VICTORIA GREENS
DRAFT TRANSPORTATION IMPACT ANALYSIS

CITY OF CARSON, CALIFORNIA

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PREPARED BY

FEHR & PEERS

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1. INTRODUCTION

This report documents the assumptions, methodologies, and findings of a transportation impact study conducted by Fehr & Peers to evaluate the potential traffic impacts of Victoria Greens Project in the City of Carson, California. The project is located on the northeast corner of the intersection of Central Avenue and Victoria Street, south of the State Route 91 (SR-91), in the northern portion of the City.

PROJECT DESCRIPTION

The Project is proposed to be developed in the City of Carson in the South Bay area of Los Angeles County on a currently undeveloped site. It is located approximately 17 miles south of downtown Los Angeles and approximately 10 miles east of the Pacific Ocean. The Project site is bounded by East Victoria Street to the south, South Central Avenue to the west, and developed land to the north and east. The Project site also surrounds a small parcel fronting South Central Avenue developed with a building, a high-pressure gas pipeline, and electrical equipment. The Project site is located immediately adjacent to the California State University, Dominguez Hills (CSUDH) campus and opposite Dominguez Hills Village, approximately 0.4 miles south of the Gardena Freeway (SR-91), and 0.5 miles east of the Stub Hub Center. The Project proposes to provide 175 residential dwelling units in a low-rise garden-style multifamily setting. Two- and three-bedroom apartments will be offered. Amenities include a club house for residents with a pool and a dog park. Access to the Project will be provided by one driveway off Central Avenue, opposite Aspen Hill Road, which is a private access road to Dominguez Hills Village. Left-turns out of the Project driveway onto Central Avenue would be prohibited at all times; the prohibition will be enforced through signage and a physical barrier constructed at the project driveway. A second, egress-only driveway off Victoria Street will be gated. Figure 1 illustrates the Project site and study area. Figure 2 includes the site plan.

STUDY SCOPE

The scope of work for this study was determined in conjunction with the City of Carson's Transportation staff.

TRAFFIC SCENARIOS

The study assumes that the Project would be completed by year 2021 and is directed at analyzing the potential project-generated traffic impacts on the local street system under both existing and future year traffic conditions. The following traffic scenarios have been developed and analyzed as part of this study:

- Existing Conditions – The analysis of existing traffic conditions is intended to provide a basis for the remainder of the study. The existing conditions analysis includes a description of the transportation system serving the Project site, existing traffic volumes, and an assessment of the operating conditions at the study analysis locations described below. This scenario is described in detail in Chapter 2.

- Existing plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under existing conditions with the addition of project-

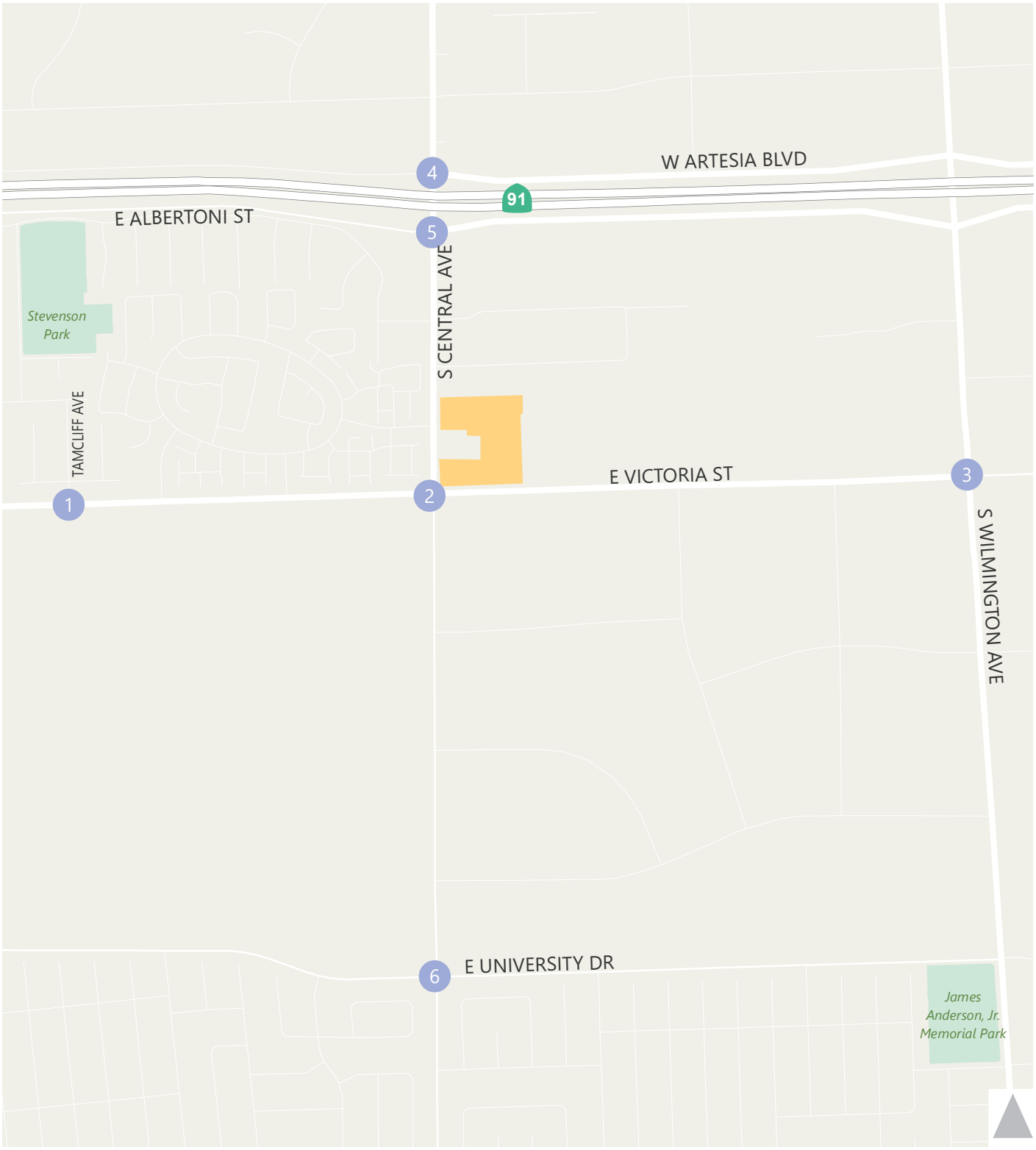


Figure 1

Project Location and Study Intersections

Figure 2

Site Plan

generated traffic. The impacts of the proposed Project on existing traffic operating conditions were then identified. This scenario is described in detail in Chapter 4.

- Future Base (Year 2021) Conditions – Future traffic projections without the proposed Project were developed for the year 2021. The objective of this analysis was to project future traffic growth and operating conditions that could be expected to result from regional growth, cumulative projects, and transportation network changes in the vicinity of the Project site by the year 2021. This scenario is described in detail in Chapter 3.

- Future (Year 2021) plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under future conditions with the addition of Project-generated traffic. The impacts of the proposed Project on future traffic operating conditions were then identified. This scenario is described in detail in Chapter 4.

STUDY INTERSECTIONS

A total of six intersections were selected for the analysis of the Project in consultation with the City of Carson. All six intersections are signalized (Figure 1). Three of the study intersections are located in the City of Carson, two are located in the City of Compton, and one is located in the Dominguez Hills area in unincorporated Los Angeles County.

Signalized Intersections

The following signalized intersections, illustrated in Figure 1, were identified in conjunction with the City of Carson to be analyzed as part of the scope of work for this Project:

1. Tamcliff Avenue & East Victoria Street (City of Carson)
2. South Central Avenue & East Victoria Street (City of Carson)
3. South Wilmington Avenue & East Victoria Street (Los Angeles County)
4. South Central Avenue & East Artesia Boulevard/SR 91 westbound ramps (City of Compton, operated by Los Angeles County)
5. South Central Avenue & East Albertoni Street/SR 91 eastbound ramps (City of Compton, operated by Los Angeles County)
6. South Central Avenue & East University Drive (City of Carson)

Regional Transportation Impact Analysis

Regional access to the Project site is provided by the Gardena Freeway located approximately 0.4 miles north of the Project site, the Harbor Freeway located approximately 2.3 miles west of the Project site, the San Diego Freeway located approximately 2.6 miles southwest of the Project site, and Long Beach Freeway located approximately 4 miles east of the project site.

Chapter 5 discusses the regional transportation impact analysis conducted according to the *2010 Congestion Management Program* (CMP) (Metro, 2010), including a discussion of CMP arterial monitoring stations, freeway impact analysis, and regional transit impact analysis.

ORGANIZATION OF REPORT

This report is divided into six chapters, including this introduction. Chapter 2 describes the existing conditions including an inventory of the streets, highways, and transit service in the study area, a summary of existing traffic volumes, and an assessment of existing operating conditions. The methodologies used to develop traffic forecasts for the Existing, Existing plus Project, Future Base, and Future plus Project scenarios and the forecasts themselves are included in Chapter 3. Chapter 4 presents an assessment of potential intersection traffic impacts of the proposed Project under both existing and future conditions, including an analysis of whether the addition of the Project driveway warrants a traffic signal. Chapter 5 provides a regional transportation impact analysis. Chapter 6 provides the summary and conclusions.

2. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions in the study area. The assessment of conditions relevant to this study includes a description of the study area, an inventory of the local street system in the vicinity of the Project site, a review of traffic volumes on these facilities, an assessment of the resulting operating conditions, and the current transit service in the study area. A detailed description of these elements is presented in this chapter.

STUDY AREA

The Project site is within the City of Carson. The study area selected for analysis extends to include Tamcliff Avenue/Perimeter Road to the west, South Wilmington Avenue to the east, Artesia Boulevard to the north, and East University Drive to the south. The streets in the study area are under the jurisdiction of the City of Carson, City of Compton, and Los Angeles County.

EXISTING STREET SYSTEM

As illustrated in Figure 1, the Project site is located at the northeast corner of South Central Avenue and East Victoria Street. I-405, I-710, SR-91, and the Harbor Freeway (I-110) provide regional access to the Project site.

Major arterials serving the study area include Central Avenue and Wilmington Avenue in the north/south direction, and Victoria Street and University Drive in the east/west direction.

The characteristics of the freeways and major roadways serving the study area are described below.

FREEWAYS

- **State Route 91** runs in the east/west direction, extending from I-110, west of the study area, east through Anaheim. In the vicinity of the study area, the freeway provides four lanes and one carpool lane in each direction plus auxiliary lanes. Ramps are provided at Avalon Boulevard, Central Avenue, and Wilmington Avenue.

NORTH/SOUTH STREETS

- **Central Avenue** runs in the north/south direction adjacent to the Project site in the City of Carson and north into the City of Compton. Central Avenue has two travel lanes in each direction with left-turn pockets present at major intersections. Parking is not permitted on either side of the street within the study area.

- **Wilmington Avenue** runs in the north/south direction east of the Project site in unincorporated Los Angeles County. Wilmington Avenue has three travel lanes in each direction with left-turn pockets present at major intersections.

EAST/WEST STREETS

- **Victoria Street** runs in the east/west direction adjacent to the Project site in the City of Carson west of Wilmington Avenue and in unincorporated Los Angeles County east of Wilmington Avenue. Victoria Street has two travel lanes in each direction with left-turn pockets present at major intersections and a center turn lane east of Bishop Avenue. Parking is permitted on one or both sides of the street west of Central Avenue and east of Bishop Avenue.
- **University Drive** runs in the east/west direction south of the Project site with two travel lanes and a bike lane in each direction, separated by a landscaped median through the majority of the study area and left-turn pockets at major intersections. Parking is not permitted on either side of the street.

Lane configurations of the study intersections are provided in Appendix A.

EXISTING PUBLIC TRANSIT SERVICE

The Project site is served by public transit. The Project is directly served by Los Angeles County Metropolitan Transportation Authority (Metro) Local Route 53 (north-south service from Downtown LA to CSUDH) and Route 130 (east-west service from Artesia to Redondo Beach), Carson Circuit Route A, and Torrance Transit Route 6, which all stop at a bus stop on Central Avenue just south of the project driveway. The proposed Project will work with Metro to improve the existing bus stop.

Additional transit service is available on Long Beach Transit (Route 1) and Compton Renaissance Transit (Route 5) via a stop at CSUDH, and on Metro Local Route 205 which runs north-south along Wilmington Avenue within the vicinity of the proposed Project.

EXISTING BICYCLE AND PEDESTRIAN FACILITIES

The study area has a limited existing bikeway network which includes a Class I shared use path that runs north-south along the west side of Central Avenue between Aspen Hill Road and University Drive, and a marked Class II bicycle lane that runs east-west along either side of University Drive. The Class I path that runs along the west side of Central Avenue varies in width from 8 feet to 12 feet to 16 feet, depending on intermittent landscaping dividing the pathway in two or the presence of a parkway buffering users from the adjacent roadway. There is no identifying or wayfinding signage provided along the pathway. From south to north, the pathway begins at University Drive. From University Drive to Glen Curtiss Street, the pathway runs 615 feet uninterrupted. Widths vary from 12 feet to 16 feet. A planted parkway is present intermittently. At the signalized intersection with Glen Curtiss Street, a standard crosswalk is provided. From Glen Curtiss Street north to the side-street stop-controlled intersection with Gate G Stub Hub Center entrance/Charles Willard Street, the pathway runs uninterrupted for 1,785 feet. Widths vary from 8 feet to 12 feet, depending on variable landscaping that divides the path into two 8-foot lanes in some sections. From Gate G Stub Hub Center entrance/Charles Willard Street north to Victoria Street, the pathway runs 950 feet and is interrupted by two driveways into a light industrial park. The driveway intersections are uncontrolled. At the signalized intersection with Victoria Street, a standard crosswalk is provided. The pathway terminates approximately 405 feet north of Victoria Street at the side-street stop-controlled T-intersection with Aspen Hill Road,

opposite the planned Project driveway. The pathway along this section is evenly divided into two 8-foot lanes by a 2-foot planted median; however, the pathway adjacent to the roadway competes for space with street trees, utility boxes, streetlights, and sidewalk furniture. . No marked crossing is provided across Aspen Hill Road to connect the pathway to the sidewalk on the north side of the intersection

A robust network of additional facilities and improvements are planned as part of the City of Carson *Master Plan of Bikeways* (2013), including a colored buffered bike lane on Central Avenue from the Gardena Freeway to University Drive, a colored bicycle lane along University Drive from Wilmington Avenue to Avalon Boulevard, and a buffered bicycle lane along Victoria Street from Wilmington Avenue to the western edge of the CSUDH campus.

Pedestrian facilities in the study area are limited. Sidewalks are not uniformly provided. There is no sidewalk along the east side of Central Avenue, adjacent to the proposed Project site. The proposed Project has been conditioned by the City to construct missing segments of sidewalk along the project's frontage on Central Avenue. This will result in the removal of on-street parking along this section of roadway.

EXISTING TRAFFIC VOLUMES AND LEVEL OF SERVICE

This section presents existing base peak hour traffic volumes, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each, indicating volume-to-capacity (V/C) ratios and levels of service (LOS).

EXISTING TRAFFIC VOLUMES

Weekday AM and PM peak hour turning movement counts were collected at the study intersections in March 2018. The existing weekday morning and afternoon peak hour volumes at the study intersections are provided in Appendix A. Traffic count worksheets for these intersections are contained in Appendix B.

LEVEL OF SERVICE (LOS) METHODOLOGY

All three study area jurisdictions utilize the Intersection Capacity Utilization (ICU) methodology to determine LOS. The ICU method estimates the V/C ratio for an intersection based on the individual V/C ratios for the conflicting traffic movements. The ICU value represents the percent signal green time of capacity of the intersection movements. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing. The overall intersection V/C ratio is subsequently assigned an LOS value to describe intersection operations in Table 1. LOS ranges from LOS A (free flow) to LOS F (jammed condition). The standard LOS methodology varies by jurisdiction. Study intersections are analyzed according to the methodology of the appropriate jurisdiction.

EXISTING 2018 LEVELS OF SERVICE

Existing year traffic volumes presented in Appendix A were analyzed using the methodologies described above to determine the existing operating conditions at the study intersections. Table 2 summarizes the results of the analysis of the existing weekday morning and evening peak hour V/C ratio and corresponding LOS at each of the analyzed intersections. Existing LOS were analyzed with the current lane configurations

observed in the field. Four of the six signalized intersections currently operate at LOS A or B during both peak periods. The intersections of Central Avenue & Artesia Boulevard and Central Avenue & Albertoni Street, both in the City of Compton, currently operate at LOS C during both peak periods. Detailed LOS analysis sheets for the Project are provided in Appendix C.

TABLE 1 - LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

CITY OF CARSON, CITY OF COMPTON, AND LA COUNTY
ICU METHODOLOGY

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

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

TABLE 2
VICTORIA GREENS PROJECT
EXISTING CONDITIONS INTERSECTION LEVELS OF SERVICE

ID	N/S Street Name	E/W Street Name	Intersection Control	Jurisdiction [1]	Analyzed Period	Existing	
						V/C or Delay (s)	LOS
1	Tamcliff Ave	E Victoria St	Signalized	City of Carson	AM	0.438	A
					PM	0.524	A
2	S Central Ave	E Victoria St	Signalized	City of Carson	AM	0.594	A
					PM	0.699	B
3	S Wilmington Ave	W Victoria St	Signalized	Los Angeles County	AM	0.539	A
					PM	0.614	B
4	S Central Ave	E Artesia Blvd	Signalized	City of Compton	AM	0.765	C
					PM	0.713	C
5	S Central Ave	E Albertoni St	Signalized	City of Compton	AM	0.790	C
					PM	0.764	C
6	S Central Ave	E University Dr	Signalized	City of Carson	AM	0.540	A
					PM	0.504	A

Notes
[1] Methodologies and impact thresholds vary by Jurisdiction.

3. TRAFFIC PROJECTIONS

PROJECT TRAFFIC

The development of trip generation estimates for the proposed Project involves the use of a 3-step process similar to that discussed for the cumulative projects: trip generation, trip distribution, and traffic assignment.

PROJECT TRIP GENERATION

As indicated in Chapter 1, the proposed Project would include the construction of 175 residential units.

Trip generation rates from *Trip Generation, 10th Edition* (Institute of Transportation Engineers [ITE], 2017) were used to estimate the number of trips associated with the Project. As shown in Table 3, the Project is projected to generate an estimated net increase of 1,281 daily trips, including 81 trips (19 inbound/62 outbound) during the AM peak hour and 98 trips (62 inbound/36 outbound) during the PM peak hour.

PROJECT TRAFFIC DISTRIBUTION

The geographic distribution of traffic generated by the proposed Project depends on several factors. These include the type and density of the proposed land use, the locations of employment and commercial centers to which residents of the Projects may be drawn, and the location of the Project's access points in relation to the surrounding street system. Considering those factors, a trip distribution pattern was developed for the Project and the corresponding percentage of traffic likely to be regionally oriented and using the freeway as opposed to the local street system. Figure 3 illustrates the Project's trip distribution pattern.

PROJECT TRAFFIC ASSIGNMENT

The traffic expected to be generated by the proposed Project was assigned to the street network using the distribution patterns described in Figure 3. Appendix A shows the assignment of Project-only traffic volumes for the morning and afternoon peak hours at the six analyzed intersection locations.

EXISTING PLUS PROJECT TRAFFIC CONDITIONS

The Project traffic estimated and assigned to the study intersections was added to the existing traffic volumes to estimate Existing plus Project traffic volumes. Turning movement traffic volumes for the Existing plus Project scenario are provided in Appendix A. Analysis sheets are provided in Appendix C.

FUTURE YEAR 2021 TRAFFIC CONDITIONS

To evaluate the potential impacts of the proposed Project on future (Year 2021) conditions, it was necessary to develop estimates of future traffic conditions in the area both without and with Project traffic. First, estimates of traffic growth were developed for the study area to forecast future conditions without the Project. These forecasts included traffic increases as a result of both regional ambient traffic growth and

TABLE 3
VICTORIA GREENS PROJECT
PROJECT TRIP GENERATION ESTIMATE

Land Use	ITE Land Use Code	Size	Trip Generation Rates [1]							Estimated Trip Generation						
			Daily Rate	AM Peak Hour			PM Peak Hour			Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
				Rate	% In	% Out	Rate	% In	% Out		In	Out	Total	In	Out	Total
PROPOSED PROJECT																
Low-Rise Residential	220	175 du	7.32	0.46	23%	77%	0.56	63%	37%	1,281	19	62	81	62	36	98
Project Total Trips										**1,281**	**19**	**62**	**81**	**62**	**36**	**98**

Notes:

[1] Source: Institute of Transportation Engineers (ITE), Trip Generation, 10th Edition, 2017.

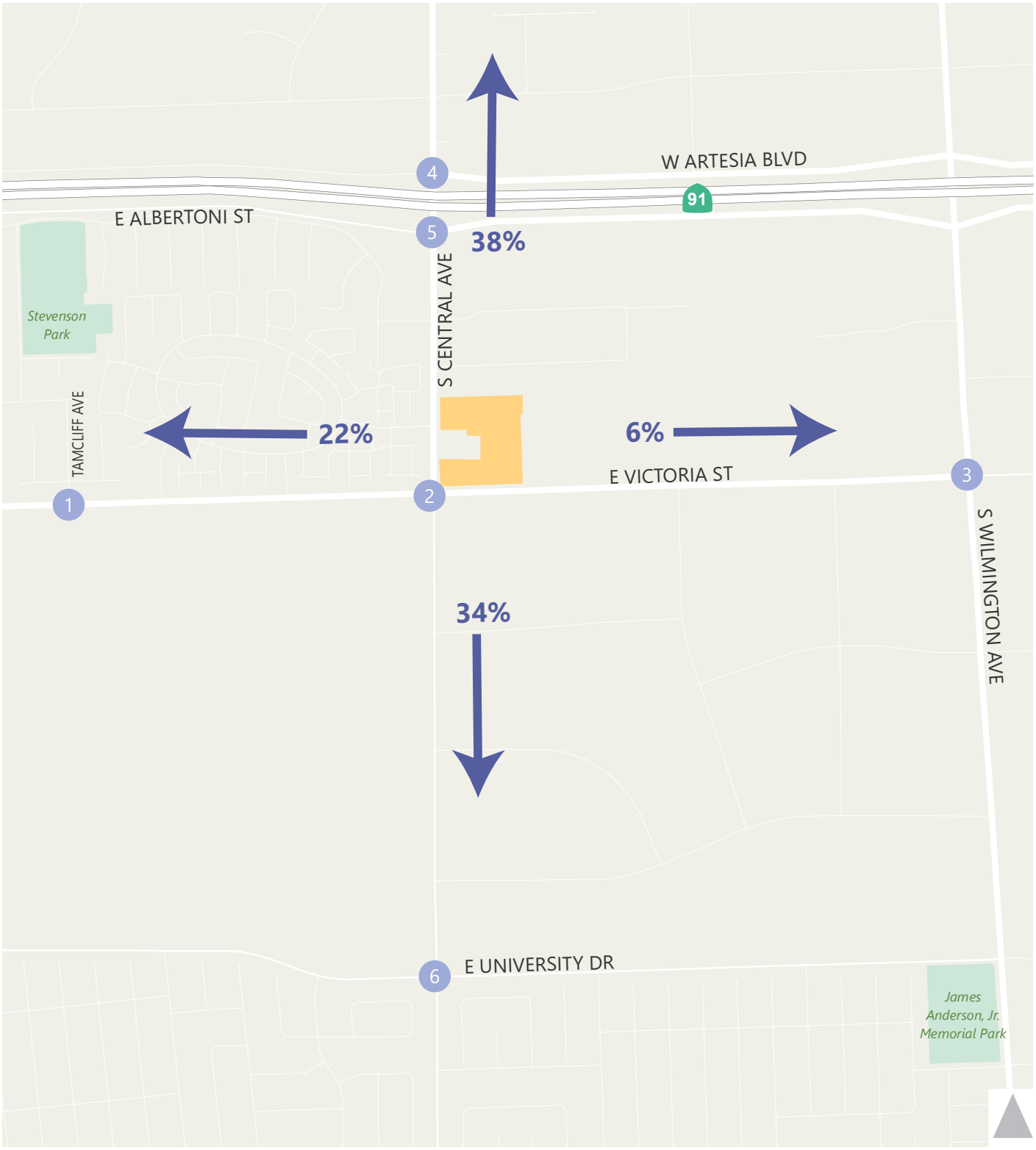


Figure 3

Regional Project Trip Distribution

traffic generated by specific developments in the vicinity of the Project (related projects). Including both ambient growth and trips from specific projects proposed within the vicinity of the Project provides a conservative estimate of future traffic projections.

These projected traffic volumes, identified herein as the Future Base conditions, represent the future conditions without the proposed Project.

BACKGROUND OR AMBIENT GROWTH

Based on historic trends and at the direction of the City of Carson, it was established that an ambient growth factor of 0.5% per year should be applied to adjust the existing base year traffic volumes to reflect the effects of regional growth and development by year 2021. This growth factor was developed based on regional growth patterns, the Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan Model, the *2010 Congestion Management Program*, and at the direction of the City of Carson. This growth factor was applied to the 2018 traffic volume data to reflect the effect of ambient growth by the year 2021.

RELATED PROJECT TRAFFIC GENERATION AND ASSIGNMENT

Future Base traffic forecasts include the effects of known specific projects, called related projects, expected to be implemented in the vicinity of the proposed Project site prior to the buildout date of the proposed Project. The list of related projects was prepared based on data from the City of Carson, the City of Compton, and the County of Los Angeles. A total of 12 related projects were identified in the study area; these projects are listed in Table 4 and illustrated in Figure 4. One of the related projects included in this analysis is the expected buildout of the California State University, Dominguez Hills campus Master Plan Alternative 2. As the first phase of the Master Plan development is not expected to be complete until the year 2025, growth resulting from implementation of Master Plan elements was interpolated for the year 2021, when the proposed Project is expected to be complete.

Trip Generation

Trip generation estimates for the related projects were calculated using a combination of publicly available environmental documentation, and trip generation rates contained in *Trip Generation, 10th Edition*. Table 4 presents the resulting trip generation estimates for these related projects. These trip generation projections are conservative in that they do not in every case account for either the existing uses to be removed or the possible use of non-motorized travel modes (transit, walking, etc.). Traffic mitigation measures associated with the related projects are also not in every case accounted for in the analysis.

Trip Distribution

The geographic distribution of the traffic generated by the related projects is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which employees and potential patrons of proposed commercial developments may be drawn, the locations of employment and commercial centers to which residents of residential projects may be drawn, and the location of the projects in relation to the surrounding street system. Additionally, if the

traffic study or environmental document for a related project was available, the trip distribution from that study was used. Using the estimated trip generation and trip distribution patterns described above, traffic generated by the related projects was assigned to the street network.

TRANSPORTATION INFRASTRUCTURE PROJECTS

No transportation infrastructure projects are currently planned or occurring in the vicinity of the Project site.

FUTURE YEAR 2021 BASE TRAFFIC VOLUMES

Future year 2021 Base weekday AM and PM peak hour traffic volumes and lane geometries for the analyzed intersections are provided in Appendix A. The Future Base traffic conditions represent an estimate of future conditions without the proposed Project inclusive of the ambient background growth and related projects traffic.

FUTURE PLUS PROJECT TRAFFIC PROJECTIONS

The proposed Project traffic volumes were added to the year 2021 Future Base traffic projections, resulting in Future (year 2021) plus Project AM and PM peak hour traffic volumes. The Future (year 2021) plus Project scenario presents future traffic conditions with the completion of the proposed Project. Appendix A shows the lane configurations and volumes analyzed as part of the Future plus Project scenario.

TABLE 4
RELATED PROJECTS TRIP GENERATION ESTIMATES

No.	Project Location	Jurisdiction	Land Use	ITE Code	Size		Trip Generation						
							Daily	AM			PM		
								IN	OUT	TOTAL	IN	OUT	TOTAL
1	16100 S Avalon Blvd	City of Carson	Mini-Warehouse (Self-Storage)	151	44.000	ksf	66	2	2	4	3	4	7
2	19200 S Main St	City of Carson	Warehousing (Hangar)	150	44.500	ksf	77	6	2	8	2	6	8
3	20920 Chico St	City of Carson	Medical Office	720	11.500	ksf	400	25	7	32	11	29	40
4	200 E Alondra Blvd	City of Carson	Warehousing	150	137.000	ksf	238	18	5	23	7	19	26
5	1281 E University Dr	City of Carson	Shopping Center	820	47.000	ksf	1,774	27	17	44	86	93	179
6	17706 S Main St	City of Carson	Warehousing	150	94.731	ksf	165	12	4	16	5	13	18
7	18701 S Wilmington Ave	City of Carson	Warehousing	150	443.000	ksf	771	58	17	75	23	61	84
8	2200 W Artesia Blvd	City of Compton	Fast-Food Restaurant w/ Drive-Through	934	9.867	ksf	4,647	202	195	397	167	155	322
			Shopping Center	820	10.528	ksf	397	6	4	10	19	21	40
9	1957 East Gladwickk St	Los Angeles County	Warehousing (to be removed)	150	45.325	ksf	(79)	(6)	(2)	(8)	(2)	(7)	(9)
			Light Industrial	110	45.325	ksf	225	28	4	32	4	25	29
			Small Office	712	2.793	ksf	45	4	1	5	2	5	7
10	19840 South Rancho Way	Los Angeles County	Warehousing (to be removed)	150	5.016	ksf	(9)	(1)	0	(1)	0	(1)	(1)
			Manufacturing	140	5.016	ksf	20	2	1	3	1	2	3
11	2101 E Via Arado	Los Angeles County	Warehousing	150	11.344	ksf	20	2	0	2	1	1	2
12	California State University, Dominguez Hills	Los Angeles County	University Village	-	-	-	-	1,483	635	2,118	950	1,295	2,245
Total Related Projects Trip Generation							**8,757**	**385**	**257**	**2,760**	**329**	**426**	**755**

Notes:
ksf = one thousand square feet
Trip Generation Estimates based on ITE 10th Edition rates.

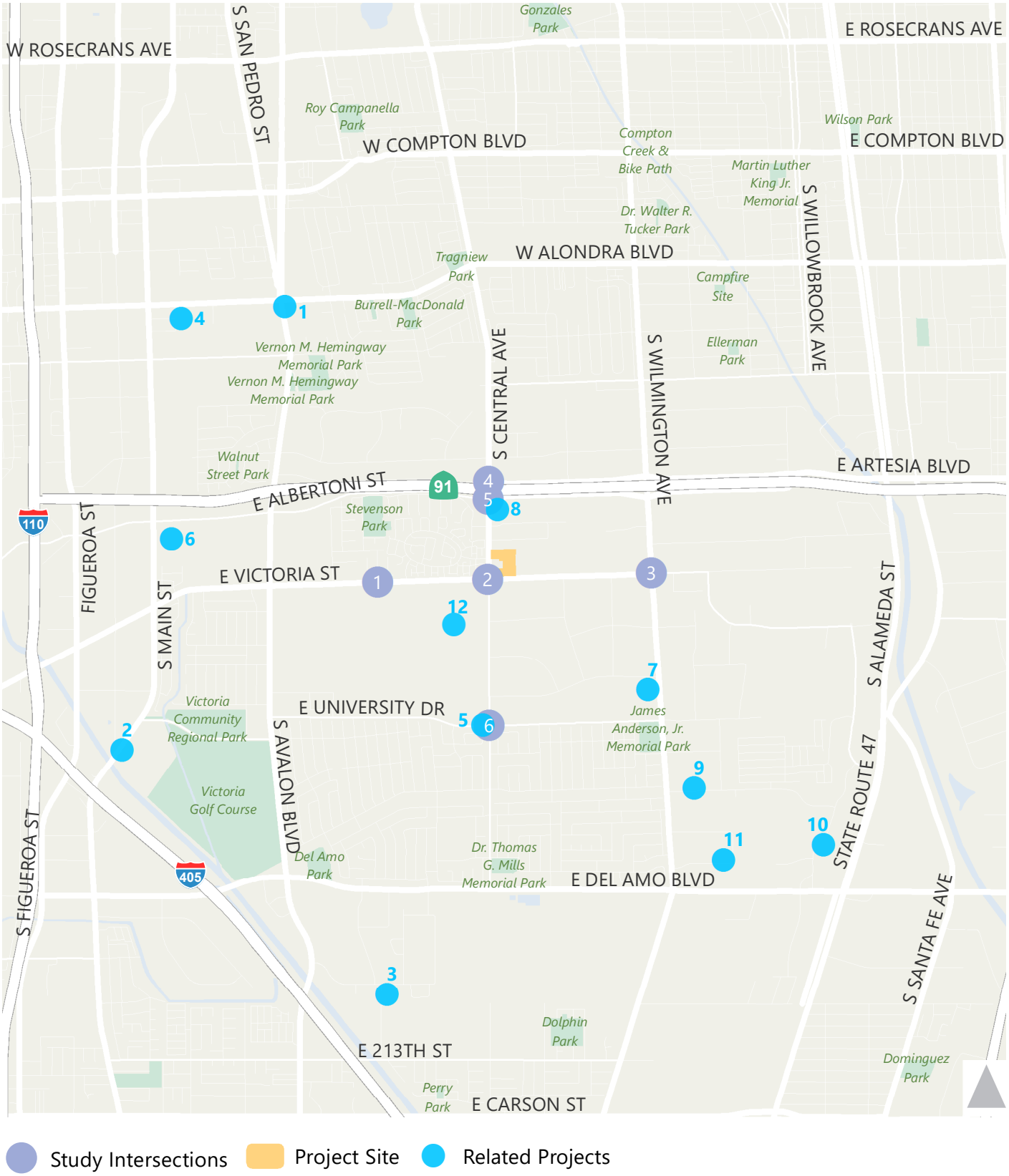


Figure 4

Related Projects

4. INTERSECTION TRAFFIC IMPACT ANALYSIS

The traffic impact analysis evaluates the projected LOS at each study intersection under the Existing plus Project and Future (year 2021) plus Project conditions to estimate the incremental increase in the V/C ratio caused by the proposed Project. This provides the information needed to assess the potential impact of the Project using significance criteria established by the City of Carson, City of Compton, and Los Angeles County.

CRITERIA FOR DETERMINATION OF SIGNIFICANT TRAFFIC IMPACT

SIGNALIZED INTERSECTIONS

City of Carson

The City of Carson has established threshold criteria to determine significant traffic impact of a proposed project in its jurisdiction. A signalized intersection would be significantly impacted with an increase in V/C ratio equal to or greater than 0.02 for intersections operating at LOS E or F after the addition of project traffic. Intersections operating at LOS A, B, C, or D after the addition of project traffic are not considered significantly impacted regardless of the increase in V/C ratio. The following summarizes the significant impact criteria:

City of Carson Traffic Impact Criteria, Signalized Intersections		
LOS	**Final V/C Ratio**	**Project-Related Increase in V/C**
E or F	> 0.900	equal to or greater than 0.020

City of Compton and Los Angeles County

Both the City of Compton and the County of Los Angeles utilize the criteria defined in the County's *Traffic Impact Analysis Report Guidelines* to assess project impacts:

Los Angeles County Traffic Impact Criteria, Signalized Intersections		
LOS	**Pre-Project V/C Ratio**	**Project-Related Increase in V/C**
C	> 0.700 - 0.800	equal to or greater than 0.040
D	> 0.800 - 0.900	equal to or greater than 0.020
E or F	> 0.900	equal to or greater than 0.010

EXISTING PLUS PROJECT IMPACT ANALYSIS

EXISTING PLUS PROJECT TRAFFIC LEVEL OF SERVICE

The Existing plus Project traffic volumes presented in Appendix A were analyzed to determine the projected V/C ratios and LOS for each of the analyzed signalized intersections under this scenario, using the ICU methodology utilized by Carson, Compton, and Los Angeles County. Table 5 summarizes the Existing plus Project LOS. Analysis sheets are provided in Appendix C. As indicated in Table 5, three of the six analyzed intersections are projected to operate at LOS A or B during both morning and evening peak hours with the Project. The intersection of Central Avenue & Victoria Street, in the City of Carson, is expected to operate at LOS B in the AM peak hour and LOS C in the PM peak hour. The intersections of Central Avenue & Artesia Boulevard and Central Avenue & Albertoni Street, both in the City of Compton, are expected to operate at LOS C during both peak hours. Detailed LOS analysis sheets for the Project are provided in Appendix C.

EXISTING PLUS PROJECT INTERSECTION IMPACTS

Table 5 shows that the proposed Project would not result in significant traffic impacts at any of the six study intersections.

FUTURE PLUS PROJECT IMPACT ANALYSIS

FUTURE BASE TRAFFIC LEVEL OF SERVICE

The year 2021 Future Base peak hour traffic volumes were analyzed to determine the projected V/C ratio and LOS for each of the analyzed intersections using the ICU methodology. Table 6 summarizes the future LOS. Three of the six intersections analyzed for impacts are projected to operate at LOS A or B during the morning and afternoon peak hours under Future Base conditions. The intersection of Central Avenue & Victoria Street, in the City of Carson, is projected to operate at LOS B during the AM peak hour and LOS D during the PM peak hour. The intersection of Central Avenue & Artesia Boulevard, in the City of Compton, is projected to operate at LOS D during both the AM and PM peak hours. The intersection of Central Avenue & Albertoni Street/SR 91eastbound ramps, also in the City of Carson, is projected to operate at LOS E during the AM peak hour and LOS D during the PM peak hour. Detailed LOS analysis sheets are provided in Appendix C.

FUTURE PLUS PROJECT TRAFFIC LEVEL OF SERVICE

The Future (year 2021) plus Project peak hour traffic volumes, provided in Appendix A, were analyzed using the ICU methodology to determine the projected future operating conditions with the addition of the proposed Project traffic. The results of the Future (year 2021) plus Project analysis are also presented in Table 6, with analysis sheets provided in Appendix C. Three of the six intersections analyzed are projected to operate at LOS A or B during the morning and afternoon peak hours under Future (year 2021) plus Project conditions. The intersection of Central Avenue & Victoria Street, in the City of Carson, is projected to operate at LOS B during the AM peak hour and LOS D during the PM peak hour. The intersection of Central Avenue & Artesia Boulevard, in the City of Compton, is projected to operate at LOS D during both the AM and PM

peak hours. The intersection of Central Avenue & Albertoni Street/SR 91eastbound ramps, also in the City of Carson, is projected to operate at LOS E during both the AM and PM peak hours. Detailed LOS analysis sheets for the Project are provided in Appendix C.

FUTURE (YEAR 2021) PLUS PROJECT INTERSECTION IMPACTS

As shown in Table 6, using the criteria for determination of significant impacts, it is determined that the proposed Project would not result in significant impacts at any of the six intersections under Future (year 2021) plus Project conditions.

TABLE 5
VICTORIA GREENS PROJECT
EXISTING PLUS PROJECT INTERSECTION LEVELS OF SERVICE AND IMPACT ANALYSIS

ID	N/S Street Name	E/W Street Name	Intersection Control	Jurisdiction [1]	Analyzed Period	Existing		Existing + Project		Project Increase	Significant Impact?
						V/C or Delay (s)	LOS	V/C or Delay (s)	LOS	In V/C or Delay (s)	
1	Tamcliff Ave	E Victoria St	Signalized	City of Carson	AM	0.438	A	0.440	A	0.002	No
					PM	0.524	A	0.530	A	0.006	No
2	S Central Ave	E Victoria St	Signalized	City of Carson	AM	0.594	A	0.600	A	0.006	No
					PM	0.699	B	0.711	C	0.012	No
3	S Wilmington Ave	W Victoria St	Signalized	Los Angeles County	AM	0.539	A	0.540	A	0.001	No
					PM	0.614	B	0.614	B	0.000	No
4	S Central Ave	E Artesia Blvd	Signalized	City of Compton	AM	0.765	C	0.776	C	0.011	No
					PM	0.713	C	0.720	C	0.007	No
5	S Central Ave	E Albertoni St	Signalized	City of Compton	AM	0.790	C	0.795	C	0.005	No
					PM	0.764	C	0.773	C	0.009	No
6	S Central Ave	E University Dr	Signalized	City of Carson	AM	0.540	A	0.541	A	0.001	No
					PM	0.504	A	0.504	A	0.000	No

Notes
[1] Methodologies and impact thresholds vary by Jurisdiction.

