		238	*East-West:*			266	*East-West:*			268	*East-West:*			268
	SUM:		792	*SUM:*		797	*SUM:*			893	*SUM:*			898	*SUM:*			898
VOLUME/CAPACITY *(V/C)* RATIO:			0.556			0.559				0.627				0.630				0.630
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.456			0.459				0.527				0.530				0.530
LEVEL OF SERVICE (LOS):			A			A				A				A				A

	NB--	SB--	EB--	WB--
Right Turns: FREE-1, NRTOR-2 or OLA-3?	1	0	0	2
ATSAC-1 or ATSAC+ATCS-2?				2
Override Capacity				0

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.003	Δ*v/c* after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Centinela Avenue	Year of Count:	2017	Ambient Growth (%):	1	Conducted by:	RA	Date:	1/3/2017
10	East-West Street:	SR-90 Eastbound Ramps	Projection Year:	2019	Peak Hour:	AM	Reviewed by:	RA	Project:	RA488

	EXISTING CONDITION	EXISTING PLUS PROJECT	FUTURE CONDITION W/O PROJECT	FUTURE CONDITION W/ PROJECT	FUTURE W/ PROJECT W/ MITIGATION
No. of Phases	3	3	3	3	3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0 SB -- 0 EB -- 0 WB -- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**		0	0	**0**
	Left-Through		0							0				0				0	
	Through	603	3	201	3	606	202	221	836	3	279	3	839	3	280		839	3	280
	Through-Right		0							0				0				0	
	Right	248	1	248	0	248	248	92	345	1	345	0	345	1	345		345	1	345
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	406	2	223	2	408	224	8	422	2	232	2	424	2	233		424	2	233
	Left-Through		0							0				0				0	
	Through	1352	2	**676**	2	1354	**677**	513	1892	2	**946**	2	1894	2	**947**		1894	2	**947**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	25	0	25	0	25	25	0	26	0	26	0	26	0	26		26	0	26
	Left-Through		0							0				0				0	
	Through	2	0	27	0	2	27	0	2	0	28	0	2	0	28		2	0	28
	Through-Right		0							0				0				0	
	Right	182	1	**182**	0	182	**182**	39	225	1	**225**	0	225	1	**225**		225	1	**225**
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**		0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		676	North-South:		677	North-South:			946	North-South:			947	North-South:			947
		East-West:		182	East-West:		182	East-West:			225	East-West:			225	East-West:			225
		SUM:		858	SUM:		859	SUM:			1171	SUM:			1172	SUM:			1172
VOLUME/CAPACITY (V/C) RATIO:				0.602			0.603				0.822				0.822				0.822
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.502**			**0.503**				**0.722**				**0.722**				**0.722**
LEVEL OF SERVICE (LOS):				**A**			**A**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.000	Δ*v/c* after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Centinela Avenue	Year of Count:	2017	Ambient Growth (%):	1	Conducted by:	RA	Date:	1/3/2017
10	East-West Street:	SR-90 Eastbound Ramps	Projection Year:	2019	Peak Hour:	PM	Reviewed by:	RA	Project:	RA488

	EXISTING CONDITION	EXISTING PLUS PROJECT	FUTURE CONDITION W/O PROJECT	FUTURE CONDITION W/ PROJECT	FUTURE W/ PROJECT W/ MITIGATION
No. of Phases	3	3	3	3	3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	737	3	246	7	744	248	439	1191	3	397	7	1198	3	399	0	1198	3	399
	Through-Right		0							0				0				0	
	Right	281	1	281	0	281	281	136	423	1	**423**	0	423	1	**423**	0	423	1	**423**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	606	2	333	4	610	336	6	624	2	**343**	4	628	2	**345**	0	628	2	**345**
	Left-Through		0							0				0				0	
	Through	1229	2	**615**	4	1233	**617**	240	1494	2	747	4	1498	2	749	0	1498	2	749
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	28	0	28	0	28	28	0	29	0	29	0	29	0	29	0	29	0	29
	Left-Through		0							0				0				0	
	Through	1	0	29	0	1	29	0	1	0	30	0	1	0	30	0	1	0	30
	Through-Right		0							0				0				0	
	Right	142	1	**142**	0	142	**142**	52	197	1	**197**	0	197	1	**197**	0	197	1	**197**
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		615	*North-South:*		617	*North-South:*			766	*North-South:*			768	*North-South:*			768
		East-West:		142	*East-West:*		142	*East-West:*			197	*East-West:*			197	*East-West:*			197
		SUM:		757	*SUM:*		759	*SUM:*			963	*SUM:*			965	*SUM:*			965
	VOLUME/CAPACITY *(V/C)* RATIO:			0.531			0.533				0.676				0.677				0.677
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.431**			**0.433**				**0.576**				**0.577**				**0.577**
	LEVEL OF SERVICE (LOS):			**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	Δ*v/c* after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Project: MARKET HALL PROJECT
INT # 11
North/South Street: INGLEWOOD BOULEVARD
East/West Street: WASHINGTON BOULEVARD

Scenario: EXISTING (2017) CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	1.00	72	1,600	0.016	N-S(1):	0.447 *
	TH	1.00	264	1,600	0.165	N-S(2):	0.294
	LT	1.00	52	1,600	0.033 *	E-W(1):	0.279 *
Westbound	RT	1.00	66	1,600	0.009	E-W(2):	0.186
	TH	2.00	502	3,200	0.157		
	LT	1.00	88	1,600	0.055 *	V/C:	0.726
Northbound	RT	1.00	294	1,600	0.129	Lost Time:	0.100
	TH	1.00	663	1,600	0.414 *	ATSAC:	-0.070
	LT	1.00	207	1,600	0.129		
Eastbound	RT	1.00	138	1,600	0.000	ICU:	0.756
	TH	2.00	718	3,200	0.224 *		
	LT	1.00	46	1,600	0.029	LOS:	C

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	1.00	87	1,600	0.029	N-S(1):	0.192
	TH	1.00	639	1,600	0.399 *	N-S(2):	0.500 *
	LT	1.00	53	1,600	0.033	E-W(1):	0.289 *
Westbound	RT	1.00	58	1,600	0.003	E-W(2):	0.245
	TH	2.00	704	3,200	0.220		
	LT	1.00	125	1,600	0.078 *	V/C:	0.789
Northbound	RT	1.00	106	1,600	0.000	Lost Time:	0.100
	TH	1.00	255	1,600	0.159	ATSAC:	-0.070
	LT	1.00	161	1,600	0.101 *		
Eastbound	RT	1.00	446	1,600	0.178	ICU:	0.819
	TH	2.00	674	3,200	0.211 *		
	LT	1.00	40	1,600	0.025	LOS:	D

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 11
North/South Street: INGLEWOOD BOULEVARD
East/West Street: WASHINGTON BOULEVARD

Scenario: EXISTING (2017) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	1.00	75	1,600	0.018	N-S(1):	0.447 *
	TH	1.00	268	1,600	0.168	N-S(2):	0.299
	LT	1.00	52	1,600	0.033 *	E-W(1):	0.280 *
Westbound	RT	1.00	66	1,600	0.009	E-W(2):	0.189
	TH	2.00	511	3,200	0.160		
	LT	1.00	88	1,600	0.055 *	V/C:	0.727
Northbound	RT	1.00	294	1,600	0.129	Lost Time:	0.100
	TH	1.00	663	1,600	0.414 *	ATSAC:	-0.070
	LT	1.00	209	1,600	0.131		
Eastbound	RT	1.00	139	1,600	0.000	ICU:	0.757
	TH	2.00	719	3,200	0.225 *		
	LT	1.00	46	1,600	0.029	LOS:	C

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	1.00	90	1,600	0.031	N-S(1):	0.192
	TH	1.00	643	1,600	0.402 *	N-S(2):	0.506 *
	LT	1.00	53	1,600	0.033	E-W(1):	0.290 *
Westbound	RT	1.00	58	1,600	0.003	E-W(2):	0.251
	TH	2.00	722	3,200	0.226		
	LT	1.00	125	1,600	0.078 *	V/C:	0.796
Northbound	RT	1.00	106	1,600	0.000	Lost Time:	0.100
	TH	1.00	255	1,600	0.159	ATSAC:	-0.070
	LT	1.00	166	1,600	0.104 *		
Eastbound	RT	1.00	448	1,600	0.176	ICU:	0.826
	TH	2.00	678	3,200	0.212 *		
	LT	1.00	40	1,600	0.025	LOS:	D

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 11
North/South Street: INGLEWOOD BOULEVARD
East/West Street: WASHINGTON BOULEVARD

Scenario: CUMULATIVE (2019) BASE CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	1.00	76	1,600	0.017	N-S(1):	0.472 *
	TH	1.00	283	1,600	0.177	N-S(2):	0.322
	LT	1.00	62	1,600	0.039 *	E-W(1):	0.321 *
Westbound	RT	1.00	72	1,600	0.006	E-W(2):	0.212
	TH	2.00	580	3,200	0.181		
	LT	1.00	117	1,600	0.073 *	V/C:	0.793
Northbound	RT	1.00	336	1,600	0.137	Lost Time:	0.100
	TH	1.00	693	1,600	0.433 *	ATSAC:	-0.070
	LT	1.00	232	1,600	0.145		
Eastbound	RT	1.00	148	1,600	0.000	ICU:	0.823
	TH	2.00	795	3,200	0.248 *		
	LT	1.00	49	1,600	0.031	LOS:	D

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	1.00	89	1,600	0.029	N-S(1):	0.220
	TH	1.00	684	1,600	0.428 *	N-S(2):	0.545 *
	LT	1.00	62	1,600	0.039	E-W(1):	0.338 *
Westbound	RT	1.00	62	1,600	0.000	E-W(2):	0.265
	TH	2.00	765	3,200	0.239		
	LT	1.00	162	1,600	0.101 *	V/C:	0.883
Northbound	RT	1.00	150	1,600	0.000	Lost Time:	0.100
	TH	1.00	289	1,600	0.181	ATSAC:	-0.070
	LT	1.00	187	1,600	0.117 *		
Eastbound	RT	1.00	469	1,600	0.176	ICU:	0.913
	TH	2.00	759	3,200	0.237 *		
	LT	1.00	42	1,600	0.026	LOS:	E

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 11
North/South Street: INGLEWOOD BOULEVARD
East/West Street: WASHINGTON BOULEVARD

Scenario: CUMULATIVE (2019) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	1.00	79	1,600	0.019	N-S(1):	0.472 *
	TH	1.00	287	1,600	0.179	N-S(2):	0.325
	LT	1.00	62	1,600	0.039 *	E-W(1):	0.322 *
Westbound	RT	1.00	72	1,600	0.006	E-W(2):	0.215
	TH	2.00	589	3,200	0.184		
	LT	1.00	117	1,600	0.073 *	V/C:	0.794
Northbound	RT	1.00	336	1,600	0.137	Lost Time:	0.100
	TH	1.00	693	1,600	0.433 *	ATSAC:	-0.070
	LT	1.00	234	1,600	0.146		
Eastbound	RT	1.00	149	1,600	0.000	ICU:	0.824
	TH	2.00	796	3,200	0.249 *		
	LT	1.00	49	1,600	0.031	LOS:	D