TABLE 6
VICTORIA GREENS PROJECT
FUTURE YEAR (2021) PLUS PROJECT INTERSECTION LEVELS OF SERVICE AND IMPACT ANALYSIS

ID	N/S Street Name	E/W Street Name	Intersection Control	Jurisdiction [1]	Analyzed Period	Future		Future + Project		Project Increase	Significant Impact?
						V/C or Delay (s)	LOS	V/C or Delay (s)	LOS	In V/C or Delay (s)	
1	Tamcliff Ave	E Victoria St	Signalized	City of Carson	AM	0.512	A	0.515	A	0.003	No
					PM	0.604	B	0.610	B	0.006	No
2	S Central Ave	E Victoria St	Signalized	City of Carson	AM	0.670	B	0.677	B	0.007	No
					PM	0.810	D	0.822	D	0.012	No
3	S Wilmington Ave	W Victoria St	Signalized	Los Angeles County	AM	0.560	A	0.560	A	0.000	No
					PM	0.628	B	0.628	B	0.000	No
4	S Central Ave	E Artesia Blvd	Signalized	City of Compton	AM	0.868	D	0.880	D	0.012	No
					PM	0.864	D	0.873	D	0.009	No
5	S Central Ave	E Albertoni St	Signalized	City of Compton	AM	0.975	E	0.979	E	0.004	No
					PM	0.895	D	0.904	E	0.009	No
6	S Central Ave	E University Dr	Signalized	City of Carson	AM	0.624	B	0.626	B	0.002	No
					PM	0.600	A	0.602	B	0.002	No

Notes
[1] Methodologies and impact thresholds vary by Jurisdiction.

UNSIGNALIZED INTERSECTION SIGNAL WARRANT ANALYSIS

The proposed Project driveway is currently planned as the fourth leg to the existing three-legged uncontrolled intersection of Central Avenue and Aspen Hill Road. Central Avenue at this location provides two through lanes in each direction, as well as left-turn pockets for both northbound and southbound turns. Aspen Hill Road provides gate-controlled access into Dominguez Hills Village. The outbound driveway provides one shared right-left lane onto Central Avenue. In order to assess whether the addition of the Project driveway to the existing three-legged, side-street stop-controlled intersection will warrant signalization, a traffic signal warrant analysis was prepared utilizing the California Manual on Uniform Traffic Control Devices peak hour warrant. Traffic volumes utilized in the warrant analysis were collected on February 20, 2018.

A 24-hour traffic count on Central Avenue confirmed the AM peak hour as the peak hour with the highest volumes through the intersection. The count sheet for this 24-hour count is included as Appendix D. Morning peak hour volumes at the unsignalized intersection were therefore analyzed under Existing, Existing plus Project, Future Base, and Future plus Project conditions. As shown in Appendix E, the volumes at the Central Avenue & Aspen Hill Road/Project Driveway intersection did not meet the signal warrant thresholds during the AM peak hour under any of the analysis scenarios.

FREEWAY RAMP INTERSECTION ANALYSIS

Per Caltrans' *Guide for the Preparation of Traffic Impact Studies* (Guide), it is recommended that traffic impact analysis evaluate the potential effects of a development project on intersections along nearby State highway facilities, including ramp terminal intersections. The analyzed study intersections include two freeway ramp terminal intersections.

4. South Central Avenue & East Artesia Boulevard/SR 91 westbound ramps
5. South Central Avenue & East Albertoni Street/SR 91 eastbound ramps

FREEWAY RAMP INTERSECTION LEVEL OF SERVICE ANALYSIS

LOS calculations were conducted using the Synchro 10.0 traffic analysis software and are reported using the *Highway Capacity Manual* (HCM) methodology. The analysis was conducted in accordance with methodologies outlined in the Caltrans Guide. Each intersection was configured according to its existing configuration, including signal timing and physical geometry. Four scenarios were tested for the AM and PM weekday peak hours:

- Existing Year (2018)
- Existing plus Project
- Future Year (2021)
- Future Year plus Project

The traffic volumes for each of these scenarios are consistent with those described in Chapter 3. Signal timing plans were obtained from the City of Compton and are shown in Appendix F.

FREEWAY RAMP LEVEL OF SERVICE CRITERIA

Under the HCM methodology, LOS is measured in seconds of delay and assigned a letter grade A through F, where LOS A through D is considered acceptable and operations are considered unacceptable at LOS E or F. Signalized intersection LOS is reported as a weighted average delay for all movements. Table 7 shows the HCM definitions for LOS at signalized intersections.

TABLE 7 – LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS, 6TH EDITION HCM OPERATIONAL METHODOLOGY

Level of Service	Average Total Delay (seconds/vehicle)	Definition
A	≤ 10.0	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	> 10.0 and ≤ 20.0	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	> 20.0 and ≤ 35.0	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	> 35.0 and ≤ 55.0	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	> 55.0 and ≤ 80.0	POOR. Represents the most vehicles the intersection can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 80.0	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths

Source: *Highway Capacity Manual, Special Report 209,* Transportation Research Board, 2010.

FREEWAY RAMP LEVEL OF SERVICE RESULTS

Table 8 and 9 present a summary of ramp intersection LOS analysis using the HCM methodology for Existing and Existing plus Project conditions and Future and Future plus Project conditions, respectively. The Existing and Existing plus Project traffic volumes presented in Appendix C were analyzed to determine the projected delay and LOS for each of the analyzed ramp intersections. Analysis reports are provided in Appendix H, along with the signal timing reports, and 95%ile ramp queue reports. As indicated in Tables 8 and 9, all analyzed intersections are projected to operate at LOS C or better during both peak hours in the Existing condition, and at LOS D or better in the Future condition.

FREEWAY RAMP ANALYSIS SUMMARY

Per the Guide, Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on state highway facilities, however, Caltrans acknowledges that this may not always be feasible. If an existing State highway facility is operating above the appropriate target LOS, the existing measure of effectiveness (MOE) should be maintained.

Based on these guidelines, a project-related impact is considered significant when the baseline LOS is C and becomes D with the addition of the Project, the baseline LOS is D and becomes E with addition of the Project, or the baseline LOS is E and becomes F with addition of the Project.

Since the addition of Project traffic is not projected to degrade the LOS from C to D, from D to E, or from E to F at any of the study ramp terminal intersections, the Project impacts on the intersections would be less than significant.

TABLE 8
VICTORIA GREENS PROJECT
EXISTING PLUS PROJECT RAMP INTERSECTION LEVELS OF SERVICE AND IMPACT ANALYSIS

ID	N/S Street Name	E/W Street Name	Intersection Control	Analyzed Period	Existing		Existing + Project		Project Increase In Delay (sec)	Significant Impact?
					Delay (sec)	LOS	Delay (sec)	LOS		
4	S Central Ave	E Artesia Blvd	Signalized	AM	22.7	C	24.1	C	1.4	NO
				PM	18.9	B	19.2	B	0.3	NO
5	S Central Ave	E Albertoni St	Signalized	AM	22.8	C	23.1	C	0.3	NO
				PM	22.2	C	22.4	C	0.2	NO

TABLE 9
VICTORIA GREENS PROJECT
FUTURE YEAR (2021) PLUS PROJECT RAMP INTERSECTION LEVELS OF SERVICE AND IMPACT ANALYSIS

ID	N/S Street Name	E/W Street Name	Intersection Control	Analyzed Period	Future		Future + Project		Project Increase In Delay (sec)	Significant Impact?
					Delay (sec)	LOS	Delay (sec)	LOS		
4	S Central Ave	E Artesia Blvd	Signalized	AM	27.3	C	28.7	C	1.4	NO
				PM	35.7	D	36.7	D	1.0	NO
5	S Central Ave	E Albertoni St	Signalized	AM	42.6	D	43.5	D	0.9	NO
				PM	37.6	D	38.8	D	1.2	NO

5. REGIONAL TRANSPORTATION SYSTEM ANALYSIS

This section presents an analysis of potential impacts on the regional transportation system. Analysis at CMP monitoring stations was conducted in accordance with the procedures outlined in *Congestion Management Program*. The CMP requires that, when an environmental impact report is prepared for a project, traffic and transit impact analyses be conducted for select regional facilities based on the quantity of project traffic expected to use those facilities.

CMP REGIONAL TRAFFIC IMPACT ANALYSIS

The CMP guidelines require that the first issue to be addressed is the determination of the geographic scope of the study area. The criteria for determining the study area for CMP arterial monitoring intersections and for freeway monitoring locations are:

- All CMP arterial monitoring intersections where the proposed project will add 50 or more trips during either the AM or PM 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 peak hours.

SIGNIFICANT CMP TRAFFIC IMPACT CRITERIA

The CMP traffic impact analysis guidelines establish that a significant project impact occurs when the following threshold is exceeded:

- The proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C 0.02), causing LOS F (V/C > 1.00)
- If the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C 0.02)

ARTERIAL CMP MONITORING STATION ANALYSIS

None of the study area intersections are CMP arterial monitoring locations. The CMP arterial monitoring stations nearest to the Project study area are:

- Alameda Street & SR-91 eastbound Ramps (City of Compton)
- Alameda Street & Del Amo Boulevard (City of Carson)
- Vermont Avenue & Artesia Boulevard (City of Gardena)

The CMP arterial monitoring station closest to the proposed Project site is at Alameda Street & SR-91 eastbound ramps, located 2.2 miles east of the proposed Project site. Vermont Avenue & Artesia Boulevard is located approximately 2.7 miles west of the proposed Project site, and Alameda Street & Del Amo Boulevard is located 3.1 miles southeast of the proposed Project site. Based on the Project trip distribution

and trip generation, the Project is not expected to add 50 peak hour vehicle trips through the closest CMP arterial monitoring station. The majority of Project trips are anticipated to disperse among the transportation network within close proximity to the study area and less than 5% of total Project trips (or fewer than a maximum of 5 trips during the highest peak hour) are expected at any of the CMP monitoring stations.

FREEWAY CMP IMPACT ANALYSIS

The *2010 Congestion Management Program* (CMP) (Metro, 2010) for Los Angeles County requires that all CMP mainline freeway monitoring locations where a proposed Project will add 150 or more trips, in either direction, during either the AM or PM peak hours be analyzed. The closest CMP freeway monitoring station to the Project are located on the Gardena Freeway west of the interchange with the Long Beach Freeway (I-710) and on the San Diego Freeway (I-405) south of the interchange with the Harbor Freeway (I-110). The proposed Project is expected to generate just 81 total trips in the AM peak hour and 98 total trips in the PM peak hour, therefore fewer than 150 trips will be added to the closest CMP monitoring sites during the AM and PM peak hours. CMP analysis is not required and was not conducted.

REGIONAL TRANSIT IMPACT ANALYSIS

Potential transit related person-trips generated by the proposed Project were estimated. Appendix D.8.4 of the 2010 CMP provides a methodology for estimating the number of transit trips expected to result from a proposed Project based on the projected number of vehicle trips. This methodology assumes an average vehicle ridership (AVR) factor of 1.4 in order to estimate the number of person trips to and from the Project and then provides guidance regarding the percentage of person trips assigned to public transit depending on the type of use (commercial/other versus residential) and the proximity to transit services. Appendix D.8.4 of the 2010 CMP recommends summarizing the fixed-route local bus services within ¼ mile of the Project site and express bus routes and rail service within two miles of the Project site.

The Project is located within ¼ mile of bus stops serving Metro Local Routes 53 and 130 and Torrance Transit Route 6, and within 2 miles of the Metro Silver Line Victoria Street station, and the Blue Line Artesia station. However, the Project is not located within ¼ mile of a designated CMP transit center, multi-modal transportation center, or transit corridor. Therefore, the CMP guidelines provide that approximately 3.5% of total person trips generated are assumed to use transit to travel to and from the site. The proposed Project would have an estimated increase in vehicle trip generation of approximately 81 vehicle trips during the AM peak hour and 98 during the PM peak hour. Applying the AVR factor of 1.4 to the estimated vehicle trips would result in an estimated increase of approximately 113 and 137 person-trips during the AM and PM peak hours, respectively. Applying the 3.5% transit use would result in approximately 4 new transit person-trips during the weekday AM peak hour and 5 new transit person-trips during the weekday PM peak hour.

Within the two miles of the Project site, Metro operates the Blue Line (801) with 12-minute headways during peak hours and the Silver Line (950) with 5-minute headways during peak hours. Within a ¼ mile of the Project site, Metro also operates Local Routes 53 (approximately 25-minute headways during the peak hours) and 130 (approximately 40-minute headways during the peak hours), and Torrance Transit operates Route 6 with approximately 40-minute headways during the peak hours. The total of these services has an

estimated seating capacity of 2,496 persons per hour during the peak periods based on a seating capacity of 40 persons for a local bus, 65 persons for a Rapid articulated bus, and 300 persons for a light rail vehicle. The proposed Project would utilize up to 0.2% of available transit capacity during the peak hours using the CMP assumption of transit trips equating to 3.5% of person trips. At this level of transit capacity utilization, the Project is not anticipated to result in a significant CMP transit impact.

6. PARKING AND SITE CIRCULATION ANALYSIS

This chapter presents an analysis of the parking supply and access system proposed by the project. Based on the applicable code requirements as specified by the City of Carson, the required parking supply was estimated. Issues relating to the project's proposed site access and internal circulation design were also evaluated using standard guides for the types of vehicles expected to use these facilities.

CITY OF CARSON PARKING REQUIREMENTS

The parking analysis for the proposed project compared the proposed parking supply to the requirements of the Dominguez Hills Village Specific Plan (Plan), in which area the Project is located. According to the Plan, a proposed development project is required to provide an adequate supply of parking spaces based on the proposed land uses on the site. The proposed project is considered to have a significant parking impact if the proposed parking supply is below that specified by the Plan. The Plan is currently in the process of being amended; draft Plan parking requirements have been provided verbally by the Project applicant and will be verified by City staff.

The project involves development of 175 two- and three-bedroom multifamily dwelling units in a garden-style low-rise complex. Per the draft amended Plan, 2.35 dedicated parking spaces per dwelling unit are required, including guest spaces, yielding a total requirement of 411 parking spaces. The project would provide a total of 419 parking spaces, including 350 dedicated residential garage spaces, and 69 guest surface spaces, equal to 2.39 parking spaces per dwelling unit. Table 10 provides a summary of parking requirements and proposed supply.

TABLE 10 – PARKING REQUIREMENT ESTIMATES

Parking Ratio		
Land Use	**Ratio**	
Dwelling units	2.00	per DU
Guest spaces	0.35	per DU

Parking Requirements per City of Carson Code		
Land Use	**Size**	**Required Spaces**
2-bedroom dwelling units	175 DU	
Primary spaces		350
Guest spaces		61
TOTAL REQUIRED		**411**
SPACES PROVIDED		**419**
TOTAL NEEDED		**-8**

SITE ACCESS AND CIRCULATION

As shown in Figure 2, the proposed project would provide two driveways, one on Central Avenue and one on Victoria Street. The driveway on Central Avenue will serve as the primary project driveway. It will provide full-access ingress and right-turn only egress. Left turns out of the project driveway will be discouraged by signage and a physical barrier located at the project driveway. The driveway on Victoria Street will provide left- and right-turn egress only. The residential driveway on Central Avenue will provide the eastern leg of Central Avenue & Aspen Hill Road, while the driveway on Victoria Street will form a T-intersection.

SITE CIRCULATION

DRIVE AISLES

Inside the Project site, the drive aisle widths vary from 20 feet (in alleys) to 26 feet (along primary internal circulation routes and the fire lane), with two-way operation. The drive aisle widths meet the minimum recommended width for two-way operation.

Most of the proposed parking is located in garage spaces on the ground floor level of individual units. Guest parking spaces are provided in surface parking, located on the eastern edge of the property and near the southwestern edge. Guest spaces measure 9 feet by 16 feet, which is shorter than the 20 feet in length required by Carson Municipal Code (CMC) 9162.41. Seven surface parking spaces are identified as compact spaces; these spaces measure 8 feet by 15 feet, in compliance with CMC 9162.41.

EMERGENCY VEHICLE AND WASTE DISPOSAL VEHICLE ACCESS

A test was performed that determined a 44-foot pumper fire truck and a 38-foot rear-load garbage truck found in *A Policy on Geometric Design of Highways and Streets 2004* was able to enter and exit the primary driveway turning radii without any conflicts; however, firetrucks inbound and outbound to the residential alleys do need to make wide turns that require partially crossing over onto landscaping for some portion of their turn in and out of the alleys. Truck turning movements are presented in Appendix G.

7. SUMMARY AND CONCLUSIONS

PROJECT SUMMARY

The following summarizes the results of the Project transportation impact analysis for the proposed Victoria Greens Project in the City of Carson:

- The Project consists of the construction of 175 residential units.
- The Project will provide access via a driveway on Central Avenue located opposite Aspen Hill Road. Egress from the Project via Central Avenue driveway will be limited to right-turns only at all times. The project will provide an additional egress-only driveway on Victoria Street. That driveway will also serve as a secondary access point for emergency vehicles if ever necessary.
- The Project is projected to generate approximately 1,281 daily trips, including 81 trips during the AM peak hour, and 98 trips during the PM peak hour.
- The LOS analysis for the Existing plus Project scenario determined that the Project would not result in significant impacts at any of the six study intersections.
- The LOS analysis for the Future plus Project scenario determined that the Project would not result in significant impacts at any of the six study intersections.
- A signal warrant analysis concluded that the addition of the primary project driveway to the existing three-legged intersection of Central Avenue and Aspen Hill Road would not warrant installation of a traffic signal.
- Following Caltrans guidelines, HCM delay-based LOS analysis determined that the Project would not result in significant impacts at the two freeway ramp intersections within the study area.
- The project would not result in a significant impact to any CMP arterial or freeway monitoring stations. The projected level of additional transit riders generated by the proposed Project would not result in a significant impact on public transit services in the vicinity of the Project.

REFERENCES

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

Carson Master Plan of Bikeways, City of Carson, 2013.

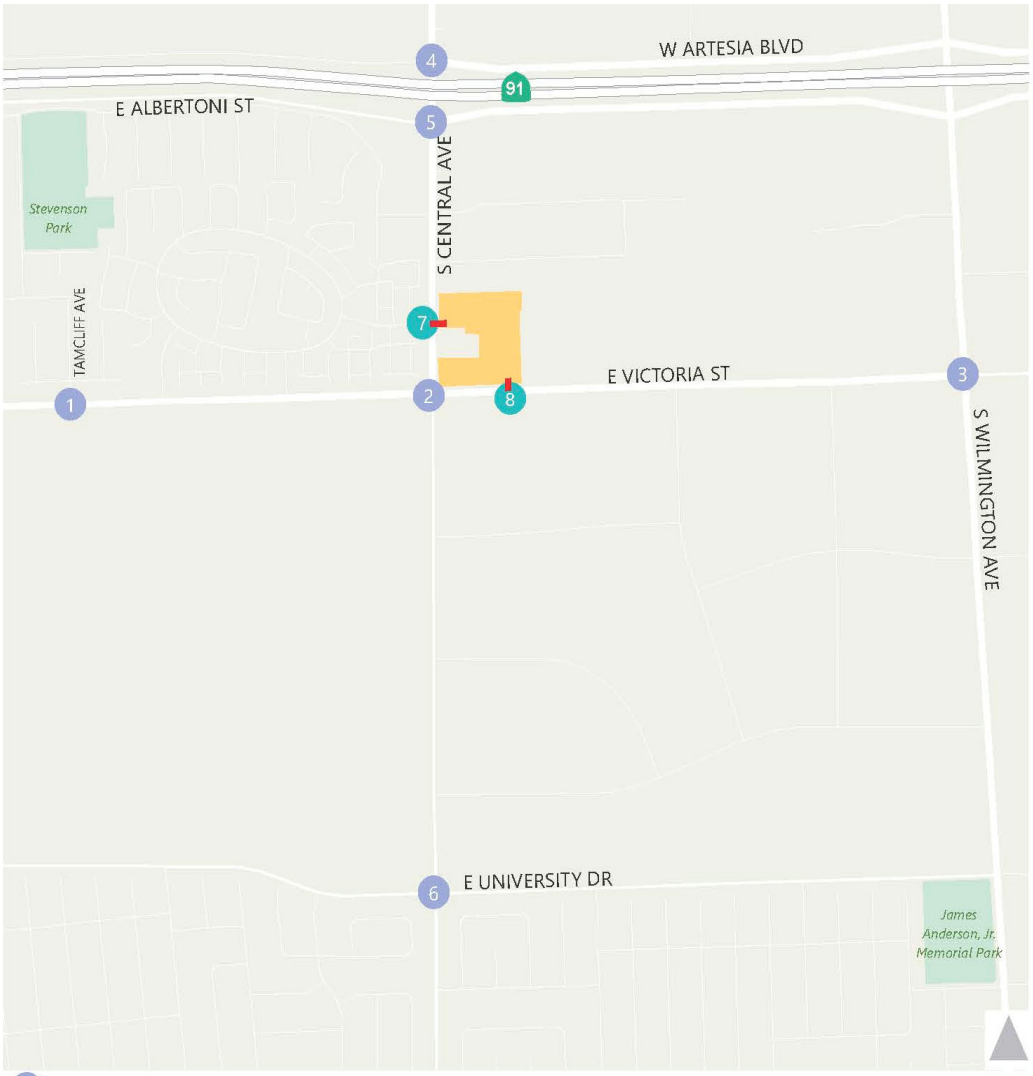
Traffic Impact Analysis Report Guidelines, County of Los Angeles Department of Public Works, 2013.

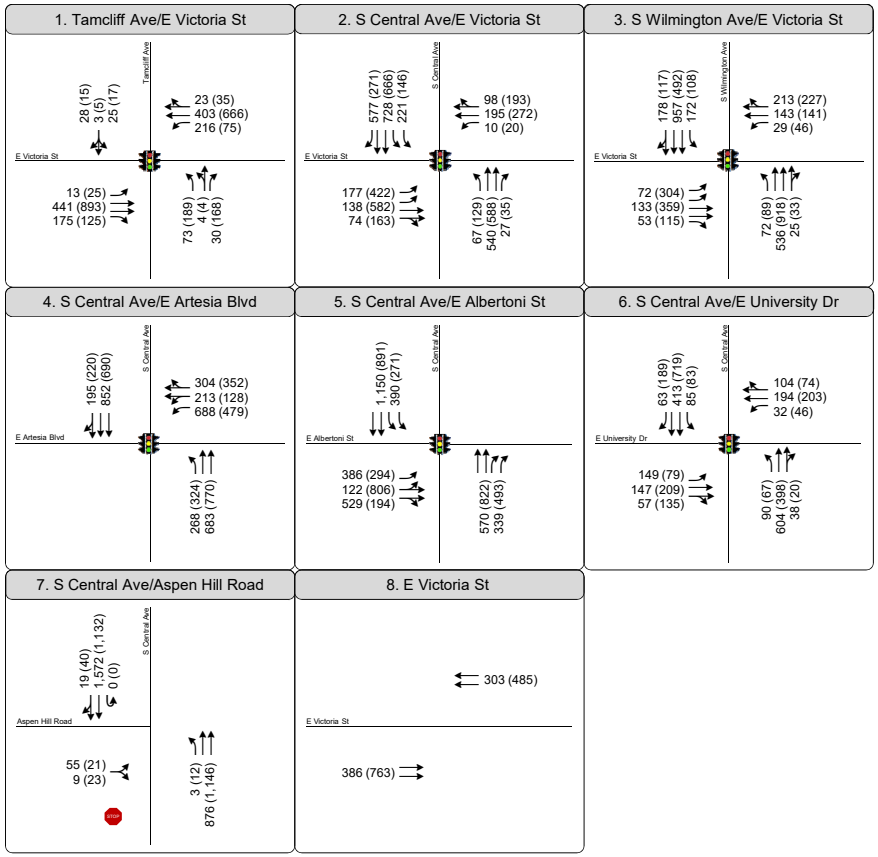
Trip Generation, 10th Edition, Institute of Transportation Engineers, 2017.

Highway Capacity Manual, Sixth Edition, Transportation Research Board, 2016.

Guide for the Preparation of Traffic Impact Studies, California Department of Transportation, December 2002.

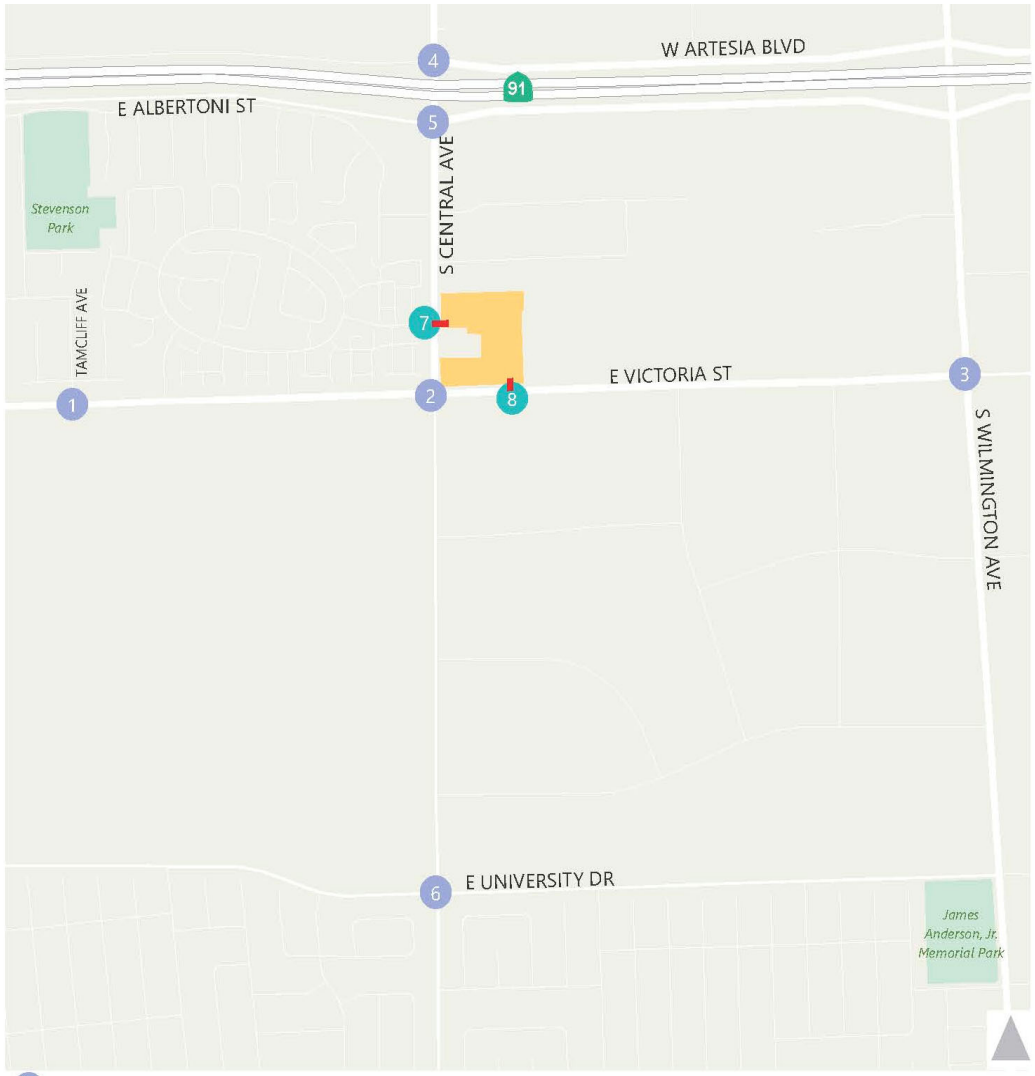
APPENDIX A:
LANE CONFIGURATIONS AND TRAFFIC VOLUMES



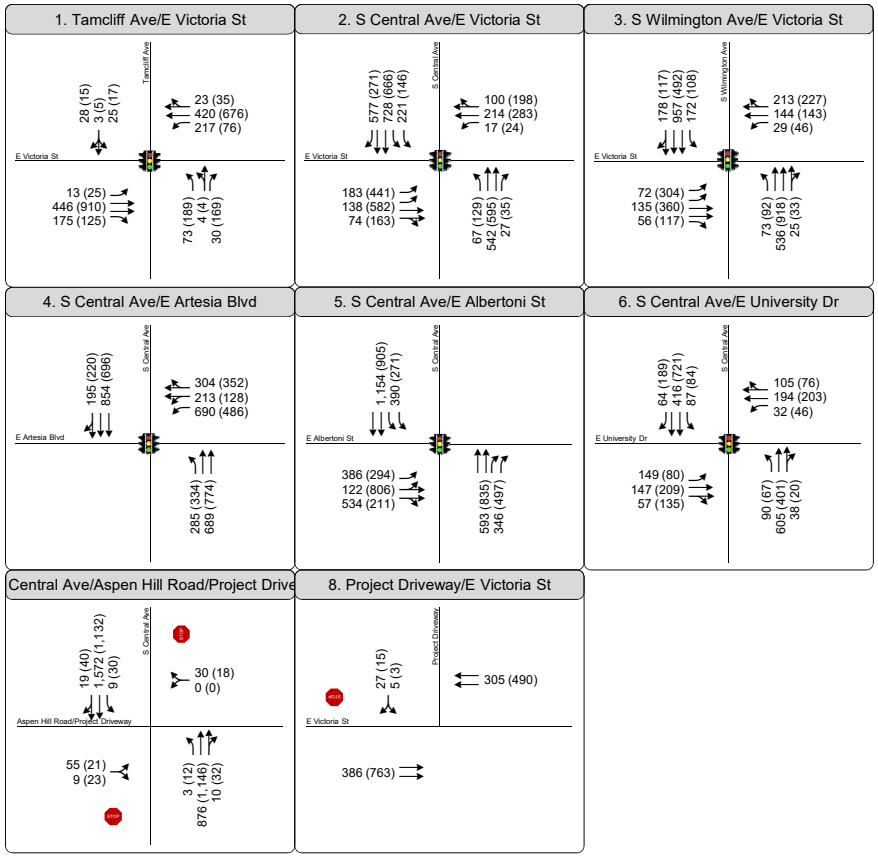


Signalized Study Intersection
Unsignalized Intersection
Project Site
Project Driveway

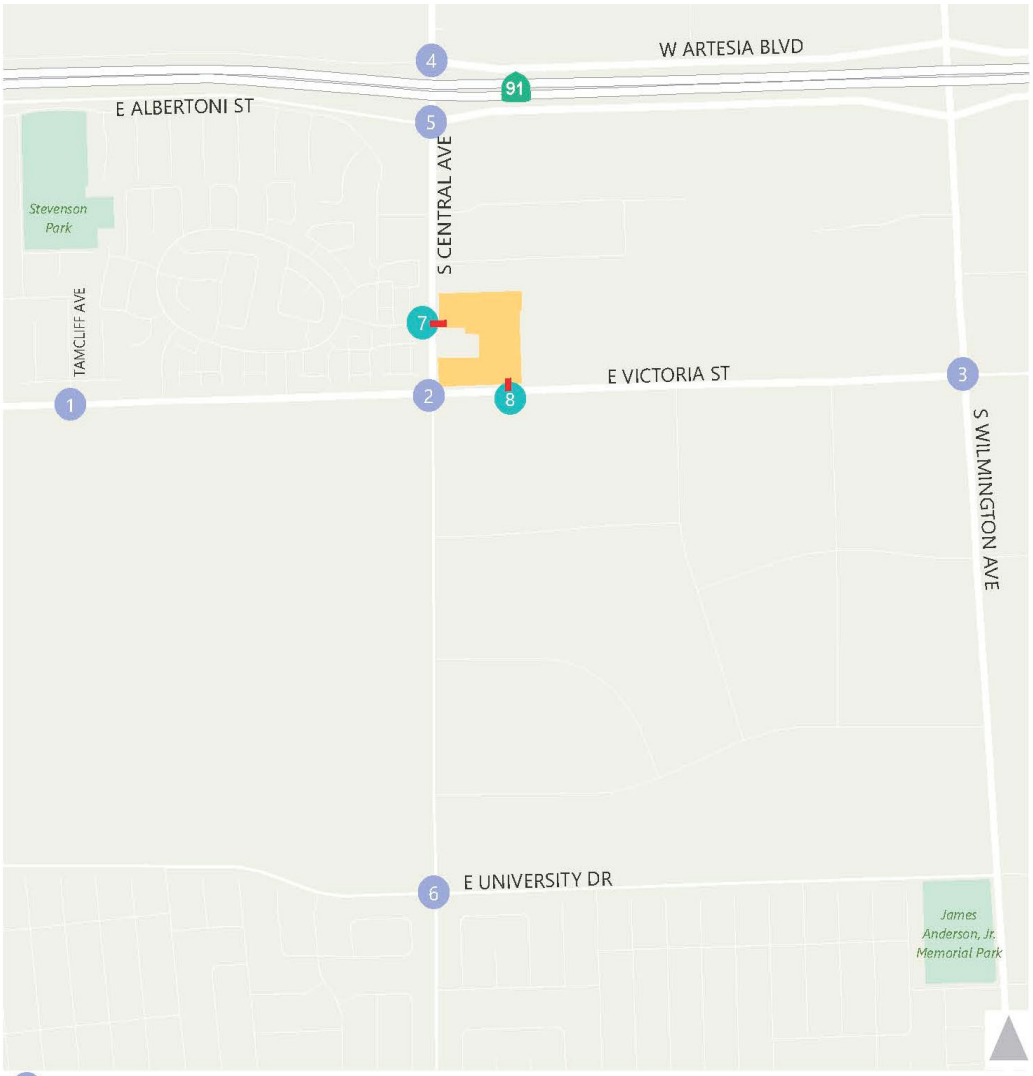
Appendix A-1
Traffic Volumes and Lane Configurations
Existing Conditions



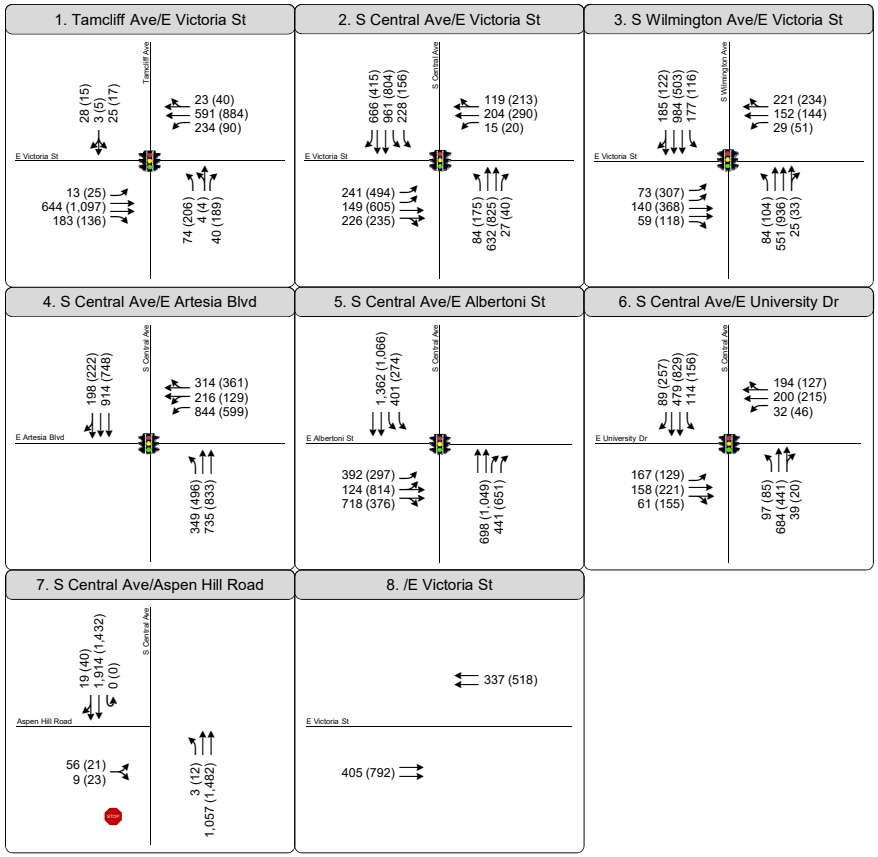
Signalized Study Intersection
Unsignalized Intersection
Project Site
Project Driveway



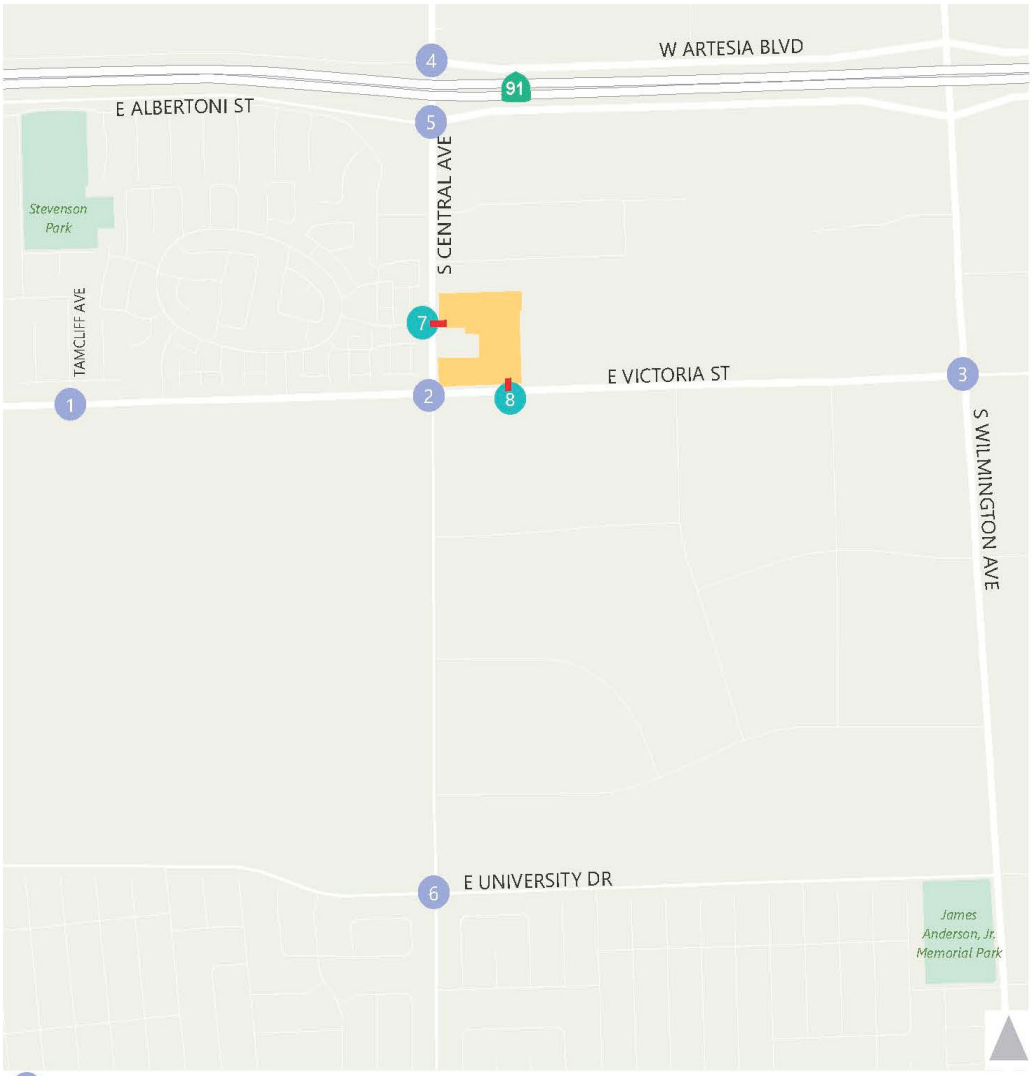
Appendix A-2
Traffic Volumes and Lane Configurations
Existing Plus Project Conditions