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	1.00	92	1,600	0.031	N-S(1):	0.220
	TH	1.00	688	1,600	0.430 *	N-S(2):	0.550 *
	LT	1.00	62	1,600	0.039	E-W(1):	0.339 *
Westbound	RT	1.00	62	1,600	0.000	E-W(2):	0.271
	TH	2.00	783	3,200	0.245		
	LT	1.00	162	1,600	0.101 *	V/C:	0.889
Northbound	RT	1.00	150	1,600	0.000	Lost Time:	0.100
	TH	1.00	289	1,600	0.181	ATSAC:	-0.070
	LT	1.00	192	1,600	0.120 *		
Eastbound	RT	1.00	471	1,600	0.174	ICU:	0.919
	TH	2.00	763	3,200	0.238 *		
	LT	1.00	42	1,600	0.026	LOS:	E

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 12
North/South Street: MCLAUGHLIN AVENUE
East/West Street: WASHINGTON BOULEVARD

Scenario: EXISTING (2017) CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	48	0	0.000	N-S(1):	0.050
	TH	1.00	3	1,600	0.061 *	N-S(2):	0.066 *
	LT	0.00	47	1,600	0.029	E-W(1):	0.289
Westbound	RT	0.00	111	0	0.000	E-W(2):	0.370 *
	TH	2.00	653	3,200	0.239 *		
	LT	1.00	5	1,600	0.003	V/C:	0.436
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.100
	TH	1.00	5	1,600	0.021	ATSAC:	-0.070
	LT	0.00	8	1,600	0.005 *		
Eastbound	RT	0.00	7	0	0.000	ICU:	0.466
	TH	2.00	909	3,200	0.286		
	LT	1.00	209	1,600	0.131 *	LOS:	A

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	157	0	0.000	N-S(1):	0.125
	TH	1.00	19	1,600	0.219 *	N-S(2):	0.225 *
	LT	0.00	174	1,600	0.109	E-W(1):	0.253
Westbound	RT	0.00	49	0	0.000	E-W(2):	0.299 *
	TH	2.00	751	3,200	0.250 *		
	LT	1.00	11	1,600	0.007	V/C:	0.524
Northbound	RT	0.00	15	0	0.000	Lost Time:	0.100
	TH	1.00	0	1,600	0.016	ATSAC:	-0.070
	LT	0.00	10	1,600	0.006 *		
Eastbound	RT	0.00	9	0	0.000	ICU:	0.554
	TH	2.00	777	3,200	0.246		
	LT	1.00	78	1,600	0.049 *	LOS:	A

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 12
North/South Street: MCLAUGHLIN AVENUE
East/West Street: WASHINGTON BOULEVARD

Scenario: EXISTING (2017) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	48	0	0.000	N-S(1):	0.050
	TH	1.00	3	1,600	0.061 *	N-S(2):	0.066 *
	LT	0.00	47	1,600	0.029	E-W(1):	0.290
Westbound	RT	0.00	111	0	0.000	E-W(2):	0.373 *
	TH	2.00	662	3,200	0.242 *		
	LT	1.00	5	1,600	0.003	V/C:	0.439
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.100
	TH	1.00	5	1,600	0.021	ATSAC:	-0.070
	LT	0.00	8	1,600	0.005 *		
Eastbound	RT	0.00	7	0	0.000	ICU:	0.469
	TH	2.00	910	3,200	0.287		
	LT	1.00	209	1,600	0.131 *	LOS:	A

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	157	0	0.000	N-S(1):	0.125
	TH	1.00	19	1,600	0.219 *	N-S(2):	0.225 *
	LT	0.00	174	1,600	0.109	E-W(1):	0.254
Westbound	RT	0.00	49	0	0.000	E-W(2):	0.305 *
	TH	2.00	769	3,200	0.256 *		
	LT	1.00	11	1,600	0.007	V/C:	0.530
Northbound	RT	0.00	15	0	0.000	Lost Time:	0.100
	TH	1.00	0	1,600	0.016	ATSAC:	-0.070
	LT	0.00	10	1,600	0.006 *		
Eastbound	RT	0.00	9	0	0.000	ICU:	0.560
	TH	2.00	781	3,200	0.247		
	LT	1.00	78	1,600	0.049 *	LOS:	A

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 12
North/South Street: MCLAUGHLIN AVENUE
East/West Street: WASHINGTON BOULEVARD

Scenario: CUMULATIVE (2019) BASE CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	54	0	0.000	N-S(1):	0.058
	TH	1.00	10	1,600	0.070 *	N-S(2):	0.076 *
	LT	0.00	48	1,600	0.030	E-W(1):	0.328
Westbound	RT	0.00	113	0	0.000	E-W(2):	0.411 *
	TH	2.00	768	3,200	0.275 *		
	LT	1.00	8	1,600	0.005	V/C:	0.487
Northbound	RT	0.00	25	0	0.000	Lost Time:	0.100
	TH	1.00	9	1,600	0.028	ATSAC:	-0.070
	LT	0.00	10	1,600	0.006 *		
Eastbound	RT	0.00	10	0	0.000	ICU:	0.517
	TH	2.00	1,023	3,200	0.323		
	LT	1.00	218	1,600	0.136 *	LOS:	A

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	165	0	0.000	N-S(1):	0.139
	TH	1.00	24	1,600	0.229 *	N-S(2):	0.239 *
	LT	0.00	177	1,600	0.111	E-W(1):	0.293
Westbound	RT	0.00	50	0	0.000	E-W(2):	0.338 *
	TH	2.00	862	3,200	0.285 *		
	LT	1.00	18	1,600	0.011	V/C:	0.577
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.100
	TH	1.00	8	1,600	0.028	ATSAC:	-0.070
	LT	0.00	16	1,600	0.010 *		
Eastbound	RT	0.00	14	0	0.000	ICU:	0.607
	TH	2.00	889	3,200	0.282		
	LT	1.00	84	1,600	0.053 *	LOS:	B

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 12
North/South Street: MCLAUGHLIN AVENUE
East/West Street: WASHINGTON BOULEVARD

Scenario: CUMULATIVE (2019) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	54	0	0.000	N-S(1):	0.058
	TH	1.00	10	1,600	0.070 *	N-S(2):	0.076 *
	LT	0.00	48	1,600	0.030	E-W(1):	0.328
Westbound	RT	0.00	113	0	0.000	E-W(2):	0.414 *
	TH	2.00	777	3,200	0.278 *		
	LT	1.00	8	1,600	0.005	V/C:	0.490
Northbound	RT	0.00	25	0	0.000	Lost Time:	0.100
	TH	1.00	9	1,600	0.028	ATSAC:	-0.070
	LT	0.00	10	1,600	0.006 *		
Eastbound	RT	0.00	10	0	0.000	ICU:	0.520
	TH	2.00	1,024	3,200	0.323		
	LT	1.00	218	1,600	0.136 *	LOS:	A

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	165	0	0.000	N-S(1):	0.139
	TH	1.00	24	1,600	0.229 *	N-S(2):	0.239 *
	LT	0.00	177	1,600	0.111	E-W(1):	0.294
Westbound	RT	0.00	50	0	0.000	E-W(2):	0.344 *
	TH	2.00	880	3,200	0.291 *		
	LT	1.00	18	1,600	0.011	V/C:	0.583
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.100
	TH	1.00	8	1,600	0.028	ATSAC:	-0.070
	LT	0.00	16	1,600	0.010 *		
Eastbound	RT	0.00	14	0	0.000	ICU:	0.613
	TH	2.00	893	3,200	0.283		
	LT	1.00	84	1,600	0.053 *	LOS:	B

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 13
North/South Street: SAWTELLE BOULEVARD
East/West Street: MATTESON STREET/I-405 SOUTHBOUND RAMPS

Scenario: EXISTING (2017) CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	33	0	0.000	N-S(1):	0.524 *
	TH	2.00	206	3,200	0.240 *	N-S(2):	0.000
	LT	0.00	530	0	0.000	E-W(1):	0.228 *
Westbound	RT	1.00	364	1,600	0.000	E-W(2):	0.136
	TH	1.00	10	1,600	0.126		
	LT	0.00	192	1,600	0.120 *	V/C:	0.751
Northbound	RT	0.00	191	0	0.000	Lost Time:	0.100
	TH	2.00	708	3,200	0.283 *	ATSAC:	-0.070
	LT	0.00	8	0	0.000		
Eastbound	RT	0.00	22	0	0.000	ICU:	0.781
	TH	1.00	135	1,600	0.108 *		
	LT	0.00	15	1,600	0.009	LOS:	C

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	12	0	0.000	N-S(1):	0.535 *
	TH	2.00	680	3,200	0.347 *	N-S(2):	0.000
	LT	0.00	417	0	0.000	E-W(1):	0.278 *
Westbound	RT	1.00	312	1,600	0.000	E-W(2):	0.205
	TH	1.00	42	1,600	0.199		
	LT	0.00	276	1,600	0.173 *	V/C:	0.813
Northbound	RT	0.00	114	0	0.000	Lost Time:	0.100
	TH	2.00	471	3,200	0.188 *	ATSAC:	-0.070
	LT	0.00	18	0	0.000		
Eastbound	RT	0.00	32	0	0.000	ICU:	0.843
	TH	1.00	126	1,600	0.105 *		
	LT	0.00	10	1,600	0.006	LOS:	D

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 13
North/South Street: SAWTELLE BOULEVARD
East/West Street: MATTESON STREET/I-405 SOUTHBOUND RAMPS

Scenario: EXISTING (2017) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	33	0	0.000	N-S(1):	0.525 *
	TH	2.00	207	3,200	0.241 *	N-S(2):	0.000
	LT	0.00	530	0	0.000	E-W(1):	0.229 *
Westbound	RT	1.00	364	1,600	0.000	E-W(2):	0.137
	TH	1.00	10	1,600	0.128		
	LT	0.00	194	1,600	0.121 *	V/C:	0.754
Northbound	RT	0.00	193	0	0.000	Lost Time:	0.100
	TH	2.00	709	3,200	0.284 *	ATSAC:	-0.070
	LT	0.00	8	0	0.000		
Eastbound	RT	0.00	22	0	0.000	ICU:	0.784
	TH	1.00	135	1,600	0.108 *		
	LT	0.00	15	1,600	0.009	LOS:	C

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	12	0	0.000	N-S(1):	0.537 *
	TH	2.00	682	3,200	0.347 *	N-S(2):	0.000
	LT	0.00	417	0	0.000	E-W(1):	0.281 *
Westbound	RT	1.00	312	1,600	0.000	E-W(2):	0.209
	TH	1.00	42	1,600	0.203		
	LT	0.00	282	1,600	0.176 *	V/C:	0.818
Northbound	RT	0.00	118	0	0.000	Lost Time:	0.100
	TH	2.00	473	3,200	0.190 *	ATSAC:	-0.070
	LT	0.00	18	0	0.000		
Eastbound	RT	0.00	32	0	0.000	ICU:	0.848
	TH	1.00	126	1,600	0.105 *		
	LT	0.00	10	1,600	0.006	LOS:	D

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 13
North/South Street: SAWTELLE BOULEVARD
East/West Street: MATTESON STREET/I-405 SOUTHBOUND RAMPS

Scenario: CUMULATIVE (2019) BASE CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	34	0	0.000	N-S(1):	0.557 *
	TH	2.00	222	3,200	0.254 *	N-S(2):	0.000
	LT	0.00	557	0	0.000	E-W(1):	0.254 *
Westbound	RT	1.00	400	1,600	0.000	E-W(2):	0.160
	TH	1.00	10	1,600	0.151		
	LT	0.00	232	1,600	0.145 *	V/C:	0.811
Northbound	RT	0.00	230	0	0.000	Lost Time:	0.100
	TH	2.00	733	3,200	0.303 *	ATSAC:	-0.070
	LT	0.00	8	0	0.000		
Eastbound	RT	0.00	22	0	0.000	ICU:	0.841
	TH	1.00	138	1,600	0.109 *		
	LT	0.00	15	1,600	0.009	LOS:	D

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	16	0	0.000	N-S(1):	0.589 *
	TH	2.00	718	3,200	0.371 *	N-S(2):	0.000
	LT	0.00	452	0	0.000	E-W(1):	0.314 *
Westbound	RT	1.00	341	1,600	0.000	E-W(2):	0.239
	TH	1.00	43	1,600	0.233		
	LT	0.00	329	1,600	0.206 *	V/C:	0.903
Northbound	RT	0.00	172	0	0.000	Lost Time:	0.100
	TH	2.00	506	3,200	0.218 *	ATSAC:	-0.070
	LT	0.00	18	0	0.000		
Eastbound	RT	0.00	33	0	0.000	ICU:	0.933
	TH	1.00	129	1,600	0.108 *		
	LT	0.00	10	1,600	0.006	LOS:	E

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 13
North/South Street: SAWTELLE BOULEVARD
East/West Street: MATTESON STREET/I-405 SOUTHBOUND RAMPS

Scenario: CUMULATIVE (2019) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	34	0	0.000	N-S(1):	0.558 *
	TH	2.00	223	3,200	0.254 *	N-S(2):	0.000
	LT	0.00	557	0	0.000	E-W(1):	0.255 *
Westbound	RT	1.00	400	1,600	0.000	E-W(2):	0.162
	TH	1.00	10	1,600	0.153		
	LT	0.00	234	1,600	0.146 *	V/C:	0.813
Northbound	RT	0.00	232	0	0.000	Lost Time:	0.100
	TH	2.00	734	3,200	0.304 *	ATSAC:	-0.070
	LT	0.00	8	1,600	0.005		
Eastbound	RT	0.00	22	0	0.000	ICU:	0.843
	TH	1.00	138	1,600	0.109 *		
	LT	0.00	15	1,600	0.009	LOS:	D

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	16	0	0.000	N-S(1):	0.590 *
	TH	2.00	720	3,200	0.371 *	N-S(2):	0.000
	LT	0.00	452	0	0.000	E-W(1):	0.317 *
Westbound	RT	1.00	341	1,600	0.000	E-W(2):	0.242
	TH	1.00	43	1,600	0.236		
	LT	0.00	335	1,600	0.209 *	V/C:	0.907
Northbound	RT	0.00	176	0	0.000	Lost Time:	0.100
	TH	2.00	508	3,200	0.219 *	ATSAC:	-0.070
	LT	0.00	18	0	0.000		
Eastbound	RT	0.00	33	0	0.000	ICU:	0.937
	TH	1.00	129	1,600	0.108 *		
	LT	0.00	10	1,600	0.006	LOS:	E

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 14
North/South Street: SAWTELLE BOULEVARD
East/West Street: WASHINGTON PLACE

Scenario: EXISTING (2017) CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	99	0	0.000	N-S(1):	0.248 *
	TH	2.00	212	3,200	0.125	N-S(2):	0.149
	LT	0.00	90	1,600	0.056 *	E-W(1):	0.306 *
Westbound	RT	1.00	199	1,600	0.068	E-W(2):	0.292
	TH	2.00	594	3,200	0.186		
	LT	1.00	22	1,600	0.014 *	V/C:	0.554
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.100
	TH	2.00	546	3,200	0.192 *	ATSAC:	-0.070
	LT	0.00	39	1,600	0.024		
Eastbound	RT	0.00	67	0	0.000	ICU:	0.584
	TH	2.00	866	3,200	0.292 *		
	LT	1.00	170	1,600	0.106	LOS:	A

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	234	0	0.000	N-S(1):	0.190
	TH	2.00	650	3,200	0.305 *	N-S(2):	0.326 *
	LT	0.00	91	1,600	0.057	E-W(1):	0.277 *
Westbound	RT	1.00	142	1,600	0.032	E-W(2):	0.273
	TH	2.00	701	3,200	0.219		
	LT	1.00	31	1,600	0.019 *	V/C:	0.603
Northbound	RT	0.00	39	0	0.000	Lost Time:	0.100
	TH	2.00	355	3,200	0.133	ATSAC:	-0.070
	LT	0.00	33	1,600	0.021 *		
Eastbound	RT	0.00	75	0	0.000	ICU:	0.633
	TH	2.00	749	3,200	0.258 *		
	LT	1.00	87	1,600	0.054	LOS:	B

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 14
North/South Street: SAWTELLE BOULEVARD
East/West Street: WASHINGTON PLACE

Scenario: EXISTING (2017) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	100	0	0.000	N-S(1):	0.248 *
	TH	2.00	214	3,200	0.126	N-S(2):	0.150
	LT	0.00	90	1,600	0.056 *	E-W(1):	0.307 *
Westbound	RT	1.00	199	1,600	0.068	E-W(2):	0.294
	TH	2.00	595	3,200	0.186		
	LT	1.00	22	1,600	0.014 *	V/C:	0.555
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.100
	TH	2.00	546	3,200	0.192 *	ATSAC:	-0.070
	LT	0.00	39	1,600	0.024		
Eastbound	RT	0.00	67	0	0.000	ICU:	0.585
	TH	2.00	871	3,200	0.293 *		
	LT	1.00	173	1,600	0.108	LOS:	A

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	240	0	0.000	N-S(1):	0.190
	TH	2.00	652	3,200	0.307 *	N-S(2):	0.328 *
	LT	0.00	91	1,600	0.057	E-W(1):	0.279 *
Westbound	RT	1.00	142	1,600	0.032	E-W(2):	0.279 *
	TH	2.00	706	3,200	0.221 *		
	LT	1.00	31	1,600	0.019 *	V/C:	0.607
Northbound	RT	0.00	39	0	0.000	Lost Time:	0.100
	TH	2.00	355	3,200	0.133	ATSAC:	-0.070
	LT	0.00	33	1,600	0.021 *		
Eastbound	RT	0.00	75	0	0.000	ICU:	0.637
	TH	2.00	758	3,200	0.260 *		
	LT	1.00	92	1,600	0.058 *	LOS:	B

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 14
North/South Street: SAWTELLE BOULEVARD
East/West Street: WASHINGTON PLACE

Scenario: CUMULATIVE (2019) BASE CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	109	0	0.000	N-S(1):	0.271 *
	TH	2.00	232	3,200	0.141	N-S(2):	0.166
	LT	0.00	111	1,600	0.069 *	E-W(1):	0.330 *
Westbound	RT	1.00	213	1,600	0.064	E-W(2):	0.318
	TH	2.00	638	3,200	0.199		
	LT	1.00	22	1,600	0.014 *	V/C:	0.601
Northbound	RT	0.00	31	0	0.000	Lost Time:	0.100
	TH	2.00	575	3,200	0.202 *	ATSAC:	-0.070
	LT	0.00	40	1,600	0.025		
Eastbound	RT	0.00	68	0	0.000	ICU:	0.631
	TH	2.00	943	3,200	0.316 *		
	LT	1.00	191	1,600	0.119	LOS:	B

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	261	0	0.000	N-S(1):	0.215
	TH	2.00	682	3,200	0.331 *	N-S(2):	0.353 *
	LT	0.00	117	1,600	0.073	E-W(1):	0.300
Westbound	RT	1.00	172	1,600	0.034	E-W(2):	0.317 *
	TH	2.00	786	3,200	0.246 *		
	LT	1.00	32	1,600	0.020	V/C:	0.670
Northbound	RT	0.00	40	0	0.000	Lost Time:	0.100
	TH	2.00	379	3,200	0.142	ATSAC:	-0.070
	LT	0.00	35	1,600	0.022 *		
Eastbound	RT	0.00	77	0	0.000	ICU:	0.700
	TH	2.00	819	3,200	0.280		
	LT	1.00	114	1,600	0.071 *	LOS:	B

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 14
North/South Street: SAWTELLE BOULEVARD
East/West Street: WASHINGTON PLACE

Scenario: CUMULATIVE (2019) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	110	0	0.000	N-S(1):	0.271 *
	TH	2.00	234	3,200	0.142	N-S(2):	0.167
	LT	0.00	111	1,600	0.069 *	E-W(1):	0.332 *
Westbound	RT	1.00	213	1,600	0.064	E-W(2):	0.321
	TH	2.00	639	3,200	0.200		
	LT	1.00	22	1,600	0.014 *	V/C:	0.603
Northbound	RT	0.00	31	0	0.000	Lost Time:	0.100
	TH	2.00	575	3,200	0.202 *	ATSAC:	-0.070
	LT	0.00	40	1,600	0.025		
Eastbound	RT	0.00	68	0	0.000	ICU:	0.633
	TH	2.00	948	3,200	0.318 *		
	LT	1.00	194	1,600	0.121	LOS:	B

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	267	0	0.000	N-S(1):	0.215
	TH	2.00	684	3,200	0.334 *	N-S(2):	0.356 *
	LT	0.00	117	1,600	0.073	E-W(1):	0.303
Westbound	RT	1.00	172	1,600	0.034	E-W(2):	0.321 *
	TH	2.00	791	3,200	0.247 *		
	LT	1.00	32	1,600	0.020	V/C:	0.677
Northbound	RT	0.00	40	0	0.000	Lost Time:	0.100
	TH	2.00	379	3,200	0.142	ATSAC:	-0.070
	LT	0.00	35	1,600	0.022 *		
Eastbound	RT	0.00	77	0	0.000	ICU:	0.707
	TH	2.00	828	3,200	0.283		
	LT	1.00	119	1,600	0.074 *	LOS:	C