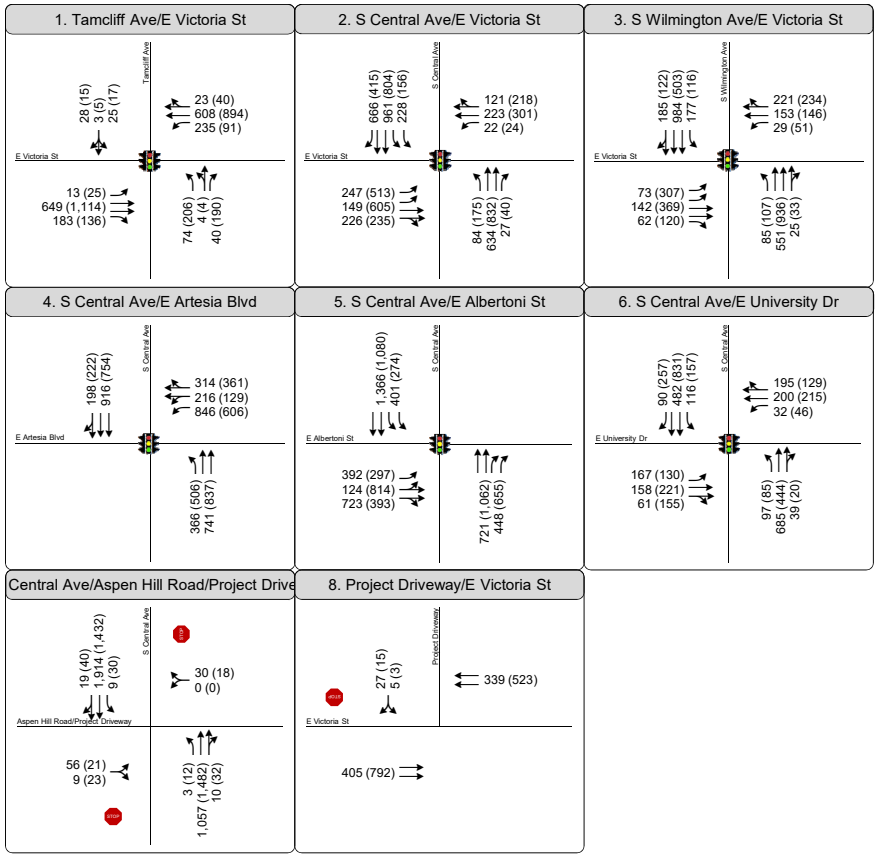
Signalized Study Intersection
Unsignalized Intersection
Project Site
Project Driveway



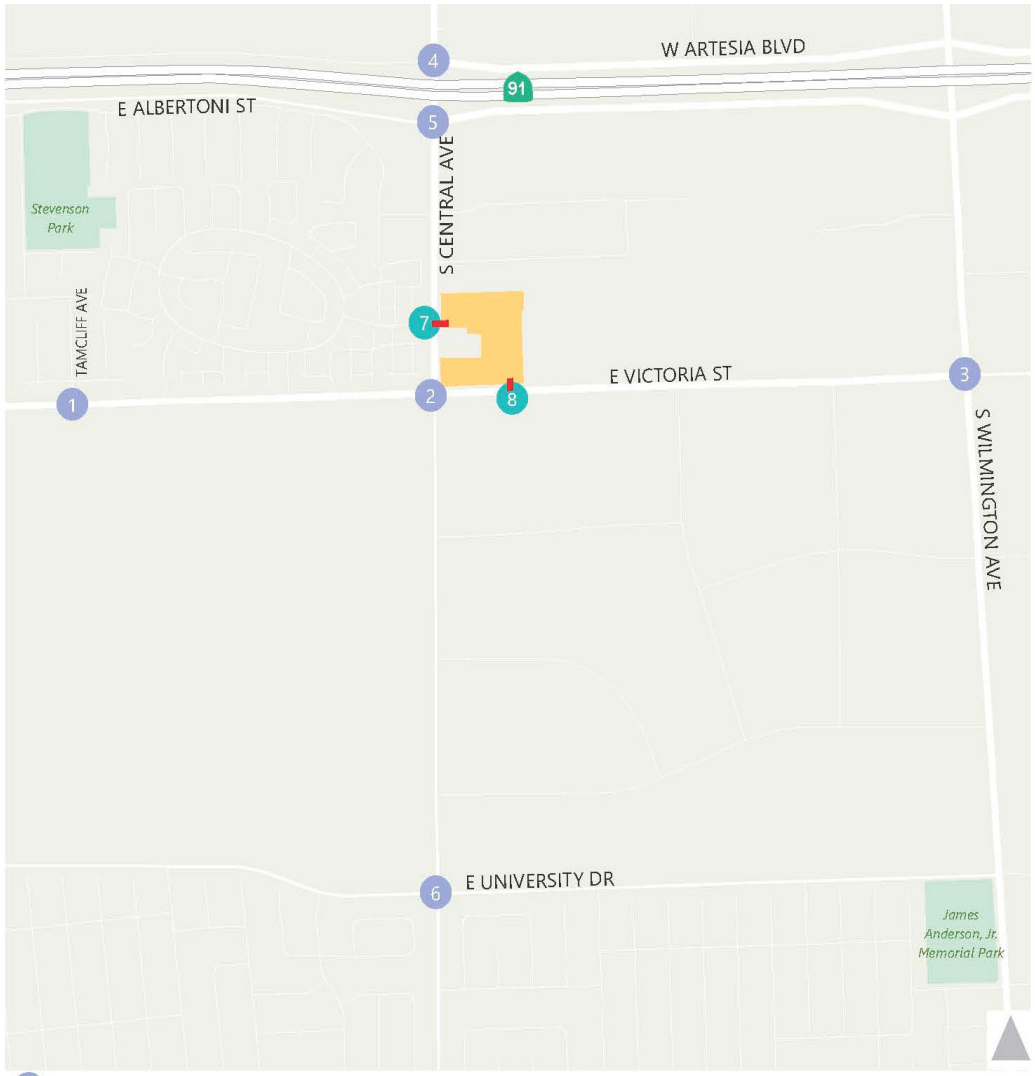
Appendix A-3
Traffic Volumes and Lane Configurations
Future Conditions



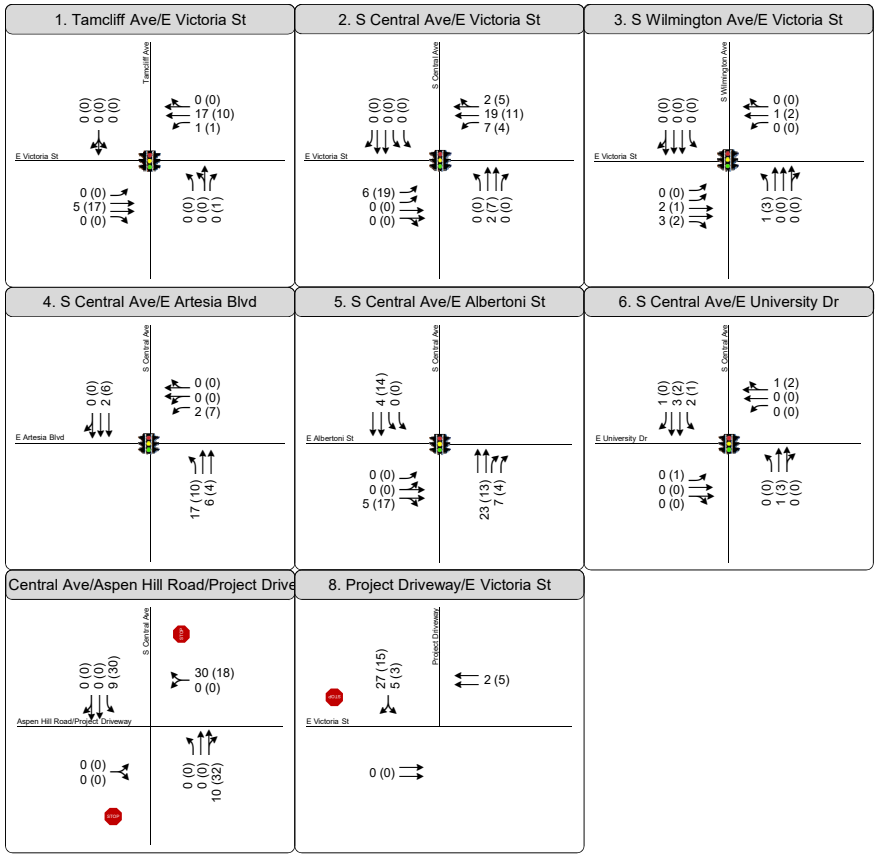
Signalized Study Intersection
Unsignalized Intersection
Project Site
Project Driveway



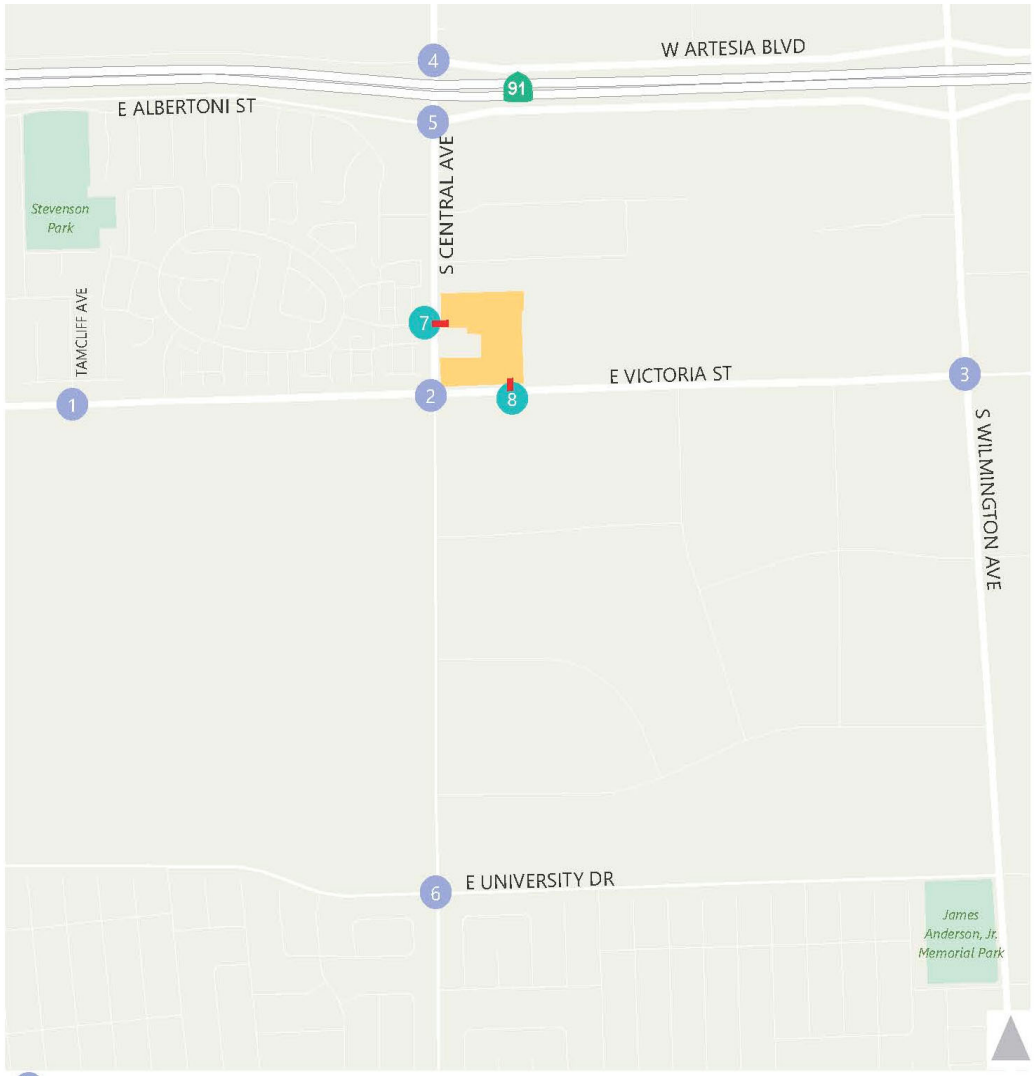
Appendix A-4
Traffic Volumes and Lane Configurations
Future Plus Project Conditions



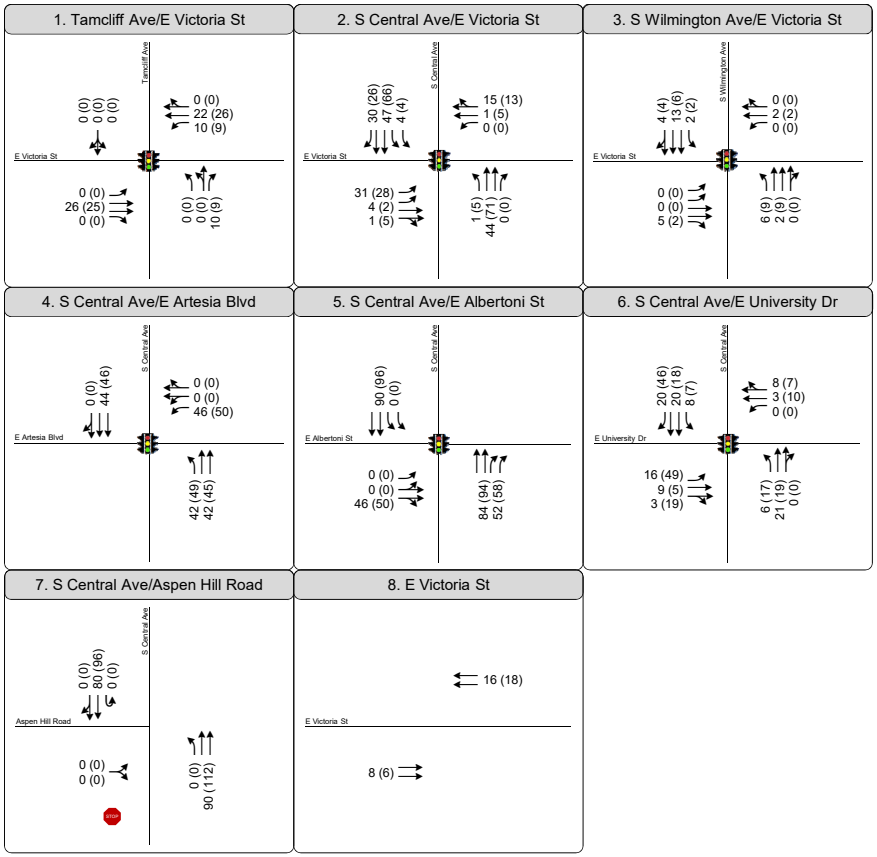
Signalized Study Intersection
Unsignalized Intersection
Project Site
Project Driveway



Appendix A-5
Traffic Volumes and Lane Configurations
Project Only Conditions



Signalized Study Intersection
Unsignalized Intersection
Project Site
Project Driveway



Appendix A-6
Traffic Volumes and Lane Configurations
Related Project Only Conditions

APPENDIX B:
TURNING MOVEMENT COUNT SHEETS

Prepared by National Data & Surveying Services

Tamcliff Ave & Victoria St

Peak Hour Turning Movement Count

ID: 18-05179-001
City: Carson

Day: Thursday
Date: 03/15/2018

PEAK HOURS

AM: 07:45 AM - 08:45 AM
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: 07:00 AM - 10:00 AM
NOON: NONE
PM: 04:00 PM - 07:00 PM

Tamcliff Ave — SOUTHBOUND

AM	28	3	25	0	40	AM
NOON	0	0	0	0	0	NOON
PM	15	5	16	1	65	PM

EASTBOUND — Victoria St

AM	NOON	PM		
504	0	870	⇦	
0	0	0	↶	0
13	0	25	↱	1
441	0	893	→	2
175	0	125	↴	1
AM	NOON	PM		

WESTBOUND — Victoria St

PM	NOON	AM		
35	0	23	↰	0
666	0	403	←	2
74	0	215	↰	1
1	0	1	↶	0
1078	0	497	⇨	
PM	NOON	AM		

CONTROL: Signalized

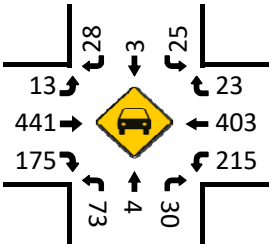
TEV	1434 AM	0 NOON	2217 PM
PHF	0.93		0.86

0	1	0	0	
0	1.5	0.5	1	

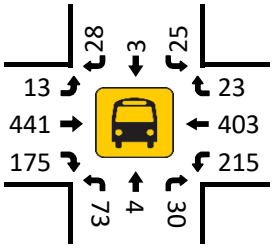
NORTHBOUND — Tamcliff Ave

PM	204	0	189	4	168	PM
NOON	0	0	0	0	0	NOON
AM	393	0	73	4	30	AM

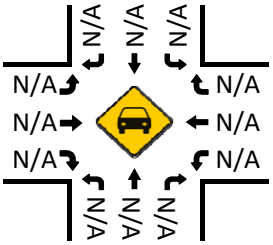
Total Vehicles (AM)



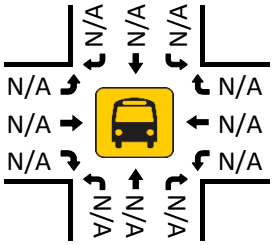
(AM)



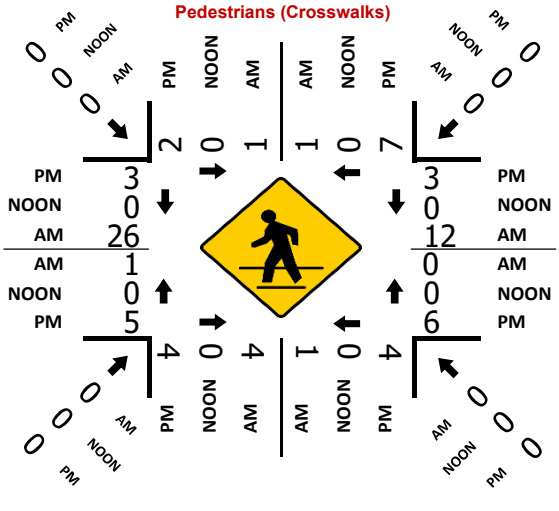
Total Vehicles (Noon)



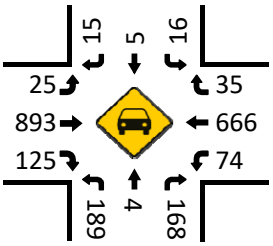
(NOON)



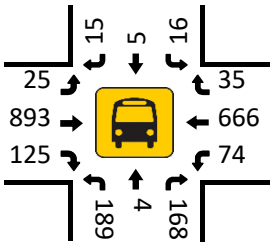
Pedestrians (Crosswalks)



Total Vehicles (PM)



(PM)



Prepared by National Data & Surveying Services

Central Ave & Victoria St

Peak Hour Turning Movement Count

ID: 18-05179-002
City: Carson

Day: Thursday
Date: 03/15/2018

PEAK HOURS

AM: 07:45 AM - 08:45 AM
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS

AM: 07:00 AM - 10:00 AM
NOON: NONE
PM: 04:00 PM - 07:00 PM

Central Ave — SOUTHBOUND

AM	577	728	218	3	816	AM
NOON	0	0	0	0	0	NOON
PM	271	666	141	5	1208	PM
	1	2	2	0		

Victoria St — EASTBOUND

AM	NOON	PM	
841	0	672	
2	0	0	0
175	0	422	2
138	0	582	2
74	0	163	0
AM	NOON	PM	

CONTROL

Signalized

TEV	2852	0	3487
	AM	NOON	PM
PHF	0.92		0.90

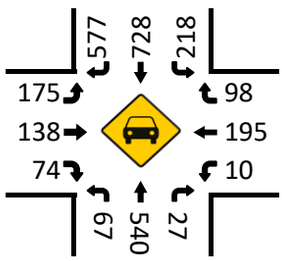
Victoria St — WESTBOUND

PM	NOON	AM	
193	0	98	0
272	0	195	2
20	0	10	1
0	0	0	0
758	0	383	
PM	NOON	AM	

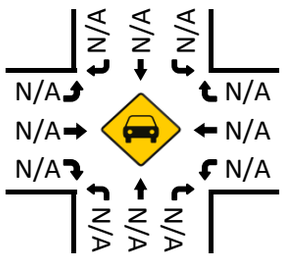
Central Ave — NORTHBOUND

	0	1	2	1		
PM	849	0	129	588	35	PM
NOON	0	0	0	0	0	NOON
AM	812	0	67	540	27	AM

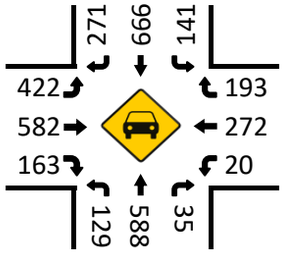
Total Vehicles (AM)



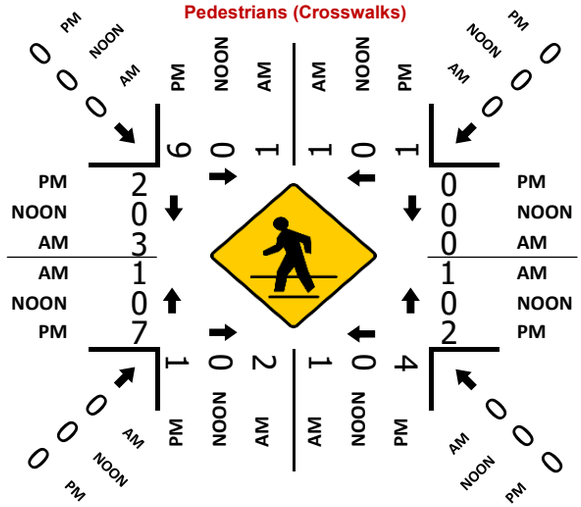
Total Vehicles (Noon)



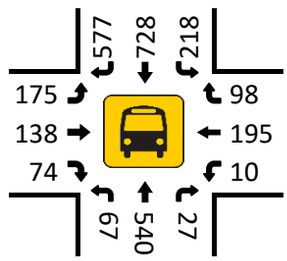
Total Vehicles (PM)



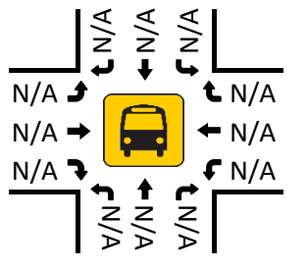
Pedestrians (Crosswalks)



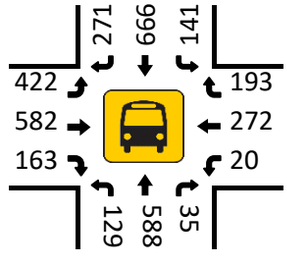
(AM)



(NOON)



(PM)



Prepared by National Data & Surveying Services

Wilmington Ave & Victoria St

Peak Hour Turning Movement Count

ID: 18-05179-003
City: Carson

Day: Thursday
Date: 03/15/2018

PEAK HOURS		COUNT PERIODS
07:30 AM - 08:30 AM	AM	07:00 AM - 10:00 AM
NONE	NOON	NONE
04:30 PM - 05:30 PM	PM	04:00 PM - 07:00 PM

Wilmington Ave – SOUTHBOUND

	Right	Thru	Left	U-Turn	Out
AM	178	957	172	0	821
NOON	0	0	0	0	0
PM	117	492	108	0	1449
Lanes	0	3	1	0	

Victoria St – EASTBOUND

	Lanes	AM	NOON	PM
Out		393	0	345
U-Turn	0	0	0	0
Left	2	72	0	304
Thru	2	133	0	359
Right	1	53	0	115

Victoria St – WESTBOUND

	Lanes	PM	NOON	AM
Right	0	227	0	213
Thru	2	141	0	143
Left	1	46	0	29
U-Turn	0	0	0	0
Out		500	0	330

Wilmington Ave – NORTHBOUND

	Out	U-Turn	Left	Thru	Right
Lanes		0	1	3	0
PM	655	2	87	918	33
NOON	0	0	0	0	0
AM	1039	0	72	536	25

CONTROL

Signalized

	AM	NOON	PM
TEV	2583	0	2949
PHF	0.89		0.87

Total Vehicles (AM)

	Right	Thru	Left
Southbound	178	957	172
Eastbound	53	133	72
Westbound	213	143	29
Northbound	25	536	72

(AM)

	Right	Thru	Left
Southbound	178	957	172
Eastbound	53	133	72
Westbound	213	143	29
Northbound	25	536	72

Total Vehicles (Noon)

	Right	Thru	Left
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

(NOON)

	Right	Thru	Left
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Total Vehicles (PM)

	Right	Thru	Left
Southbound	117	492	108
Eastbound	115	359	304
Westbound	227	141	46
Northbound	33	918	87

(PM)

	Right	Thru	Left
Southbound	117	492	108
Eastbound	115	359	304
Westbound	227	141	46
Northbound	33	918	87

Pedestrians (Crosswalks)

Crosswalk		AM	NOON	PM
North	West half	2	0	2
North	East half	2	0	0
West	North half	1	0	0
West	South half	2	0	1
East	North half	1	0	0
East	South half	2	0	4
South	West half	3	0	2
South	East half	0	0	0
NW corner (diagonal)		0	0	0
NE corner (diagonal)		0	0	0
SW corner (diagonal)		0	0	0
SE corner (diagonal)		0	0	0

Prepared by National Data & Surveying Services

Central Ave & Artesia Blvd/SR 91 WB Ramps

Peak Hour Turning Movement Count

ID: 18-05179-004
City: Carson

Day: Thursday
Date: 03/15/2018

PEAK HOURS
AM: 07:30 AM - 08:30 AM
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS
AM: 07:00 AM - 10:00 AM
NOON: NONE
PM: 04:00 PM - 07:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	3203	0	2963
PHF	0.91		0.96

Central Ave — SOUTHBOUND

AM	195	852	0	0	987	AM
NOON	0	0	0	0	0	NOON
PM	220	690	0	0	1122	PM
	1	2	0	0		

Artesia Blvd/SR 91 WB Ramps — EASTBOUND

AM	NOON	PM	
676	0	671	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

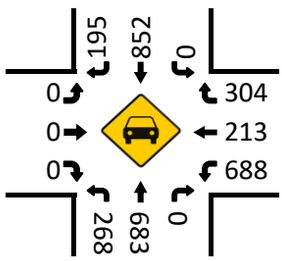
Artesia Blvd/SR 91 WB Ramps — WESTBOUND

PM	NOON	AM	
352	0	304	0.5
128	0	213	1
479	0	688	1.5
0	0	0	0
0	0	0	
PM	NOON	AM	

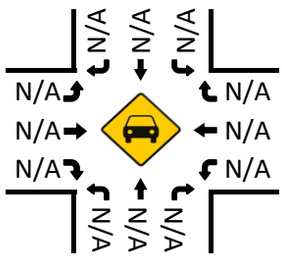
Central Ave — NORTHBOUND

PM	1170	1	323	770	0	PM
NOON	0	0	0	0	0	NOON
AM	1540	0	268	683	0	AM
		0	1	2	0	

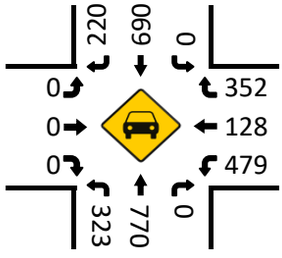
Total Vehicles (AM)



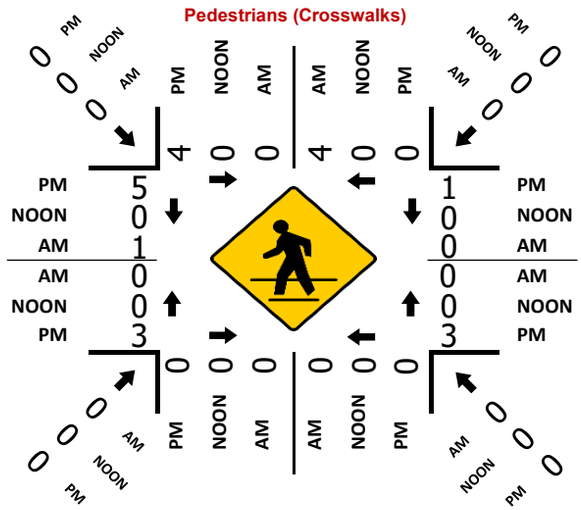
Total Vehicles (Noon)



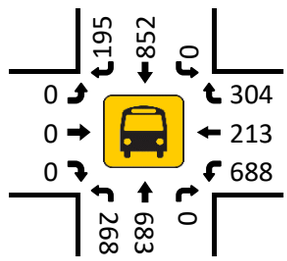
Total Vehicles (PM)



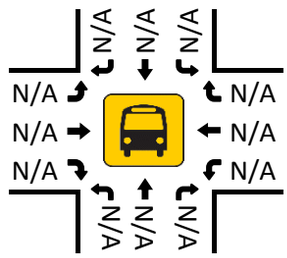
Pedestrians (Crosswalks)



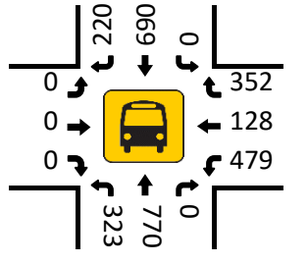
(AM)



(NOON)



(PM)



Prepared by National Data & Surveying Services

Central Ave & Albertoni St/SR 91 EB Ramps

Peak Hour Turning Movement Count

ID: 18-05179-005
City: Carson

Day: Thursday
Date: 03/15/2018

PEAK HOURS

AM: 07:45 AM - 08:45 AM
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS

AM: 07:00 AM - 10:00 AM
NOON: NONE
PM: 04:00 PM - 07:00 PM

Central Ave — SOUTHBOUND

AM	0	1150	390	0	956	AM
NOON	0	0	0	0	0	NOON
PM	0	891	271	0	1116	PM
	0	2	2	0		

Albertoni St/SR 91 EB Ramps — EASTBOUND

AM	NOON	PM	
0	0	0	
0	0	0	0
386	0	294	1.5
122	0	806	1
529	0	194	0.5
AM	NOON	PM	

CONTROL

Signalized

TEV	3486 AM	0 NOON	3771 PM
PHF	0.93		0.97

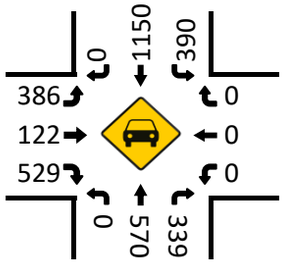
Albertoni St/SR 91 EB Ramps — WESTBOUND

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1570	0	851	
PM	NOON	AM	

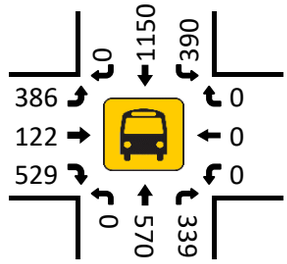
Central Ave — NORTHBOUND

	0	0	2	2	
PM	1085	0	0	822	493	PM
NOON	0	0	0	0	0	NOON
AM	1679	0	0	570	339	AM

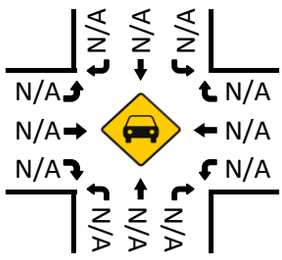
Total Vehicles (AM)



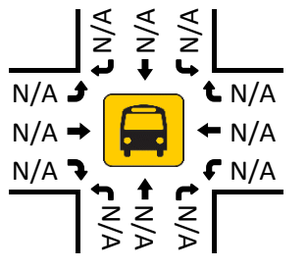
(AM)



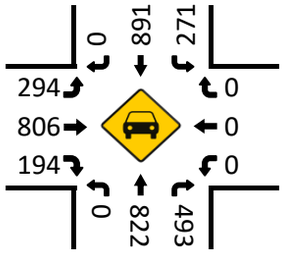
Total Vehicles (Noon)



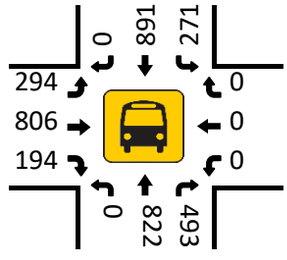
(NOON)



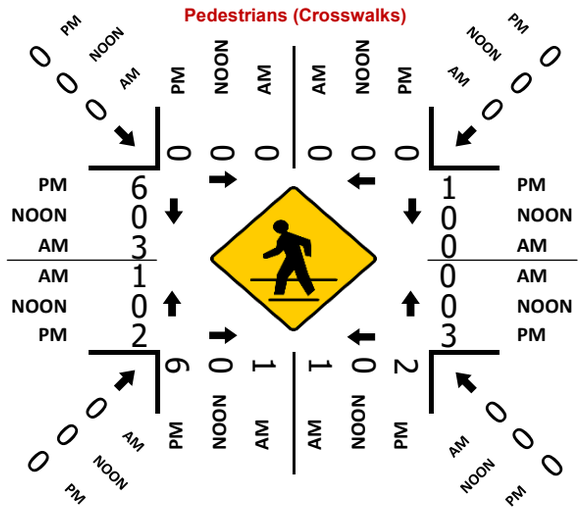
Total Vehicles (PM)



(PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Central Ave & University Dr

Peak Hour Turning Movement Count

ID: 18-05179-006
City: Carson

Day: Thursday
Date: 03/15/2018

PEAK HOURS

AM: 07:30 AM - 08:30 AM
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS

AM: 07:00 AM - 10:00 AM
NOON: NONE
PM: 04:00 PM - 07:00 PM

Central Ave — SOUTHBOUND

AM	63	413	85	0	857	AM
NOON	0	0	0	0	0	NOON
PM	189	719	82	1	552	PM

University Dr — EASTBOUND

AM	NOON	PM		
347	0	458	⇦	
0	0	0	↶	0
149	0	79	↱	1
147	0	209	→	2
57	0	135	↷	0
AM	NOON	PM		

University Dr — WESTBOUND

PM	NOON	AM		
74	0	104	↶	0
203	0	194	←	2
46	0	32	↰	1
0	0	0	↷	0
311	0	270	⇨	
PM	NOON	AM		

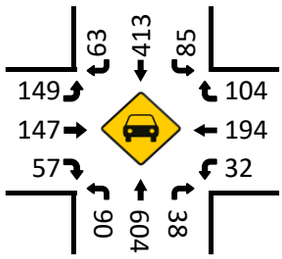
CONTROL: Signalized

TEV	1976	0	2222
	AM	NOON	PM
PHF	0.80		0.92

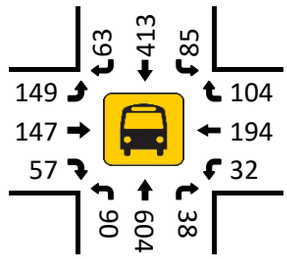
Central Ave — NORTHBOUND

PM	901	1	66	398	20	PM
NOON	0	0	0	0	0	NOON
AM	502	0	90	604	38	AM

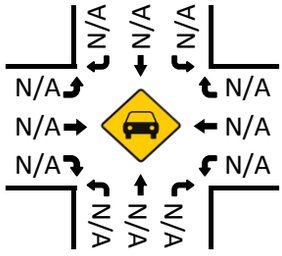
Total Vehicles (AM)



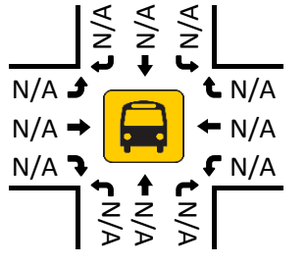
(AM)



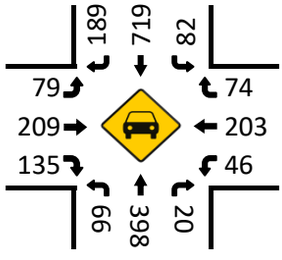
Total Vehicles (Noon)



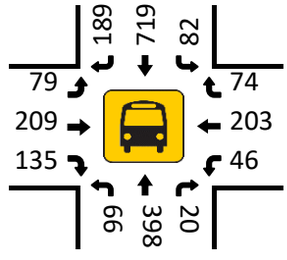
(NOON)



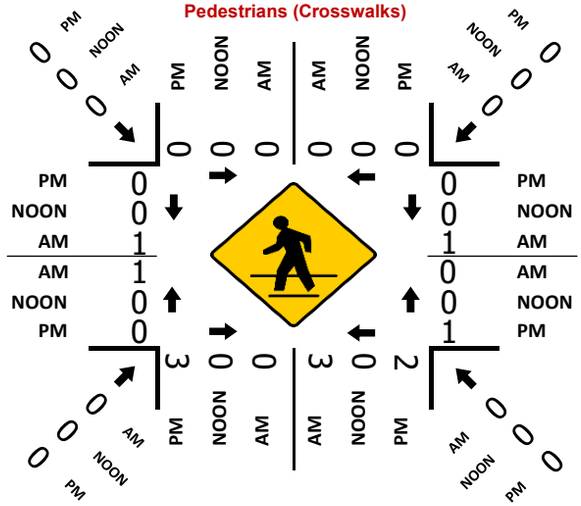
Total Vehicles (PM)



(PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Central Ave & Aspen Hill Rd

Peak Hour Turning Movement Count

ID: 18-5108-001
City: Carson

Day: Tuesday
Date: 02/20/2018

PEAK HOURS

AM	07:30 AM - 08:30 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	07:00 AM - 10:00 AM
NOON	NONE
PM	04:00 PM - 07:00 PM

Central Ave — SOUTHBOUND

AM	19	1575	0	2	979
NOON	0	0	0	0	0
PM	50	1145	0	3	1205

EASTBOUND — Aspen Hill Rd

AM	NOON	PM	
21	0	63	
0	0	0	0
56	0	22	0
0	0	0	1
10	0	21	0

WESTBOUND — Aspen Hill Rd

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	

CONTROL

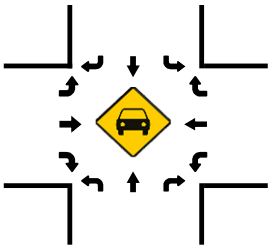
1-Way Stop (EB)

TEV	2589	0	2440
	AM	NOON	PM
PHF	0.92		0.92

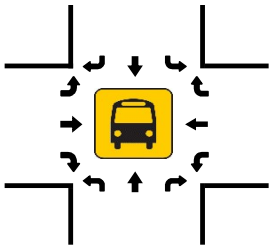
NORTHBOUND — Central Ave

PM	1172	6	13	1180	0
NOON	0	0	0	0	0
AM	1589	4	2	921	0

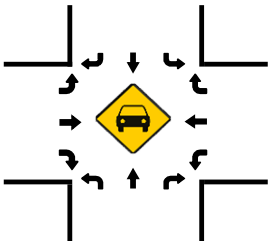
Total Vehicles (AM)



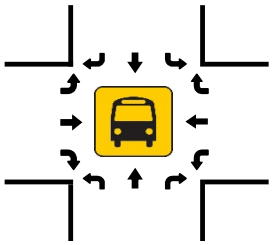
Total Vehicles (AM)



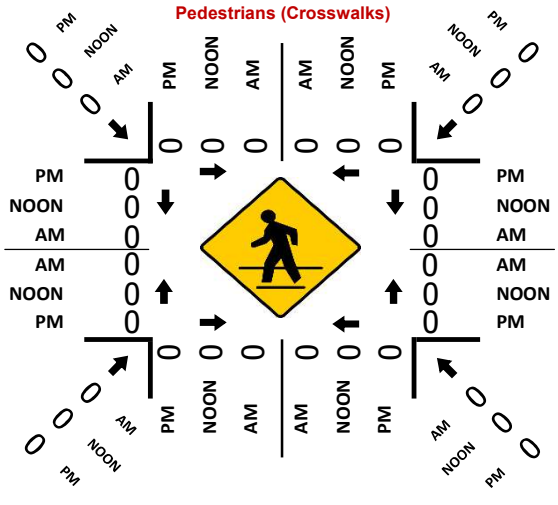
Total Vehicles (NOON)



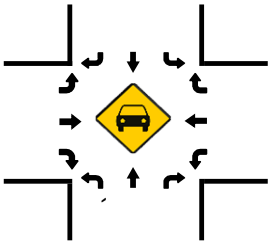
Total Vehicles (NOON)



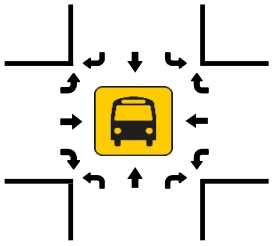
Pedestrians (Crosswalks)



Total Vehicles (PM)



Total Vehicles (PM)