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 15
North/South Street: SAWTELLE BOULEVARD
East/West Street: WASHINGTON BOULEVARD

Scenario: EXISTING (2017) CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	64	0	0.000	N-S(1):	0.251 *
	TH	2.00	219	3,200	0.096	N-S(2):	0.177
	LT	0.00	23	1,600	0.014 *	E-W(1):	0.378 *
Westbound	RT	0.00	43	0	0.000	E-W(2):	0.262
	TH	2.00	608	3,200	0.203		
	LT	1.00	126	1,600	0.079 *	V/C:	0.629
Northbound	RT	0.00	115	0	0.000	Lost Time:	0.100
	TH	2.00	514	3,200	0.237 *	ATSAC:	-0.070
	LT	0.00	129	1,600	0.081		
Eastbound	RT	0.00	95	0	0.000	ICU:	0.659
	TH	2.00	861	3,200	0.299 *		
	LT	1.00	94	1,600	0.059	LOS:	B

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	98	0	0.000	N-S(1):	0.174
	TH	2.00	619	3,200	0.236 *	N-S(2):	0.291 *
	LT	0.00	38	1,600	0.024	E-W(1):	0.371 *
Westbound	RT	0.00	35	0	0.000	E-W(2):	0.291
	TH	2.00	742	3,200	0.243		
	LT	1.00	151	1,600	0.094 *	V/C:	0.662
Northbound	RT	0.00	51	0	0.000	Lost Time:	0.100
	TH	2.00	340	3,200	0.150	ATSAC:	-0.070
	LT	0.00	88	1,600	0.055 *		
Eastbound	RT	0.00	138	0	0.000	ICU:	0.692
	TH	2.00	749	3,200	0.277 *		
	LT	1.00	77	1,600	0.048	LOS:	B

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 15
North/South Street: SAWTELLE BOULEVARD
East/West Street: WASHINGTON BOULEVARD

Scenario: EXISTING (2017) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	66	0	0.000	N-S(1):	0.251 *
	TH	2.00	219	3,200	0.096	N-S(2):	0.177
	LT	0.00	23	1,600	0.014 *	E-W(1):	0.378 *
Westbound	RT	0.00	43	0	0.000	E-W(2):	0.264
	TH	2.00	614	3,200	0.205		
	LT	1.00	126	1,600	0.079 *	V/C:	0.629
Northbound	RT	0.00	115	0	0.000	Lost Time:	0.100
	TH	2.00	514	3,200	0.237 *	ATSAC:	-0.070
	LT	0.00	130	1,600	0.081		
Eastbound	RT	0.00	95	0	0.000	ICU:	0.659
	TH	2.00	862	3,200	0.299 *		
	LT	1.00	94	1,600	0.059	LOS:	B

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	100	0	0.000	N-S(1):	0.174
	TH	2.00	619	3,200	0.237 *	N-S(2):	0.293 *
	LT	0.00	38	1,600	0.024	E-W(1):	0.372 *
Westbound	RT	0.00	35	0	0.000	E-W(2):	0.295
	TH	2.00	755	3,200	0.247		
	LT	1.00	151	1,600	0.094 *	V/C:	0.665
Northbound	RT	0.00	51	0	0.000	Lost Time:	0.100
	TH	2.00	340	3,200	0.150	ATSAC:	-0.070
	LT	0.00	90	1,600	0.056 *		
Eastbound	RT	0.00	139	0	0.000	ICU:	0.695
	TH	2.00	752	3,200	0.278 *		
	LT	1.00	77	1,600	0.048	LOS:	B

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 15
North/South Street: SAWTELLE BOULEVARD
East/West Street: WASHINGTON BOULEVARD

Scenario: CUMULATIVE (2019) BASE CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	78	0	0.000	N-S(1):	0.262 *
	TH	2.00	227	3,200	0.103	N-S(2):	0.194
	LT	0.00	23	1,600	0.014 *	E-W(1):	0.412 *
Westbound	RT	0.00	44	0	0.000	E-W(2):	0.301
	TH	2.00	694	3,200	0.231		
	LT	1.00	137	1,600	0.086 *	V/C:	0.674
Northbound	RT	0.00	123	0	0.000	Lost Time:	0.100
	TH	2.00	526	3,200	0.248 *	ATSAC:	-0.070
	LT	0.00	146	1,600	0.091		
Eastbound	RT	0.00	111	0	0.000	ICU:	0.704
	TH	2.00	933	3,200	0.326 *		
	LT	1.00	112	1,600	0.070	LOS:	C

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	110	0	0.000	N-S(1):	0.185
	TH	2.00	641	3,200	0.247 *	N-S(2):	0.311 *
	LT	0.00	39	1,600	0.024	E-W(1):	0.415 *
Westbound	RT	0.00	36	0	0.000	E-W(2):	0.328
	TH	2.00	832	3,200	0.271		
	LT	1.00	170	1,600	0.106 *	V/C:	0.726
Northbound	RT	0.00	60	0	0.000	Lost Time:	0.100
	TH	2.00	353	3,200	0.161	ATSAC:	-0.070
	LT	0.00	102	1,600	0.064 *		
Eastbound	RT	0.00	151	0	0.000	ICU:	0.756
	TH	2.00	839	3,200	0.309 *		
	LT	1.00	91	1,600	0.057	LOS:	C

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 15
North/South Street: SAWTELLE BOULEVARD
East/West Street: WASHINGTON BOULEVARD

Scenario: CUMULATIVE (2019) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	80	0	0.000	N-S(1):	0.263 *
	TH	2.00	227	3,200	0.103	N-S(2):	0.195
	LT	0.00	23	1,600	0.014 *	E-W(1):	0.413 *
Westbound	RT	0.00	44	0	0.000	E-W(2):	0.303
	TH	2.00	700	3,200	0.233		
	LT	1.00	137	1,600	0.086 *	V/C:	0.676
Northbound	RT	0.00	123	0	0.000	Lost Time:	0.100
	TH	2.00	526	3,200	0.249 *	ATSAC:	-0.070
	LT	0.00	147	1,600	0.092		
Eastbound	RT	0.00	111	0	0.000	ICU:	0.706
	TH	2.00	934	3,200	0.327 *		
	LT	1.00	112	1,600	0.070	LOS:	C

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	112	0	0.000	N-S(1):	0.186
	TH	2.00	641	3,200	0.248 *	N-S(2):	0.313 *
	LT	0.00	39	1,600	0.024	E-W(1):	0.417 *
Westbound	RT	0.00	36	0	0.000	E-W(2):	0.332
	TH	2.00	845	3,200	0.275		
	LT	1.00	170	1,600	0.106 *	V/C:	0.730
Northbound	RT	0.00	60	0	0.000	Lost Time:	0.100
	TH	2.00	353	3,200	0.162	ATSAC:	-0.070
	LT	0.00	104	1,600	0.065 *		
Eastbound	RT	0.00	152	0	0.000	ICU:	0.760
	TH	2.00	842	3,200	0.311 *		
	LT	1.00	91	1,600	0.057	LOS:	C

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 16
North/South Street: SEPULVEDA BOULEVARD
East/West Street: I-405 NORTHBOUND ON-/OFF-RAMPS

Scenario: EXISTING (2017) CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	Y
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	1.00	402	1,600	0.117	N-S(1):	0.409
	TH	2.00	595	3,200	0.186 *	N-S(2):	0.527 *
	LT	0.00	0	0	0.000	E-W(1):	0.150 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	1.00	0	1,600	0.001		
	LT	0.00	1	1,600	0.001 *	V/C:	0.677
Northbound	RT	0.00	2	0	0.000	Lost Time:	0.100
	TH	2.00	1,308	3,200	0.409	ATSAC:	-0.070
	LT	1.00	545	1,600	0.341 *		
Eastbound	RT	0.21	46	342	0.000	ICU:	0.707
	TH	0.00	0	0	0.000		
	LT	1.79	384	2,572	0.149 *	LOS:	C

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	1.00	121	1,600	0.000	N-S(1):	0.276
	TH	2.00	1,324	3,200	0.414 *	N-S(2):	0.537 *
	LT	0.00	0	0	0.000	E-W(1):	0.349 *
Westbound	RT	0.00	3	0	0.000	E-W(2):	0.000
	TH	1.00	1	1,600	0.004 *		
	LT	0.00	3	1,600	0.002	V/C:	0.886
Northbound	RT	0.00	5	0	0.000	Lost Time:	0.100
	TH	2.00	877	3,200	0.276	ATSAC:	-0.070
	LT	1.00	197	1,600	0.123 *		
Eastbound	RT	0.28	138	444	0.000	ICU:	0.916
	TH	0.00	0	0	0.000		
	LT	1.72	856	2,480	0.345 *	LOS:	E

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 16
North/South Street: SEPULVEDA BOULEVARD
East/West Street: I-405 NORTHBOUND ON-/OFF-RAMPS

Scenario: EXISTING (2017) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	Y
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	1.00	402	1,600	0.116	N-S(1):	0.410
	TH	2.00	596	3,200	0.186 *	N-S(2):	0.528 *
	LT	0.00	0	0	0.000	E-W(1):	0.151 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	1.00	0	1,600	0.001		
	LT	0.00	1	1,600	0.001 *	V/C:	0.679
Northbound	RT	0.00	2	0	0.000	Lost Time:	0.100
	TH	2.00	1,309	3,200	0.410	ATSAC:	-0.070
	LT	1.00	547	1,600	0.342 *		
Eastbound	RT	0.22	48	356	0.000	ICU:	0.709
	TH	0.00	0	0	0.000		
	LT	1.78	384	2,560	0.150 *	LOS:	C

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	1.00	121	1,600	0.000	N-S(1):	0.276
	TH	2.00	1,327	3,200	0.415 *	N-S(2):	0.541 *
	LT	0.00	0	0	0.000	E-W(1):	0.351 *
Westbound	RT	0.00	3	0	0.000	E-W(2):	0.000
	TH	1.00	1	1,600	0.004 *		
	LT	0.00	3	1,600	0.002	V/C:	0.892
Northbound	RT	0.00	5	0	0.000	Lost Time:	0.100
	TH	2.00	879	3,200	0.276	ATSAC:	-0.070
	LT	1.00	201	1,600	0.126 *		
Eastbound	RT	0.29	144	461	0.000	ICU:	0.922
	TH	0.00	0	0	0.000		
	LT	1.71	856	2,465	0.347 *	LOS:	E

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 16
North/South Street: SEPULVEDA BOULEVARD
East/West Street: I-405 NORTHBOUND ON-/OFF-RAMPS

Scenario: CUMULATIVE (2019) BASE CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	Y
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	1.00	424	1,600	0.108	N-S(1):	0.433
	TH	2.00	730	3,200	0.228 *	N-S(2):	0.590 *
	LT	0.00	0	0	0.000	E-W(1):	0.176 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	1.00	0	1,600	0.001		
	LT	0.00	1	1,600	0.001 *	V/C:	0.766
Northbound	RT	0.00	2	0	0.000	Lost Time:	0.100
	TH	2.00	1,382	3,200	0.433	ATSAC:	-0.070
	LT	1.00	579	1,600	0.362 *		
Eastbound	RT	0.37	92	585	0.000	ICU:	0.796
	TH	0.00	0	0	0.000		
	LT	1.63	411	2,353	0.175 *	LOS:	C

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	1.00	149	1,600	0.000	N-S(1):	0.318
	TH	2.00	1,419	3,200	0.443 *	N-S(2):	0.597 *
	LT	0.00	0	0	0.000	E-W(1):	0.376 *
Westbound	RT	0.00	3	0	0.000	E-W(2):	0.000
	TH	1.00	1	1,600	0.004 *		
	LT	0.00	3	1,600	0.002	V/C:	0.973
Northbound	RT	0.00	5	0	0.000	Lost Time:	0.100
	TH	2.00	1,011	3,200	0.318	ATSAC:	-0.070
	LT	1.00	247	1,600	0.154 *		
Eastbound	RT	0.34	182	543	0.000	ICU:	1.003
	TH	0.00	0	0	0.000		
	LT	1.66	890	2,391	0.372 *	LOS:	F

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 16
North/South Street: SEPULVEDA BOULEVARD
East/West Street: I-405 NORTHBOUND ON-/OFF-RAMPS

Scenario: CUMULATIVE (2019) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	Y
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	1.00	424	1,600	0.107	N-S(1):	0.433
	TH	2.00	731	3,200	0.228 *	N-S(2):	0.591 *
	LT	0.00	0	0	0.000	E-W(1):	0.176 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	1.00	0	1,600	0.001		
	LT	0.00	1	1,600	0.001 *	V/C:	0.767
Northbound	RT	0.00	2	0	0.000	Lost Time:	0.100
	TH	2.00	1,383	3,200	0.433	ATSAC:	-0.070
	LT	1.00	581	1,600	0.363 *		
Eastbound	RT	0.37	94	596	0.000	ICU:	0.797
	TH	0.00	0	0	0.000		
	LT	1.63	411	2,344	0.175 *	LOS:	C

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	1.00	149	1,600	0.000	N-S(1):	0.318
	TH	2.00	1,422	3,200	0.444 *	N-S(2):	0.601 *
	LT	0.00	0	0	0.000	E-W(1):	0.378 *
Westbound	RT	0.00	3	0	0.000	E-W(2):	0.000
	TH	1.00	1	1,600	0.004 *		
	LT	0.00	3	1,600	0.002	V/C:	0.979
Northbound	RT	0.00	5	0	0.000	Lost Time:	0.100
	TH	2.00	1,013	3,200	0.318	ATSAC:	-0.070
	LT	1.00	251	1,600	0.157 *		
Eastbound	RT	0.35	188	558	0.000	ICU:	1.009
	TH	0.00	0	0	0.000		
	LT	1.65	890	2,378	0.374 *	LOS:	F

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 17
North/South Street: SEPULVEDA BOULEVARD
East/West Street: WASHINGTON PLACE

Scenario: EXISTING (2017) CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	131	0	0.000	N-S(1):	0.440 *
	TH	2.00	407	3,200	0.168	N-S(2):	0.231
	LT	1.00	45	1,600	0.028 *	E-W(1):	0.209
Westbound	RT	1.00	141	1,600	0.060	E-W(2):	0.385 *
	TH	2.00	605	3,200	0.189 *		
	LT	1.00	38	1,600	0.024	V/C:	0.825
Northbound	RT	0.00	29	0	0.000	Lost Time:	0.100
	TH	2.00	1,289	3,200	0.412 *	ATSAC:	-0.070
	LT	1.00	101	1,600	0.063		
Eastbound	RT	1.00	97	1,600	0.000	ICU:	0.855
	TH	2.00	593	3,200	0.185		
	LT	1.00	313	1,600	0.196 *	LOS:	D

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	269	0	0.000	N-S(1):	0.291
	TH	2.00	1,153	3,200	0.444 *	N-S(2):	0.498 *
	LT	1.00	53	1,600	0.033	E-W(1):	0.201
Westbound	RT	1.00	99	1,600	0.029	E-W(2):	0.310 *
	TH	2.00	543	3,200	0.170 *		
	LT	1.00	61	1,600	0.038	V/C:	0.808
Northbound	RT	0.00	41	0	0.000	Lost Time:	0.100
	TH	2.00	784	3,200	0.258	ATSAC:	-0.070
	LT	1.00	86	1,600	0.054 *		
Eastbound	RT	1.00	129	1,600	0.027	ICU:	0.838
	TH	2.00	523	3,200	0.163		
	LT	1.00	224	1,600	0.140 *	LOS:	D

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 17
North/South Street: SEPULVEDA BOULEVARD
East/West Street: WASHINGTON PLACE

Scenario: EXISTING (2017) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	131	0	0.000	N-S(1):	0.440 *
	TH	2.00	410	3,200	0.169	N-S(2):	0.232
	LT	1.00	45	1,600	0.028 *	E-W(1):	0.210
Westbound	RT	1.00	141	1,600	0.060	E-W(2):	0.387 *
	TH	2.00	605	3,200	0.189 *		
	LT	1.00	38	1,600	0.024	V/C:	0.827
Northbound	RT	0.00	29	0	0.000	Lost Time:	0.100
	TH	2.00	1,289	3,200	0.412 *	ATSAC:	-0.070
	LT	1.00	101	1,600	0.063		
Eastbound	RT	1.00	98	1,600	0.000	ICU:	0.857
	TH	2.00	595	3,200	0.186		
	LT	1.00	316	1,600	0.198 *	LOS:	D

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	271	0	0.000	N-S(1):	0.291
	TH	2.00	1,160	3,200	0.447 *	N-S(2):	0.501 *
	LT	1.00	53	1,600	0.033	E-W(1):	0.202
Westbound	RT	1.00	99	1,600	0.029	E-W(2):	0.314 *
	TH	2.00	545	3,200	0.170 *		
	LT	1.00	61	1,600	0.038	V/C:	0.815
Northbound	RT	0.00	41	0	0.000	Lost Time:	0.100
	TH	2.00	784	3,200	0.258	ATSAC:	-0.070
	LT	1.00	86	1,600	0.054 *		
Eastbound	RT	1.00	130	1,600	0.028	ICU:	0.845
	TH	2.00	526	3,200	0.164		
	LT	1.00	230	1,600	0.144 *	LOS:	D

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 17
North/South Street: SEPULVEDA BOULEVARD
East/West Street: WASHINGTON PLACE

Scenario: CUMULATIVE (2019) BASE CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	140	0	0.000	N-S(1):	0.484 *
	TH	2.00	544	3,200	0.214	N-S(2):	0.280
	LT	1.00	74	1,600	0.046 *	E-W(1):	0.237
Westbound	RT	1.00	153	1,600	0.049	E-W(2):	0.414 *
	TH	2.00	656	3,200	0.205 *		
	LT	1.00	46	1,600	0.029	V/C:	0.898
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.100
	TH	2.00	1,372	3,200	0.438 *	ATSAC:	-0.070
	LT	1.00	106	1,600	0.066		
Eastbound	RT	1.00	100	1,600	0.000	ICU:	0.928
	TH	2.00	667	3,200	0.208		
	LT	1.00	335	1,600	0.209 *	LOS:	E

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	289	0	0.000	N-S(1):	0.347
	TH	2.00	1,248	3,200	0.480 *	N-S(2):	0.541 *
	LT	1.00	71	1,600	0.044	E-W(1):	0.226
Westbound	RT	1.00	124	1,600	0.033	E-W(2):	0.358 *
	TH	2.00	641	3,200	0.200 *		
	LT	1.00	69	1,600	0.043	V/C:	0.899
Northbound	RT	0.00	42	0	0.000	Lost Time:	0.100
	TH	2.00	929	3,200	0.303	ATSAC:	-0.070
	LT	1.00	97	1,600	0.061 *		
Eastbound	RT	1.00	134	1,600	0.023	ICU:	0.929
	TH	2.00	586	3,200	0.183		
	LT	1.00	252	1,600	0.158 *	LOS:	E

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 17
North/South Street: SEPULVEDA BOULEVARD
East/West Street: WASHINGTON PLACE

Scenario: CUMULATIVE (2019) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	140	0	0.000	N-S(1):	0.484 *
	TH	2.00	547	3,200	0.215	N-S(2):	0.281
	LT	1.00	74	1,600	0.046 *	E-W(1):	0.238
Westbound	RT	1.00	153	1,600	0.049	E-W(2):	0.416 *
	TH	2.00	656	3,200	0.205 *		
	LT	1.00	46	1,600	0.029	V/C:	0.900
Northbound	RT	0.00	30	0	0.000	Lost Time:	0.100
	TH	2.00	1,372	3,200	0.438 *	ATSAC:	-0.070
	LT	1.00	106	1,600	0.066		
Eastbound	RT	1.00	101	1,600	0.000	ICU:	0.930
	TH	2.00	669	3,200	0.209		
	LT	1.00	338	1,600	0.211 *	LOS:	E

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	291	0	0.000	N-S(1):	0.347
	TH	2.00	1,255	3,200	0.483 *	N-S(2):	0.544 *
	LT	1.00	71	1,600	0.044	E-W(1):	0.227
Westbound	RT	1.00	124	1,600	0.033	E-W(2):	0.362 *
	TH	2.00	643	3,200	0.201 *		
	LT	1.00	69	1,600	0.043	V/C:	0.906
Northbound	RT	0.00	42	0	0.000	Lost Time:	0.100
	TH	2.00	929	3,200	0.303	ATSAC:	-0.070
	LT	1.00	97	1,600	0.061 *		
Eastbound	RT	1.00	135	1,600	0.024	ICU:	0.936
	TH	2.00	589	3,200	0.184		
	LT	1.00	258	1,600	0.161 *	LOS:	E

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 18
North/South Street: SEPULVEDA BOULEVARD
East/West Street: WASHINGTON BOULEVARD