APPENDIX C:
PROJECT LOS ANALYSIS SHEETS

Project Title: **Victoria Greens**
Intersection: **1 - Tamcliff Ave & E Victoria St**
Description: **Existing**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	30	0	0.000	N-S(1):	0.007
	TH	1.00	1	1,600	0.026 *	N-S(2):	0.031 *
	LT	0.00	11	1,600	0.007	E-W(1):	0.147 *
Westbound	RT	0.00	5	0	0.000	E-W(2):	0.115
	TH	2.00	337	3,200	0.107		
	LT	1.00	81	1,600	0.051 *	V/C:	0.178
Northbound	RT	1.00	8	1,600	0.000	Lost Time:	0.100
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	12	2,560	0.005 *		
Eastbound	RT	1.00	47	1,600	0.027	ICU:	0.278
	TH	2.00	308	3,200	0.096 *		
	LT	1.00	12	1,600	0.008	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	19	0	0.000	N-S(1):	0.058 *
	TH	1.00	1	1,600	0.024 *	N-S(2):	0.058 *
	LT	0.00	19	1,600	0.012	E-W(1):	0.261 *
Westbound	RT	0.00	21	0	0.000	E-W(2):	0.223
	TH	2.00	624	3,200	0.202		
	LT	1.00	20	1,600	0.013 *	V/C:	0.319
Northbound	RT	1.00	84	1,600	0.046	Lost Time:	0.100
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	86	2,560	0.034 *		
Eastbound	RT	1.00	34	1,600	0.004	ICU:	0.419
	TH	2.00	794	3,200	0.248 *		
	LT	1.00	33	1,600	0.021	LOS:	A

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **2 - S Central Ave & E Victoria St**
Description: **Existing**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	SBR,		
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	222	1,600	0.110	N-S(1):	0.188 *
	TH	2.00	499	3,200	0.156	N-S(2):	0.185
	LT	2.00	226	2,560	0.088 *	E-W(1):	0.070
Westbound	RT	0.00	87	0	0.000	E-W(2):	0.106 *
	TH	2.00	160	3,200	0.077 *		
	LT	1.00	5	1,600	0.003	V/C:	0.294
Northbound	RT	1.00	14	1,600	0.007	Lost Time:	0.100
	TH	2.00	319	3,200	0.100 *	ITS:	0.000
	LT	1.00	47	1,600	0.029		
Eastbound	RT	0.00	67	0	0.000	ICU:	0.394
	TH	2.00	147	3,200	0.067		
	LT	2.00	73	2,560	0.029 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	148	1,600	0.000	N-S(1):	0.240
	TH	2.00	564	3,200	0.176 *	N-S(2):	0.254 *
	LT	2.00	176	2,560	0.069	E-W(1):	0.180
Westbound	RT	0.00	184	0	0.000	E-W(2):	0.280 *
	TH	2.00	338	3,200	0.163 *		
	LT	1.00	19	1,600	0.012	V/C:	0.534
Northbound	RT	1.00	26	1,600	0.010	Lost Time:	0.100
	TH	2.00	547	3,200	0.171	ITS:	0.000
	LT	1.00	124	1,600	0.078 *		
Eastbound	RT	0.00	113	0	0.000	ICU:	0.634
	TH	2.00	423	3,200	0.168		
	LT	2.00	300	2,560	0.117 *	LOS:	B

* - Denotes critical movement

Project Title: Victoria Greens
Intersection: 3 - S Wilmington Ave & E Victoria St
Description: Existing

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	10 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	178	0	0.000	N-S(1):	0.195
	TH	3.00	831	4,800	0.210 *	N-S(2):	0.267 *
	LT	1.00	173	1,600	0.108	E-W(1):	0.061
Westbound	RT	0.00	180	1,600	0.113 *	E-W(2):	0.130 *
	TH	2.00	95	1,600	0.059		
	LT	1.00	24	1,600	0.015	V/C:	0.397
Northbound	RT	0.00	35	0	0.000	Lost Time:	0.100
	TH	3.00	383	4,800	0.087	ITS:	0.000
	LT	1.00	91	1,600	0.057 *		
Eastbound	RT	1.00	45	1,600	0.000	ICU:	0.497
	TH	2.00	148	3,200	0.046		
	LT	2.00	49	2,880	0.017 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	96	0	0.000	N-S(1):	0.263 *
	TH	3.00	472	4,800	0.118	N-S(2):	0.177
	LT	1.00	101	1,600	0.063 *	E-W(1):	0.107
Westbound	RT	0.00	205	1,600	0.128 *	E-W(2):	0.230 *
	TH	2.00	178	1,600	0.111		
	LT	1.00	29	1,600	0.018	V/C:	0.493
Northbound	RT	0.00	22	0	0.000	Lost Time:	0.100
	TH	3.00	938	4,800	0.200 *	ITS:	0.000
	LT	1.00	95	1,600	0.059		
Eastbound	RT	1.00	113	1,600	0.041	ICU:	0.593
	TH	2.00	286	3,200	0.089		
	LT	2.00	294	2,880	0.102 *	LOS:	A

* - Denotes critical movement

Project Title: Victoria Greens
Intersection: 4 - S Central Ave & E Artesia Blvd
Description: Existing

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	10 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	170	0	0.000	N-S(1):	0.144
	TH	3.00	601	4,800	0.161 *	N-S(2):	0.312 *
	LT	0.00	0	0	0.000	E-W(1):	0.225 *
Westbound	RT	0.00	296	0	0.000	E-W(2):	0.000
	TH	1.48	185	2,370	0.203		
	LT	1.52	493	2,187	0.225 *	V/C:	0.537
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.100
	TH	2.00	462	3,200	0.144	ITS:	0.000
	LT	1.00	241	1,600	0.151 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.637
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	192	0	0.000	N-S(1):	0.201
	TH	3.00	697	4,800	0.185 *	N-S(2):	0.374 *
	LT	0.00	0	0	0.000	E-W(1):	0.225 *
Westbound	RT	0.00	360	1,600	0.225 *	E-W(2):	0.000
	TH	1.54	123	861	0.143		
	LT	1.46	334	2,105	0.159	V/C:	0.599
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.100
	TH	2.00	644	3,200	0.201	ITS:	0.000
	LT	1.00	303	1,600	0.189 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.699
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	B

* - Denotes critical movement

Project Title: Victoria Greens
Intersection: 5 - S Central Ave & E Albertoni St
Description: Existing

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	10 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.255 *
	TH	2.00	701	3,200	0.219	N-S(2):	0.219
	LT	2.00	422	2,880	0.147 *	E-W(1):	0.273 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.528
Northbound	RT	2.00	256	3,200	0.080	Lost Time:	0.100
	TH	2.00	344	3,200	0.108 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	436	1,600	0.273 *	ICU:	0.628
	TH	1.57	131	915	0.143		
	LT	1.43	327	2,056	0.159	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.338 *
	TH	2.00	704	3,200	0.220	N-S(2):	0.220
	LT	2.00	337	2,880	0.117 *	E-W(1):	0.252 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.590
Northbound	RT	2.00	476	3,200	0.149	Lost Time:	0.100
	TH	2.00	707	3,200	0.221 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	236	0	0.000	ICU:	0.690
	TH	2.00	571	3,200	0.252 *		
	LT	1.00	228	1,600	0.143	LOS:	B

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **6 - S Central Ave & E University Dr**
Description: **Existing**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	46	1,600	0.000	N-S(1):	0.132 *
	TH	2.00	205	3,200	0.064	N-S(2):	0.089
	LT	1.00	43	1,600	0.027 *	E-W(1):	0.042
Westbound	RT	0.00	42	0	0.000	E-W(2):	0.104 *
	TH	2.00	89	3,200	0.041 *		
	LT	1.00	10	1,600	0.006	V/C:	0.236
Northbound	RT	0.00	16	0	0.000	Lost Time:	0.100
	TH	2.00	319	3,200	0.105 *	ITS:	0.000
	LT	1.00	40	1,600	0.025		
Eastbound	RT	0.00	13	0	0.000	ICU:	0.336
	TH	2.00	101	3,200	0.036		
	LT	1.00	100	1,600	0.063 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	158	1,600	0.074	N-S(1):	0.159
	TH	2.00	540	3,200	0.169 *	N-S(2):	0.208 *
	LT	1.00	67	1,600	0.042	E-W(1):	0.092
Westbound	RT	0.00	47	0	0.000	E-W(2):	0.121 *
	TH	2.00	181	3,200	0.071 *		
	LT	1.00	23	1,600	0.014	V/C:	0.329
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.100
	TH	2.00	354	3,200	0.117	ITS:	0.000
	LT	1.00	62	1,600	0.039 *		
Eastbound	RT	0.00	95	0	0.000	ICU:	0.429
	TH	2.00	153	3,200	0.078		
	LT	1.00	80	1,600	0.050 *	LOS:	A

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **1 - Tamcliff Ave & E Victoria St**
Description: **Existing + Project**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	28	0	0.000	N-S(1):	0.040
	TH	1.00	3	1,600	0.035 *	N-S(2):	0.065 *
	LT	0.00	25	1,600	0.016	E-W(1):	0.275 *
Westbound	RT	0.00	23	0	0.000	E-W(2):	0.146
	TH	2.00	420	3,200	0.138		
	LT	1.00	217	1,600	0.136 *	V/C:	0.340
Northbound	RT	1.00	30	1,600	0.000	Lost Time:	0.100
	TH	0.10	4	166	0.024	ITS:	0.000
	LT	1.90	73	2,427	0.030 *		
Eastbound	RT	1.00	175	1,600	0.094	ICU:	0.440
	TH	2.00	446	3,200	0.139 *		
	LT	1.00	13	1,600	0.008	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	15	0	0.000	N-S(1):	0.093
	TH	1.00	5	1,600	0.023 *	N-S(2):	0.098 *
	LT	0.00	17	1,600	0.011	E-W(1):	0.332 *
Westbound	RT	0.00	35	0	0.000	E-W(2):	0.238
	TH	2.00	676	3,200	0.222		
	LT	1.00	76	1,600	0.048 *	V/C:	0.430
Northbound	RT	1.00	169	1,600	0.082	Lost Time:	0.100
	TH	0.04	4	66	0.060	ITS:	0.000
	LT	1.96	189	2,507	0.075 *		
Eastbound	RT	1.00	125	1,600	0.040	ICU:	0.530
	TH	2.00	910	3,200	0.284 *		
	LT	1.00	25	1,600	0.016	LOS:	A

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **2 - S Central Ave & E Victoria St**
Description: **Existing + Project**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	SBR,		
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	577	1,600	0.289 *	N-S(1):	0.255
	TH	2.00	728	3,200	0.228	N-S(2):	0.331 *
	LT	2.00	221	2,560	0.086	E-W(1):	0.077
Westbound	RT	0.00	100	0	0.000	E-W(2):	0.169 *
	TH	2.00	214	3,200	0.098 *		
	LT	1.00	17	1,600	0.011	V/C:	0.500
Northbound	RT	1.00	27	1,600	0.012	Lost Time:	0.100
	TH	2.00	542	3,200	0.169	ITS:	0.000
	LT	1.00	67	1,600	0.042 *		
Eastbound	RT	0.00	74	0	0.000	ICU:	0.600
	TH	2.00	138	3,200	0.066		
	LT	2.00	183	2,560	0.071 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	271	1,600	0.000	N-S(1):	0.243
	TH	2.00	666	3,200	0.208 *	N-S(2):	0.289 *
	LT	2.00	146	2,560	0.057	E-W(1):	0.248
Westbound	RT	0.00	198	0	0.000	E-W(2):	0.322 *
	TH	2.00	283	3,200	0.150 *		
	LT	1.00	24	1,600	0.015	V/C:	0.611
Northbound	RT	1.00	35	1,600	0.014	Lost Time:	0.100
	TH	2.00	595	3,200	0.186	ITS:	0.000
	LT	1.00	129	1,600	0.081 *		
Eastbound	RT	0.00	163	0	0.000	ICU:	0.711
	TH	2.00	582	3,200	0.233		
	LT	2.00	441	2,560	0.172 *	LOS:	C

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **3 - S Wilmington Ave & E Victoria St**
Description: **Existing + Project**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	10 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	178	0	0.000	N-S(1):	0.225
	TH	3.00	957	4,800	0.236 *	N-S(2):	0.282 *
	LT	1.00	172	1,600	0.108	E-W(1):	0.060
Westbound	RT	0.00	213	1,600	0.133 *	E-W(2):	0.158 *
	TH	2.00	144	1,600	0.090		
	LT	1.00	29	1,600	0.018	V/C:	0.440
Northbound	RT	0.00	25	0	0.000	Lost Time:	0.100
	TH	3.00	536	4,800	0.117	ITS:	0.000
	LT	1.00	73	1,600	0.046 *		
Eastbound	RT	1.00	56	1,600	0.012	ICU:	0.540
	TH	2.00	135	3,200	0.042		
	LT	2.00	72	2,880	0.025 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	117	0	0.000	N-S(1):	0.266 *
	TH	3.00	492	4,800	0.127	N-S(2):	0.185
	LT	1.00	108	1,600	0.068 *	E-W(1):	0.142
Westbound	RT	0.00	227	1,600	0.142 *	E-W(2):	0.248 *
	TH	2.00	143	1,600	0.089		
	LT	1.00	46	1,600	0.029	V/C:	0.514
Northbound	RT	0.00	33	0	0.000	Lost Time:	0.100
	TH	3.00	918	4,800	0.198 *	ITS:	0.000
	LT	1.00	92	1,600	0.058		
Eastbound	RT	1.00	117	1,600	0.044	ICU:	0.614
	TH	2.00	360	3,200	0.113		
	LT	2.00	304	2,880	0.106 *	LOS:	B

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **4 - S Central Ave & E Artesia Blvd**
Description: **Existing + Project**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	10 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	195	0	0.000	N-S(1):	0.215
	TH	3.00	854	4,800	0.219 *	N-S(2):	0.397 *
	LT	0.00	0	0	0.000	E-W(1):	0.279 *
Westbound	RT	0.00	304	0	0.000	E-W(2):	0.000
	TH	1.29	213	2,056	0.251		
	LT	1.71	690	2,470	0.279 *	V/C:	0.676
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.100
	TH	2.00	689	3,200	0.215	ITS:	0.000
	LT	1.00	285	1,600	0.178 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.776
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	C

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	220	0	0.000	N-S(1):	0.242
	TH	3.00	696	4,800	0.191 *	N-S(2):	0.400 *
	LT	0.00	0	0	0.000	E-W(1):	0.220 *
Westbound	RT	0.00	352	1,600	0.220 *	E-W(2):	0.000
	TH	1.42	128	667	0.192		
	LT	1.58	486	2,280	0.213	V/C:	0.620
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.100
	TH	2.00	774	3,200	0.242	ITS:	0.000
	LT	1.00	334	1,600	0.209 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.720
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	C

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **5 - S Central Ave & E Albertoni St**
Description: **Existing + Project**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	10 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.320
	TH	2.00	1,154	3,200	0.361 *	N-S(2):	0.361 *
	LT	2.00	390	2,880	0.135	E-W(1):	0.334 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.695
Northbound	RT	2.00	346	3,200	0.108	Lost Time:	0.100
	TH	2.00	593	3,200	0.185	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	534	1,600	0.334 *	ICU:	0.795
	TH	1.48	122	769	0.159		
	LT	1.52	386	2,188	0.176	LOS:	C

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.355 *
	TH	2.00	905	3,200	0.283	N-S(2):	0.283
	LT	2.00	271	2,880	0.094 *	E-W(1):	0.318 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.673
Northbound	RT	2.00	497	3,200	0.155	Lost Time:	0.100
	TH	2.00	835	3,200	0.261 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	211	0	0.000	ICU:	0.773
	TH	2.00	806	3,200	0.318 *		
	LT	1.00	294	1,600	0.184	LOS:	C

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **6 - S Central Ave & E University Dr**
Description: **Existing + Project**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	64	1,600	0.000	N-S(1):	0.255 *
	TH	2.00	416	3,200	0.130	N-S(2):	0.186
	LT	1.00	87	1,600	0.054 *	E-W(1):	0.084
Westbound	RT	0.00	105	0	0.000	E-W(2):	0.186 *
	TH	2.00	194	3,200	0.093 *		
	LT	1.00	32	1,600	0.020	V/C:	0.441
Northbound	RT	0.00	38	0	0.000	Lost Time:	0.100
	TH	2.00	605	3,200	0.201 *	ITS:	0.000
	LT	1.00	90	1,600	0.056		
Eastbound	RT	0.00	57	0	0.000	ICU:	0.541
	TH	2.00	147	3,200	0.064		
	LT	1.00	149	1,600	0.093 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	189	1,600	0.093	N-S(1):	0.185
	TH	2.00	721	3,200	0.225 *	N-S(2):	0.267 *
	LT	1.00	84	1,600	0.053	E-W(1):	0.137 *
Westbound	RT	0.00	76	0	0.000	E-W(2):	0.137 *
	TH	2.00	203	3,200	0.087 *		
	LT	1.00	46	1,600	0.029 *	V/C:	0.404
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.100
	TH	2.00	401	3,200	0.132	ITS:	0.000
	LT	1.00	67	1,600	0.042 *		
Eastbound	RT	0.00	135	0	0.000	ICU:	0.504
	TH	2.00	209	3,200	0.108 *		
	LT	1.00	80	1,600	0.050 *	LOS:	A

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **1 - Tamcliff Ave & E Victoria St**
Description: **Future Base**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	28	0	0.000	N-S(1):	0.040
	TH	1.00	3	1,600	0.035 *	N-S(2):	0.065 *
	LT	0.00	25	1,600	0.016	E-W(1):	0.347 *
Westbound	RT	0.00	23	0	0.000	E-W(2):	0.200
	TH	2.00	591	3,200	0.192		
	LT	1.00	234	1,600	0.146 *	V/C:	0.412
Northbound	RT	1.00	40	1,600	0.000	Lost Time:	0.100
	TH	0.10	4	164	0.024	ITS:	0.000
	LT	1.90	74	2,429	0.030 *		
Eastbound	RT	1.00	183	1,600	0.099	ICU:	0.512
	TH	2.00	644	3,200	0.201 *		
	LT	1.00	13	1,600	0.008	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	15	0	0.000	N-S(1):	0.101
	TH	1.00	5	1,600	0.023 *	N-S(2):	0.105 *
	LT	0.00	17	1,600	0.011	E-W(1):	0.399 *
Westbound	RT	0.00	40	0	0.000	E-W(2):	0.305
	TH	2.00	884	3,200	0.289		
	LT	1.00	90	1,600	0.056 *	V/C:	0.504
Northbound	RT	1.00	189	1,600	0.090	Lost Time:	0.100
	TH	0.04	4	61	0.066	ITS:	0.000
	LT	1.96	206	2,511	0.082 *		
Eastbound	RT	1.00	136	1,600	0.044	ICU:	0.604
	TH	2.00	1,097	3,200	0.343 *		
	LT	1.00	25	1,600	0.016	LOS:	B

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **2 - S Central Ave & E Victoria St**
Description: **Future Base**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	SBR,		
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	666	1,600	0.322 *	N-S(1):	0.287
	TH	2.00	961	3,200	0.300	N-S(2):	0.375 *
	LT	2.00	228	2,560	0.089	E-W(1):	0.150
Westbound	RT	0.00	119	0	0.000	E-W(2):	0.195 *
	TH	2.00	204	3,200	0.101 *		
	LT	1.00	15	1,600	0.009	V/C:	0.570
Northbound	RT	1.00	27	1,600	0.012	Lost Time:	0.100
	TH	2.00	632	3,200	0.198	ITS:	0.000
	LT	1.00	84	1,600	0.053 *		
Eastbound	RT	0.00	226	1,600	0.141	ICU:	0.670
	TH	2.00	149	1,600	0.093		
	LT	2.00	241	2,560	0.094 *	LOS:	B

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	415	1,600	0.066	N-S(1):	0.319
	TH	2.00	804	3,200	0.251 *	N-S(2):	0.360 *
	LT	2.00	156	2,560	0.061	E-W(1):	0.276
Westbound	RT	0.00	213	0	0.000	E-W(2):	0.350 *
	TH	2.00	290	3,200	0.157 *		
	LT	1.00	20	1,600	0.013	V/C:	0.710
Northbound	RT	1.00	40	1,600	0.019	Lost Time:	0.100
	TH	2.00	825	3,200	0.258	ITS:	0.000
	LT	1.00	175	1,600	0.109 *		
Eastbound	RT	0.00	235	0	0.000	ICU:	0.810
	TH	2.00	605	3,200	0.263		
	LT	2.00	494	2,560	0.193 *	LOS:	D

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **3 - S Wilmington Ave & E Victoria St**
Description: **Future Base**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	10 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	185	0	0.000	N-S(1):	0.231
	TH	3.00	984	4,800	0.244 *	N-S(2):	0.297 *
	LT	1.00	177	1,600	0.111	E-W(1):	0.062
Westbound	RT	0.00	221	1,600	0.138 *	E-W(2):	0.163 *
	TH	2.00	152	1,600	0.095		
	LT	1.00	29	1,600	0.018	V/C:	0.460
Northbound	RT	0.00	25	0	0.000	Lost Time:	0.100
	TH	3.00	551	4,800	0.120	ITS:	0.000
	LT	1.00	84	1,600	0.053 *		
Eastbound	RT	1.00	59	1,600	0.011	ICU:	0.560
	TH	2.00	140	3,200	0.044		
	LT	2.00	73	2,880	0.025 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	122	0	0.000	N-S(1):	0.275 *
	TH	3.00	503	4,800	0.130	N-S(2):	0.195
	LT	1.00	116	1,600	0.073 *	E-W(1):	0.147
Westbound	RT	0.00	234	1,600	0.146 *	E-W(2):	0.253 *
	TH	2.00	144	1,600	0.090		
	LT	1.00	51	1,600	0.032	V/C:	0.528
Northbound	RT	0.00	33	0	0.000	Lost Time:	0.100
	TH	3.00	936	4,800	0.202 *	ITS:	0.000
	LT	1.00	104	1,600	0.065		
Eastbound	RT	1.00	118	1,600	0.041	ICU:	0.628
	TH	2.00	368	3,200	0.115		
	LT	2.00	307	2,880	0.107 *	LOS:	B

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **4 - S Central Ave & E Artesia Blvd**
Description: **Future Base**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	10 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	198	0	0.000	N-S(1):	0.230
	TH	3.00	914	4,800	0.232 *	N-S(2):	0.450 *
	LT	0.00	0	0	0.000	E-W(1):	0.318 *
Westbound	RT	0.00	314	0	0.000	E-W(2):	0.000
	TH	1.16	216	1,852	0.286		
	LT	1.84	844	2,654	0.318 *	V/C:	0.768
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.100
	TH	2.00	735	3,200	0.230	ITS:	0.000
	LT	1.00	349	1,600	0.218 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.868
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	D

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	222	0	0.000	N-S(1):	0.260
	TH	3.00	748	4,800	0.202 *	N-S(2):	0.512 *
	LT	0.00	0	0	0.000	E-W(1):	0.252 *
Westbound	RT	0.00	361	0	0.000	E-W(2):	0.000
	TH	1.35	129	2,160	0.227		
	LT	1.65	599	2,376	0.252 *	V/C:	0.764
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.100
	TH	2.00	833	3,200	0.260	ITS:	0.000
	LT	1.00	496	1,600	0.310 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.864
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	D

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **5 - S Central Ave & E Albertoni St**
Description: **Future Base**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	10 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.357
	TH	2.00	1,362	3,200	0.426 *	N-S(2):	0.426 *
	LT	2.00	401	2,880	0.139	E-W(1):	0.449 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.875
Northbound	RT	2.00	441	3,200	0.138	Lost Time:	0.100
	TH	2.00	698	3,200	0.218	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	718	1,600	0.449 *	ICU:	0.975
	TH	2.00	124	1,600	0.078		
	LT	1.00	392	1,600	0.245	LOS:	E

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.423 *
	TH	2.00	1,066	3,200	0.333	N-S(2):	0.333
	LT	2.00	274	2,880	0.095 *	E-W(1):	0.372 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.795
Northbound	RT	2.00	651	3,200	0.203	Lost Time:	0.100
	TH	2.00	1,049	3,200	0.328 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	376	0	0.000	ICU:	0.895
	TH	2.00	814	3,200	0.372 *		
	LT	1.00	297	1,600	0.186	LOS:	D

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **6 - S Central Ave & E University Dr**
Description: **Future Base**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	89	1,600	0.003	N-S(1):	0.297 *
	TH	2.00	479	3,200	0.150	N-S(2):	0.211
	LT	1.00	114	1,600	0.071 *	E-W(1):	0.088
Westbound	RT	0.00	194	0	0.000	E-W(2):	0.227 *
	TH	2.00	200	3,200	0.123 *		
	LT	1.00	32	1,600	0.020	V/C:	0.524
Northbound	RT	0.00	39	0	0.000	Lost Time:	0.100
	TH	2.00	684	3,200	0.226 *	ITS:	0.000
	LT	1.00	97	1,600	0.061		
Eastbound	RT	0.00	61	0	0.000	ICU:	0.624
	TH	2.00	158	3,200	0.068		
	LT	1.00	167	1,600	0.104 *	LOS:	B

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	257	1,600	0.120	N-S(1):	0.242
	TH	2.00	829	3,200	0.259 *	N-S(2):	0.312 *
	LT	1.00	156	1,600	0.098	E-W(1):	0.147
Westbound	RT	0.00	127	0	0.000	E-W(2):	0.188 *
	TH	2.00	215	3,200	0.107 *		
	LT	1.00	46	1,600	0.029	V/C:	0.500
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.100
	TH	2.00	441	3,200	0.144	ITS:	0.000
	LT	1.00	85	1,600	0.053 *		
Eastbound	RT	0.00	155	0	0.000	ICU:	0.600
	TH	2.00	221	3,200	0.118		
	LT	1.00	129	1,600	0.081 *	LOS:	A

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **1 - Tamcliff Ave & E Victoria St**
Description: **Future + Project**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	28	0	0.000	N-S(1):	0.040
	TH	1.00	3	1,600	0.035 *	N-S(2):	0.065 *
	LT	0.00	25	1,600	0.016	E-W(1):	0.350 *
Westbound	RT	0.00	23	0	0.000	E-W(2):	0.205
	TH	2.00	608	3,200	0.197		
	LT	1.00	235	1,600	0.147 *	V/C:	0.415
Northbound	RT	1.00	40	1,600	0.000	Lost Time:	0.100
	TH	0.10	4	164	0.024	ITS:	0.000
	LT	1.90	74	2,429	0.030 *		
Eastbound	RT	1.00	183	1,600	0.099	ICU:	0.515
	TH	2.00	649	3,200	0.203 *		
	LT	1.00	13	1,600	0.008	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	15	0	0.000	N-S(1):	0.101
	TH	1.00	5	1,600	0.023 *	N-S(2):	0.105 *
	LT	0.00	17	1,600	0.011	E-W(1):	0.405 *
Westbound	RT	0.00	40	0	0.000	E-W(2):	0.308
	TH	2.00	894	3,200	0.292		
	LT	1.00	91	1,600	0.057 *	V/C:	0.510
Northbound	RT	1.00	190	1,600	0.090	Lost Time:	0.100
	TH	0.04	4	61	0.066	ITS:	0.000
	LT	1.96	206	2,511	0.082 *		
Eastbound	RT	1.00	136	1,600	0.044	ICU:	0.610
	TH	2.00	1,114	3,200	0.348 *		
	LT	1.00	25	1,600	0.016	LOS:	B

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **2 - S Central Ave & E Victoria St**
Description: **Future + Project**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	SBR,		
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	666	1,600	0.320 *	N-S(1):	0.287
	TH	2.00	961	3,200	0.300	N-S(2):	0.373 *
	LT	2.00	228	2,560	0.089	E-W(1):	0.155
Westbound	RT	0.00	121	0	0.000	E-W(2):	0.204 *
	TH	2.00	223	3,200	0.108 *		
	LT	1.00	22	1,600	0.014	V/C:	0.577
Northbound	RT	1.00	27	1,600	0.010	Lost Time:	0.100
	TH	2.00	634	3,200	0.198	ITS:	0.000
	LT	1.00	84	1,600	0.053 *		
Eastbound	RT	0.00	226	1,600	0.141	ICU:	0.677
	TH	2.00	149	1,600	0.093		
	LT	2.00	247	2,560	0.096 *	LOS:	B

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	415	1,600	0.059	N-S(1):	0.321
	TH	2.00	804	3,200	0.251 *	N-S(2):	0.360 *
	LT	2.00	156	2,560	0.061	E-W(1):	0.278
Westbound	RT	0.00	218	0	0.000	E-W(2):	0.362 *
	TH	2.00	301	3,200	0.162 *		
	LT	1.00	24	1,600	0.015	V/C:	0.722
Northbound	RT	1.00	40	1,600	0.018	Lost Time:	0.100
	TH	2.00	832	3,200	0.260	ITS:	0.000
	LT	1.00	175	1,600	0.109 *		
Eastbound	RT	0.00	235	0	0.000	ICU:	0.822
	TH	2.00	605	3,200	0.263		
	LT	2.00	513	2,560	0.200 *	LOS:	D

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **3 - S Wilmington Ave & E Victoria St**
Description: **Future + Project**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	10 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	185	0	0.000	N-S(1):	0.231
	TH	3.00	984	4,800	0.244 *	N-S(2):	0.297 *
	LT	1.00	177	1,600	0.111	E-W(1):	0.062
Westbound	RT	0.00	221	1,600	0.138 *	E-W(2):	0.163 *
	TH	2.00	153	1,600	0.096		
	LT	1.00	29	1,600	0.018	V/C:	0.460
Northbound	RT	0.00	25	0	0.000	Lost Time:	0.100
	TH	3.00	551	4,800	0.120	ITS:	0.000
	LT	1.00	85	1,600	0.053 *		
Eastbound	RT	1.00	62	1,600	0.012	ICU:	0.560
	TH	2.00	142	3,200	0.044		
	LT	2.00	73	2,880	0.025 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	122	0	0.000	N-S(1):	0.275 *
	TH	3.00	503	4,800	0.130	N-S(2):	0.197
	LT	1.00	116	1,600	0.073 *	E-W(1):	0.147
Westbound	RT	0.00	234	1,600	0.146 *	E-W(2):	0.253 *
	TH	2.00	146	1,600	0.091		
	LT	1.00	51	1,600	0.032	V/C:	0.528
Northbound	RT	0.00	33	0	0.000	Lost Time:	0.100
	TH	3.00	936	4,800	0.202 *	ITS:	0.000
	LT	1.00	107	1,600	0.067		
Eastbound	RT	1.00	120	1,600	0.042	ICU:	0.628
	TH	2.00	369	3,200	0.115		
	LT	2.00	307	2,880	0.107 *	LOS:	B

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **4 - S Central Ave & E Artesia Blvd**
Description: **Future + Project**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	10 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	198	0	0.000	N-S(1):	0.232
	TH	3.00	916	4,800	0.232 *	N-S(2):	0.461 *
	LT	0.00	0	0	0.000	E-W(1):	0.319 *
Westbound	RT	0.00	314	0	0.000	E-W(2):	0.000
	TH	1.16	216	1,849	0.287		
	LT	1.84	846	2,656	0.319 *	V/C:	0.780
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.100
	TH	2.00	741	3,200	0.232	ITS:	0.000
	LT	1.00	366	1,600	0.229 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.880
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	D

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	222	0	0.000	N-S(1):	0.262
	TH	3.00	754	4,800	0.203 *	N-S(2):	0.519 *
	LT	0.00	0	0	0.000	E-W(1):	0.254 *
Westbound	RT	0.00	361	0	0.000	E-W(2):	0.000
	TH	1.34	129	2,146	0.228		
	LT	1.66	606	2,389	0.254 *	V/C:	0.773
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.100
	TH	2.00	837	3,200	0.262	ITS:	0.000
	LT	1.00	506	1,600	0.316 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.873
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	D

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **5 - S Central Ave & E Albertoni St**
Description: **Future + Project**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	10 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.364
	TH	2.00	1,366	3,200	0.427 *	N-S(2):	0.427 *
	LT	2.00	401	2,880	0.139	E-W(1):	0.452 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.879
Northbound	RT	2.00	448	3,200	0.140	Lost Time:	0.100
	TH	2.00	721	3,200	0.225	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	723	1,600	0.452 *	ICU:	0.979
	TH	2.00	124	1,600	0.078		
	LT	1.00	392	1,600	0.245	LOS:	E

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.427 *
	TH	2.00	1,080	3,200	0.338	N-S(2):	0.338
	LT	2.00	274	2,880	0.095 *	E-W(1):	0.377 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.804
Northbound	RT	2.00	655	3,200	0.205	Lost Time:	0.100
	TH	2.00	1,062	3,200	0.332 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	393	0	0.000	ICU:	0.904
	TH	2.00	814	3,200	0.377 *		
	LT	1.00	297	1,600	0.186	LOS:	E

* - Denotes critical movement

Project Title: **Victoria Greens**
Intersection: **6 - S Central Ave & E University Dr**
Description: **Future + Project**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	90	1,600	0.004	N-S(1):	0.299 *
	TH	2.00	482	3,200	0.151	N-S(2):	0.212
	LT	1.00	116	1,600	0.073 *	E-W(1):	0.088
Westbound	RT	0.00	195	0	0.000	E-W(2):	0.227 *
	TH	2.00	200	3,200	0.123 *		
	LT	1.00	32	1,600	0.020	V/C:	0.526
Northbound	RT	0.00	39	0	0.000	Lost Time:	0.100
	TH	2.00	685	3,200	0.226 *	ITS:	0.000
	LT	1.00	97	1,600	0.061		
Eastbound	RT	0.00	61	0	0.000	ICU:	0.626
	TH	2.00	158	3,200	0.068		
	LT	1.00	167	1,600	0.104 *	LOS:	B

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	257	1,600	0.120	N-S(1):	0.243
	TH	2.00	831	3,200	0.260 *	N-S(2):	0.313 *
	LT	1.00	157	1,600	0.098	E-W(1):	0.147
Westbound	RT	0.00	129	0	0.000	E-W(2):	0.189 *
	TH	2.00	215	3,200	0.108 *		
	LT	1.00	46	1,600	0.029	V/C:	0.502
Northbound	RT	0.00	20	0	0.000	Lost Time:	0.100
	TH	2.00	444	3,200	0.145	ITS:	0.000
	LT	1.00	85	1,600	0.053 *		
Eastbound	RT	0.00	155	0	0.000	ICU:	0.602
	TH	2.00	221	3,200	0.118		
	LT	1.00	130	1,600	0.081 *	LOS:	B

* - Denotes critical movement

APPENDIX D:
24-HOUR TRAFFIC COUNT

Prepared by NDS/ATD

VOLUME

Central Ave N/O Aspen Hill Rd

Day: Tuesday
Date: 2/20/2018

City: Carson
Project #: CA18_5109_001

DAILY TOTALS	NB	SB	EB	WB	Total
	15,352	17,286	0	0	32,638

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	33		28				61		12:00	215		223				438	
00:15	25		35				60		12:15	197		262				459	
00:30	44		28				72		12:30	232		291				523	
00:45	23	125	21	112			44	237	12:45	265	909	305	1081			570	1990
01:00	31		24				55		13:00	287		247				534	
01:15	20		23				43		13:15	219		227				446	
01:30	35		36				71		13:30	232		204				436	
01:45	21	107	14	97			35	204	13:45	225	963	235	913			460	1876
02:00	16		22				38		14:00	268		241				509	
02:15	20		24				44		14:15	299		280				579	
02:30	24		37				61		14:30	263		225				488	
02:45	18	78	32	115			50	193	14:45	242	1072	256	1002			498	2074
03:00	15		18				33		15:00	213		242				455	
03:15	21		21				42		15:15	230		278				508	
03:30	19		20				39		15:30	264		345				609	
03:45	16	71	32	91			48	162	15:45	372	1079	333	1198			705	2277
04:00	18		25				43		16:00	275		261				536	
04:15	25		40				65		16:15	204		212				416	
04:30	29		64				93		16:30	259		256				515	
04:45	40	112	79	208			119	320	16:45	215	953	291	1020			506	1973
05:00	46		77				123		17:00	288		284				572	
05:15	71		114				185		17:15	328		312				640	
05:30	72		173				245		17:30	309		302				611	
05:45	92	281	237	601			329	882	17:45	267	1192	270	1168			537	2360
06:00	111		152				263		18:00	243		264				507	
06:15	102		155				257		18:15	246		257				503	
06:30	135		193				328		18:30	282		284				566	
06:45	161	509	255	755			416	1264	18:45	273	1044	279	1084			552	2128
07:00	204		200				404		19:00	258		205				463	
07:15	177		285				462		19:15	249		173				422	
07:30	240		343				583		19:30	184		125				309	
07:45	246	867	456	1284			702	2151	19:45	169	860	185	688			354	1548
08:00	271		377				648		20:00	180		125				305	
08:15	215		416				631		20:15	223		143				366	
08:30	199		356				555		20:30	176		120				296	
08:45	155	840	281	1430			436	2270	20:45	143	722	129	517			272	1239
09:00	141		238				379		21:00	166		94				260	
09:15	144		255				399		21:15	171		132				303	
09:30	162		327				489		21:30	166		99				265	
09:45	207	654	365	1185			572	1839	21:45	168	671	113	438			281	1109
10:00	173		275				448		22:00	119		87				206	
10:15	185		207				392		22:15	85		85				170	
10:30	165		199				364		22:30	88		72				160	
10:45	174	697	215	896			389	1593	22:45	88	380	57	301			145	681
11:00	223		204				427		23:00	82		53				135	
11:15	292		251				543		23:15	47		54				101	
11:30	217		249				466		23:30	54		44				98	
11:45	216	948	222	926			438	1874	23:45	35	218	25	176			60	394
TOTALS		5289		7700				12989	TOTALS		10063		9586				19649
SPLIT %		40.7%		59.3%				39.8%	SPLIT %		51.2%		48.8%				60.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	15,352	17,286	0	0	32,638

AM Peak Hour	07:30	07:45					07:30		PM Peak Hour	17:00	15:15					17:00		
AM Pk Volume	972	1605					2564		PM Pk Volume	1192	1217					2360		
Pk Hr Factor	0.897	0.880					0.913		Pk Hr Factor	0.909	0.882					0.922		
7 - 9 Volume	1707	2714	0	0			4421		4 - 6 Volume	2145	2188	0	0			4333		
7 - 9 Peak Hour	07:30	07:45					07:30		4 - 6 Peak Hour	17:00	16:45					17:00		
7 - 9 Pk Volume	972	1605	0	0			2564		4 - 6 Pk Volume	1192	1189	0	0			2360		
Pk Hr Factor	0.897	0.880	0.000	0.000			0.913		Pk Hr Factor	0.909	0.953	0.000	0.000			0.922		

APPENDIX E:
SIGNAL WARRANT

FEHR PEERS

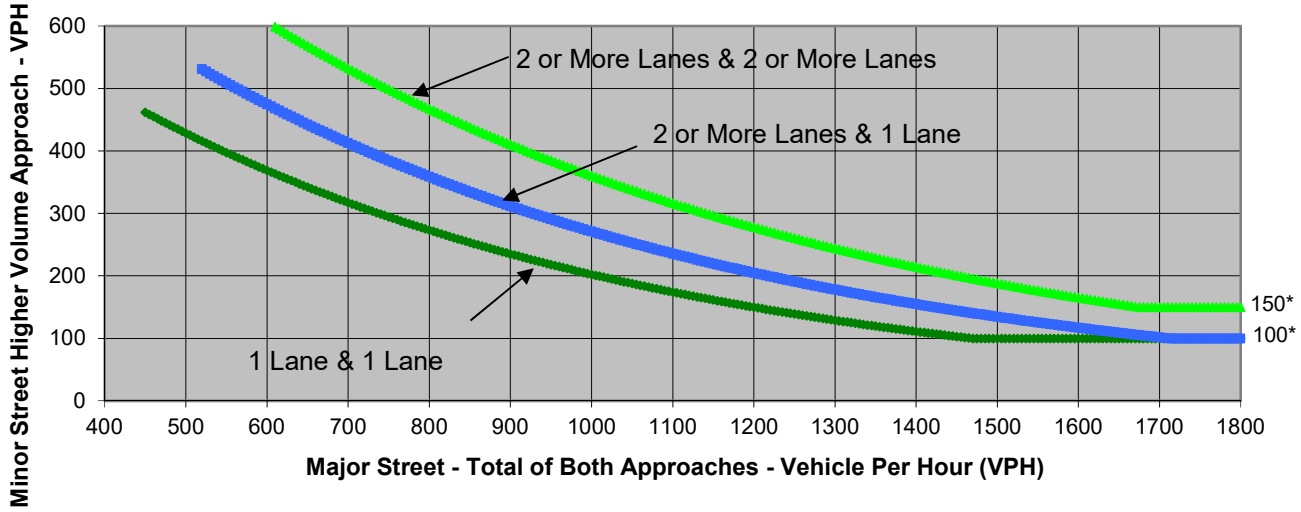
Major Street	Central Avenue	Project	Victoria Greens
Minor Street	Project Driveway/Aspen Hill Road	Scenario	Existing Conditions
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	2	0	56	0
Through	921	1,575	0	0
Right	0	19	10	0
Total	923	1,594	66	0