Scenario: EXISTING (2017) CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	63	0	0.000	N-S(1):	0.373 *
	TH	2.00	442	3,200	0.158	N-S(2):	0.224
	LT	1.00	31	1,600	0.019 *	E-W(1):	0.322 *
Westbound	RT	0.00	46	0	0.000	E-W(2):	0.315
	TH	2.00	543	3,200	0.184		
	LT	1.00	86	1,600	0.054 *	V/C:	0.695
Northbound	RT	0.00	124	0	0.000	Lost Time:	0.100
	TH	2.00	1,010	3,200	0.354 *	ATSAC:	-0.070
	LT	1.00	105	1,600	0.066		
Eastbound	RT	0.00	103	0	0.000	ICU:	0.725
	TH	2.00	753	3,200	0.268 *		
	LT	1.00	210	1,600	0.131	LOS:	C

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	189	0	0.000	N-S(1):	0.317
	TH	2.00	1,001	3,200	0.372 *	N-S(2):	0.438 *
	LT	1.00	68	1,600	0.043	E-W(1):	0.301
Westbound	RT	0.00	34	0	0.000	E-W(2):	0.317 *
	TH	2.00	684	3,200	0.224 *		
	LT	1.00	147	1,600	0.092	V/C:	0.755
Northbound	RT	0.00	135	0	0.000	Lost Time:	0.100
	TH	2.00	742	3,200	0.274	ATSAC:	-0.070
	LT	1.00	106	1,600	0.066 *		
Eastbound	RT	0.00	127	0	0.000	ICU:	0.785
	TH	2.00	543	3,200	0.209		
	LT	1.00	148	1,600	0.093 *	LOS:	C

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 18
North/South Street: SEPULVEDA BOULEVARD
East/West Street: WASHINGTON BOULEVARD

Scenario: EXISTING (2017) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	66	0	0.000	N-S(1):	0.373 *
	TH	2.00	443	3,200	0.159	N-S(2):	0.225
	LT	1.00	31	1,600	0.019 *	E-W(1):	0.322 *
Westbound	RT	0.00	46	0	0.000	E-W(2):	0.316
	TH	2.00	545	3,200	0.185		
	LT	1.00	86	1,600	0.054 *	V/C:	0.695
Northbound	RT	0.00	124	0	0.000	Lost Time:	0.100
	TH	2.00	1,010	3,200	0.354 *	ATSAC:	-0.070
	LT	1.00	106	1,600	0.066		
Eastbound	RT	0.00	103	0	0.000	ICU:	0.725
	TH	2.00	753	3,200	0.268 *		
	LT	1.00	210	1,600	0.131	LOS:	C

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	196	0	0.000	N-S(1):	0.317
	TH	2.00	1,002	3,200	0.374 *	N-S(2):	0.442 *
	LT	1.00	68	1,600	0.043	E-W(1):	0.302
Westbound	RT	0.00	34	0	0.000	E-W(2):	0.318 *
	TH	2.00	687	3,200	0.225 *		
	LT	1.00	147	1,600	0.092	V/C:	0.760
Northbound	RT	0.00	135	0	0.000	Lost Time:	0.100
	TH	2.00	742	3,200	0.274	ATSAC:	-0.070
	LT	1.00	109	1,600	0.068 *		
Eastbound	RT	0.00	129	0	0.000	ICU:	0.790
	TH	2.00	544	3,200	0.210		
	LT	1.00	148	1,600	0.093 *	LOS:	C

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 18
North/South Street: SEPULVEDA BOULEVARD
East/West Street: WASHINGTON BOULEVARD

Scenario: CUMULATIVE (2019) BASE CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	82	0	0.000	N-S(1):	0.401 *
	TH	2.00	567	3,200	0.203	N-S(2):	0.274
	LT	1.00	32	1,600	0.020 *	E-W(1):	0.354 *
Westbound	RT	0.00	47	0	0.000	E-W(2):	0.349
	TH	2.00	613	3,200	0.206		
	LT	1.00	107	1,600	0.067 *	V/C:	0.755
Northbound	RT	0.00	147	0	0.000	Lost Time:	0.100
	TH	2.00	1,073	3,200	0.381 *	ATSAC:	-0.070
	LT	1.00	114	1,600	0.071		
Eastbound	RT	0.00	115	0	0.000	ICU:	0.785
	TH	2.00	804	3,200	0.287 *		
	LT	1.00	229	1,600	0.143	LOS:	C

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	215	0	0.000	N-S(1):	0.367
	TH	2.00	1,079	3,200	0.404 *	N-S(2):	0.478 *
	LT	1.00	69	1,600	0.043	E-W(1):	0.344
Westbound	RT	0.00	35	0	0.000	E-W(2):	0.352 *
	TH	2.00	757	3,200	0.248 *		
	LT	1.00	174	1,600	0.109	V/C:	0.830
Northbound	RT	0.00	162	0	0.000	Lost Time:	0.100
	TH	2.00	874	3,200	0.324	ATSAC:	-0.070
	LT	1.00	119	1,600	0.074 *		
Eastbound	RT	0.00	138	0	0.000	ICU:	0.860
	TH	2.00	613	3,200	0.235		
	LT	1.00	167	1,600	0.104 *	LOS:	D

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Project: MARKET HALL PROJECT
INT # 18
North/South Street: SEPULVEDA BOULEVARD
East/West Street: WASHINGTON BOULEVARD

Scenario: CUMULATIVE (2019) PLUS PROJECT CONDITIONS

Thru Lane:	1600 vph	N-S Split Phase :	N
Left-Turn Lane:	1600 vph	E-W Split Phase :	N
Dual LT Penalty:	10 %	Lost Time (% of cycle):	10

Peak Period: AM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	85	0	0.000	N-S(1):	0.401 *
	TH	2.00	568	3,200	0.204	N-S(2):	0.276
	LT	1.00	32	1,600	0.020 *	E-W(1):	0.354 *
Westbound	RT	0.00	47	0	0.000	E-W(2):	0.350
	TH	2.00	615	3,200	0.207		
	LT	1.00	107	1,600	0.067 *	V/C:	0.755
Northbound	RT	0.00	147	0	0.000	Lost Time:	0.100
	TH	2.00	1,073	3,200	0.381 *	ATSAC:	-0.070
	LT	1.00	115	1,600	0.072		
Eastbound	RT	0.00	115	0	0.000	ICU:	0.785
	TH	2.00	804	3,200	0.287 *		
	LT	1.00	229	1,600	0.143	LOS:	C

Peak Period: PM PEAK HOUR

Approach	Movement	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	222	0	0.000	N-S(1):	0.367
	TH	2.00	1,080	3,200	0.407 *	N-S(2):	0.483 *
	LT	1.00	69	1,600	0.043	E-W(1):	0.345
Westbound	RT	0.00	35	0	0.000	E-W(2):	0.352 *
	TH	2.00	760	3,200	0.248 *		
	LT	1.00	174	1,600	0.109	V/C:	0.835
Northbound	RT	0.00	162	0	0.000	Lost Time:	0.100
	TH	2.00	874	3,200	0.324	ATSAC:	-0.070
	LT	1.00	122	1,600	0.076 *		
Eastbound	RT	0.00	140	0	0.000	ICU:	0.865
	TH	2.00	614	3,200	0.236		
	LT	1.00	167	1,600	0.104 *	LOS:	D

Traffic signals in Culver City have advanced traffic signal synchronization equivalent to ATSAC.
* = Critical Movement

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Inglewood Boulevard	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	RA	Date:	1/3/2017
19	East-West Street:	Culver Boulevard	Projection Year:	2019	Peak Hour:	AM	Reviewed by:	RA	Project:	RA488

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			2			2			2				2				2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB-- 0	SB--	0	NB-- 0	SB--	0		NB-- 0	SB--	0		NB-- 0	SB--	0	
	EB -- 0	WB --	0	EB-- 0	WB--	0	EB-- 0	WB--	0		EB-- 0	WB--	0		EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	72	1	72	0	72	72	0	73	1	73	0	73	1	73		73	1	73
	Left-Through		0							0				0				0	
	Through	1076	1	635	2	1078	636	34	1132	1	666	2	1134	1	667		1134	1	667
	Through-Right		1							1				1				1	
	Right	194	0	194	0	194	194	1	199	0	199	0	199	0	199		199	0	199
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	99	1	99	0	99	99	0	101	1	101	0	101	1	101		101	1	101
	Left-Through		0							0				0				0	
	Through	588	1	325	1	589	327	51	651	1	357	1	652	1	359		652	1	359
	Through-Right		1							1				1				1	
	Right	62	0	62	3	65	65	0	63	0	63	3	66	0	66		66	0	66
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	102	1	102	0	102	102	21	125	1	125	0	125	1	125		125	1	125
	Left-Through		0							0				0				0	
	Through	962	1	506	0	962	506	52	1033	1	542	0	1033	1	542		1033	1	542
	Through-Right		1							1				1				1	
	Right	49	0	49	0	49	49	0	50	0	50	0	50	0	50		50	0	50
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	92	1	92	0	92	92	12	106	1	106	0	106	1	106		106	1	106
	Left-Through		0							0				0				0	
	Through	638	1	373	0	638	373	98	749	1	429	0	749	1	430		749	1	430
	Through-Right		1							1				1				1	
	Right	107	0	107	1	108	108	0	109	0	109	1	110	0	110		110	0	110
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		734	North-South:		735	North-South:			767	North-South:			768	North-South:			768
		East-West:		598	East-West:		598	East-West:			648	East-West:			648	East-West:			648
		SUM:		1332	SUM:		1333	SUM:			1415	SUM:			1416	SUM:			1416
VOLUME/CAPACITY (V/C) RATIO:				0.888			0.889				0.943				0.944				0.944
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.788			0.789				0.843				0.844				0.844
LEVEL OF SERVICE (LOS):				C			C				D				D				D

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.001 — Δ*v/c* after mitigation: 0.001

Significant impacted? NO — Fully mitigated? N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Inglewood Boulevard	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	RA	Date:	1/3/2017
19	East-West Street:	Culver Boulevard	Projection Year:	2019	Peak Hour:	PM	Reviewed by:	RA	Project:	RA488