Major Street Direction

x	North/South
	East/West



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Central Avenue	Project Driveway/Aspen Hill Road	
Number of Approach Lanes	**2**	**1**	**NO**
Traffic Volume (VPH) *	**2,517**	**66**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Central Avenue
Minor Street	Project Driveway/Aspen Hill Road

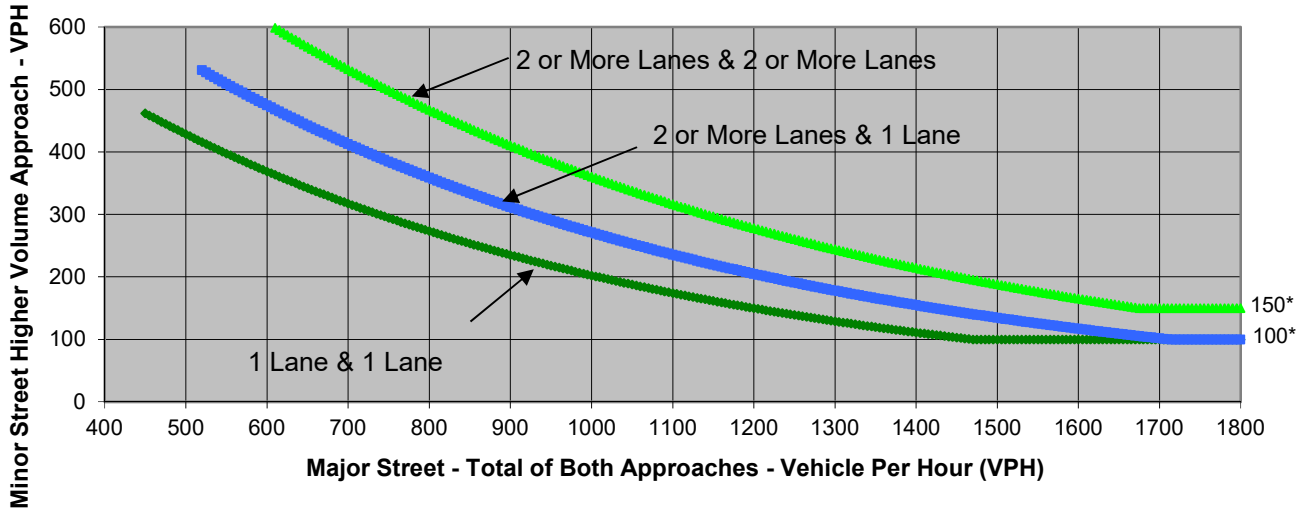
Project	Victoria Greens
Scenario	Existing Conditions
Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	12	0	21	0
Through	1,146	1,132	0	0
Right	0	40	23	0
Total	1,158	1,172	44	0

Major Street Direction

x	North/South
	East/West



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Central Avenue	Project Driveway/Aspen Hill Road	
Number of Approach Lanes	**2**	**1**	**NO**
Traffic Volume (VPH) *	**2,330**	**44**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

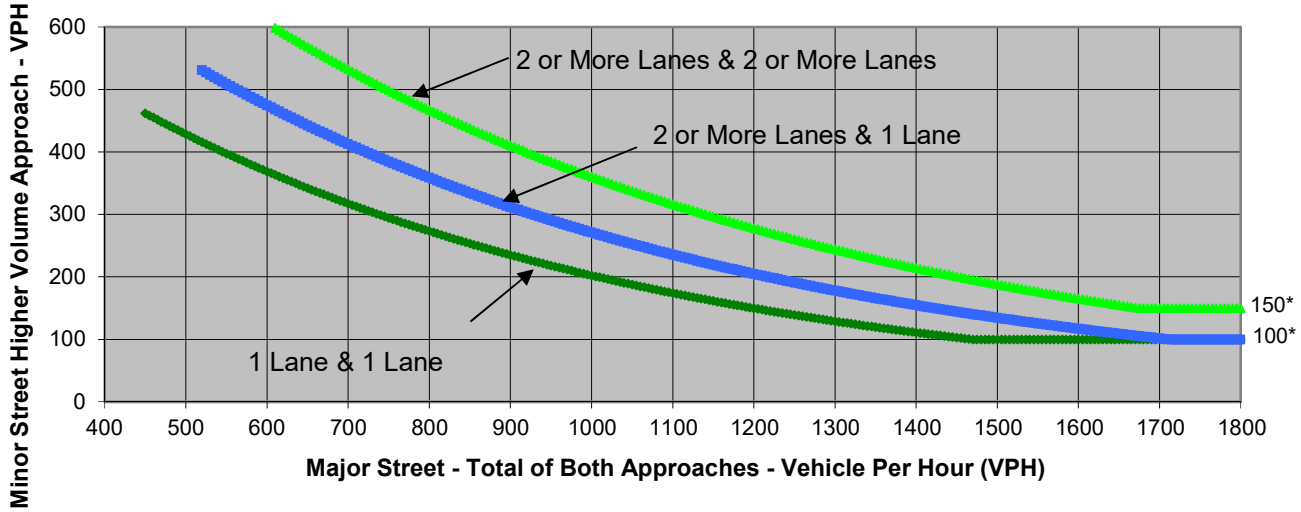
Major Street	Central Avenue	Project	Victoria Greens
Minor Street	Project Driveway/Aspen Hill Road	Scenario	Existing + Project
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	2	9	56	0
Through	921	1,575	0	0
Right	10	19	10	30
Total	933	1,603	66	30

Major Street Direction

x	North/South
	East/West



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Central Avenue	Project Driveway/Aspen Hill Road	
Number of Approach Lanes	**2**	**1**	**NO**
Traffic Volume (VPH) *	**2,536**	**66**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

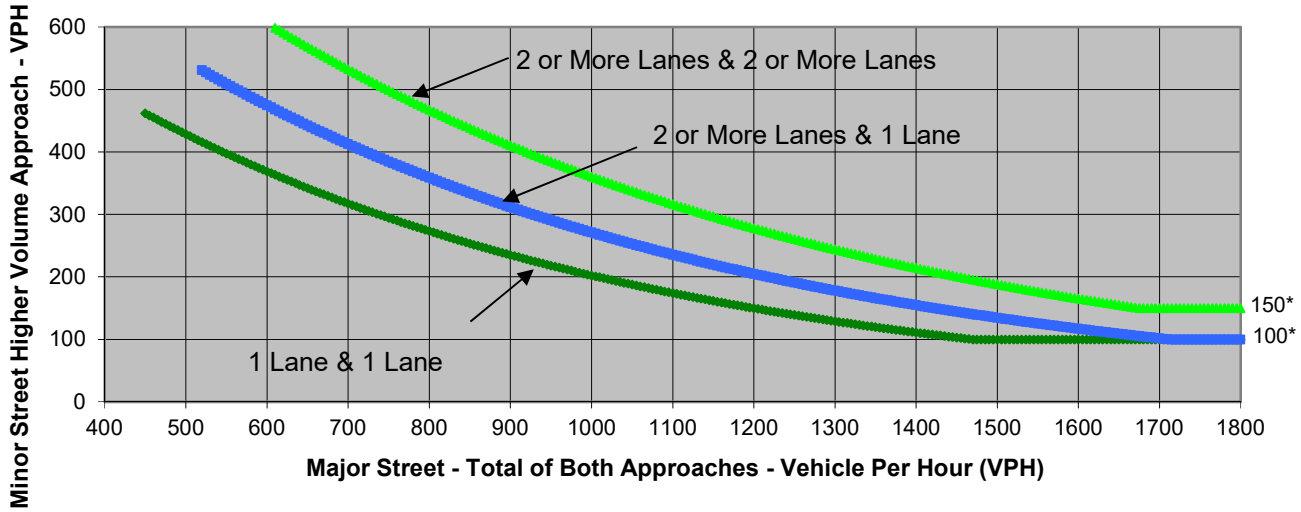
Major Street	Central Avenue	Project	Victoria Greens
Minor Street	Project Driveway/Aspen Hill Road	Scenario	Existing + Project
		Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	12	30	21	0
Through	1,146	1,132	0	0
Right	32	40	23	18
Total	1,190	1,202	44	18

Major Street Direction

x	North/South
	East/West



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Central Avenue	Project Driveway/Aspen Hill Road	
Number of Approach Lanes	**2**	**1**	**NO**
Traffic Volume (VPH) *	**2,392**	**44**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

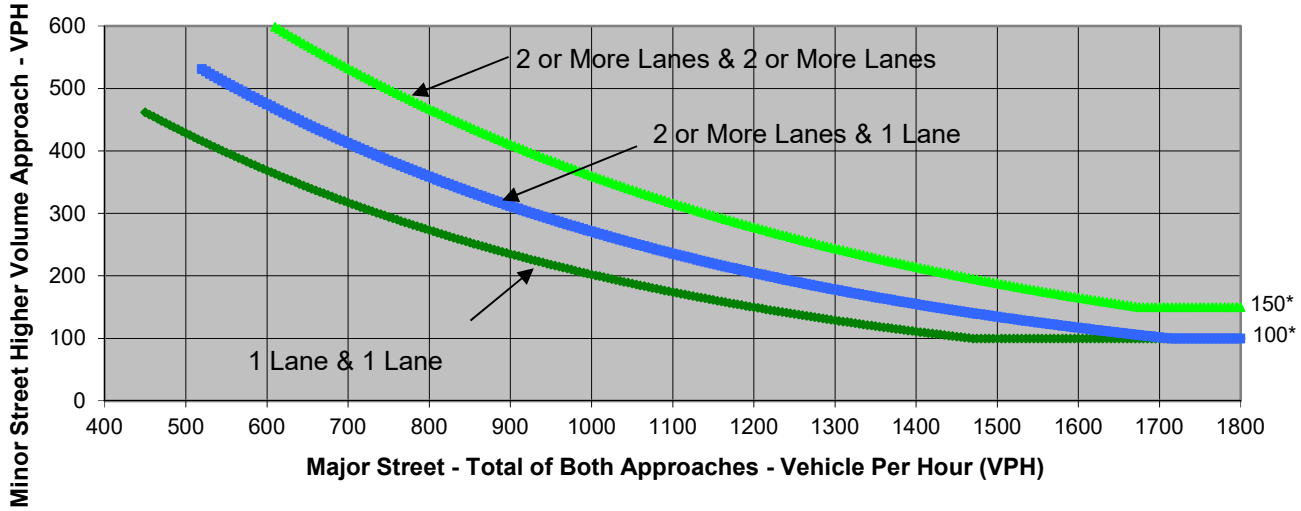
Major Street	Central Avenue	Project	Victoria Greens
Minor Street	Project Driveway/Aspen Hill Road	Scenario	Future Base
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	3	0	56	0
Through	1,057	1,914	0	0
Right	0	19	9	0
Total	1,060	1,933	65	0

Major Street Direction

x	North/South
	East/West



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Central Avenue	Project Driveway/Aspen Hill Road	
Number of Approach Lanes	**2**	**1**	**NO**
Traffic Volume (VPH) *	**2,993**	**65**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

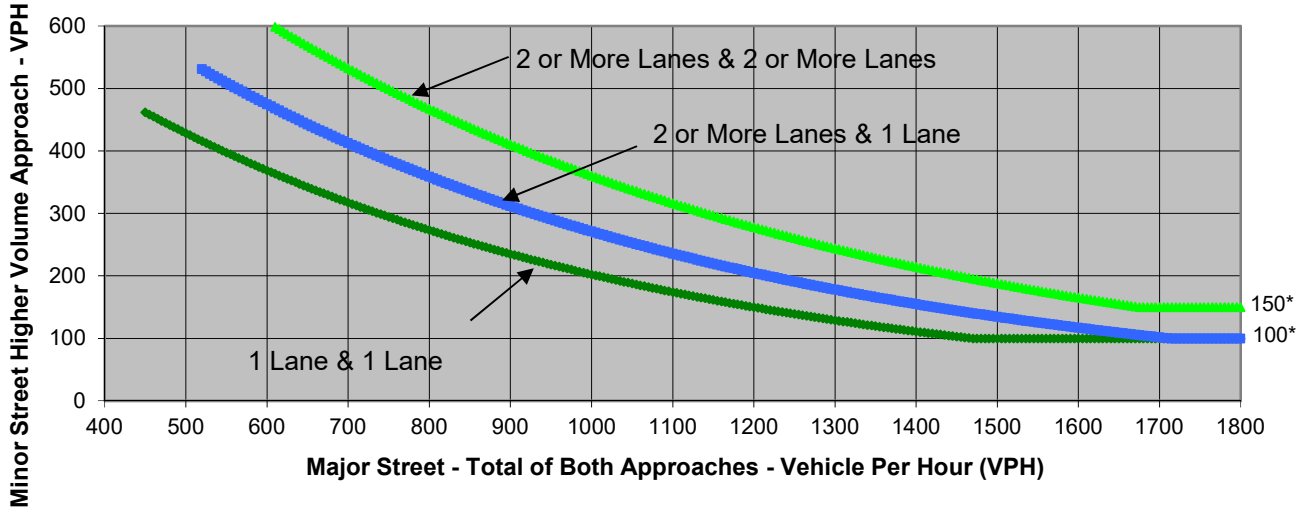
Major Street	Central Avenue	Project	Victoria Greens
Minor Street	Project Driveway/Aspen Hill Road	Scenario	Future Base
		Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	12	0	21	0
Through	1,482	1,432	0	0
Right	0	40	23	0
Total	1,494	1,472	44	0

Major Street Direction

x	North/South
	East/West



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Central Avenue	Project Driveway/Aspen Hill Road	
Number of Approach Lanes	**2**	**1**	**NO**
Traffic Volume (VPH) *	**2,966**	**44**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

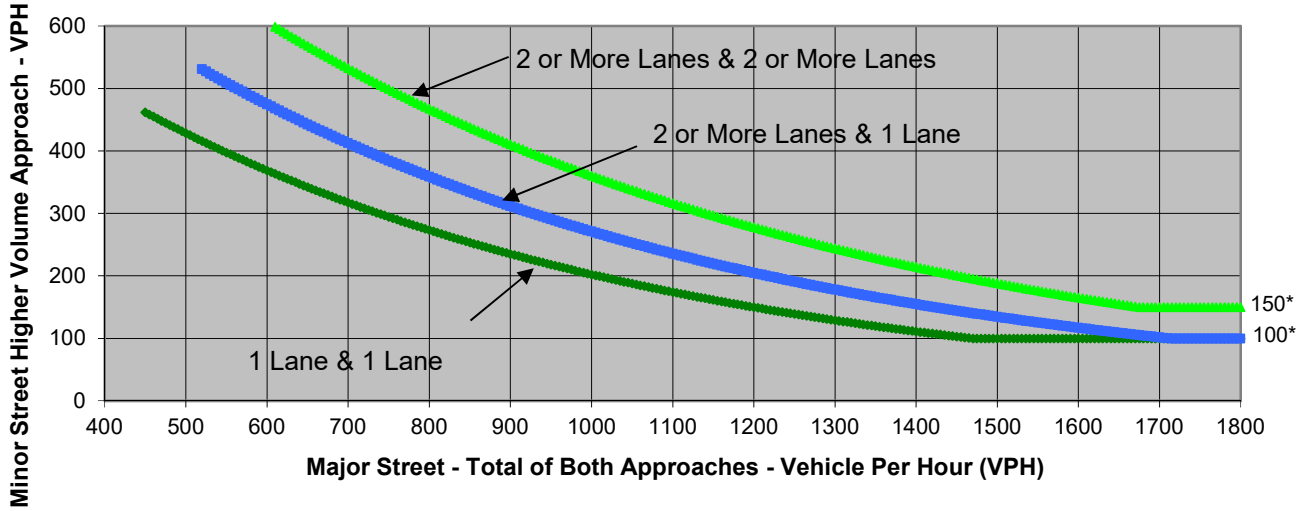
Major Street	Central Avenue	Project	Victoria Greens
Minor Street	Project Driveway/Aspen Hill Road	Scenario	Future + Project
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	9	56	0	0
Through	1,057	1,914	0	0
Right	10	19	9	30
Total	1,076	1,989	9	30

Major Street Direction

x	North/South
	East/West



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Central Avenue	Project Driveway/Aspen Hill Road	
Number of Approach Lanes	**2**	**1**	**NO**
Traffic Volume (VPH) *	**3,065**	**30**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

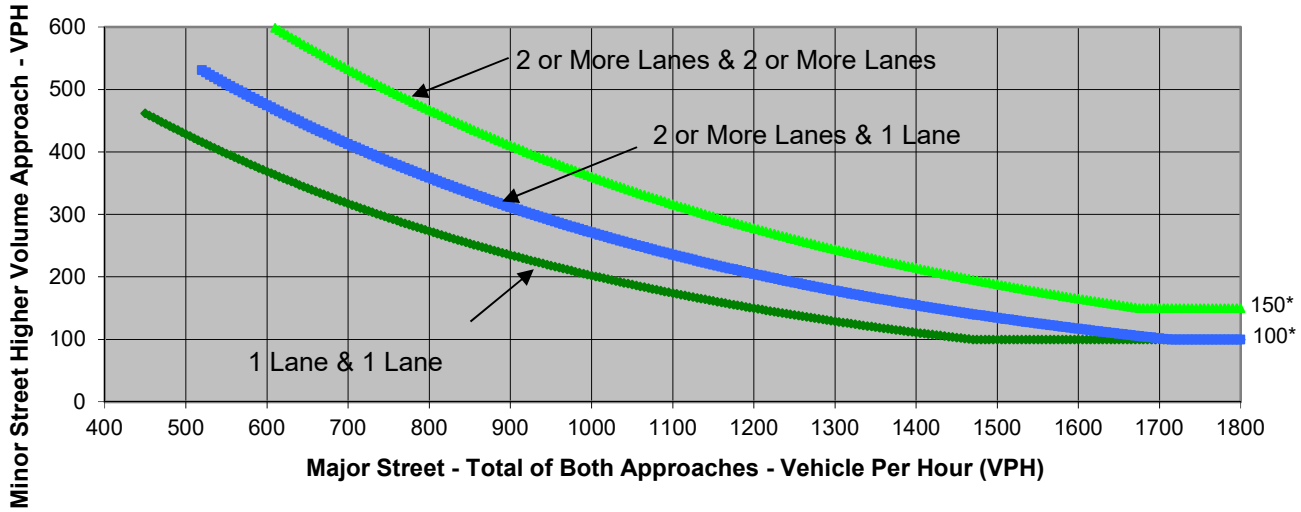
Major Street	Central Avenue	Project	Victoria Greens
Minor Street	Project Driveway/Aspen Hill Road	Scenario	Future + Project
		Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	12	30	21	0
Through	1,482	1,432	0	0
Right	32	40	23	18
Total	1,526	1,502	44	18

Major Street Direction

x	North/South
	East/West



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Central Avenue	Project Driveway/Aspen Hill Road	
Number of Approach Lanes	**2**	**1**	**NO**
Traffic Volume (VPH) *	**3,028**	**44**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

APPENDIX F:
SIGNAL TIMING SHEETS

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
TRAFFIC AND LIGHTING DIVISION
TRAFFIC SIGNAL TIMING

ASC/3

PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AV @ N. ARTESIA BL Date Prepared: 9-13-10 PD By: EI

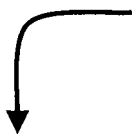
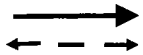
T.S. No.: 4158 Date Implemented: _____ By: _____

UTILITIES SUBMENU

8-7. SOFTWARE MODULES

NAME	PART NUMBER	VERSION
BOOT	100-1047-209	V1.09.00
APPLICATION	100-1082-243	V2.43.20
CONFIGURATION	100-1049-001	N3000, 4
HELP	100-1050-001	01.00.00
DEFINITIONS	100-1051-001	02.10.00
TEXT	100-1052-001	02.10.00
TELEMETRY	NA	NA

PHASE DIAGRAM

True North	1	2	3	4	9	10	13	14
47								
Phase North	**5**	**6**	**7**	**8**	**11**	**12**	**15**	**16**
47								

Comments:

ASC/3

PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AV @ N. ARTESIA BL Date Prepared: 9-13-10 PD By: EJ

T.S. No.: 4158 Date Implemented: _____ By: _____

CONFIGURATION SUBMENU

1-1-1. PHASE RING SEQUENCE AND ASSIGNMENT

CONTROLLER SEQUENCE	1															
SEQUENCE COMMANDS		HARDWARE ALTERNATE SEQUENCE ENABLE														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
BARRIER CONTROL	X		X		X		X									
RING 1	1	2	3	4	9	10	13	14								
RING 2	5	6	7	8	11	12	15	16								
RING 3																
RING 4																

CONTROLLER SEQUENCE	2															
SEQUENCE COMMANDS		HARDWARE ALTERNATE SEQUENCE ENABLE														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
BARRIER CONTROL																
RING 1																
RING 2																
RING 3																
RING 4																

CONTROLLER SEQUENCE	3															
SEQUENCE COMMANDS		HARDWARE ALTERNATE SEQUENCE ENABLE														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
BARRIER CONTROL																
RING 1																
RING 2																
RING 3																
RING 4																

CONTROLLER SEQUENCE	4															
SEQUENCE COMMANDS		HARDWARE ALTERNATE SEQUENCE ENABLE														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
BARRIER CONTROL																
RING 1																
RING 2																
RING 3																
RING 4																

UP TO 16 CONTROL SEQUENCES AVAILABLE.

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PROGRAM REFERENCE CARD

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T.S. No.: 4158 Date Implemented: _____ By: _____

CONFIGURATION SUBMENU

1-1-2. PHASE COMPATIBILITY (Screen Not Available in Barrier Mode)

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

1-1-3. BACKUP PREVENT PHASES

PHASE TIMING	BACKUP PHASE 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

INTERSECTION: CENTRAL AV @ N. ARTESIA BL Date Prepared: 9-13-10 PD By: EJ

T.S. No.: 4158 Date Implemented: _____ By: _____

CONFIGURATION SUBMENU

1-1-4. SIMULTANEOUS GAP PHASES

MUST GAP WITH PHASE

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1					X	X										
2					X	X										
3							X	X								
4							X	X								
5	X	X														
6	X	X														
7			X	X												
8			X	X												
9																
10																
11																
12																
13																
14																
15																
16																

1-1-5. DIAMOND SEQUENCE (Controller Must Be Programmed for Diamond Sequence Operation)

1-2. PHASE IN USE / EXCLUSIVE PEDESTRIAN

PHASE	1	2	3	4	5	6	7	8
PHASES IN USE	X	X		X		X		
EXCLUSIVE PED								
PHASE	9	10	11	12	13	14	15	16
PHASES IN USE								
EXCLUSIVE PED								

1-3. PHASE TO LOAD SWITCH (MMU) ASSIGNMENT

LOAD SWITCH	PHASE / OVERLAP	TYPE	DIMMING				FLASH	
			RED	YELLOW	GREEN	DIMMING	AUTO	TOGETHER
1	1	V					R	
2	2	V					R	X
3								
4	4	V					R	X
5								
6	6	V					R	X
7								
8								
9	2	P						
10	4	P						
11	6	P						
12								
13								
14								
15								
16								

ASC/3

PROGRAM REFERENCE CARD

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T.S. No.: 4158 Date Implemented: _____ By: _____

CONFIGURATION SUBMENU

1-4-1. SDLC OPTIONS

BIU	1	2	3	4	5	6	7	8
TERM & FACILITY	X	X						
DETECTOR RACK	X							

ENABLE TS2/MMU TYPE CABINET	YES
ENABLE MMU EXTENDED STATUS	NO
ENABLE SDLC STOP TIME	NO
ENABLE 3 CRITICAL RFE'S LOCKUP	NO
DIAGNOSTIC ENABLE (TEST FIXTURE)	NO

SECONDARY TO SECONDARY ADDRESSING

TERM & FACILITY	1	2	3	4	5	6	7	8	MMU
DETECTOR RACK	9	10	11	12	13	14	15	16	DIAG

1-4-2. MMU PROGRAM

	CHANNEL CAN SERVE WITH														
CHANNEL	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															

1-4-3. COLOR CHECK ENABLE

ENABLE COLOR CHECK			X													
MMU CHANNEL / LS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
RED	X	X		X		X										
YELLOW	X	X		X		X										
GREEN	X	X		X		X										

ASC/3

PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AV @ N. ARTESIA BL Date Prepared: 9-13-10 PD By: EJ

T.S. No.: 4158 Date Implemented: _____ By: _____

CONFIGURATION SUBMENU

1-5-1. ETHERNET PORT CONFIGURATION

MAC ADDRESS	
CONTROLLER IP ADDRESS	
SUBNET MASK	
DEFAULT GATEWAY IP ADDRESS	
SERVER IP ADDRESS	
LINK SPEED/DUPLEX	

1-5-6. ECPIP

SYSTEM DETECTOR ASSIGNMENT:								
SYSTEM DETECTOR	1	2	3	4	5	6	7	8
LOCAL DETECTOR								
EXPANDED SYSTEM DETECTOR ADDRESS (PORT 3B)								
SYSTEM DETECTOR	9	10	11	12	13	14	15	16
LOCAL DETECTOR								

1-5-2. PORT 2/C50S (TERMINAL)

ENABLE	NO	PROTOCOL	TERM
DATA BIT RATE (BPS)			
DATA, PARITY, STOP			
DUPLEX - HALF OR FULL			
FLOW CONTROL			

1-5-3. PORT 3A/C21S (TELEMETRY)

ENABLE		PROTOCOL	AB 3418
DATA BIT RATE (BPS)		COMM PORT ADDRESS	
DATA, PARITY, STOP		GROUP ADDRESS	
DUPLEX - HALF OR FULL		SINGLE FLAGGED	
FLOW CONTROL		DROP-OUT TIME (In Seconds	

1-5-4. PORT 3B/C22S

ENABLE		PROTOCOL	AB 3418
DATA BIT RATE (BPS)		COMM PORT ADDRESS	
DATA, PARITY, STOP		TELEMETRY RESPONSE DELAY (in ms	
DUPLEX - HALF OR FULL		DROP-OUT TIME (In Seconds)	
FLOW CONTROL			
RTS TO CTS DELAY (in ms)			
RTS TURN OFF DELAY (in ms)			
EARLY RTS			
FSK HARDWARE			

1-5-5. NTCIP

BACKUP TIME (in seconds)	0
UDP PORT	
ETHERNET PRIORITY	1
PORT 2 PRIORITY	4
PORT 3A PRIORITY	2
PORT 3B PROIRITY	3

ASC/3

PROGRAM REFERENCE CARD

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T.S. No.: 4158 Date Implemented: _____ By: _____

CONFIGURATION SUBMENU

1-6-1. EVENT LOGGING

CRITICAL RFE'S (MMU / TF)	YES	3 CRITICAL RFE ERRORS IN 24 HOURS	NO
MMU FLASH FAULTS	YES	LOCAL FLASH	YES
NON-CRITICAL RFE'S (DET/TEST)	NO	DETECTOR ERRORS	YES
COORDINATION ERRORS	YES	CONTROLLER DOWNLOAD	YES
PREEMPT	YES	TSP	YES
POWER ON/OFF	YES	LOW BATTERY	YES
ACCESS	YES	DATA CHANGE	YES

ALARM 1	YES	ALARM 2	
ALARM 3		ALARM 4	
ALARM 5		ALARM 6	
ALARM 7		ALARM 8	
ALARM 9		ALARM 10	
ALARM 11		ALARM 12	
ALARM 13		ALARM 14	
ALARM 15		ALARM 16	

1-7-1. ADMINSTRATION

ENABLE CU/CABINET INTERLOCK CRC	
CU/CABINET INTERLOCK CRC VALUE	
CU/CABINET INTERLOCK HARDWIRED VALUE	
REQUEST DOWNLOAD OF CONTROLLER DATA	
CONTROLLER DATABASE CRC	

1-7-2. DISPLAY OPTIONS

KEY CLICK ENABLE	YES
BACKLIGHT ENABLE	YES

1-7-3. SECURITY ACCESS

1	ADMINISTRATOR		2	PUBLIC	
3	PUBLIC		4	PUBLIC	
5	PUBLIC		6	PUBLIC	
7	PUBLIC		8	PUBLIC	
9	PUBLIC		10	PUBLIC	
11	PUBLIC		12	PUBLIC	
13	PUBLIC		14	PUBLIC	
15	PUBLIC		16	PUBLIC	
17	PUBLIC		18	PUBLIC	
19	PUBLIC		20	PUBLIC	
21	PUBLIC		22	PUBLIC	
23	PUBLIC		24	PUBLIC	
25	PUBLIC		26	PUBLIC	
27	PUBLIC		28	PUBLIC	
29	PUBLIC		30	PUBLIC	
31	PUBLIC		32	PUBLIC	
33	PUBLIC		34	PUBLIC	
35	PUBLIC		36	PUBLIC	
37	PUBLIC		38	PUBLIC	
39	PUBLIC		40	PUBLIC	
41	PUBLIC		42	PUBLIC	
43	PUBLIC		44	PUBLIC	
45	PUBLIC		46	PUBLIC	
47	PUBLIC		48	PUBLIC	
49	PUBLIC		50	PUBLIC	

1-8-1. LOGIC STATEMENT CONTROL

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15															
LP 16-30															
LP 31-45															
LP 46-60															
LP 61-75															
LP 76-90															
LP 91-100															

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PROGRAM REFERENCE CARD

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CONFIGURATION SUBMENU

1-8-2. LOGIC STATEMENTS

LOGIC #		ACTIVE	
IF			
THEN			
ELSE			

LOGIC #		ACTIVE	
IF			
THEN			
ELSE			

LOGIC #		ACTIVE	
IF			
THEN			
ELSE			

LOGIC #		ACTIVE	
IF			
THEN			
ELSE			

ASC/3

PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AV @ N. ARTESIA BL Date Prepared: 9-13-10 PD By: EJ

T.S. No.: 4158 Date Implemented: _____ By: _____

CONTROLLER SUBMENU

2-1. CONTROLLER TIMING DATA

TIMING PLAN 1	PHASE DATA															
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MINIMUM GREEN	4	6		4		6										
BICYCLE MIN GREEN	0	0		0		0										
CONDITIONAL SERVICE MIN GRN	0	0		0		0										
DELAY GREEN	0	0		0		0										
WALK	0	7		7		7										
WALK 2	0	0		0		0										
WALK MAX	0	0		0		0										
PEDESTRIAN CLEARANCE	0	8		20		8										
PEDESTRIAN CLEARANCE 2	0	0		0	0	0										
PEDESTRIAN CLEARANCE MAX	0	0		0	0	0										
PEDESTRIAN CARRY OVER	0	0		0	0	0										
VEHICLE EXTENSION	1.5	4.0		4.0		4.0										
VEHICLE EXTENSION 2	0.0	0.0		0.0		0.0										
MAX 1	20	50		30		50										
MAX 2	0	0		0		0										
MAX 3	0	0		0		0										
DYNAMIC MAX	0	0		0		0										
DYNAMIC STEP	0.0	0.0		0.0		0.0										
YELLOW	4.0	4.0		4.5		4.0										
RED CLEARANCE	1.0	1.0		1.0		1.0										
RED MAX	0.0	0.0		0.0		0.0										
RED REVERT	2.0	2.0		2.0		2.0										
ACTUATIONS BEFORE (ACT B4)	0	0		0		0										
SEC/ACTUATION	0.0	0.0		0.0		0.0										
MAX ADDED INITIAL (MAX INI)	0	0		0		0										
TIME BEFORE GAP REDUCTION	0	15		15		15										
CARS WAITING B4 REDUCTION	0	255		255		255										
STEP TO REDUCE (STPTDUC)	0.0	0.0		0.0		0.0										
TIME TO REDUCE (TTREDUC)	0	15		15		15										
MINIMUM GAP	1.5	3.0		3.0		3.0										

Comments:

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
TRAFFIC AND LIGHTING DIVISION
TRAFFIC SIGNAL TIMING

ASC/3

PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AV @ N. ARTESIA BL   Date Prepared: 9-13-10 PD By: EJ

T.S. No.: 4158   Date Implemented: ______ By: ______

CONTROLLER SUBMENU

2-2. VEHICLE OVERLAP

VEHICLE OVERLAP						TYPE										
PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
INCLUDED																
PROTECT																
MODIFIER																
PED PROTECT																
NOT OVLP																
FLASH GRN																
LAG X PHASE																
LAG 2 PHASE																
LAG GREEN		LAG YELLOW		LAG RED		ADV GREEN										

VEHICLE OVERLAP						TYPE										
PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
INCLUDED																
PROTECT																
MODIFIER																
PED PROTECT																
NOT OVLP																
FLASH GRN																
LAG X PHASE																
LAG 2 PHASE																
LAG GREEN		LAG YELLOW		LAG RED		ADV GREEN										

VEHICLE OVERLAP						TYPE										
PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
INCLUDED																
PROTECT																
MODIFIER																
PED PROTECT																
NOT OVLP																
FLASH GRN																
LAG X PHASE																
LAG 2 PHASE																
LAG GREEN		LAG YELLOW		LAG RED		ADV GREEN										

VEHICLE OVERLAP						TYPE										
PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
INCLUDED																
PROTECT																
MODIFIER																
PED PROTECT																
NOT OVLP																
FLASH GRN																
LAG X PHASE																
LAG 2 PHASE																
LAG GREEN		LAG YELLOW		LAG RED		ADV GREEN										

VEHICLE OVERLAP						TYPE										
PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
INCLUDED																
PROTECT																
MODIFIER																
PED PROTECT																
NOT OVLP																
FLASH GRN																
LAG X PHASE																
LAG 2 PHASE																
LAG GREEN		LAG YELLOW		LAG RED		ADV GREEN										

VEHICLE OVERLAP						TYPE										
PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
INCLUDED																
PROTECT																
MODIFIER																
PED PROTECT																
NOT OVLP																
FLASH GRN																
LAG X PHASE																
LAG 2 PHASE																
LAG GREEN		LAG YELLOW		LAG RED		ADV GREEN										

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PROGRAM REFERENCE CARD

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CONTROLLER SUBMENU

2-3. VEHICLE/PEDESTRIAN OVERLAPS

VEH/PED OVERLAP	INCLUDED PHASES: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
VEH OL A																
VEH OL B																
VEH OL C																
VEH OL D																
VEH OL E																
VEH OL F																
VEH OL G																
VEH OL H																
VEH OL E																
VEH OL J																
VEH OL K																
VEH OL L																
VEH OL M																
VEH OL N																
VEH OL O																
VEH OL P																
PED OL 1																
PED OL 2																
PED OL 3																
PED OL 4																
PED OL 5																
PED OL 6																
PED OL 7																
PED OL 8																
PED OL 9																
PED OL 10																
PED OL 11																
PED OL 12																
PED OL 13																
PED OL 14																
PED OL 15																
PED OL 16																

2-4. GUARANTEED MINIMUM TIME DATA

PHASE	AΦ1	BΦ2	CΦ3	DΦ4	EΦ5	FΦ6	GΦ7	HΦ8
MIN GRN	4	6		4		6		
WALK	0	0		0		0		
PED CLR	0	0		0		0		
YELLOW	4.0	4.0		4.5		4.0		
RED CLR	1.0	1.0		1.0		1.0		
OVLP GRN								
PHASE	IΦ9	J10	K11	L12	M13	N14	O15	P16
MIN GRN								
WALK								
PED CLR								
YELLOW								
RED CLR								
OVLP GRN								

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CONTROLLER SUBMENU

2-5. START / FLASH DATA

POWER START																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE		Y				Y										
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
OVERLAP																
FLASH>MON			NO		FLASH TIME			0		ALL RED				0		
POWER START SEQ			1													

AUTOMATIC FLASH																
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ENTRY		X				X										
EXIT		X				X										
OVERLAP	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
EXIT																
FLASH>MON			NO		EXIT FLASH				R		MIN AUTO FLASH				10	
MINIMUM RECALL			NO		CYCLE THRU PHASE				NO							

2-6-1. CONTROLLER OPTIONS

PEDESTRIAN CLEARANCE PROTECT						ON										
UNIT RED REVERT						2.0										
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
FLASHING GREEN PHASE																
GUARANTEED PASSAGE																
NON-ACT I																
NON-ACT II																
DUAL ENTRY																
COND SERVICE																
COND RESERVICE																
PED RESERVICE																
REST IN WALK																
FLASHING WALK																
PED CLEAR > YELLOW																
PED CLEAR > ALL RED																
INIT GREEN + VEH EXT																

2-6-2. EXTENDED OPTIONS [Not Available]

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CONTROLLER SUBMENU

2-7. ACTUATED / PRE-TIMED MODE

ENABLE PRE-TIMED MODE						NO										
FREE INPUT ENABLES PRE-TIMED						NO										
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PRE-TIMED																

2-8. PHASE RECALL OPTIONS

TIMING PLAN NUMBER																
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
LOCK DETECTOR		X				X										
VEHICLE RECALL		X				X										
PEDESTRIAN RECALL																
MAX RECALL																
SOFT RECALL																
NO REST																
ADD INITIAL CALC																

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COORDINATION SUBMENU

COORDINATION OPERATION SUMMARY			
COORDINATION PATTERN	SPLIT PATTERN	HOURS OF OPERATION	DAYS OF OPERATION
1	1	0900 - 1500; 1830 - 2100	Monday - Friday
2	2	0600 - 0900	Monday - Friday
3	3	1500 - 1830	Monday - Friday
FREE OPERATION		2100 - 0600; 0000 - 2359	Mon - Fri; Sat - Sun

3-1. COORDINATOR OPTIONS

MANUAL PATTERN	0	ECPI COORD	YES
INTERCONNECT SOURCE	TBC	INTERCONNECT FORMAT	STD
SPLITS IN	SEC	OFFSET IN	SEC
TRANSITION	SMOOTH	MAX SELECT	MAX 2
DWELL / ADD TIME	0	ENABLE MANUAL SYNC	NO
DELAY COORD WALK TO LOCAL ZERO	NO	FORCE OFF	FIXED
OFFSET REFERENCE	GREEN	CAL USE PED TIME	NO
PED RECALL	NO	PED RE-SERVICE	YES
LOCAL ZERO OVERRIDE	NO	FO ADDED INITIAL GREEN	NO
RE-SYNC COUNT	255	MULTISYNC	NO

3-2. COORDINATOR PATTERN (See Pages 16-18).

3-3. SPLIT PATTERN (See Pages 19-20).