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	58	1	**58**	0	58	**58**	0	59	1	**59**	0	59	1	**59**	0	59	1	**59**
Left-Through		0							0				0				0	
Through	644	1	420	4	648	422	64	721	1	464	4	725	1	466	0	725	1	466
Through-Right		1							1				1				1	
Right	196	0	196	0	196	196	7	207	0	207	0	207	0	207	0	207	0	207
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	118	1	118	0	118	118	0	120	1	120	0	120	1	120	0	120	1	120
Left-Through		0							0				0				0	
Through	1210	1	**649**	3	1213	**652**	53	1287	1	**689**	3	1290	1	**692**	0	1290	1	**692**
Through-Right		1							1				1				1	
Right	87	0	87	3	90	90	1	90	0	90	3	93	0	93	0	93	0	93
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	73	1	**73**	0	73	**73**	3	77	1	77	0	77	1	77	0	77	1	77
Left-Through		0							0				0				0	
Through	967	1	515	1	968	515	125	1111	1	**587**	1	1112	1	**588**	0	1112	1	**588**
Through-Right		1							1				1				1	
Right	62	0	62	0	62	62	0	63	0	63	0	63	0	63	0	63	0	63
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	118	1	118	0	118	118	41	161	1	**161**	0	161	1	**161**	0	161	1	**161**
Left-Through		0							0				0				0	
Through	1052	1	**582**	2	1054	**583**	57	1130	1	622	2	1132	1	623	0	1132	1	623
Through-Right		1							1				1				1	
Right	111	0	111	1	112	112	0	113	0	113	1	114	0	114	0	114	0	114
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		707	*North-South:*		710	*North-South:*			748	*North-South:*			751	*North-South:*			751
	East-West:		655	*East-West:*		656	*East-West:*			748	*East-West:*			749	*East-West:*			749
	SUM:		1362	*SUM:*		1366	*SUM:*			1496	*SUM:*			1500	*SUM:*			1500
VOLUME/CAPACITY *(V/C)* RATIO:			0.908			0.911				0.997				1.000				1.000
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.808**			**0.811**				**0.897**				**0.900**				**0.900**
LEVEL OF SERVICE (LOS):			**D**			**D**				**D**				**D**				**D**

	NB--	SB--	EB--	WB--
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	0	0	0

No. of Phases	2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0
ATSAC-1 or ATSAC+ATCS-2?	2
Override Capacity	0

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.003	Δ*v/c* after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

APPENDIX E

Traffic Signal Warrants

TRAFFIC SIGNAL WARRANT INPUT PARAMETERS

INTERSECTION AND SCENARIO NAMES

Major Street: CENTINELA AVENUE
Minor Street: MARKET HALL DRIVEWAY
Scenario: Cumulative (2019) with Project - AM
Urban/Rural: U (U=urban, R=rural) ***See Note [a]***

NUMBER OF LANES FOR MOVING TRAFFIC ON EACH APPROACH

Major Street:	2
Minor Street:	1

TRAFFIC VOLUME DATA	Peak Hour ***Note [b]***	4th Highest Hour	8th Highest Hour	Estimated Daily
Hourly Factor (% of Peak Hour):	n/a	95%	76%	n/a
Vehicles Per Hour (Peak Hour)				
Major Street-Approach 1:	1,576	1,497	1,198	
Major Street-Approach 2:	1,205	1,145	916	
Major Street-Heavier Left Turn: ***See Note [c]***	0	0	0	
Minor Street-Higher Volume App:	6	6	5	

Notes:

a. Use "rural" if the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000. Otherwise, use "urban" (default value).
b. The single highest hour of the day, whether it be AM peak hour or PM peak hour or even some other hour. It is normally not necessary to test both AM peak hour and PM peak hour.
c. Use if separate signal phase to be provided for left-turn movement.

TRAFFIC SIGNAL WARRANTS
EIGHT-HOUR VEHICULAR VOLUME (MUTCD Warrant 1, Caltrans Warrants 1, 2 & 8)

Major Street: CENTINELA AVENUE
Minor Street: MARKET HALL DRIVEWAY
Scenario: Cumulative (2019) with Project - AM
Urban/Rural: U (U=urban, R=rural or high speed [c])

MINIMUM VEHICULAR VOLUME
(MUTCD Condition A, Caltrans Warrant 1

Number of Lanes on Each Approach	
Major Street:	2
Minor Street:	1
Vehicles Per Hour (8th Highest Hour)	
Major Street (Approach 1):	1,198
Major Street (Approach 2):	916
Major Street Left Turn (see note [d]):	0
Minor Street (Higher Volume App.):	5
MINIMUM VEHICULAR VOLUME SATISFIED?	**NO**

Minimum Requirements

Number of Lanes for Moving Traffic on Each Approach		Vehicles Per Hour (eighth highest hour) on Major Street (Total of Both Approaches)			Vehicles Per Hour (eighth highest hour) on Higher-Volume Minor Street Approach (1 Direction Only)		
Major Street	Minor Street	100% [a]	80% [b]	70% [c]	100% [a]	80% [b]	70% [c]
1	1	500	400	350	150	120	105
>=2	1	600	480	420	150	120	105
>=2	>=2	600	480	420	200	160	140
1	>=2	500	400	350	200	160	140
Minimum Required		600	480	#N/A	150	120	#N/A
Test Amount		2,114	2,114	#N/A	5	5	#N/A

INTERRUPTION OF CONTINUOUS TRAFFIC
(MUTCD Condition B, Caltrans Warrant 2

Number of Lanes on Each Approach	
Major Street:	2
Minor Street:	1
Vehicles Per Hour (8th Highest Hour)	
Major Street (Approach 1):	1,198
Major Street (Approach 2):	916
Major Street Left Turn (see note [d]):	0
Minor Street (Higher Volume App.):	5
INTERRUPT. OF CONT. TRAFFIC SATISFIED?	**NO**

Minimum Requirements

Number of Lanes for Moving Traffic on Each Approach		Vehicles Per Hour (eighth highest hour) on Major Street (Total of Both Approaches)			Vehicles Per Hour (eighth highest hour) on Higher-Volume Minor Street Approach (1 Direction Only)		
Major Street	Minor Street	100% [a]	80% [b]	70% [c]	100% [a]	80% [b]	70% [c]
1	1	750	600	525	75	60	53
>=2	1	900	720	630	75	60	53
>=2	>=2	900	720	630	100	80	70
1	>=2	750	600	525	100	80	70
Minimum Required		900	720	#N/A	75	60	#N/A
Test Amount		2,114	2,114	#N/A	5	5	#N/A

80% COMBINATION (Caltrans Warrant 8

No one warrant satisfied but following warrants fulfilled 80% or more:

Condition A 80% Fulfilled?	NO
Condition B 80% Fulfilled?	NO
80% COMBINATION SATISFIED?	**NO**

Minimum Requirements:
Conditions A and B Both 80% Fulfilled

Notes:

a. Basic minimum hourly volume (eighth highest hour).
b. Used for combination of Conditions A and B.
c. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.
d. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, *Manual on Uniform Traffic Control Devices, 2009 Edition* ; and Caltrans, *Traffic Manual,* 2002.

TRAFFIC SIGNAL WARRANTS
FOUR HOUR VEHICULAR VOLUME (MUTCD Warrant 2, Caltrans Warrant 9)
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street: CENTINELA AVENUE
Minor Street: MARKET HALL DRIVEWAY
Scenario: Cumulative (2019) with Project - AM
Urban/Rural: U (U=urban, R=rural [a])

FOUR HOUR VOLUME (MUTCD Warrant 2, Caltrans Warrant 9)

Number of Lanes on Each Approach			
Major Street:	2		
Minor Street:	1		
Vehicles Per Hour (4th Highest Hour)			
Major Street (Approach 1):	1,497	Major Street Left Turn (see note [b]):	0
Major Street (Approach 2):	1,145	Minor Street (Higher Volume App.):	6
Major Street Total (Both Approaches):	2,642	Minor Street Total:	6
Minimum Volume on Major Street to Satisfy Warrant (see note [c]):	390	Minimum Volume on Minor Street to Satisfy Warrant (see note [c]):	80

FOUR HOUR VOLUME WARRANT SATISFIED **NO**

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach			
Major Street:	2		
Minor Street:	1		
Vehicles Per Hour (Peak Hour)			
Major Street (Approach 1):	1,576	Major Street Left Turn (see note [b]):	0
Major Street (Approach 2):	1,205	Minor Street (Higher Volume App.):	6
Major Street Total (Both Approaches):	2,781	Minor Street Total:	6
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	510	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	100

PEAK HOUR VOLUME WARRANT SATISFIED **NO**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, Manual on Uniform Traffic Control Devices, 2009 Edition; and Caltrans, "Traffic Manual," 2002.

SUMMARY OF TRAFFIC SIGNAL WARRANT ANALYSIS

Major Street: CENTINELA AVENUE
Minor Street: MARKET HALL DRIVEWAY
Scenario: Cumulative (2019) with Project - AM

SUMMARY OF RESULTS

Warrant	MUTCD Warrant Number	Caltrans Warrant Number	Requested for Analysis?	Volumes Satisfy Warrant?	Applicable Time Period
Eight Hour Vehicular Volume	1				
Minimum Vehicular Volume	1A	1	YES	NO	8th Highest Hour
Interruption of Continuous Traffic	1B	2	YES	NO	8th Highest Hour
80% Combination	1C	8	YES	NO	8th Highest Hour
Four Hour Volume	2	9	YES	NO	4th Highest Hour
Peak Hour Volume	3	11	YES	NO	Peak Hour
Pedestrian Volume	4	3	NO	NO	Peak Hour
Estimated Average Daily Traffic	n/a	n/a			
Minimum Vehicular Volume			NO	NO	Daily
Interruption of Continuous Traffic			NO	NO	Daily
80% Combination			NO	NO	Daily

TRAFFIC SIGNAL WARRANT INPUT PARAMETERS

INTERSECTION AND SCENARIO NAMES

Major Street: CENTINELA AVENUE
Minor Street: MARKET HALL DRIVEWAY
Scenario: Cumulative (2019) with Project - PM
Urban/Rural: U (U=urban, R=rural) ***See Note [a]***

NUMBER OF LANES FOR MOVING TRAFFIC ON EACH APPROACH

Major Street: 2
Minor Street: 1

TRAFFIC VOLUME DATA	Peak Hour ***Note [b]***	4th Highest Hour	8th Highest Hour	Estimated Daily
Hourly Factor (% of Peak Hour):	n/a	95%	76%	n/a
Vehicles Per Hour (Peak Hour)				
Major Street-Approach 1:	1,335	1,268	1,015	
Major Street-Approach 2:	2,006	1,906	1,525	
Major Street-Heavier Left Turn: ***See Note [c]***	0	0	0	
Minor Street-Higher Volume App:	26	25	20	

Notes:

a. Use "rural" if the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000. Otherwise, use "urban" (default value).
b. The single highest hour of the day, whether it be AM peak hour or PM peak hour or even some other hour. It is normally not necessary to test both AM peak hour and PM peak hour.
c. Use if separate signal phase to be provided for left-turn movement.