3-4. AUTO PERMISSIVE MINIMUM GREEN (SECONDS)

PHASE	1	2	3	4	5	6	7	8
MINIMUM GREEN								
PHASE	9	10	11	12	13	14	15	16
MINIMUM GREEN								

3-5. SPLIT DEMAND

PHASE	1	2	3	4	5	6	7	8
DEMAND 1								
DEMAND 2								

DEMAND	1	2
DETECTOR		
CALL TIME (SECONDS)		
CYCLE COUNT		

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PROGRAM REFERENCE CARD

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COORDINATION SUBMENU

3-2. COORDINATOR PATTERN

COORDINATOR PATTERN	1		
USE SPLIT PATTERN	1		
TS2 (PAT - OFF)			
CYCLE	90	STD (COS)	111
OFFSET VALUE	4		
ACTUATED COORD	YES	TIMING PLAN	0
ACT WALK REST	NO	SEQUENCE	1
PHASE RESERVICE	YES	ACTION PLAN	0

SPLIT PREFERENCE PHASES

PHASE(S)	1	2	3	4	5	6	7	8
SPLIT [1]	23	34		33		57		
PREFERENCE 1								
PREFERENCE 2								
SPLIT EXT (SEC)	15	15						
VEH PERM				DISP				
RING DISP					(RING 2-4)			

PHASE(S)	9	10	11	12	13	14	15	16
SPLIT [1]								
PREFERENCE 1								
PREFERENCE 2								

SPLIT DEMAND PATTERN X-ARTERIAL PATTERN

PHASE(S)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
COORD		X				X										
VEH RECALL		X				X										
PED RECALL																
MAX RECALL																
OMIT																
SPECIAL FUNCTION OUTPUTS																

COORDINATOR PATTERN	2		
USE SPLIT PATTERN	2		
TS2 (PAT - OFF)			
CYCLE	90	STD (COS)	112
OFFSET VALUE	3		
ACTUATED COORD	YES	TIMING PLAN	0
ACT WALK REST	NO	SEQUENCE	1
PHASE RESERVICE	YES	ACTION PLAN	0

SPLIT PREFERENCE PHASES

PHASE(S)	1	2	3	4	5	6	7	8
SPLIT [2]	21	36		33		57		
PREFERENCE 1								
PREFERENCE 2								
SPLIT EXT (SEC)	19	19						
VEH PERM				DISP				
RING DISP					(RING 2-4)			

PHASE(S)	9	10	11	12	13	14	15	16
SPLIT [2]								
PREFERENCE 1								
PREFERENCE 2								

SPLIT DEMAND PATTERN X-ARTERIAL PATTERN

PHASE(S)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
COORD		X				X										
VEH RECALL		X				X										
PED RECALL																
MAX RECALL																
OMIT																
SPECIAL FUNCTION OUTPUTS																

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PROGRAM REFERENCE CARD

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COORDINATION SUBMENU

3-2. COORDINATOR PATTERN (CONTINUED)

COORDINATOR PATTERN	3		
USE SPLIT PATTERN	3		
TS2 (PAT - OFF)			
CYCLE	90	STD (COS)	113
OFFSET VALUE	27		
ACTUATED COORD	YES	TIMING PLAN	0
ACT WALK REST	NO	SEQUENCE	1
PHASE RESERVICE	YES	ACTION PLAN	0

SPLIT PREFERENCE PHASES

PHASE(S)	1	2	3	4	5	6	7	8
SPLIT [3]	25	32		33		57		
PREFERENCE 1								
PREFERENCE 2								
SPLIT EXT (SEC)	13	13						
VEH PERM				DISP				
RING DISP					(RING 2-4)			

PHASE(S)	9	10	11	12	13	14	15	16
SPLIT [3]								
PREFERENCE 1								
PREFERENCE 2								

SPLIT DEMAND PATTERN | X-ARTERIAL PATTERN

PHASE(S)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
COORD		X				X										
VEH RECALL		X				X										
PED RECALL																
MAX RECALL																
OMIT																
SPECIAL FUNCTION OUTPUTS																

COORDINATOR PATTERN	4		
USE SPLIT PATTERN	4		
TS2 (PAT - OFF)			
CYCLE		STD (COS)	
OFFSET VALUE			
ACTUATED COORD		TIMING PLAN	
ACT WALK REST		SEQUENCE	
PHASE RESERVICE		ACTION PLAN	

SPLIT PREFERENCE PHASES

PHASE(S)	1	2	3	4	5	6	7	8
SPLIT [4]								
PREFERENCE 1								
PREFERENCE 2								
SPLIT EXT (SEC)								
VEH PERM				DISP				
RING DISP					(RING 2-4)			

PHASE(S)	9	10	11	12	13	14	15	16
SPLIT [4]								
PREFERENCE 1								
PREFERENCE 2								

SPLIT DEMAND PATTERN | X-ARTERIAL PATTERN

PHASE(S)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
COORD																
VEH RECALL																
PED RECALL																
MAX RECALL																
OMIT																
SPECIAL FUNCTION OUTPUTS																

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COORDINATION SUBMENU

3-3. SPLIT PATTERN

SPLIT PATTERN 1

PHASE (S)	1	2	3	4	5	6	7	8
SPLIT	23	34		33		57		

PHASE (S)	9	10	11	12	13	14	15	16
SPLIT								

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
COORD		X				X										
VEH RECALL		X				X										
PED RECALL																
MAX RECALL																
OMIT																

SPLIT PATTERN 2

PHASE (S)	1	2	3	4	5	6	7	8
SPLIT	21	36		33		57		

PHASE (S)	9	10	11	12	13	14	15	16
SPLIT								

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
COORD		X				X										
VEH RECALL		X				X										
PED RECALL																
MAX RECALL																
OMIT																

SPLIT PATTERN 3

PHASE (S)	1	2	3	4	5	6	7	8
SPLIT	25	32		33		57		

PHASE (S)	9	10	11	12	13	14	15	16
SPLIT								

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
COORD		X				X										
VEH RECALL		X				X										
PED RECALL																
MAX RECALL																
OMIT																

SPLIT PATTERN 4

PHASE (S)	1	2	3	4	5	6	7	8
SPLIT								

PHASE (S)	9	10	11	12	13	14	15	16
SPLIT								

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
COORD																
VEH RECALL																
PED RECALL																
MAX RECALL																
OMIT																

SPLIT PATTERN 5

PHASE (S)	1	2	3	4	5	6	7	8
SPLIT								

PHASE (S)	9	10	11	12	13	14	15	16
SPLIT								

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
COORD																
VEH RECALL																
PED RECALL																
MAX RECALL																
OMIT																

SPLIT PATTERN 6

PHASE (S)	1	2	3	4	5	6	7	8
SPLIT								

PHASE (S)	9	10	11	12	13	14	15	16
SPLIT								

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
COORD																
VEH RECALL																
PED RECALL																
MAX RECALL																
OMIT																

120 SPLIT PATTERNS AVAILABLE

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PREEMPT SUBMENU

4-1. PREEMPTOR

PREEMPT PLAN	1															
VEH/PED PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
OVERLAP PHASE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
TRACK CLEAR VEH																
TRACK CLEAR OVERLAP																
ENABLE TRAILING OLP																
DWELL VEH																
DWELL PED																
DWELL OVERLAP																
CYCLING VEH																
CYCLING PED																
CYCLING OVERLAP																
EXIT PHASE																
EXIT CALLS																
SPECIAL FUNCTION																

ENABLE		PREEMPT OVERRIDE		INTERLOCK ENABLE	
DET LOCK		DELAY TIME (SEC)		INHIBIT TIME (SEC)	
OVERRIDE FL		DURATION		RED CLEAR GOES GREEN	
TERMINATE OLVPS ASAP		PC THRU YELLOW		TERMINATE PHASES	
PED DARK		TRACK CLEAR RESERVICE		DWELL FLASH	
LINKED PREEMPTOR		DWELL FLASH EXIT COLOR		PREEMPTION EXITS TO COORD PHASES	

PREEMPT EXIT TIMING PLAN		PREEMPTION RESERVICE TIME	

RING	1	2	3	4
FREE DURING PREEMPTION				

TIMING	WALK	PED CL	MIN GRN	YELLOW	RED
ENTRANCE TIMES					
MIN GREENS	MIN GRN	EXT GRN	MX GRN	YELLOW	RED
TRACK CLEARANCE TIMES					
MIN DL	MIN HL	PMT EXT	MX TM	YELLOW	RED
DWL/CYC-EXIT					

---PREEMPT ACTIVE OUTPUTS---

PREEMPT ACTIVE OUTPUT		PREEMPT ACTIVE OUTPUT IN DWELL	
OTHER PRIORITY PREEMPT OUTPUT		NON-PRIORITY PREEMPT OUTPUT	

PREEMPT PLAN	2															
VEH/PED PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
OVERLAP PHASE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
TRACK CLEAR VEH																
TRACK CLEAR OVERLAP																
ENABLE TRAILING OLP																
DWELL VEH																
DWELL PED																
DWELL OVERLAP																
CYCLING VEH																
CYCLING PED																
CYCLING OVERLAP																
EXIT PHASE																
EXIT CALLS																
SPECIAL FUNCTION																

ENABLE		PREEMPT OVERRIDE		INTERLOCK ENABLE	
DET LOCK		DELAY TIME (SEC)		INHIBIT TIME (SEC)	
OVERRIDE FL		DURATION		RED CLEAR GOES GREEN	
TERMINATE OLVPS ASAP		PC THRU YELLOW		TERMINATE PHASES	
PED DARK		TRACK CLEAR RESERVICE		DWELL FLASH	
LINKED PREEMPTOR		DWELL FLASH EXIT COLOR		PREEMPTION EXITS TO COORD PHASES	

PREEMPT EXIT TIMING PLAN		PREEMPTION RESERVICE TIME	

RING	1	2	3	4
FREE DURING PREEMPTION				

TIMING	WALK	PED CL	MIN GRN	YELLOW	RED
ENTRANCE TIMES					
MIN GREENS	MIN GRN	EXT GRN	MX GRN	YELLOW	RED
TRACK CLEARANCE TIMES					
MIN DL	MIN HL	PMT EXT	MX TM	YELLOW	RED
DWL/CYC-EXIT					

---PREEMPT ACTIVE OUTPUTS---

PREEMPT ACTIVE OUTPUT		PREEMPT ACTIVE OUTPUT IN DWELL	
OTHER PRIORITY PREEMPT OUTPUT		NON-PRIORITY PREEMPT OUTPUT	

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PREEMPT SUBMENU

4-2. ENABLE PREEMPT FILTERING / TSP / SCP

FILTERED INPUT	SOLID	PULSING
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

4-3. TSP / SCP PLAN

TSP / SCP PLAN	1	2	3	4	5	6
TSP / SCP ENABLE						
SIGNAL TYPE						
DET LOCK						
DELAY TIME						
MAX PRESENCE						
PREEMPT ENABLES RESERVICE						
NO DELAY IN TSP						
ACT SF INHIBIT						
RESERVICE CYCLES						

TSP OR SCP		FREE DEFAULT PATTERN	

TSP / SCP PHASE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
TSP / SCP1																
TSP / SCP2																
TSP / SCP3																
TSP / SCP4																
TSP / SCP5																
TSP / SCP6																

4-4. TSP / SCP SPLIT PATTERN

TSP / SCP SPLIT PATTERN								
IN EFFECT TIMING PLAN			SPL DM					
PHASE	1	2	3	4	5	6	7	8
TSP / SCP MAX RDTN								
MIN GREEN								
MAX EXTN								
PHASE	9	10	11	12	13	14	15	16
TSP / SCP MAX RDTN								
MIN GREEN								
MAX EXTN								

TSP / SCP SPLIT PATTERN								
IN EFFECT TIMING PLAN			SPL DM					
PHASE	1	2	3	4	5	6	7	8
TSP / SCP MAX RDTN								
MIN GREEN								
MAX EXTN								
PHASE	9	10	11	12	13	14	15	16
TSP / SCP MAX RDTN								
MIN GREEN								
MAX EXTN								

TSP / SCP SPLIT PATTERN								
IN EFFECT TIMING PLAN			SPL DM					
PHASE	1	2	3	4	5	6	7	8
TSP / SCP MAX RDTN								
MIN GREEN								
MAX EXTN								
PHASE	9	10	11	12	13	14	15	16
TSP / SCP MAX RDTN								
MIN GREEN								
MAX EXTN								

120 TSP / SCP SPLIT PATTERNS AVAIALBLE

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TIME BASE SUBMENU

5-1. CLOCK / CALENDAR DATA

DATE SET		TIME SET	
ENABLE MANUAL ACTION PLAN	0		
SYNC REFERENCE TIME	0:00	SYNC REFERENCE	REFERENCE TIME
STANDARD TIME FROM GMT	-8	DAYLIGHT SAVINGS	USDLS
TIME TO RESET INPUT SET TIME			03:30:00

5-2. ACTION PLAN

ACTION PLAN	1		
PATTERN	1	SYSTEM OVERRIDE	YES
TIMING PLAN	0	CONTROLLER SEQUENCE	0
VEHICLE DETECTOR PLAN	0	DETECTOR LOG	NONE
FLASH	NO	RED REST	NO
VEH DETECTOR DIAG PLAN	0	PED DETECTOR DIAG PLAN	0
DIMMING ENABLE	NO		

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PED RECALL																
WALK 2																
VEH EXT 2																
VEH RECALL																
MAX RECALL																
MAX 2																
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX 3																
COND SERV INHIBIT																
OMIT																
SPECIAL FUNCTION									(1-8)							
AUX FUNCTION				(1-3)												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15																
LP 16-30																
LP 31-45																
LP 46-60																
LP 61-75																
LP 76-90																
LP 91-100																

ACTION PLAN	2		
PATTERN	2	SYSTEM OVERRIDE	YES
TIMING PLAN	0	CONTROLLER SEQUENCE	0
VEHICLE DETECTOR PLAN	0	DETECTOR LOG	NONE
FLASH	NO	RED REST	NO
VEH DETECTOR DIAG PLAN	0	PED DETECTOR DIAG PLAN	0
DIMMING ENABLE	NO		

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PED RECALL																
WALK 2																
VEH EXT 2																
VEH RECALL																
MAX RECALL																
MAX 2																
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX 3																
COND SERV INHIBIT																
OMIT																
SPECIAL FUNCTION									(1-8)							
AUX FUNCTION				(1-3)												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15																
LP 16-30																
LP 31-45																
LP 46-60																
LP 61-75																
LP 76-90																
LP 91-100																

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TIME BASE SUBMENU

5-2. ACTION PLAN (CONTINUED)

ACTION PLAN	3		
PATTERN	3	SYSTEM OVERRIDE	YES
TIMING PLAN	0	CONTROLLER SEQUENCE	0
VEHICLE DETECTOR PLAN	0	DETECTOR LOG	NONE
FLASH	NO	RED REST	NO
VEH DETECTOR DIAG PLAN	0	PED DETECTOR DIAG PLAN	0
DIMMING ENABLE	NO		

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PED RECALL																
WALK 2																
VEH EXT 2																
VEH RECALL																
MAX RECALL																
MAX 2																
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX 3																
COND SERV INHIBIT																
OMIT																
SPECIAL FUNCTION									(1-8)							
AUX FUNCTION				(1-3)												

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15															
LP 16-30															
LP 31-45															
LP 46-60															
LP 61-75															
LP 76-90															
LP 91-100															

ACTION PLAN	4		
PATTERN	254	SYSTEM OVERRIDE	YES
TIMING PLAN	0	CONTROLLER SEQUENCE	0
VEHICLE DETECTOR PLAN	0	DETECTOR LOG	NONE
FLASH	NO	RED REST	NO
VEH DETECTOR DIAG PLAN	0	PED DETECTOR DIAG PLAN	0
DIMMING ENABLE	NO		

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PED RECALL																
WALK 2																
VEH EXT 2																
VEH RECALL																
MAX RECALL																
MAX 2																
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX 3																
COND SERV INHIBIT																
OMIT																
SPECIAL FUNCTION									(1-8)							
AUX FUNCTION				(1-3)												

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15															
LP 16-30															
LP 31-45															
LP 46-60															
LP 61-75															
LP 76-90															
LP 91-100															

ACTION PLAN	5		
PATTERN		SYSTEM OVERRIDE	
TIMING PLAN		CONTROLLER SEQUENCE	
VEHICLE DETECTOR PLAN		DETECTOR LOG	
FLASH		RED REST	
VEH DETECTOR DIAG PLAN		PED DETECTOR DIAG PLAN	
DIMMING ENABLE			

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PED RECALL																
WALK 2																
VEH EXT 2																
VEH RECALL																
MAX RECALL																
MAX 2																
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX 3																
COND SERV INHIBIT																
OMIT																
SPECIAL FUNCTION									(1-8)							
AUX FUNCTION				(1-3)												

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15															
LP 16-30															
LP 31-45															
LP 46-60															
LP 61-75															
LP 76-90															
LP 91-100															

ACTION PLAN	6		
PATTERN		SYSTEM OVERRIDE	
TIMING PLAN		CONTROLLER SEQUENCE	
VEHICLE DETECTOR PLAN		DETECTOR LOG	
FLASH		RED REST	
VEH DETECTOR DIAG PLAN		PED DETECTOR DIAG PLAN	
DIMMING ENABLE			

PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PED RECALL																
WALK 2																
VEH EXT 2																
VEH RECALL																
MAX RECALL																
MAX 2																
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX 3																
COND SERV INHIBIT																
OMIT																
SPECIAL FUNCTION									(1-8)							
AUX FUNCTION				(1-3)												

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15															
LP 16-30															
LP 31-45															
LP 46-60															
LP 61-75															
LP 76-90															
LP 91-100															

ASC/3

PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AV @ N. ARTESIA BL Date Prepared: 9-13-10 PD By: EJ

T.S. No.: 4158 Date Implemented: _____ By: _____

TIME BASE SUBMENU

5-3. DAY PLAN

DAY PLAN IN EFFECT		
DAY PLAN	1	
EVENT	ACTION PLAN	START TIME
1	4	00:00
2	2	06:00
3	1	09:00
4	3	15:00
5	1	18:30
6	4	21:00
7		
8		
9		
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DAY PLAN IN EFFECT		
DAY PLAN	2	
EVENT	ACTION PLAN	START TIME
1	4	"00:00
2		
3		
4		
5		
6		
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12		
13		
14		
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DAY PLAN IN EFFECT		
DAY PLAN	3	
EVENT	ACTION PLAN	START TIME
1		
2		
3		
4		
5		
6		
7		
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13		
14		
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LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
TRAFFIC AND LIGHTING DIVISION
TRAFFIC SIGNAL TIMING

ASC/3

PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AV @ N. ARTESIA BL   Date Prepared: 9-13-10 PD By: EJ

T.S. No.: 4158   Date Implemented: ________ By: ________

TIME BASE SUBMENU

5-4. SCHEDULE

SCHEDULE NUMBER	1
DAY PLAN NUMBER	1
CLEAR ALL FIELDS	
SELECT ALL: MONTHS	X
SELECT ALL: DOW	
SELECT ALL: DOM	X

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

DAY OF MONTH (DOM)											
	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

SCHEDULE NUMBER	2
DAY PLAN NUMBER	2
CLEAR ALL FIELDS	
SELECT ALL: MONTHS	X
SELECT ALL: DOW	
SELECT ALL: DOM	X

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						X

DAY OF MONTH (DOM)											
	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

SCHEDULE NUMBER	
DAY PLAN NUMBER	
CLEAR ALL FIELDS	
SELECT ALL: MONTHS	
SELECT ALL: DOW	
SELECT ALL: DOM	

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT

DAY OF MONTH (DOM)											
	1	2	3	4	5	6	7	8	9	10	11
	12	13	14	15	16	17	18	19	20	21	22
	23	24	25	26	27	28	29	30	31		

SCHEDULE NUMBER	
DAY PLAN NUMBER	
CLEAR ALL FIELDS	
SELECT ALL: MONTHS	
SELECT ALL: DOW	
SELECT ALL: DOM	

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT

DAY OF MONTH (DOM)											
	1	2	3	4	5	6	7	8	9	10	11
	12	13	14	15	16	17	18	19	20	21	22
	23	24	25	26	27	28	29	30	31		

SCHEDULE NUMBER	
DAY PLAN NUMBER	
CLEAR ALL FIELDS	
SELECT ALL: MONTHS	
SELECT ALL: DOW	
SELECT ALL: DOM	

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT

DAY OF MONTH (DOM)											
	1	2	3	4	5	6	7	8	9	10	11
	12	13	14	15	16	17	18	19	20	21	22
	23	24	25	26	27	28	29	30	31		

SCHEDULE NUMBER	
DAY PLAN NUMBER	
CLEAR ALL FIELDS	
SELECT ALL: MONTHS	
SELECT ALL: DOW	
SELECT ALL: DOM	

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

DAY OF WEEK (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT

DAY OF MONTH (DOM)											
	1	2	3	4	5	6	7	8	9	10	11
	12	13	14	15	16	17	18	19	20	21	22
	23	24	25	26	27	28	29	30	31		

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PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AV @ N. ARTESIA BL Date Prepared: 9-13-10 PP By: EI

T.S. No.: 4158 Date Implemented: _____ By: _____

TIME BASE SUBMENU

5-5. EXCEPTION DAY PROGRAM

EXCEPTION DAY	FLOAT / FIXED	MON / MON	DOW / DOM	WOM / YEAR	DAY PLAN
1	FIXED	1	1	0	2
2	FIXED	7	4	0	2
3	FIXED	44	11	0	2
4	FIXED	12	24	0	2
5	FIXED	12	25	0	2
6	FLOAT	1	2	3	2
7	FLOAT	2	2	3	2
8	FLOAT	5	2	5	2
9	FLOAT	9	2	1	2
10	FLOAT	11	5	4	2
11					
12					
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36					

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PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AV @ N. ARTESIA BL Date Prepared: 9-13-10 PD By: EJ

T.S. No.: 4158 Date Implemented: _____ By: _____

DETECTOR SUBMENU

6-1. VEHICLE DETECTOR PHASE ASSIGNMENT

VEHICLE DETECTOR PLAN NUMBER		1															
DETECTOR	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	X															
2	2		X														
3	2		X														
4	2		X														
5	2		X														
6	2		X														
7	4				X												
8	4				X												
9	6						X										
10	6						X										
11	6						X										
12	6						X										
13	0																
14	0																
15	0																
16	0																
17	0																
18	0																
19	0																
20	0																
21	0																
22	0																
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55	0																
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58	0																
59	0																
60	0																
61	0																
62	0																
63	0																
64	0																

FOUR VEHICLE DETECTOR PLANS AVAILABLE

ASC/3

PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AV @ N. ARTESIA BL Date Prepared: 9-13-10 PD By: EJ

T.S. No.: 4158 Date Implemented: _____ By: _____

DETECTOR SUBMENU

6-2. VEHICLE DETECTOR SETUP

DETECTOR NUMBER	1		
ECPI TYPE		TS2 DETECTOR	
VEH DETECTOR PLAN #	1	ECPI LOG	NO

DETECTOR	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		X															

EXTEND TIME	0	DELAY TIME	0
CALL OPTION	YES	PASSAGE OPTION	YES
ADDED OPTION	NO	X-SWITCH PHASE	0
QUEUE OPTION	NO	QUEUE LIMIT	0
NTCIP OCCUPANCY	NO	NTCIP VOLUME	NO
YELLOW LOCK	NO	RED LOCK	NO

DETECTOR NUMBER	2		
ECPI TYPE		TS2 DETECTOR	
VEH DETECTOR PLAN #	1	ECPI LOG	NO

DETECTOR	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			X														

EXTEND TIME	0	DELAY TIME	0
CALL OPTION	YES	PASSAGE OPTION	YES
ADDED OPTION	YES	X-SWITCH PHASE	0
QUEUE OPTION	NO	QUEUE LIMIT	0
NTCIP OCCUPANCY	NO	NTCIP VOLUME	NO
YELLOW LOCK	YES	RED LOCK	YES

DETECTOR NUMBER	3		
ECPI TYPE		TS2 DETECTOR	
VEH DETECTOR PLAN #	1	ECPI LOG	NO

DETECTOR	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			X														

EXTEND TIME	0	DELAY TIME	0
CALL OPTION	YES	PASSAGE OPTION	YES
ADDED OPTION	YES	X-SWITCH PHASE	0
QUEUE OPTION	NO	QUEUE LIMIT	0
NTCIP OCCUPANCY	NO	NTCIP VOLUME	NO
YELLOW LOCK	YES	RED LOCK	YES

DETECTOR NUMBER	4		
ECPI TYPE		TS2 DETECTOR	
VEH DETECTOR PLAN #	1	ECPI LOG	NO

DETECTOR	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			X														

EXTEND TIME	1.0	DELAY TIME	0
CALL OPTION	YES	PASSAGE OPTION	YES
ADDED OPTION	NO	X-SWITCH PHASE	0
QUEUE OPTION	YES	QUEUE LIMIT	25
NTCIP OCCUPANCY	NO	NTCIP VOLUME	NO
YELLOW LOCK	NO	RED LOCK	NO

DETECTOR NUMBER	5		
ECPI TYPE		TS2 DETECTOR	
VEH DETECTOR PLAN #	1	ECPI LOG	NO

DETECTOR	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			X														

EXTEND TIME	1.0	DELAY TIME	0
CALL OPTION	YES	PASSAGE OPTION	YES
ADDED OPTION	NO	X-SWITCH PHASE	0
QUEUE OPTION	YES	QUEUE LIMIT	25
NTCIP OCCUPANCY	NO	NTCIP VOLUME	NO
YELLOW LOCK	NO	RED LOCK	NO

DETECTOR NUMBER	6		
ECPI TYPE		TS2 DETECTOR	
VEH DETECTOR PLAN #	1	ECPI LOG	NO

DETECTOR	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			X														

EXTEND TIME	1.0	DELAY TIME	0
CALL OPTION	YES	PASSAGE OPTION	YES
ADDED OPTION	NO	X-SWITCH PHASE	0
QUEUE OPTION	YES	QUEUE LIMIT	25
NTCIP OCCUPANCY	NO	NTCIP VOLUME	NO
YELLOW LOCK	NO	RED LOCK	NO

DETECTOR NUMBER	7		
ECPI TYPE		TS2 DETECTOR	
VEH DETECTOR PLAN #	1	ECPI LOG	NO

DETECTOR	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
					X												

EXTEND TIME	0	DELAY TIME	0
CALL OPTION	YES	PASSAGE OPTION	YES
ADDED OPTION	YES	X-SWITCH PHASE	0
QUEUE OPTION	NO	QUEUE LIMIT	0
NTCIP OCCUPANCY	NO	NTCIP VOLUME	NO
YELLOW LOCK	YES	RED LOCK	YES

DETECTOR NUMBER	8		
ECPI TYPE		TS2 DETECTOR	
VEH DETECTOR PLAN #	1	ECPI LOG	NO

DETECTOR	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
					X												

EXTEND TIME	2.0	DELAY TIME	0
CALL OPTION	YES	PASSAGE OPTION	YES
ADDED OPTION	NO	X-SWITCH PHASE	0
QUEUE OPTION	YES	QUEUE LIMIT	20
NTCIP OCCUPANCY	NO	NTCIP VOLUME	NO
YELLOW LOCK	NO	RED LOCK	NO

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PROGRAM REFERENCE CARD

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DETECTOR SUBMENU

6-2. VEHICLE DETECTOR SETUP

DETECTOR NUMBER	9		
ECPI TYPE		TS2 DETECTOR	
VEH DETECTOR PLAN #	1	ECPI LOG	NO

DETECTOR	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
							X										

EXTEND TIME	0	DELAY TIME	0
CALL OPTION	YES	PASSAGE OPTION	YES
ADDED OPTION	YES	X-SWITCH PHASE	0
QUEUE OPTION	NO	QUEUE LIMIT	0
NTCIP OCCUPANCY	NO	NTCIP VOLUME	NO
YELLOW LOCK	YES	RED LOCK	YES

DETECTOR NUMBER	13		
ECPI TYPE		TS2 DETECTOR	
VEH DETECTOR PLAN #		ECPI LOG	

DETECTOR	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

EXTEND TIME		DELAY TIME	
CALL OPTION		PASSAGE OPTION	
ADDED OPTION		X-SWITCH PHASE	
QUEUE OPTION		QUEUE LIMIT	
NTCIP OCCUPANCY		NTCIP VOLUME	
YELLOW LOCK		RED LOCK	

DETECTOR NUMBER	10		
ECPI TYPE		TS2 DETECTOR	
VEH DETECTOR PLAN #	1	ECPI LOG	NO

DETECTOR	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
							X										

EXTEND TIME	0	DELAY TIME	0
CALL OPTION	YES	PASSAGE OPTION	YES
ADDED OPTION	YES	X-SWITCH PHASE	0
QUEUE OPTION	NO	QUEUE LIMIT	0
NTCIP OCCUPANCY	NO	NTCIP VOLUME	NO
YELLOW LOCK	YES	RED LOCK	YES

DETECTOR NUMBER	14		
ECPI TYPE		TS2 DETECTOR	
VEH DETECTOR PLAN #		ECPI LOG	

DETECTOR	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

EXTEND TIME		DELAY TIME	
CALL OPTION		PASSAGE OPTION	
ADDED OPTION		X-SWITCH PHASE	
QUEUE OPTION		QUEUE LIMIT	
NTCIP OCCUPANCY		NTCIP VOLUME	
YELLOW LOCK		RED LOCK	

DETECTOR NUMBER	11		
ECPI TYPE		TS2 DETECTOR	
VEH DETECTOR PLAN #	1	ECPI LOG	NO

DETECTOR	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
							X										

EXTEND TIME	1.0	DELAY TIME	0
CALL OPTION	YES	PASSAGE OPTION	YES
ADDED OPTION	NO	X-SWITCH PHASE	0
QUEUE OPTION	YES	QUEUE LIMIT	25
NTCIP OCCUPANCY	NO	NTCIP VOLUME	NO
YELLOW LOCK	NO	RED LOCK	NO

DETECTOR NUMBER	15		
ECPI TYPE		TS2 DETECTOR	
VEH DETECTOR PLAN #		ECPI LOG	

DETECTOR	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

EXTEND TIME		DELAY TIME	
CALL OPTION		PASSAGE OPTION	
ADDED OPTION		X-SWITCH PHASE	
QUEUE OPTION		QUEUE LIMIT	
NTCIP OCCUPANCY		NTCIP VOLUME	
YELLOW LOCK		RED LOCK	

DETECTOR NUMBER	12		
ECPI TYPE		TS2 DETECTOR	
VEH DETECTOR PLAN #	1	ECPI LOG	NO

DETECTOR	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
							X										

EXTEND TIME	1.0	DELAY TIME	0
CALL OPTION	YES	PASSAGE OPTION	YES
ADDED OPTION	NO	X-SWITCH PHASE	0
QUEUE OPTION	YES	QUEUE LIMIT	25
NTCIP OCCUPANCY	NO	NTCIP VOLUME	NO
YELLOW LOCK	NO	RED LOCK	NO

DETECTOR NUMBER	16		
ECPI TYPE		TS2 DETECTOR	
VEH DETECTOR PLAN #		ECPI LOG	

DETECTOR	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

EXTEND TIME		DELAY TIME	
CALL OPTION		PASSAGE OPTION	
ADDED OPTION		X-SWITCH PHASE	
QUEUE OPTION		QUEUE LIMIT	
NTCIP OCCUPANCY		NTCIP VOLUME	
YELLOW LOCK		RED LOCK	

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PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AV @ N. ARTESIA BL Date Prepared: 9-13-10 PD By: EJ

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DETECTOR SUBMENU

6-3. PED DETECTOR INPUT ASSIGNMENTS

DETECTOR INPUT TO PED PHASE ASSIGNMENT								
PHASE	1	2	3	4	5	6	7	8
INPUT		2		4		6		
PHASE	9	10	11	12	13	14	15	16
INPUT								

6-4. LOG - SPEED DETECTOR SETUP

NTCIP LOG PERIOD		ECPI LOG PERIOD		LENGTH UNIT	

SPEED DET	1	2	3	4	5	6	7	8
LOCAL DET								
ONE / TWO DET								
VEHICLE LENGTH								
TRAP LENGTH								
ENABLE LOG								

SPEED DET	9	10	11	12	13	14	15	16
LOCAL DET								
ONE / TWO DET								
VEHICLE LENGTH								
TRAP LENGTH								
ENABLE LOG								

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PROGRAM REFERENCE CARD

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T.S. No.: 4158 Date Implemented: _____ By: _____

DETECTOR SUBMENU

6-5. VEHICLE DETECTOR DIAGNOSTICS

VEHICLE DIAGNOSTIC PLAN NUMBER					FAILED								FAILED	
DETECTOR	COUNTS	ACT	PRES	MULTIPLIER	TIME	CL DELAY	DETECTOR	COUNTS	ACT	PRES	MULTIPLIER	TIME	CL DELAY
1							33						
2							34						
3							35						
4							36						
5							37						
6							38						
7							39						
8							40						
9							41						
10							42						
11							43						
12							44						
13							45						
14							46						
15							47						
16							48						
17							49						
18							50						
19							51						
20							52						
21							53						
22							54						
23							55						
24							56						
25							57						
26							58						
27							59						
28							60						
29							61						
30							62						
31							63						
32							64						

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
TRAFFIC AND LIGHTING DIVISION
TRAFFIC SIGNAL TIMING

ASC/3

PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AV @ N. ARTESIA BL Date Prepared: 9-13-10 PD By: EI

T.S. No.: 4158 Date Implemented: _____ By: _____

DETECTOR SUBMENU

6-6. PEDESTRIAN DETECTOR DIAGNOSTICS

PEDESTRIAN DIAGNOSTIC PLAN NUMBER				1
DETECTOR	COUNTS	ACT	PRES	MULTIPLIER
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

PEDESTRIAN DIAGNOSTIC PLAN NUMBER				3
DETECTOR	COUNTS	ACT	PRES	MULTIPLIER
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

PEDESTRIAN DIAGNOSTIC PLAN NUMBER				2
DETECTOR	COUNTS	ACT	PRES	MULTIPLIER
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

PEDESTRIAN DIAGNOSTIC PLAN NUMBER				4
DETECTOR	COUNTS	ACT	PRES	MULTIPLIER
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

LOS ANGELES COUNTY
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PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AV @ N. ARTESIA BL Date Prepared: 9-13-10 PD By: EJ

T.S. No.: 4158 Date Implemented: _____ By: _____

DETECTOR ASSIGNMENT SUMMARY WORKSHEET

(INFORMATION ONLY WORKSHEET)

APPR	LANE(S)	DESCRIPTION	DESIGNATION	DETECTOR NUMBER	DETECTOR TYPE	ASSIGNED PHASE(S)	DELAY TIME	EXTEND TIME	QUEUE LIMIT TIME
S	LT	H - 6'X50'	1-S-Ø1	1	0	1			
N	1	A - 6'X6'	1-N-Ø2	2	0	2			
N	2	A - 6'X6'	2-N-Ø2	3	0	2			
N	1	Q - 6'X50'	3-N-Ø2	4	5	2		1.0	25
N	2	Q - 6'X50'	4-N-Ø2	5	5	2		1.0	25
N	3	Q - 6'X50'	5-N-Ø2	6	5	2		1.0	25
E	ALL	A - 3 - 6'X6'	1-E-Ø4	7	0	4			
E	ALL	Q - 6 - 6'X6'	2-E-Ø4	8	5	4		2.0	20
S	1	A - 6'X6'	1-S-Ø6	9	0	6			
S	2	A - 6'X6'	2-S-Ø6	10	0	6			
S	1	Q - 6'X50'	3-S-Ø6	11	5	6		1.0	25
S	2	Q - 6'X50'	4-S-Ø6	12	5	6		1.0	25
				13					
				14					
				15					
				16					
				17					
				18					
				19					
				20					
				21					
				22					
				23					
				24					
				25					
				26					
				27					
				28					
				29					
				30					
				31					
				32					

COMMENTS:

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
TRAFFIC AND LIGHTING DIVISION
TRAFFIC SIGNAL TIMING

ASC/2

PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AVE @ ALBERTONI ST/S. ARTESIA BL Date Prepared: 9-14-10 PD By: [illegible]

T.S. No.: 4159 Date Implemented: _____ By: _____

1. CONFIGURATION SUBMENU

1. CONTROLLER SEQUENCE

PRIORITY	1	2	3	4	5	6	7	8	9	10	11	12
RING 1	1	2	3	4	9	10						
RING 2	5	6	7	8	11	12						
CG (CONCURRENT GROUPS)		X		X								

2. PHASES IN USE

	PHASE NUMBER											
	1	2	3	4	5	6	7	8	9	10	11	12
PHASES IN USE	X	X		X		X						
EXCLUSIVE PED												

3. PHASE TO LOAD SWITCH (MMU) ASSIGNMENT

LOAD SWITCH (MMU)	SIGNAL DRIVER GROUP		LOAD SWITCH (MMU)	SIGNAL DRIVER GROUP	
CHANNEL	PHASE/OVLP	PED	CHANNEL	PHASE/OVLP	PED
1	1		9	2	X
2	2		10	4	X
3			11	6	X
4	4		12		
5			13		
6	6		14		
7			15		
8			16		

4. SDLC OPTIONS/ENABLES

	BIU NUMBER							
	1	2	3	4	5	6	7	8
TERM & FACIL								
DETECTOR RACK	X							
TYPE 2 RUNS AS TYPE 1								
MMU DISABLE								X
DIAGNOSTIC ENABLE (TEST FIXTURE)								
PEER TO PEER ENABLE								
PEER TO PEER ADDRESS:								
1)		2)		3)		4)		5)	
6)		7)		8)		9)		10)	

5. PORT 2 CONFIGURATION

PORT 2 PROTOCOL	Terminal
PORT 2 ENABLE	YES
AB3418 ADDRESS	0
AB3418 GROUP ADDRESS	0
AB3418 RESPONSE DELAY	0
AB3418 SINGLE FLAG ENABLE	NO
AB3418 DROP-OUT TIME	0
AB3418 TOD SF SELECT	0
DATA RATE (BPS)	1200 bps
DATA, PARITY, STOP	8,0,1

6. PORT 3 CONFIGURATION

PORT 3 PROTOCOL	Telemetry
PORT 3 ENABLE	NO
TELEMETRY ADDRESS	0
SYSTEM DETECTOR 9-16 ADDRESS	0
TELEMETRY RESPONSE DELAY	8000
AB3418 ADDRESS	0
AB3418 GROUP ADDRESS	0
AB3418 RESPONSE DELAY	0
AB3418 SINGLE FLAG ENABLE	NO
AB3418 DROP-OUT TIME	0
AB3418 TOD SF SELECT	0
DUPLEX -- HALF OR FULL	FULL
MODEM DATA RATE (BPS)	1200 bps
DATA, PARITY, STOP	8,0,1

8. UTILITIES SUBMENU

5. SIGN ON

SOFTWARE ASSY		VERSION
BOOT	32783	1.23
MAIN PROGRAM	32787	1.56
HELP	32789	1.47
CONFIGURATION	32790	C8022

ASC/2

PROGRAM REFERENCE CARD

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T.S. No.: 4159 Date Implemented: _____ By: _____

1. CONFIGURATION SUBMENU (Continued)

7. ENABLE EVENT LOGS

CRITICAL RFE'S (MMU/TF)	X
NON-CRITICAL RFE'S(DET/TEST)	X
DETECTOR ERRORS	X
COORDINATION ERRORS	X
MMU FLASH FAULTS	X
LOCAL FLASH FAULTS	X
PREEMPT	
POWER ON/OFF	X
LOW BATTERY	X
SPARE	
ALARM 1	X
ALARM 2	
ALARM 3	
ALARM 4	
ALARM 5	
ALARM 6	
ALARM 7	
ALARM 8	
ALARM 9	
ALARM 10	
ALARM 11	
ALARM 12	
ALARM 13	
ALARM 14	
ALARM 15	
ALARM 16	

8. OPTIONS

SUPERVISOR ACCESS CODE	
DATA CHANGE ACCESS CODE	
KEY CLICK ENABLE	YES
BACKLIGHT ENABLE	YES

9. MMU PROGRAM CAN SERVE WITH

PHASE	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1															
2															■
3														■	■
4													■	■	■
5												■	■	■	■
6											■	■	■	■	■
7										■	■	■	■	■	■
8									■	■	■	■	■	■	■
9								■	■	■	■	■	■	■	■
10							■	■	■	■	■	■	■	■	■
11						■	■	■	■	■	■	■	■	■	■
12					■	■	■	■	■	■	■	■	■	■	■
13				■	■	■	■	■	■	■	■	■	■	■	■
14			■	■	■	■	■	■	■	■	■	■	■	■	■
15		■	■	■	■	■	■	■	■	■	■	■	■	■	■

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
TRAFFIC AND LIGHTING DIVISION
TRAFFIC SIGNAL TIMING

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PROGRAM REFERENCE CARD

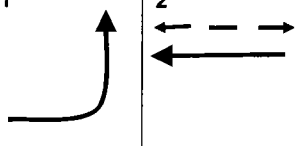
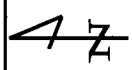
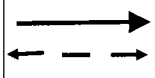
INTERSECTION: CENTRAL AVE @ ALBERTONI ST/S. ARTESIA BL Date Prepared: 9-14-10 PD By: EJ

T.S. No.: 4159 Date Implemented: _____ By: _____

2. CONTROLLER SUBMENU

1. CONTROLLER TIMING DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MIN GREEN	4	10		4		10						
BIKE GREEN	0	0		0		0						
CS MIN GREEN	0	0		0		0						
WALK	0	7		7		7						
PED CLEAR	0	10		22		10						
VEH EXT	2.0	4.0		4.0		4.0						
VEH EXT 2	0.0	0.0		0.0		0.0						
MAX EXT	0	0		0		0						
MAX 1	20	50		30		50						
MAX 2	20	100		30		100						
MAX 3	0	0		0		0						
DET MAX	0	0		0		0						
YELLOW	4.0	4.0		4.5		4.0						
RED CLEAR	1.0	1.0		1.0		1.0						
RED REVERT	2.0	2.0		2.0		2.0						
ACT B4	0	0		0		0						
SEC/ACT	0.0	2.2		2.2		2.2						
MAX INITIAL	0	25		20		25						
TIME B4 REDUCTION	0	15		15		15						
CARS WT	0	255		255		255						
TIME TO REDUCE	0	15		15		15						
MIN GAP	2.0	3.0		3.0		3.0						

True North	1	2	3	4	9	10
						
Phase North	**5**	**6**	**7**	**8**	**11**	**12**
						

COMMENTS:

ASC/2

PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AVE @ ALBERTONI ST/S. ARTESIA BL Date Prepared: 9-14-10 PD By: EI

T.S. No.: 4159 Date Implemented: _____ By: _____

2. CONTROLLER SUBMENU (Continued)

2. PHASE OVERLAP ASSIGNMENTS

OVERLAP CONSISTS OF PHASES:												
OVLP PHASE	1	2	3	4	5	6	7	8	9	10	11	12
1	X											
2		X										
3			X									
4				X								
5					X							
6						X						
7							X					
8								X				
9									X			
10										X		
11											X	
12												X

3. PED TIMING CARRYOVER

PHASE	CARRYOVER PHASE	PHASE	CARRYOVER PHASE
1		7	
2		8	
3		9	
4		10	
5		11	
6		12	

4. CONTROLLER RECALL DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
LOCKING MEMORY		X		X		X						
VEH RECALL		X				X						
PED RECALL												
RECALL TO MAX												
SOFT RECALL												
DON'T REST HERE												
PED DARK N/CALL												

ASC/2

PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AVE @ ALBERTONI ST/S. ARTESIA BL Date Prepared: 9-14-10 PD By: EJ

T.S. No.: 4159 Date Implemented: _____ By: _____

2. CONTROLLER SUBMENU (Continued)

5. CONTROLLER OVERLAP DATA

OVERLAP A	1	2	3	4	5	6	7	8	9	10	11	12
STANDARD												
PROTECTED												
PERMITTED												
ENABLE LAG												
ENABLE LEAD												
SPARE												
ADVANCE GREEN												
LAG/LEAD GREEN												
LAG/LEAD YELLOW												
LAG/LEAD RED TIMER												

OVERLAP B	1	2	3	4	5	6	7	8	9	10	11	12
STANDARD												
PROTECTED												
PERMITTED												
ENABLE LAG												
ENABLE LEAD												
SPARE												
ADVANCE GREEN												
LAG/LEAD GREEN												
LAG/LEAD YELLOW												
LAG/LEAD RED TIMER												

OVERLAP C	1	2	3	4	5	6	7	8	9	10	11	12
STANDARD												
PROTECTED												
PERMITTED												
ENABLE LAG												
ENABLE LEAD												
SPARE												
ADVANCE GREEN												
LAG/LEAD GREEN												
LAG/LEAD YELLOW												
LAG/LEAD RED TIMER												

OVERLAP D	1	2	3	4	5	6	7	8	9	10	11	12
STANDARD												
PROTECTED												
PERMITTED												
ENABLE LAG												
ENABLE LEAD												
SPARE												
ADVANCE GREEN												
LAG/LEAD GREEN												
LAG/LEAD YELLOW												
LAG/LEAD RED TIMER												

PED OVERLAP ASSIGNMENTS OVERLAP CONSISTS OF PHASES:												
OVLP PHASE	1	2	3	4	5	6	7	8	9	10	11	12
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
TRAFFIC AND LIGHTING DIVISION
TRAFFIC SIGNAL TIMING

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PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AVE @ ALBERTONI ST/S. ARTESIA BL Date Prepared: 9-14-10 PD By: EJ

T.S. No.: 4159 Date Implemented: _____ By: _____

2. CONTROLLER SUBMENU (Continued)

6. CONTROLLER START/FLASH DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
POWER START		X				X						
EXTERNAL START		X				X						
ENTRY REM FLASH												
EXIT REM FLASH												
REM FLASH YELLOW												
FL TOGETHER PHS												
FL TOGETHER OVLPS	A			B			C			D		

POWER START	YELLOW
EXTERNAL START	YELLOW
POWER START ALL RED TIME	6
POWER START FLASH TIME	0
REMOTE FLASH OPTIONS:	
OUT OF FLASH YELLOW	
OUT OF FLASH ALL RED	
MINIMUM RECALL	
SPARE	
FLASH THRU LOAD SWITCHES	
CYCLE THROUGH PHASES	

7. NO SERVE PHASE

PHASE	12	11	10	9	8	7	6	5	4	3	2
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											

8. DIMMING

LOAD SWITCH	1	2	3	4	5	6	7	8
DIM GRN/WALK								
DIM YEL/PC								
DIM RED/DW								
LOAD SWITCH	9	10	11	12	13	14	15	16
DIM GRN/WALK								
DIM YEL/PC								
DIM RED/DW								

9. CONTROLLER OPTION DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
GUAR PASSAGE												
NON ACTUATED I												
NON ACTUATED II												
DUAL ENTRY												
COND SERVICE												
COND RESERVICE												
REST IN WALK												
FLASHING WALK												

FIVE SECTION LEFT TURN HEADS (SPECIAL PROGRAM OPTION FOR STATE OF ILLINOIS)					
5 - 2		7 - 4		1 - 6	
3 - 8		11 - 10		9 - 12	

DUAL ENTRY		RESERVED	
COND SERVICE ENABLE		BACKUP PROTECTION GROUP 1	
COND SERVICE DET X SWITCHING		BACKUP PROTECTION GROUP 2	
PED CLEAR PROTECT		BACKUP PROTECTION GROUP 3	
SPEC PREEMPT OVLP FLASH		SIMULTANEOUS GAP GROUP 1	ON
LOCK DETECTORS IN RED ONLY		SIMULTANEOUS GAP GROUP 2	ON
RESERVED		SIMULTANEOUS GAP GROUP 3	

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PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AVE @ ALBERTONI ST/S. ARTESIA BL Date Prepared: 9-14-10 PD By: [illegible]

T.S. No.: 4159 Date Implemented: _____ By: _____

3. COORDINATOR SUBMENU

TIME OF DAY OPERATION SUMMARY					
PLAN 1	0900-1500; 1830-2100 M-F	PLAN 4		PLAN 7	
PLAN 2	0600 - 0900 M - F	PLAN 5		PLAN 8	
PLAN 3	1500 - 1830 M - F	PLAN 6		PLAN 9	
FREE	ALL OTHER TIMES				

1. COORDINATOR OPTIONS

SPLIT UNITS	SEC	ACTUATED COORD PHASE(S)	X
OFFSET UNITS	SEC	ACTUATED WALK/REST	
INTERCONNECT FORMAT	STD	INHIBIT MAX	
INTERCONNECT SOURCE	NIC	MAX 2 SELECT	X
RESYNC COUNT	255	MULTISYNC	
TRANSITION	SMOOTH	FLOAT FORCE OFF	
DWELL PERIOD	255		

FREE ALTERNATE SEQUENCE	A		B		C		D		E		F	

2. COORD MANUAL AND SPLIT DEMAND

MANUAL ENABLE	OFF				MANUAL PATTERN				0			
SPLIT DEMAND:					DEMAND 1				DEMAND 2			
DEMAND CALL TIME												
DEMAND CYCLE COUNT												
DEMAND PHASE	1	2	3	4	5	6	7	8	9	10	11	12
DEMAND 1 PHASE												
DEMAND 2 PHASE												

3. COORD AUTO PERM MIN GREEN

PHASE	AUTO PERM MIN GREEN	PHASE	AUTO PERM MIN GRN
1		7	
2	10	8	
3		9	
4	4	10	
5		11	
6	10	12	

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
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PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AVE @ ALBERTONI ST/S. ARTESIA BL

Date Prepared: 9-14-10 PD By: [illegible]

T.S. No.: 4159

Date Implemented: _____ By: _____

3. COORDINATION SUBMENU (Continued)

4. PATTERN DATA

-OFF

COORD PATTERN	1		
CYCLE LENGTH	90	C/O/S	111
OFFSET	5		

SPLITS												
PHASE 1	19	PHASE 2	36	PHASE 3		PHASE 4	35					
PHASE 5		PHASE 6	36	PHASE 7		PHASE 8						
PHASE 9		PHASE 10		PHASE 11		PHASE 12						
VEH PERMISSIVE	[1]			[2]								
VEH PERM 2 DISP												
PHASE RESERVICE												
SPLIT EXTENSION/RING	[1]	0		[2]	0							
SPL DMD PATTERN	[1]			[2]								
XARTERY PATTERN												

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES		X				X						
VEHICLE RECALL		X				X						
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												

	A	B	C	D	E	F
ALTERNATE SEQUENCE						

-AM

COORD PATTERN	2		
CYCLE LENGTH	90	C/O/S	211
OFFSET	1		

SPLITS												
PHASE 1	19	PHASE 2	33	PHASE 3		PHASE 4	38					
PHASE 5		PHASE 6	33	PHASE 7		PHASE 8						
PHASE 9		PHASE 10		PHASE 11		PHASE 12						
VEH PERMISSIVE	[1]			[2]								
VEH PERM 2 DISP												
PHASE RESERVICE												
SPLIT EXTENSION/RING	[1]	0		[2]	0							
SPL DMD PATTERN	[1]			[2]								
XARTERY PATTERN												

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES		X				X						
VEHICLE RECALL		X				X						
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												

	A	B	C	D	E	F
ALTERNATE SEQUENCE						

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PROGRAM REFERENCE CARD

INTERSECTION: CENTRAL AVE @ ALBERTONI ST/S. ARTESIA BL

Date Prepared: 9-14-10 AD By: [illegible]

T.S. No.: 4159

Date Implemented: _____ By: _____

3. COORDINATION SUBMENU (Continued)

4. PATTERN DATA (Continued)

-PM

COORD PATTERN	3		
CYCLE LENGTH	90	C/O/S	311
OFFSET	33		

SPLITS							
PHASE 1	17	PHASE 2	29	PHASE 3		PHASE 4	44
PHASE 5		PHASE 6	29	PHASE 7		PHASE 8	
PHASE 9		PHASE 10		PHASE 11		PHASE 12	
VEH PERMISSIVE	[1]			[2]			
VEH PERM 2 DISP							
PHASE RESERVICE							
SPLIT EXTENSION/RING	[1]	0		[2]	0		
SPL DMD PATTERN	[1]			[2]			
XARTERY PATTERN							

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES		X				X						
VEHICLE RECALL		X				X						
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												

	A	B	C	D	E	F
ALTERNATE SEQUENCE						

COORD PATTERN							
CYCLE LENGTH		C/O/S					
OFFSET							

SPLITS							
PHASE 1		PHASE 2		PHASE 3		PHASE 4	
PHASE 5		PHASE 6		PHASE 7		PHASE 8	
PHASE 9		PHASE 10		PHASE 11		PHASE 12	
VEH PERMISSIVE	[1]			[2]			
VEH PERM 2 DISP							
PHASE RESERVICE							
SPLIT EXTENSION/RING	[1]			[2]			
SPL DMD PATTERN	[1]			[2]			
XARTERY PATTERN							

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES												
VEHICLE RECALL												
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												

	A	B	C	D	E	F
ALTERNATE SEQUENCE						

Up to 64 Coordination Plans Available.

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
TRAFFIC AND LIGHTING DIVISION
TRAFFIC SIGNAL TIMING

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INTERSECTION: CENTRAL AVE @ ALBERTONI ST/S. ARTESIA BL Date Prepared: 4-14-10 PD By: EJ

T.S. No.: 4159 Date Implemented: _____ By: _____

4. PREEMPTOR SUBMENU

1. PRIORITY PREEMPTOR 1

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
TERM PHASE OVLP												
TRK CLR PHASE												
HOLD PHASES												
EXIT PHASES												
EXIT CALLS												
SPARE												
TERM OVERLAP	A			B			C			D		

ACTIVE		PED DARK	
PRIORITY		PED ACTIVE	
DET LOCK		ZERO PC TIME	
HOLD FLASH		PC THRU YELLOW	
TERM OVLP ASAP		TERM PHASES	
DON'T OVERRIDE FLASH		ACTIVE ONLY DURING HOLD	
FLASH ALL OUTPUTS		NO CVM IN FLASH	
YELLOW-RED GOES GREEN		FAST FLASH GRN ON HOLD	
ENABLE MAX PREEMPT TIME		OUT OF FLASH	

MAX TIME		DURATION TIME	
MIN HOLD TIME		DELAY TIME	
MIN PED CLEAR		INHIBIT TIME	
EXIT MAX		HOLD DELAY TIME	

	GREEN	YELLOW	RED
MINIMUM			
TRACK CLEAR			
HOLD			

3. PRIORITY PREEMPTOR 3

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
TERM PHASE OVLP												
TRK CLR PHASE												
HOLD PHASES												
EXIT PHASES												
EXIT CALLS												
SPARE												
TERM OVERLAP	A			B			C			D		

ACTIVE		PED DARK	
PRIORITY		PED ACTIVE	
DET LOCK		ZERO PC TIME	
HOLD FLASH		PC THRU YELLOW	
TERM OVLP ASAP		TERM PHASES	
DON'T OVERRIDE FLASH		ACTIVE ONLY DURING HOLD	
FLASH ALL OUTPUTS		NO CVM IN FLASH	
YELLOW-RED GOES GREEN		FAST FLASH GRN ON HOLD	
ENABLE MAX PREEMPT TIME		OUT OF FLASH	

MAX TIME		DURATION TIME	
MIN HOLD TIME		DELAY TIME	
MIN PED CLEAR		INHIBIT TIME	
EXIT MAX		HOLD DELAY TIME	

	GREEN	YELLOW	RED
MINIMUM			
TRACK CLEAR			
HOLD			
LINKED PREEMPTOR			

2. PRIORITY PREEMPTOR 2

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
TERM PHASE OVLP												
TRK CLR PHASE												
HOLD PHASES												
EXIT PHASES												
EXIT CALLS												
SPARE												
TERM OVERLAP	A			B			C			D		

ACTIVE		PED DARK	
PRIORITY		PED ACTIVE	
DET LOCK		ZERO PC TIME	
HOLD FLASH		PC THRU YELLOW	
TERM OVLP ASAP		TERM PHASES	
DON'T OVERRIDE FLASH		ACTIVE ONLY DURING HOLD	
FLASH ALL OUTPUTS		NO CVM IN FLASH	
YELLOW-RED GOES GREEN		FAST FLASH GRN ON HOLD	
ENABLE MAX PREEMPT TIME		OUT OF FLASH	

MAX TIME		DURATION TIME	
MIN HOLD TIME		DELAY TIME	
MIN PED CLEAR		INHIBIT TIME	
EXIT MAX		HOLD DELAY TIME	

	GREEN	YELLOW	RED
MINIMUM			
TRACK CLEAR			
HOLD			
LINKED PREEMPTOR			

4. PRIORITY PREEMPTOR 4

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
TERM PHASE OVLP												
TRK CLR PHASE												
HOLD PHASES												
EXIT PHASES												
EXIT CALLS												
SPARE												
TERM OVERLAP	A			B			C			D		

ACTIVE		PED DARK	
PRIORITY		PED ACTIVE	
DET LOCK		ZERO PC TIME	
HOLD FLASH		PC THRU YELLOW	
TERM OVLP ASAP		TERM PHASES	
DON'T OVERRIDE FLASH		ACTIVE ONLY DURING HOLD	
FLASH ALL OUTPUTS		NO CVM IN FLASH	
YELLOW-RED GOES GREEN		FAST FLASH GRN ON HOLD	
ENABLE MAX PREEMPT TIME		OUT OF FLASH	

MAX TIME		DURATION TIME	
MIN HOLD TIME		DELAY TIME	
MIN PED CLEAR		INHIBIT TIME	
EXIT MAX		HOLD DELAY TIME	

	GREEN	YELLOW	RED
MINIMUM			
TRACK CLEAR			
HOLD			
LINKED PREEMPTOR			

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4. PREEMPTOR SUBMENU (Continued)

5. PRIORITY PREEMPTOR 5

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
TERM PHASE OVLP												
TRK CLR PHASE												
HOLD PHASES												
EXIT PHASES												
EXIT CALLS												
SPARE												
TERM OVERLAP	A			B			C			D		

ACTIVE		PED DARK	
PRIORITY		PED ACTIVE	
DET LOCK		ZERO PC TIME	
HOLD FLASH		PC THRU YELLOW	
TERM OVLP ASAP		TERM PHASES	
DON'T OVERRIDE FLASH		ACTIVE ONLY DURING HOLD	
FLASH ALL OUTPUTS		NO CVM IN FLASH	
YELLOW-RED GOES GREEN		FAST FLASH GRN ON HOLD	
ENABLE MAX PREEMPT TIME		OUT OF FLASH	
MAX TIME		DURATION TIME	
MIN HOLD TIME		DELAY TIME	
MIN PED CLEAR		INHIBIT TIME	
EXIT MAX		HOLD DELAY TIME	

	GREEN	YELLOW	RED
MINIMUM			
TRACK CLEAR			
HOLD			
LINKED PREEMPTOR			

6. PRIORITY PREEMPTOR 6

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
TERM PHASE OVLP												
TRK CLR PHASE												
HOLD PHASES												
EXIT PHASES												
EXIT CALLS												
SPARE												
TERM OVERLAP	A			B			C			D		

ACTIVE		PED DARK	
PRIORITY		PED ACTIVE	
DET LOCK		ZERO PC TIME	
HOLD FLASH		PC THRU YELLOW	
TERM OVLP ASAP		TERM PHASES	
DON'T OVERRIDE FLASH		ACTIVE ONLY DURING HOLD	
FLASH ALL OUTPUTS		NO CVM IN FLASH	
YELLOW-RED GOES GREEN		FAST FLASH GRN ON HOLD	
ENABLE MAX PREEMPT TIME		OUT OF FLASH	
MAX TIME		DURATION TIME	
MIN HOLD TIME		DELAY TIME	
MIN PED CLEAR		INHIBIT TIME	
EXIT MAX		HOLD DELAY TIME	

	GREEN	YELLOW	RED
MINIMUM			
TRACK CLEAR			
HOLD			
LINKED PREEMPTOR			

7. BUS PREEMPTORS

	BUS PREEMPTOR 1	2	3	4
PREEMPTOR ACTIVE				
DETECTOR LOCK				
MAXIMUM TIME				
RESERVICE TIME				
DELAY TIME				
INHIBIT TIME				
ENTRANCE GREEN				
ENTRANCE PED CLEAR				
ENTRANCE YELLOW				
ENTRANCE RED				
MIN HOLD TIME				

	HOLD PHASE 1	2	3	4	5	6	7	8	9	10	11	12
PREEMPTOR 1												
PREEMPTOR 2												
PREEMPTOR 3												
PREEMPTOR 4												

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5. NIC/TOD SUBMENU

1. NIC/TOD CLOCK/CALENDAR DATA

DATE SET	
TIME SET	
MANUAL NIC PROGRAM STEP	0
MANUAL TOD PROGRAM STEP	0
SYNC REFERENCE TIME	00:00
SYNC REFERENCE	REFERENCE TIME
WEEK 1 BEGINS ON 1ST SUNDAY	
DISABLE DAYLIGHT SAVINGS	
DST BEGINS LAST SUNDAY	

2. NIC/TOD WEEKLY PROGRAMS

WEEK	SUN	MON	TUE	WED	THU	FRI	SAT
1	2	1	1	1	1	1	2
2							
3							
4							
5							
6							
7							
8							
9							
10							

3. NIC/TOD YEARLY PROGRAMS

WEEK OF YEAR	1	2	3	4	5	6	7	8
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR	9	10	11	12	13	14	15	16
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR	17	18	19	20	21	22	23	24
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR	25	26	27	28	29	30	31	32
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR	33	34	35	36	37	38	39	40
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR	41	42	43	44	45	46	47	48
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR				49	50	51	52	53
WEEKLY PROGRAM				1	1	1	1	1

4. NIC/TOD HOLIDAY PROGRAM

HOLIDAY	FLOAT/FIXED	MON/MON	DOW/DOM	WOM/YEAR	PROG
1	FIXED	1	1	0	2
2	FIXED	7	4	0	2
3	FIXED	11	11	0	2
4	FIXED	12	24	0	2
5	FIXED	12	25	0	2
6	FLOAT	1	2	3	2
7	FLOAT	2	2	3	2
8	FLOAT	5	2	5	2
9	FLOAT	9	2	1	2
10	FLOAT	11	5	4	2
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					

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5. NIC/TOD SUBMENU (Continued)

5. NIC PROGRAM STEP

STEP	PGM	TIME	PATTERN	OVERRIDE
1	1	00:00	0	
2	2	00:00	0	
3	1	06:00	2	
4	1	09:00	1	
5	1	15:00	3	
6	1	18:30	1	
7	1	21:00	0	

Up to 100 NIC Program Steps Available.

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5. NIC/TOD SUBMENU (Continued)

6. TOD PROGRAM STEPS

TOD PROGRAM STEP												
DAY PGM NUMBER												
STEP BEGINS												
FLASH				DIM ENABLE								
RED REST				ALT VEH EXTSN								
SPARE 5				DET LOG ENABLE								
SPARE 3				SPARE 4								
TYPE 0 DELAY ENABLE				SPARE 2								
DET DIAG PLAN												
ALTERNATE SEQUENCE	A		B		C		D		E		F	
PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MAX 2 ENABLE												
MAX 3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INHIBIT												
PHASE OMIT												
SPECIAL FUNCTIONS									(1 - 8)			

TOD PROGRAM STEP												
DAY PGM NUMBER												
STEP BEGINS												
FLASH				DIM ENABLE								
RED REST				ALT VEH EXTSN								
SPARE 5				DET LOG ENABLE								
SPARE 3				SPARE 4								
TYPE 0 DELAY ENABLE				SPARE 2								
DET DIAG PLAN												
ALTERNATE SEQUENCE	A		B		C		D		E		F	
PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MAX 2 ENABLE												
MAX 3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INHIBIT												
PHASE OMIT												
SPECIAL FUNCTIONS									(1 - 8)			

TOD PROGRAM STEP												
DAY PGM NUMBER												
STEP BEGINS												
FLASH				DIM ENABLE								
RED REST				ALT VEH EXTSN								
SPARE 5				DET LOG ENABLE								
SPARE 3				SPARE 4								
TYPE 0 DELAY ENABLE				SPARE 2								
DET DIAG PLAN												
ALTERNATE SEQUENCE	A		B		C		D		E		F	
PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MAX 2 ENABLE												
MAX 3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INHIBIT												
PHASE OMIT												
SPECIAL FUNCTIONS									(1 - 8)			

TOD PROGRAM STEP												
DAY PGM NUMBER												
STEP BEGINS												
FLASH				DIM ENABLE								
RED REST				ALT VEH EXTSN								
SPARE 5				DET LOG ENABLE								
SPARE 3				SPARE 4								
TYPE 0 DELAY ENABLE				SPARE 2								
DET DIAG PLAN												
ALTERNATE SEQUENCE	A		B		C		D		E		F	
PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MAX 2 ENABLE												
MAX 3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INHIBIT												
PHASE OMIT												
SPECIAL FUNCTIONS									(1 - 8)			

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6. DETECTORS SUBMENU

1. DETECTOR TYPE/TIMERS

DETECTOR	TYPE	LOCK	EXTEND	DELAY	NO RESET	LOG ENABLE
1	0					
2	0					
3	5		2.0			
4	5		2.0			
5	0					
6	0					
7	0					
8						
9						
10						
11	0					
12	0					
13	0					
14	0					
15	5		1.0			
16	5		1.0			
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

2. DETECTOR PHASE ASSIGNMENT

	PHASE ASSIGNMENT											
DETECTOR	1	2	3	4	5	6	7	8	9	10	11	12
1		X										
2		X										
3		X										
4		X										
5				X								
6				X								
7				X								
8												
9												
10												
11	X											
12	X											
13						X						
14						X						
15						X						
16						X						
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												

3. PED AND SYSTEM DETECTOR LOCAL ASSIGNMENT

DETECTOR LOG INTERVAL					MINUTES	
LOCAL PED DET NUMBER	PHASE PED DETECTOR					
	1	2	3	4	5	6
		1		2		3
	7	8	9	10	11	12
NUMBER						
LOCAL PED DET NUMBER	LOCAL SYSTEM DETECTOR NUMBER					
	1	2	3	4	5	6
	7	8	9	10	11	12
NUMBER						

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6. DETECTORS SUBMENU (Continued)

4. CROSS SWITCHING

	PHASES											
DETECTOR	1	2	3	4	5	6	7	8	9	10	11	12
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
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21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												

6. VEHICLE DETECTOR DIAGNOSTIC PLAN

PLAN	DET NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	DIAG NO																
	SCALING																
2	DIAG NO																
	SCALING																
3	DIAG NO																
	SCALING																
4	DIAG NO																
	SCALING																
5	DIAG NO																
	SCALING																
6	DIAG NO																
	SCALING																
7	DIAG NO																
	SCALING																
8	DIAG NO																
	SCALING																
FINAL ACTION																	

PLAN	DET NO.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	DIAG NO																
	SCALING																
2	DIAG NO																
	SCALING																
3	DIAG NO																
	SCALING																
4	DIAG NO																
	SCALING																
5	DIAG NO																
	SCALING																
6	DIAG NO																
	SCALING																
7	DIAG NO																
	SCALING																
8	DIAG NO																
	SCALING																
FINAL ACTION																	

5. SPEED DETECTORS

SPEED DETECTOR NUMBERS	1	2	3	4	5	6	7	8
ONE DETECTOR SPEED:								
LOCAL DET NUMBER								
VEHICLE LENGTH								
LOOP LENGTH								
TWO DETECTOR SPEED:								
LOCAL DET NUMBER								
SPEED TRAP								
ENABLE LOG								
UNITS:								
SPEED DETECTOR NUMBERS	9	10	11	12	13	14	15	16
ONE DETECTOR SPEED:								
LOCAL DET NUMBER								
VEHICLE LENGTH								
LOOP LENGTH								
TWO DETECTOR SPEED:								
LOCAL DET NUMBER								
SPEED TRAP								
ENABLE LOG								
UNITS:								

7. PED DETECTOR DIAGNOSTIC PLAN

PLAN	DET NO.	1	2	3	4	5	6	7	8	9	10	11	12
1	DIAG NO.												
	SCALING												
2	DIAG NO.												
	SCALING												
3	DIAG NO.												
	SCALING												
4	DIAG NO.												
	SCALING												
5	DIAG NO.												
	SCALING												
6	DIAG NO.												
	SCALING												
7	DIAG NO.												
	SCALING												
8	DIAG NO.												
	SCALING												

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6. DETECTORS SUBMENU (Continued)

8. DETECTOR DIAGNOSTIC INTERVAL

DETECTOR DIAGNOSTIC INTERVAL			
DIAGNOSTIC NUMBER	NO ACTIVITY	MAX PRESENCE	ERRATIC COUNTS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
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19			
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21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			

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DETECTOR ASSIGNMENT WORK SHEET

LOOP LOCATION	LANE	DET ASSIGN	DET TYP #	PHASE 1	2	3	4	5	6	7	8	9	10	11	12	DET DELAY	DET EXTEND	QUEUE MAX	REMARKS
1-S-Φ2	1	1	0		X														A - 6' X 6'
2-S-Φ2	2	2	0		X														A - 6' X 6'
3-S-Φ2	1,2	3	5		X												2.0	20	Q - 2 - 6' X 6'
4-S-Φ2	RT1,RT2	4	5		X												2.0	20	Q - 2 - 6' X 6'
1-W-Φ4	LT	5	0				X												A - 6' X 6'
2-W-Φ4	LT/TH	6	0				X												A - 6' X 6'
3-W-Φ4	TH/RT	7	0				X												A - 6' X 6'
		8																	
		9																	
		10																	
1-N-Φ1	LT1	11	0	X															F - VIDEO
2-N-Φ1	LT2	12	0	X															F - VIDEO
1-N-Φ6	1	13	0						X										A - VIDEO
2-N-Φ6	2	14	0						X										A - VIDEO
3-N-Φ6	1	15	5						X								1.0	20	Q - VIDEO
4-N-Φ6	2	16	5						X								1.0	20	Q - VIDEO

DETECTOR ASSIGNMENT DEFINITIONS

CONTROLLER	CONNECTOR'S A,B C								CONNECTOR D								CONNECTOR TELEMETRY								CONNECTOR TYPE 1							
ASC-2	DETECTOR								DETECTOR								DETECTOR								INPUT TYPE 1 ONLY							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

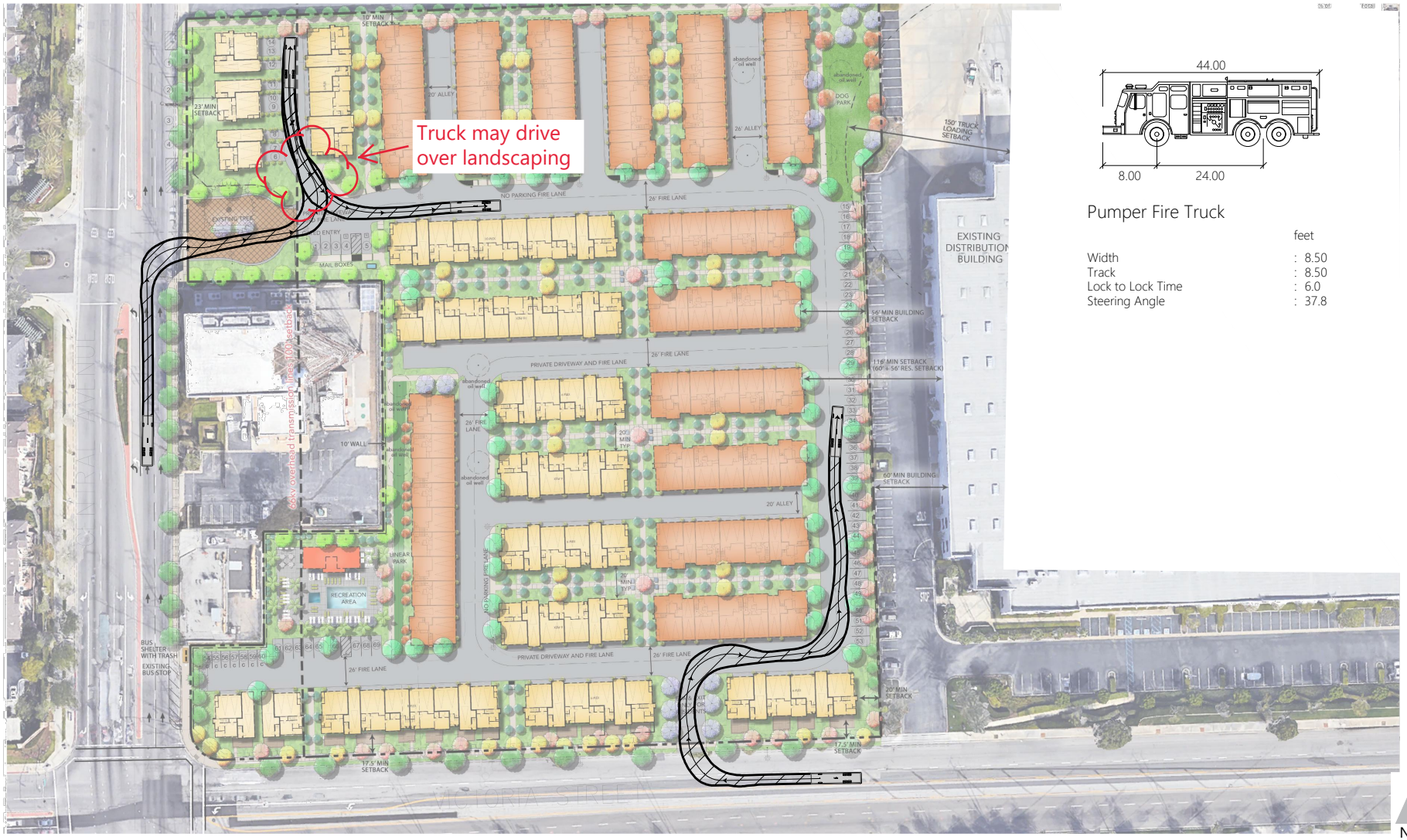
* = DELAY Time or EXTEND Time set on External Sensor

** = When the Detector Input is set to be a TYPE 4 Detector, the EXTEND value set in the Controller becomes the QUEUE MAX value and any Extension Time needed must be set externally on the Sensor. If the Detector Input is set to be a TYPE 5, the EXTEND value becomes a Reset (Gap) Timer value and the Extension Time is set Externally on the Sensor Unit.

Q = QUEUE CLEARING LOOP F = FIRST VEHICLE LOOP

H = HOLDING LOOP A = ADVANCE LOOP

APPENDIX G:
TRUCK TURN ANALYSIS



Sep 27, 2018 CADD FILE: \\fpla03\data\Jobs\Active\3000s\3004_Victoria Greens Carson\Graphics\ACAD\3004_AutoTurn.dwg

Appendix G Figure 1

Pumper Fire Truck Ingress Turns
Victoria Greens Project, Carson, CA

CONCEPTUAL - NOT FOR CONSTRUCTION
DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED

Pumper Fire Truck

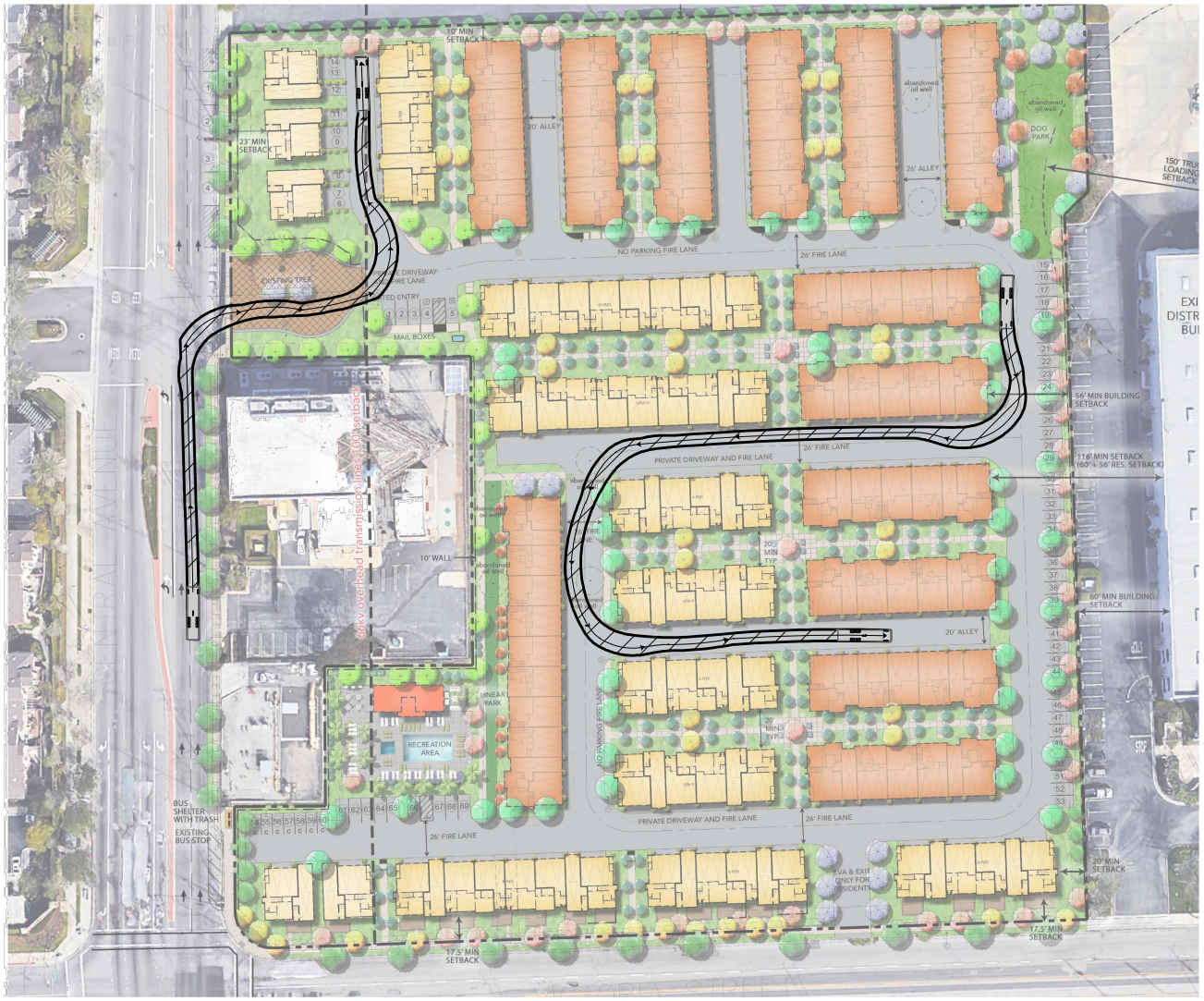
	feet
Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 37.8

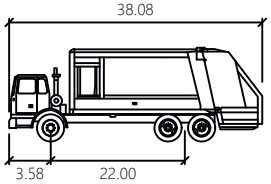
Sep 27, 2018 CADD FILE: \\fpla03\data\Jobs\Active\3000s\3004_Victoria Greens Carson\Graphics\ACAD\3004_AutoTurn.dwg

Appendix G Figure 2

Pumper Fire Truck Egress Turns
Victoria Greens Project, Carson, CA

CONCEPTUAL - NOT FOR CONSTRUCTION
DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED





Rear-Load Garbage Truck

	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 30

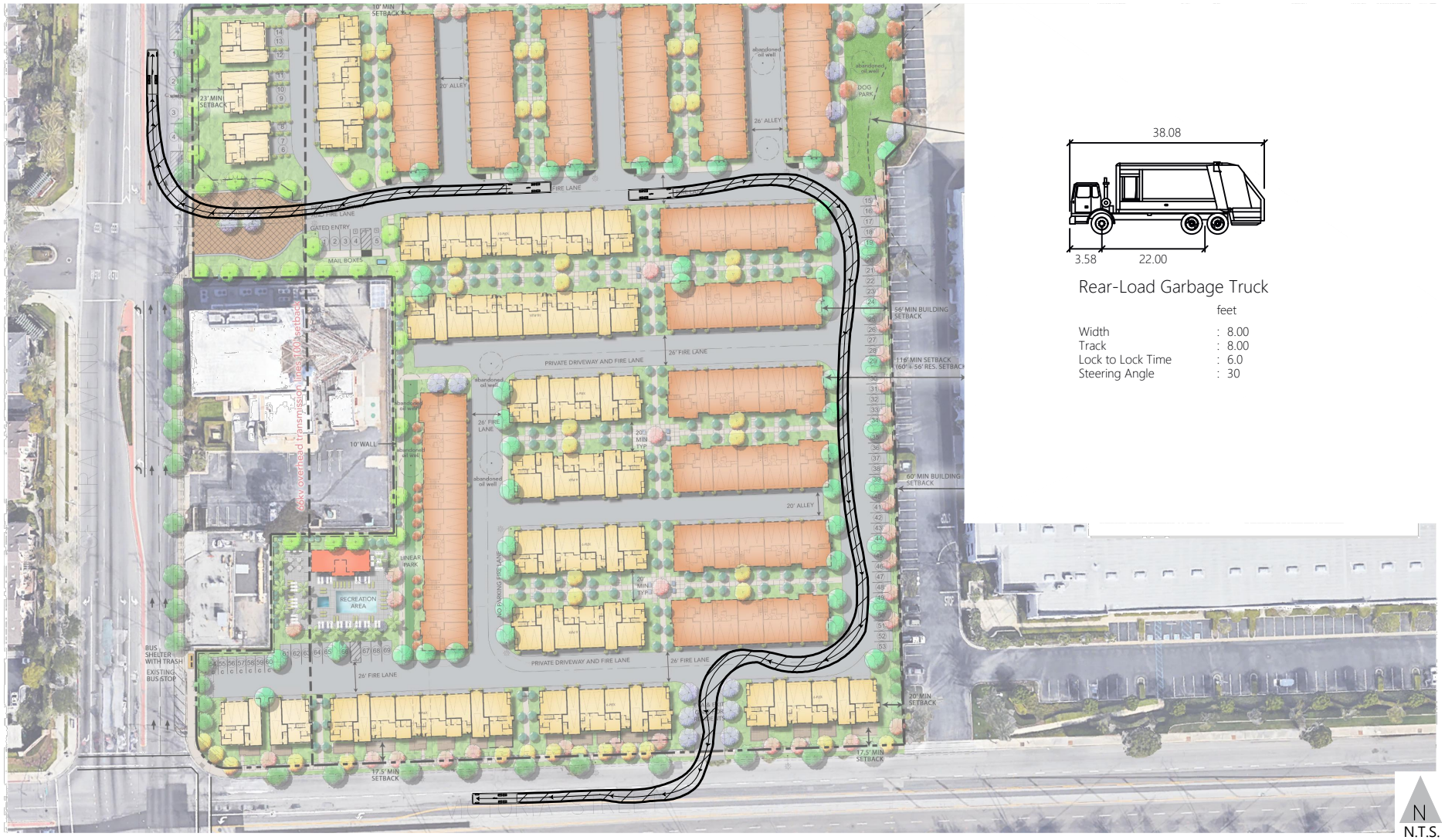
N
N.T.S.