TRAFFIC SIGNAL WARRANTS
EIGHT-HOUR VEHICULAR VOLUME (MUTCD Warrant 1, Caltrans Warrants 1, 2 & 8)

Major Street: CENTINELA AVENUE
Minor Street: MARKET HALL DRIVEWAY
Scenario: Cumulative (2019) with Project - PM
Urban/Rural: U (U=urban, R=rural or high speed [c])

MINIMUM VEHICULAR VOLUME
(MUTCD Condition A, Caltrans Warrant 1

Number of Lanes on Each Approach	
Major Street:	2
Minor Street:	1
Vehicles Per Hour (8th Highest Hour)	
Major Street (Approach 1):	1,015
Major Street (Approach 2):	1,525
Major Street Left Turn (see note [d]):	0
Minor Street (Higher Volume App.):	20
MINIMUM VEHICULAR VOLUME SATISFIED?	**NO**

Minimum Requirements

Number of Lanes for Moving Traffic on Each Approach		Vehicles Per Hour (eighth highest hour) on Major Street (Total of Both Approaches)			Vehicles Per Hour (eighth highest hour) on Higher-Volume Minor Street Approach (1 Direction Only)		
Major Street	Minor Street	100% [a]	80% [b]	70% [c]	100% [a]	80% [b]	70% [c]
1	1	500	400	350	150	120	105
>=2	1	600	480	420	150	120	105
>=2	>=2	600	480	420	200	160	140
1	>=2	500	400	350	200	160	140
Minimum Required		600	480	#N/A	150	120	#N/A
Test Amount		2,540	2,540	#N/A	20	20	#N/A

INTERRUPTION OF CONTINUOUS TRAFFIC
(MUTCD Condition B, Caltrans Warrant 2

Number of Lanes on Each Approach	
Major Street:	2
Minor Street:	1
Vehicles Per Hour (8th Highest Hour)	
Major Street (Approach 1):	1,015
Major Street (Approach 2):	1,525
Major Street Left Turn (see note [d]):	0
Minor Street (Higher Volume App.):	20
INTERRUPT. OF CONT. TRAFFIC SATISFIED?	**NO**

Minimum Requirements

Number of Lanes for Moving Traffic on Each Approach		Vehicles Per Hour (eighth highest hour) on Major Street (Total of Both Approaches)			Vehicles Per Hour (eighth highest hour) on Higher-Volume Minor Street Approach (1 Direction Only)		
Major Street	Minor Street	100% [a]	80% [b]	70% [c]	100% [a]	80% [b]	70% [c]
1	1	750	600	525	75	60	53
>=2	1	900	720	630	75	60	53
>=2	>=2	900	720	630	100	80	70
1	>=2	750	600	525	100	80	70
Minimum Required		900	720	#N/A	75	60	#N/A
Test Amount		2,540	2,540	#N/A	20	20	#N/A

80% COMBINATION (Caltrans Warrant 8

No one warrant satisfied but following warrants fulfilled 80% or more:

Condition A 80% Fulfilled?	NO
Condition B 80% Fulfilled?	NO
80% COMBINATION SATISFIED?	**NO**

Minimum Requirements:
Conditions A and B Both 80% Fulfilled

Notes:

a. Basic minimum hourly volume (eighth highest hour).
b. Used for combination of Conditions A and B.
c. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.
d. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, *Manual on Uniform Traffic Control Devices, 2009 Edition* ; and Caltrans, *Traffic Manual,* 2002.

TRAFFIC SIGNAL WARRANTS
FOUR HOUR VEHICULAR VOLUME (MUTCD Warrant 2, Caltrans Warrant 9)
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street: CENTINELA AVENUE
Minor Street: MARKET HALL DRIVEWAY
Scenario: Cumulative (2019) with Project - PM
Urban/Rural: U (U=urban, R=rural [a])

FOUR HOUR VOLUME (MUTCD Warrant 2, Caltrans Warrant 9)

Number of Lanes on Each Approach			
Major Street:	2		
Minor Street:	1		
Vehicles Per Hour (4th Highest Hour)			
Major Street (Approach 1):	1,268	Major Street Left Turn (see note [b]):	0
Major Street (Approach 2):	1,906	Minor Street (Higher Volume App.):	25
Major Street Total (Both Approaches):	3,174	Minor Street Total:	25
Minimum Volume on Major Street to Satisfy Warrant (see note [c]):	390	Minimum Volume on Minor Street to Satisfy Warrant (see note [c]):	80

FOUR HOUR VOLUME WARRANT SATISFIED **NO**

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach			
Major Street:	2		
Minor Street:	1		
Vehicles Per Hour (Peak Hour)			
Major Street (Approach 1):	1,335	Major Street Left Turn (see note [b]):	0
Major Street (Approach 2):	2,006	Minor Street (Higher Volume App.):	26
Major Street Total (Both Approaches):	3,341	Minor Street Total:	26
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	510	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	100

PEAK HOUR VOLUME WARRANT SATISFIED **NO**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, Manual on Uniform Traffic Control Devices, 2009 Edition; and Caltrans, "Traffic Manual," 2002.

SUMMARY OF TRAFFIC SIGNAL WARRANT ANALYSIS

Major Street: CENTINELA AVENUE
Minor Street: MARKET HALL DRIVEWAY
Scenario: Cumulative (2019) with Project - PM

SUMMARY OF RESULTS

Warrant	MUTCD Warrant Number	Caltrans Warrant Number	Requested for Analysis?	Volumes Satisfy Warrant?	Applicable Time Period
Eight Hour Vehicular Volume	1				
Minimum Vehicular Volume	1A	1	YES	NO	8th Highest Hour
Interruption of Continuous Traffic	1B	2	YES	NO	8th Highest Hour
80% Combination	1C	8	YES	NO	8th Highest Hour
Four Hour Volume	2	9	YES	NO	4th Highest Hour
Peak Hour Volume	3	11	YES	NO	Peak Hour
Pedestrian Volume	4	3	NO	NO	Peak Hour
Estimated Average Daily Traffic	n/a	n/a			
Minimum Vehicular Volume			NO	NO	Daily
Interruption of Continuous Traffic			NO	NO	Daily
80% Combination			NO	NO	Daily

APPENDIX F

Queue Evaluation

TABLE F1
SUMMARY OF SIMULATION RESULTS

		Cumulative (2019) Plus Project Conditions	
		AM Peak Hour	PM Peak Hour
Intersection	**Queuing and Blocking Report**	**SB Left**	**SB Left**
Centinela Avenue & Washington Boulevard	Storage Bay Length (feet)	152	152
	95th% Queue (feet)	137	137
	Average Queue (feet)	52	71
	Storage Block Time (%)	0	2
	Queue Penalty (vehicles)	0	18
Intersection	**Queuing and Blocking Report**	**NB Left**	**NB Left**
Centinela Avenue & Market Hall Driveway	Storage Bay Length (feet)	40	40
	95th% Queue (feet)	13	17
	Average Queue (feet)	2	3
	Storage Block Time (%)	0	0
	Queue Penalty (vehicles)	1	1

Definitions:

95th% Queue - The 95th% Queue is equal to the Average Queue plus 1.6 standard deviations. It is based on statistical calculations.
Average Queue - SimTraffic records the maximum back of queue observed for every two minute period. The average queue is average of all 2 minute maximum queues.
Storage Block Time - Storage block time is the proportion of time that a lane is queued at the top of the storage. There is a 'hot spot', 20 feet long placed at the top of the storage bay. Through lanes adjacent to storage bays are also tracked. Queuing in the through lane can block access to the storage bay. Every time that this 'hot spot' is occupied by a queued vehicle counts toward the block time.
Queue Penalty - The queue penalty is a rough measure of how many vehicles are affected by the blocking. The queue penalty is equal to the estimated volume of the lane times the percent of time the lane is blocked. The queue penalty for a storage bay blockage is based on the volume of the adjacent lane. If a through lane is blocking a storage bay, the penalty is based on the volume of turning traffic.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	59	734	109	606	174	1401	106	1066
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	25.0	25.0	20.0	20.0	8.0	20.0
Total Split (s)	25.0	25.0	25.0	25.0	29.0	29.0	11.0	40.0
Total Split (%)	38.5%	38.5%	38.5%	38.5%	44.6%	44.6%	16.9%	61.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 3: Centinela & Washington Bl

Intersection: 3: Centinela & Washington Bl

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	B17	B17	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	T	T	L
Maximum Queue (ft)	209	282	284	290	813	836	180	688	688	479	490	211
Average Queue (ft)	78	181	185	279	701	441	162	640	637	361	365	52
95th Queue (ft)	204	280	282	314	1022	974	232	777	781	618	633	137
Link Distance (ft)		262	262		790	790		582	582	424	424	
Upstream Blk Time (%)		2	3		59	9		68	70	30	36	
Queuing Penalty (veh)		10	12		246	38		584	601	261	307	
Storage Bay Dist (ft)	150			230			120					152
Storage Blk Time (%)	9	18		95	2		45	48				0
Queuing Penalty (veh)	35	11		288	2		317	83				0

Intersection: 3: Centinela & Washington Bl

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	258	265
Average Queue (ft)	151	165
95th Queue (ft)	263	265
Link Distance (ft)	249	249
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	3	3
Storage Bay Dist (ft)		
Storage Blk Time (%)	6	
Queuing Penalty (veh)	6	

Intersection: 14: Market Hall Dwy & Centinela Ave

Movement	EB	NB	SB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	30	21	72	72
Average Queue (ft)	6	2	5	4
95th Queue (ft)	27	13	32	30
Link Distance (ft)	91		603	603
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		40		
Storage Blk Time (%)		0		
Queuing Penalty (veh)		1		

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	87	762	114	756	145	1138	216	1704
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	25.0	25.0	20.0	20.0	10.0	20.0
Total Split (s)	25.0	25.0	25.0	25.0	30.0	30.0	10.0	40.0
Total Split (%)	38.5%	38.5%	38.5%	38.5%	46.2%	46.2%	15.4%	61.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 32 (49%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 3: Washington Bl & Centinela Ave

Intersection: 3: Washington Bl & Centinela Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	B17	B17	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	T	T	L
Maximum Queue (ft)	210	303	306	290	814	832	180	683	695	480	512	164
Average Queue (ft)	139	218	219	285	777	483	174	652	637	405	414	71
95th Queue (ft)	271	348	325	295	894	1027	211	691	791	620	654	137
Link Distance (ft)		262	262		790	790		582	582	424	424	
Upstream Blk Time (%)		37	14		77	18		85	65	51	53	
Queuing Penalty (veh)		181	70		377	91		607	467	366	377	
Storage Bay Dist (ft)	150			230			120					152
Storage Blk Time (%)	42	29		100	0		75	27				2
Queuing Penalty (veh)	158	25		378	0		429	39				18

Intersection: 3: Washington Bl & Centinela Ave

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	164	179
Average Queue (ft)	71	92
95th Queue (ft)	135	153
Link Distance (ft)	249	249
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 14: Centinela Ave & M H Dwy

Movement	EB	NB	NB	NB
Directions Served	LR	L	T	T
Maximum Queue (ft)	66	31	96	91
Average Queue (ft)	20	3	26	24
95th Queue (ft)	48	17	140	134
Link Distance (ft)	91		249	249
Upstream Blk Time (%)	0		0	0
Queuing Penalty (veh)	0		3	1
Storage Bay Dist (ft)		40		
Storage Blk Time (%)		0	10	
Queuing Penalty (veh)		1	0	