Sep 27, 2018 CADD FILE: \\fpla03\data\Jobs\Active\3000s\3004_Victoria Greens Carson\Graphics\ACAD\3004_AutoTurn.dwg

Appendix G Figure 3

Rear-Load Garbage Truck Ingress Turns
Victoria Greens Project, Carson, CA

CONCEPTUAL - NOT FOR CONSTRUCTION
DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED



Rear-Load Garbage Truck

	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 30

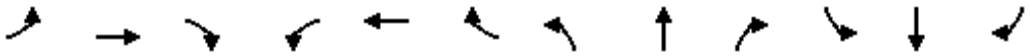
Sep 27, 2018 CADD FILE: \\fpla03\data\Jobs\Active\3000s\3004_Victoria Greens Carson\Graphics\ACAD\3004_AutoTurn.dwg

Appendix G Figure 4

Rear-Load Garbage Truck Egress Turns
Victoria Greens Project, Carson, CA

CONCEPTUAL - NOT FOR CONSTRUCTION
DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED

APPENDIX H:
RAMP INTERSECTION LOS SHEETS, QUEUE REPORTS, AND SIGNAL TIMING REPORTS



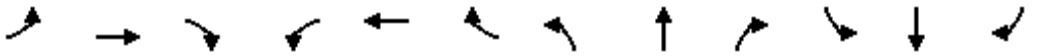
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	688	213	304	268	683	0	0	852	195
Future Volume (veh/h)	0	0	0	688	213	304	268	683	0	0	852	195
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				750	230	230	291	742	0	0	926	212
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1063	255	255	317	2079	0	0	1461	333
Arrive On Green				0.30	0.30	0.30	0.36	1.00	0.00	0.00	0.70	0.70
Sat Flow, veh/h				3563	856	856	1781	3647	0	0	4323	948
Grp Volume(v), veh/h				750	0	460	291	742	0	0	758	380
Grp Sat Flow(s),veh/h/ln				1781	0	1712	1781	1777	0	0	1702	1699
Q Serve(g_s), s				16.8	0.0	23.2	14.1	0.0	0.0	0.0	10.7	10.8
Cycle Q Clear(g_c), s				16.8	0.0	23.2	14.1	0.0	0.0	0.0	10.7	10.8
Prop In Lane				1.00		0.50	1.00		0.00	0.00		0.56
Lane Grp Cap(c), veh/h				1063	0	511	317	2079	0	0	1197	597
V/C Ratio(X)				0.71	0.00	0.90	0.92	0.36	0.00	0.00	0.63	0.64
Avail Cap(c_a), veh/h				1089	0	523	317	2079	0	0	1197	597
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.79	0.79	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				28.1	0.0	30.3	28.4	0.0	0.0	0.0	10.2	10.3
Incr Delay (d2), s/veh				2.3	0.0	18.7	25.5	0.4	0.0	0.0	2.6	5.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.3	0.0	11.9	6.7	0.1	0.0	0.0	2.9	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.3	0.0	49.0	53.9	0.4	0.0	0.0	12.8	15.4
LnGrp LOS				C	A	D	D	A	A	A	B	B
Approach Vol, veh/h					1210			1033			1138	
Approach Delay, s/veh					37.4			15.4			13.7	
Approach LOS					D			B			B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	21.0	36.7		32.3		57.7						
Change Period (Y+Rc), s	5.0	5.0		5.5		5.0						
Max Green Setting (Gmax), s	16.0	31.0		27.5		52.0						
Max Q Clear Time (g_c+I1), s	16.1	12.8		25.2		2.0						
Green Ext Time (p_c), s	0.0	9.3		1.6		8.4						

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



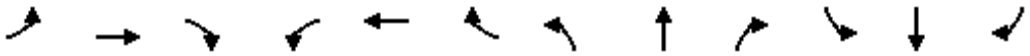
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	386	122	529	0	0	0	0	570	339	390	1150	0
Future Volume (veh/h)	386	122	529	0	0	0	0	570	339	390	1150	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	365	210	542				0	620	108	424	1250	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	641	673	568				0	1162	911	487	1860	0
Arrive On Green	0.36	0.36	0.36				0.00	0.33	0.33	0.28	1.00	0.00
Sat Flow, veh/h	1781	1870	1578				0	3647	2785	3456	3647	0
Grp Volume(v), veh/h	365	210	542				0	620	108	424	1250	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1578				0	1777	1393	1728	1777	0
Q Serve(g_s), s	14.8	7.3	30.1				0.0	12.8	2.4	10.5	0.0	0.0
Cycle Q Clear(g_c), s	14.8	7.3	30.1				0.0	12.8	2.4	10.5	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	641	673	568				0	1162	911	487	1860	0
V/C Ratio(X)	0.57	0.31	0.95				0.00	0.53	0.12	0.87	0.67	0.00
Avail Cap(c_a), veh/h	643	675	570				0	1162	911	538	1860	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.60	0.60	0.00
Uniform Delay (d), s/veh	23.2	20.8	28.1				0.0	24.7	21.2	31.5	0.0	0.0
Incr Delay (d2), s/veh	1.5	0.4	26.7				0.0	1.8	0.3	8.1	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	3.2	15.0				0.0	5.3	0.8	4.1	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	21.1	54.7				0.0	26.5	21.5	39.6	1.2	0.0
LnGrp LOS	C	C	D				A	C	C	D	A	A
Approach Vol, veh/h		1117						728			1674	
Approach Delay, s/veh		38.6						25.7			10.9	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	17.7	34.4		37.9		52.1
Change Period (Y+Rc), s	5.0	5.0		5.5		5.0
Max Green Setting (Gmax), s	14.0	28.0		32.5		47.0
Max Q Clear Time (g_c+I1), s	12.5	14.8		32.1		2.0
Green Ext Time (p_c), s	0.2	4.8		0.3		17.4

Intersection Summary		
HCM 6th Ctrl Delay		22.8
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	479	128	352	324	770	0	0	690	220
Future Volume (veh/h)	0	0	0	479	128	352	324	770	0	0	690	220
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				558	88	256	352	837	0	0	750	239
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				931	110	320	376	2211	0	0	1363	430
Arrive On Green				0.26	0.26	0.26	0.42	1.00	0.00	0.00	0.71	0.71
Sat Flow, veh/h				3563	420	1223	1781	3647	0	0	4006	1209
Grp Volume(v), veh/h				558	0	344	352	837	0	0	664	325
Grp Sat Flow(s),veh/h/ln				1781	0	1644	1781	1777	0	0	1702	1643
Q Serve(g_s), s				12.3	0.0	17.6	17.0	0.0	0.0	0.0	8.3	8.5
Cycle Q Clear(g_c), s				12.3	0.0	17.6	17.0	0.0	0.0	0.0	8.3	8.5
Prop In Lane				1.00		0.74	1.00		0.00	0.00		0.74
Lane Grp Cap(c), veh/h				931	0	429	376	2211	0	0	1209	584
V/C Ratio(X)				0.60	0.00	0.80	0.93	0.38	0.00	0.00	0.55	0.56
Avail Cap(c_a), veh/h				1089	0	502	396	2211	0	0	1209	584
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.57	0.57	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				29.1	0.0	31.1	25.4	0.0	0.0	0.0	9.6	9.6
Incr Delay (d2), s/veh				0.9	0.0	8.7	18.9	0.3	0.0	0.0	1.8	3.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.3	0.0	7.8	6.9	0.1	0.0	0.0	2.4	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.1	0.0	39.7	44.3	0.3	0.0	0.0	11.4	13.4
LnGrp LOS				C	A	D	D	A	A	A	B	B
Approach Vol, veh/h					902			1189			989	
Approach Delay, s/veh					33.8			13.3			12.1	
Approach LOS					C			B			B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	24.0	37.0		29.0		61.0						
Change Period (Y+Rc), s	5.0	5.0		5.5		5.0						
Max Green Setting (Gmax), s	20.0	27.0		27.5		52.0						
Max Q Clear Time (g_c+I1), s	19.0	10.5		19.6		2.0						
Green Ext Time (p_c), s	0.0	7.7		3.7		9.9						

Intersection Summary		
HCM 6th Ctrl Delay		18.9
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

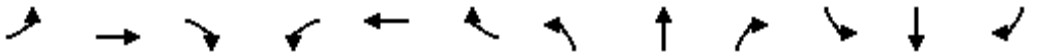
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	294	806	194	0	0	0	0	822	493	271	891	0
Future Volume (veh/h)	294	806	194	0	0	0	0	822	493	271	891	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	320	876	187				0	893	445	295	968	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	670	1123	240				0	1231	959	364	1802	0
Arrive On Green	0.38	0.38	0.38				0.00	0.35	0.35	0.21	1.00	0.00
Sat Flow, veh/h	1781	2985	637				0	3647	2770	3456	3647	0
Grp Volume(v), veh/h	320	549	514				0	893	445	295	968	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1751				0	1777	1385	1728	1777	0
Q Serve(g_s), s	12.3	23.3	23.3				0.0	19.7	11.3	7.3	0.0	0.0
Cycle Q Clear(g_c), s	12.3	23.3	23.3				0.0	19.7	11.3	7.3	0.0	0.0
Prop In Lane	1.00		0.36				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	670	704	659				0	1231	959	364	1802	0
V/C Ratio(X)	0.48	0.78	0.78				0.00	0.73	0.46	0.81	0.54	0.00
Avail Cap(c_a), veh/h	762	800	749				0	1231	959	461	1802	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.70	0.70	0.00
Uniform Delay (d), s/veh	21.3	24.8	24.8				0.0	25.7	22.9	34.7	0.0	0.0
Incr Delay (d2), s/veh	0.8	4.9	5.2				0.0	3.8	1.6	4.8	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	10.8	10.2				0.0	8.4	3.7	2.9	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.1	29.7	30.0				0.0	29.4	24.5	39.4	0.8	0.0
LnGrp LOS	C	C	C				A	C	C	D	A	A
Approach Vol, veh/h		1383						1338			1263	
Approach Delay, s/veh		28.0						27.8			9.8	
Approach LOS		C						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.5	36.2		39.4		50.6
Change Period (Y+Rc), s	5.0	5.0		5.5		5.0
Max Green Setting (Gmax), s	12.0	24.0		38.5		41.0
Max Q Clear Time (g_c+I1), s	9.3	21.7		25.3		2.0
Green Ext Time (p_c), s	0.2	1.8		8.5		11.5

Intersection Summary		
HCM 6th Ctrl Delay		22.2
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.



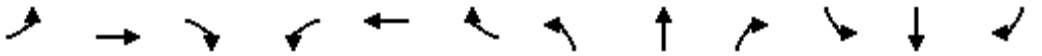
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	690	213	304	285	689	0	0	854	195
Future Volume (veh/h)	0	0	0	690	213	304	285	689	0	0	854	195
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				751	231	230	310	749	0	0	928	212
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1064	256	255	317	2078	0	0	1461	333
Arrive On Green				0.30	0.30	0.30	0.36	1.00	0.00	0.00	0.70	0.70
Sat Flow, veh/h				3563	858	854	1781	3647	0	0	4325	946
Grp Volume(v), veh/h				751	0	461	310	749	0	0	759	381
Grp Sat Flow(s),veh/h/ln				1781	0	1713	1781	1777	0	0	1702	1699
Q Serve(g_s), s				16.9	0.0	23.3	15.5	0.0	0.0	0.0	10.8	10.9
Cycle Q Clear(g_c), s				16.9	0.0	23.3	15.5	0.0	0.0	0.0	10.8	10.9
Prop In Lane				1.00		0.50	1.00		0.00	0.00		0.56
Lane Grp Cap(c), veh/h				1064	0	511	317	2078	0	0	1196	597
V/C Ratio(X)				0.71	0.00	0.90	0.98	0.36	0.00	0.00	0.63	0.64
Avail Cap(c_a), veh/h				1089	0	523	317	2078	0	0	1196	597
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.77	0.77	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				28.1	0.0	30.3	28.8	0.0	0.0	0.0	10.3	10.3
Incr Delay (d2), s/veh				2.3	0.0	18.9	38.6	0.4	0.0	0.0	2.6	5.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.3	0.0	11.9	8.2	0.1	0.0	0.0	2.9	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.3	0.0	49.2	67.4	0.4	0.0	0.0	12.8	15.4
LnGrp LOS				C	A	D	E	A	A	A	B	B
Approach Vol, veh/h					1212			1059			1140	
Approach Delay, s/veh					37.5			20.0			13.7	
Approach LOS					D			B			B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	21.0	36.6		32.4		57.6						
Change Period (Y+Rc), s	5.0	5.0		5.5		5.0						
Max Green Setting (Gmax), s	16.0	31.0		27.5		52.0						
Max Q Clear Time (g_c+I1), s	17.5	12.9		25.3		2.0						
Green Ext Time (p_c), s	0.0	9.3		1.6		8.5						

Intersection Summary		
HCM 6th Ctrl Delay		24.1
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.



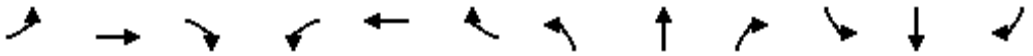
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	386	122	534	0	0	0	0	593	346	390	1154	0
Future Volume (veh/h)	386	122	534	0	0	0	0	593	346	390	1154	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	367	207	547				0	645	116	424	1254	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	643	675	570				0	1158	908	487	1856	0
Arrive On Green	0.36	0.36	0.36				0.00	0.33	0.33	0.28	1.00	0.00
Sat Flow, veh/h	1781	1870	1578				0	3647	2785	3456	3647	0
Grp Volume(v), veh/h	367	207	547				0	645	116	424	1254	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1578				0	1777	1393	1728	1777	0
Q Serve(g_s), s	14.9	7.2	30.5				0.0	13.5	2.6	10.5	0.0	0.0
Cycle Q Clear(g_c), s	14.9	7.2	30.5				0.0	13.5	2.6	10.5	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	643	675	570				0	1158	908	487	1856	0
V/C Ratio(X)	0.57	0.31	0.96				0.00	0.56	0.13	0.87	0.68	0.00
Avail Cap(c_a), veh/h	643	675	570				0	1158	908	538	1856	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.59	0.59	0.00
Uniform Delay (d), s/veh	23.1	20.7	28.1				0.0	25.0	21.3	31.5	0.0	0.0
Incr Delay (d2), s/veh	1.5	0.4	27.9				0.0	1.9	0.3	7.9	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	3.1	15.4				0.0	5.6	0.9	4.1	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	21.0	56.1				0.0	26.9	21.6	39.5	1.2	0.0
LnGrp LOS	C	C	E				A	C	C	D	A	A
Approach Vol, veh/h		1121						761			1678	
Approach Delay, s/veh		39.3						26.1			10.9	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	17.7	34.3		38.0		52.0						
Change Period (Y+Rc), s	5.0	5.0		5.5		5.0						
Max Green Setting (Gmax), s	14.0	28.0		32.5		47.0						
Max Q Clear Time (g_c+I1), s	12.5	15.5		32.5		2.0						
Green Ext Time (p_c), s	0.2	4.9		0.0		17.5						

Intersection Summary			
HCM 6th Ctrl Delay		23.1	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.



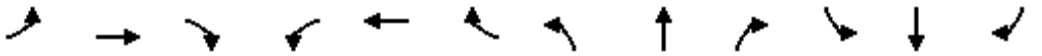
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	486	128	352	334	774	0	0	696	220
Future Volume (veh/h)	0	0	0	486	128	352	334	774	0	0	696	220
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				561	92	256	363	841	0	0	757	239
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				936	114	318	387	2205	0	0	1338	418
Arrive On Green				0.26	0.26	0.26	0.43	1.00	0.00	0.00	0.70	0.70
Sat Flow, veh/h				3563	435	1211	1781	3647	0	0	4015	1201
Grp Volume(v), veh/h				561	0	348	363	841	0	0	669	327
Grp Sat Flow(s),veh/h/ln				1781	0	1646	1781	1777	0	0	1702	1644
Q Serve(g_s), s				12.4	0.0	17.8	17.5	0.0	0.0	0.0	8.9	9.0
Cycle Q Clear(g_c), s				12.4	0.0	17.8	17.5	0.0	0.0	0.0	8.9	9.0
Prop In Lane				1.00		0.74	1.00		0.00	0.00		0.73
Lane Grp Cap(c), veh/h				936	0	433	387	2205	0	0	1184	572
V/C Ratio(X)				0.60	0.00	0.80	0.94	0.38	0.00	0.00	0.56	0.57
Avail Cap(c_a), veh/h				1089	0	503	396	2205	0	0	1184	572
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.54	0.54	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				29.0	0.0	31.0	24.9	0.0	0.0	0.0	10.3	10.3
Incr Delay (d2), s/veh				0.9	0.0	8.9	19.2	0.3	0.0	0.0	2.0	4.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.3	0.0	7.9	7.1	0.1	0.0	0.0	2.5	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.0	0.0	39.9	44.1	0.3	0.0	0.0	12.2	14.4
LnGrp LOS				C	A	D	D	A	A	A	B	B
Approach Vol, veh/h					909			1204			996	
Approach Delay, s/veh					33.8			13.5			13.0	
Approach LOS					C			B			B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	24.5	36.3		29.2		60.8						
Change Period (Y+Rc), s	5.0	5.0		5.5		5.0						
Max Green Setting (Gmax), s	20.0	27.0		27.5		52.0						
Max Q Clear Time (g_c+I1), s	19.5	11.0		19.8		2.0						
Green Ext Time (p_c), s	0.0	7.6		3.7		9.9						

Intersection Summary		
HCM 6th Ctrl Delay		19.2
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.



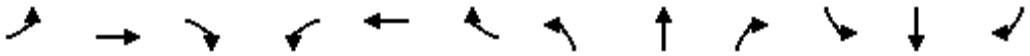
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	294	806	211	0	0	0	0	835	497	271	905	0
Future Volume (veh/h)	294	806	211	0	0	0	0	835	497	271	905	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	320	876	205				0	908	449	295	984	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	677	1113	260				0	1216	948	364	1788	0
Arrive On Green	0.38	0.38	0.38				0.00	0.34	0.34	0.21	1.00	0.00
Sat Flow, veh/h	1781	2928	685				0	3647	2769	3456	3647	0
Grp Volume(v), veh/h	320	559	522				0	908	449	295	984	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1743				0	1777	1385	1728	1777	0
Q Serve(g_s), s	12.2	23.8	23.8				0.0	20.3	11.5	7.3	0.0	0.0
Cycle Q Clear(g_c), s	12.2	23.8	23.8				0.0	20.3	11.5	7.3	0.0	0.0
Prop In Lane	1.00		0.39				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	677	711	663				0	1216	948	364	1788	0
V/C Ratio(X)	0.47	0.79	0.79				0.00	0.75	0.47	0.81	0.55	0.00
Avail Cap(c_a), veh/h	762	800	745				0	1216	948	461	1788	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.68	0.68	0.00
Uniform Delay (d), s/veh	21.1	24.7	24.7				0.0	26.1	23.2	34.7	0.0	0.0
Incr Delay (d2), s/veh	0.7	5.2	5.6				0.0	4.2	1.7	4.6	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	11.1	10.4				0.0	8.7	3.7	2.9	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.8	29.8	30.2				0.0	30.3	24.9	39.3	0.8	0.0
LnGrp LOS	C	C	C				A	C	C	D	A	A
Approach Vol, veh/h		1401						1357			1279	
Approach Delay, s/veh		28.1						28.6			9.7	
Approach LOS		C						C			A	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.5	35.8		39.7		50.3						
Change Period (Y+Rc), s	5.0	5.0		5.5		5.0						
Max Green Setting (Gmax), s	12.0	24.0		38.5		41.0						
Max Q Clear Time (g_c+I1), s	9.3	22.3		25.8		2.0						
Green Ext Time (p_c), s	0.2	1.3		8.4		11.8						

Intersection Summary												
HCM 6th Ctrl Delay			22.4									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.



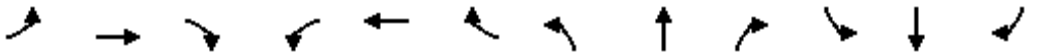
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	844	216	314	349	735	0	0	914	198
Future Volume (veh/h)	0	0	0	844	216	314	349	735	0	0	914	198
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				917	235	241	379	799	0	0	993	215
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1129	268	275	396	2013	0	0	1213	262
Arrive On Green				0.32	0.32	0.32	0.44	1.00	0.00	0.00	0.58	0.58
Sat Flow, veh/h				3563	845	866	1781	3647	0	0	4370	908
Grp Volume(v), veh/h				917	0	476	379	799	0	0	804	404
Grp Sat Flow(s),veh/h/ln				1781	0	1711	1781	1777	0	0	1702	1706
Q Serve(g_s), s				21.3	0.0	23.7	18.5	0.0	0.0	0.0	17.0	17.1
Cycle Q Clear(g_c), s				21.3	0.0	23.7	18.5	0.0	0.0	0.0	17.0	17.1
Prop In Lane				1.00		0.51	1.00		0.00	0.00		0.53
Lane Grp Cap(c), veh/h				1129	0	542	396	2013	0	0	982	492
V/C Ratio(X)				0.81	0.00	0.88	0.96	0.40	0.00	0.00	0.82	0.82
Avail Cap(c_a), veh/h				1168	0	561	396	2013	0	0	982	492
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.67	0.67	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				28.3	0.0	29.1	24.6	0.0	0.0	0.0	17.1	17.2
Incr Delay (d2), s/veh				4.6	0.0	14.9	26.5	0.4	0.0	0.0	7.6	14.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.5	0.0	11.6	8.1	0.1	0.0	0.0	5.0	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.9	0.0	44.0	51.1	0.4	0.0	0.0	24.7	31.4
LnGrp LOS				C	A	D	D	A	A	A	C	C
Approach Vol, veh/h					1393			1178			1208	
Approach Delay, s/veh					36.7			16.7			26.9	
Approach LOS					D			B			C	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	25.0	31.0		34.0		56.0						
Change Period (Y+Rc), s	5.0	5.0		5.5		5.0						
Max Green Setting (Gmax), s	20.0	25.0		29.5		50.0						
Max Q Clear Time (g_c+I1), s	20.5	19.1		25.7		2.0						
Green Ext Time (p_c), s	0.0	4.2		2.8		9.2						

Intersection Summary		
HCM 6th Ctrl Delay		27.3
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.



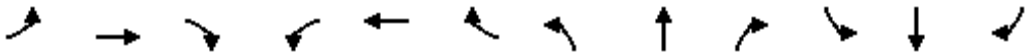
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	392	124	718	0	0	0	0	698	441	401	1362	0
Future Volume (veh/h)	392	124	718	0	0	0	0	698	441	401	1362	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	426	135	747				0	759	219	436	1480	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	667	700	591				0	1097	859	500	1808	0
Arrive On Green	0.37	0.37	0.37				0.00	0.31	0.31	0.29	1.00	0.00
Sat Flow, veh/h	1781	1870	1579				0	3647	2785	3456	3647	0
Grp Volume(v), veh/h	426	135	747				0	759	219	436	1480	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1579				0	1777	1393	1728	1777	0
Q Serve(g_s), s	17.7	4.4	33.7				0.0	16.9	5.3	10.8	0.0	0.0
Cycle Q Clear(g_c), s	17.7	4.4	33.7				0.0	16.9	5.3	10.8	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	667	700	591				0	1097	859	500	1808	0
V/C Ratio(X)	0.64	0.19	1.26				0.00	0.69	0.25	0.87	0.82	0.00
Avail Cap(c_a), veh/h	667	700	591				0	1097	859	576	1808	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.31	0.31	0.00
Uniform Delay (d), s/veh	23.1	19.0	28.2				0.0	27.4	23.3	31.2	0.0	0.0
Incr Delay (d2), s/veh	2.4	0.2	131.8				0.0	3.6	0.7	3.9	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	1.9	33.7				0.0	7.3	1.7	3.9	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	19.2	159.9				0.0	31.0	24.1	35.1	1.4	0.0
LnGrp LOS	C	B	F				A	C	C	D	A	A
Approach Vol, veh/h		1308						978			1916	
Approach Delay, s/veh		101.6						29.4			9.0	
Approach LOS		F						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	18.0	32.8		39.2		50.8
Change Period (Y+Rc), s	5.0	5.0		5.5		5.0
Max Green Setting (Gmax), s	15.0	25.8		33.7		45.8
Max Q Clear Time (g_c+I1), s	12.8	18.9		35.7		2.0
Green Ext Time (p_c), s	0.2	3.9		0.0		22.1

Intersection Summary		
HCM 6th Ctrl Delay		42.6
HCM 6th LOS		D

Notes

User approved volume balancing among the lanes for turning movement.



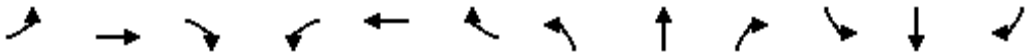
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	599	129	361	496	833	0	0	748	222
Future Volume (veh/h)	0	0	0	599	129	361	496	833	0	0	748	222
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				651	140	265	539	905	0	0	813	241
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1006	163	308	534	2136	0	0	959	282
Arrive On Green				0.28	0.28	0.28	0.40	0.80	0.00	0.00	0.08	0.08
Sat Flow, veh/h				3563	577	1092	1781	3647	0	0	4074	1149
Grp Volume(v), veh/h				651	0	405	539	905	0	0	708	346
Grp Sat Flow(s),veh/h/ln				1781	0	1668	1781	1777	0	0	1702	1650
Q Serve(g_s), s				14.4	0.0	20.7	27.0	7.0	0.0	0.0	18.5	18.6
Cycle Q Clear(g_c), s				14.4	0.0	20.7	27.0	7.0	0.0	0.0	18.5	18.6
Prop In Lane				1.00		0.65	1.00		0.00	0.00		0.70
Lane Grp Cap(c), veh/h				1006	0	471	534	2136	0	0	836	405
V/C Ratio(X)				0.65	0.00	0.86	1.01	0.42	0.00	0.00	0.85	0.85
Avail Cap(c_a), veh/h				1069	0	501	534	2136	0	0	836	405
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.41	0.41	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				28.4	0.0	30.6	27.0	4.3	0.0	0.0	39.7	39.8
Incr Delay (d2), s/veh				1.5	0.0	14.1	27.1	0.3	0.0	0.0	10.4	20.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.2	0.0	9.9	13.4	1.8	0.0	0.0	9.5	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				29.9	0.0	44.7	54.1	4.6	0.0	0.0	50.1	59.8
LnGrp LOS				C	A	D	F	A	A	A	D	E
Approach Vol, veh/h					1056			1444			1054	
Approach Delay, s/veh					35.5			23.0			53.3	
Approach LOS					D			C			D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	32.0	27.1		30.9		59.1						
Change Period (Y+Rc), s	5.0	5.0		5.5		5.0						
Max Green Setting (Gmax), s	27.0	20.5		27.0		52.5						
Max Q Clear Time (g_c+I1), s	29.0	20.6		22.7		9.0						
Green Ext Time (p_c), s	0.0	0.0		2.6		10.8						

Intersection Summary		
HCM 6th Ctrl Delay		35.7
HCM 6th LOS		D

Notes

User approved volume balancing among the lanes for turning movement.



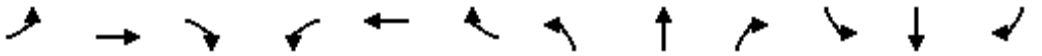
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	297	814	376	0	0	0	0	1049	651	274	1066	0
Future Volume (veh/h)	297	814	376	0	0	0	0	1049	651	274	1066	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	323	885	385				0	1140	617	298	1159	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	696	966	417				0	1214	946	330	1751	0
Arrive On Green	0.39	0.39	0.39				0.00	0.34	0.34	0.03	0.16	0.00
Sat Flow, veh/h	1781	2474	1068				0	3647	2769	3456	3647	0
Grp Volume(v), veh/h	323	668	602				0	1140	617	298	1159	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1671				0	1777	1385	1728	1777	0
Q Serve(g_s), s	12.1	30.4	30.9				0.0	28.0	17.0	7.7	27.5	0.0
Cycle Q Clear(g_c), s	12.1	30.4	30.9				0.0	28.0	17.0	7.7	27.5	0.0
Prop In Lane	1.00		0.64				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	696	731	653				0	1214	946	330	1751	0
V/C Ratio(X)	0.46	0.91	0.92				0.00	0.94	0.65	0.90	0.66	0.00
Avail Cap(c_a), veh/h	703	738	659				0	1214	946	330	1751	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.26	0.26	0.00
Uniform Delay (d), s/veh	20.4	26.0	26.1				0.0	28.7	25.1	43.2	30.6	0.0
Incr Delay (d2), s/veh	0.7	16.0	18.8				0.0	14.8	3.5	8.9	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	16.1	15.0				0.0	13.5	5.7	3.8	13.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.1	42.0	45.0				0.0	43.5	28.6	52.1	31.2	0.0
LnGrp LOS	C	D	D				A	D	C	D	C	A
Approach Vol, veh/h		1593						1757			1457	
Approach Delay, s/veh		38.9						38.3			35.5	
Approach LOS		D						D			D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.6	35.7		40.7		49.3
Change Period (Y+Rc), s	5.0	5.0		5.5		5.0
Max Green Setting (Gmax), s	8.6	30.4		35.5		44.0
Max Q Clear Time (g_c+I1), s	9.7	30.0		32.9		29.5
Green Ext Time (p_c), s	0.0	0.4		2.2		8.6

Intersection Summary	
HCM 6th Ctrl Delay	37.6
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.



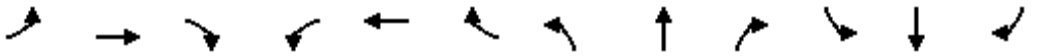
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	846	216	314	366	741	0	0	916	198
Future Volume (veh/h)	0	0	0	846	216	314	366	741	0	0	916	198
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				920	235	241	398	805	0	0	996	215
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1129	268	275	396	2013	0	0	1213	261
Arrive On Green				0.32	0.32	0.32	0.44	1.00	0.00	0.00	0.58	0.58
Sat Flow, veh/h				3563	845	866	1781	3647	0	0	4373	906
Grp Volume(v), veh/h				920	0	476	398	805	0	0	806	405
Grp Sat Flow(s),veh/h/ln				1781	0	1711	1781	1777	0	0	1702	1706
Q Serve(g_s), s				21.4	0.0	23.7	20.0	0.0	0.0	0.0	17.1	17.2
Cycle Q Clear(g_c), s				21.4	0.0	23.7	20.0	0.0	0.0	0.0	17.1	17.2
Prop In Lane				1.00		0.51	1.00		0.00	0.00		0.53
Lane Grp Cap(c), veh/h				1129	0	542	396	2013	0	0	982	492
V/C Ratio(X)				0.81	0.00	0.88	1.01	0.40	0.00	0.00	0.82	0.82
Avail Cap(c_a), veh/h				1168	0	561	396	2013	0	0	982	492
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.64	0.64	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				28.3	0.0	29.1	25.0	0.0	0.0	0.0	17.2	17.2
Incr Delay (d2), s/veh				4.7	0.0	14.9	37.5	0.4	0.0	0.0	7.7	14.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.5	0.0	11.6	9.5	0.1	0.0	0.0	5.1	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				33.0	0.0	43.9	62.5	0.4	0.0	0.0	24.8	31.5
LnGrp LOS				C	A	D	F	A	A	A	C	C
Approach Vol, veh/h					1396			1203			1211	
Approach Delay, s/veh					36.7			20.9			27.1	
Approach LOS					D			C			C	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	25.0	31.0		34.0		56.0						
Change Period (Y+Rc), s	5.0	5.0		5.5		5.0						
Max Green Setting (Gmax), s	20.0	25.0		29.5		50.0						
Max Q Clear Time (g_c+I1), s	22.0	19.2		25.7		2.0						
Green Ext Time (p_c), s	0.0	4.1		2.8		9.3						

Intersection Summary		
HCM 6th Ctrl Delay		28.7
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.



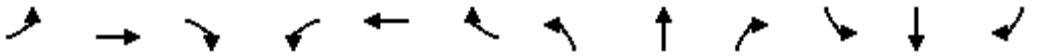
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	392	124	723	0	0	0	0	721	448	401	1366	0
Future Volume (veh/h)	392	124	723	0	0	0	0	721	448	401	1366	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	426	135	753				0	784	227	436	1485	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	667	700	591				0	1097	859	500	1808	0
Arrive On Green	0.37	0.37	0.37				0.00	0.31	0.31	0.29	1.00	0.00
Sat Flow, veh/h	1781	1870	1579				0	3647	2785	3456	3647	0
Grp Volume(v), veh/h	426	135	753				0	784	227	436	1485	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1579				0	1777	1393	1728	1777	0
Q Serve(g_s), s	17.7	4.4	33.7				0.0	17.6	5.5	10.8	0.0	0.0
Cycle Q Clear(g_c), s	17.7	4.4	33.7				0.0	17.6	5.5	10.8	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	667	700	591				0	1097	859	500	1808	0
V/C Ratio(X)	0.64	0.19	1.27				0.00	0.71	0.26	0.87	0.82	0.00
Avail Cap(c_a), veh/h	667	700	591				0	1097	859	576	1808	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.30	0.30	0.00
Uniform Delay (d), s/veh	23.1	19.0	28.2				0.0	27.6	23.4	31.2	0.0	0.0
Incr Delay (d2), s/veh	2.4	0.2	136.0				0.0	4.0	0.8	3.8	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	1.9	34.4				0.0	7.6	1.8	3.9	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	19.2	164.2				0.0	31.6	24.2	35.0	1.3	0.0
LnGrp LOS	C	B	F				A	C	C	C	A	A
Approach Vol, veh/h		1314						1011			1921	
Approach Delay, s/veh		104.3						29.9			9.0	
Approach LOS		F						C			A	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	18.0	32.8		39.2		50.8						
Change Period (Y+Rc), s	5.0	5.0		5.5		5.0						
Max Green Setting (Gmax), s	15.0	25.8		33.7		45.8						
Max Q Clear Time (g_c+I1), s	12.8	19.6		35.7		2.0						
Green Ext Time (p_c), s	0.2	3.7		0.0		22.2						

Intersection Summary												
HCM 6th Ctrl Delay			43.5									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	606	129	361	506	837	0	0	754	222
Future Volume (veh/h)	0	0	0	606	129	361	506	837	0	0	754	222
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				659	140	265	550	910	0	0	820	241
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1006	163	308	534	2135	0	0	960	280
Arrive On Green				0.28	0.28	0.28	0.40	0.80	0.00	0.00	0.08	0.08
Sat Flow, veh/h				3563	577	1092	1781	3647	0	0	4082	1142
Grp Volume(v), veh/h				659	0	405	550	910	0	0	712	349
Grp Sat Flow(s),veh/h/ln				1781	0	1668	1781	1777	0	0	1702	1652
Q Serve(g_s), s				14.7	0.0	20.7	27.0	7.0	0.0	0.0	18.6	18.8
Cycle Q Clear(g_c), s				14.7	0.0	20.7	27.0	7.0	0.0	0.0	18.6	18.8
Prop In Lane				1.00		0.65	1.00		0.00	0.00		0.69
Lane Grp Cap(c), veh/h				1006	0	471	534	2135	0	0	835	405
V/C Ratio(X)				0.65	0.00	0.86	1.03	0.43	0.00	0.00	0.85	0.86
Avail Cap(c_a), veh/h				1069	0	501	534	2135	0	0	835	405
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.39	0.39	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				28.4	0.0	30.6	27.0	4.3	0.0	0.0	39.8	39.8
Incr Delay (d2), s/veh				1.6	0.0	14.1	32.1	0.2	0.0	0.0	10.8	20.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.3	0.0	9.9	14.2	1.8	0.0	0.0	9.6	10.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.0	0.0	44.7	59.1	4.6	0.0	0.0	50.5	60.5
LnGrp LOS				C	A	D	F	A	A	A	D	E
Approach Vol, veh/h					1064			1460			1061	
Approach Delay, s/veh					35.6			25.1			53.8	
Approach LOS					D			C			D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	32.0	27.1		30.9		59.1						
Change Period (Y+Rc), s	5.0	5.0		5.5		5.0						
Max Green Setting (Gmax), s	27.0	20.5		27.0		52.5						
Max Q Clear Time (g_c+I1), s	29.0	20.8		22.7		9.0						
Green Ext Time (p_c), s	0.0	0.0		2.6		10.8						

Intersection Summary		
HCM 6th Ctrl Delay		36.7
HCM 6th LOS		D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	297	814	393	0	0	0	0	1062	655	274	1080	0
Future Volume (veh/h)	297	814	393	0	0	0	0	1062	655	274	1080	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	323	885	403				0	1154	621	298	1174	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	698	955	431				0	1209	942	330	1746	0
Arrive On Green	0.39	0.39	0.39				0.00	0.34	0.34	0.03	0.16	0.00
Sat Flow, veh/h	1781	2436	1100				0	3647	2769	3456	3647	0
Grp Volume(v), veh/h	323	678	610				0	1154	621	298	1174	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1665				0	1777	1385	1728	1777	0
Q Serve(g_s), s	12.1	31.1	31.7				0.0	28.6	17.2	7.7	28.0	0.0
Cycle Q Clear(g_c), s	12.1	31.1	31.7				0.0	28.6	17.2	7.7	28.0	0.0
Prop In Lane	1.00		0.66				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	698	733	653				0	1209	942	330	1746	0
V/C Ratio(X)	0.46	0.92	0.93				0.00	0.95	0.66	0.90	0.67	0.00
Avail Cap(c_a), veh/h	703	738	657				0	1209	942	330	1746	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.25	0.25	0.00
Uniform Delay (d), s/veh	20.3	26.1	26.3				0.0	29.0	25.3	43.2	30.9	0.0
Incr Delay (d2), s/veh	0.7	17.5	20.9				0.0	17.0	3.6	8.6	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	16.7	15.7				0.0	14.1	5.7	3.8	13.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.0	43.6	47.1				0.0	46.0	28.9	51.8	31.4	0.0
LnGrp LOS	C	D	D				A	D	C	D	C	A
Approach Vol, veh/h		1611						1775			1472	
Approach Delay, s/veh		40.4						40.0			35.5	
Approach LOS		D						D			D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.6	35.6		40.8		49.2
Change Period (Y+Rc), s	5.0	5.0		5.5		5.0
Max Green Setting (Gmax), s	8.6	30.4		35.5		44.0
Max Q Clear Time (g_c+I1), s	9.7	30.6		33.7		30.0
Green Ext Time (p_c), s	0.0	0.0		1.6		8.5

Intersection Summary		
HCM 6th Ctrl Delay		38.8
HCM 6th LOS		D

Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	449	861	291	742	1138
v/c Ratio	0.91	0.82	0.94	0.36	0.67
Control Delay	56.0	32.3	82.6	10.3	27.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	32.3	82.6	10.3	27.3
Queue Length 50th (ft)	268	212	182	102	199
Queue Length 95th (ft)	#468	#294	#330	127	248
Internal Link Dist (ft)		807		364	483
Turn Bay Length (ft)			250		
Base Capacity (vph)	491	1046	314	2044	1711
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.91	0.82	0.93	0.36	0.67

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	378	750	620	368	424	1250
v/c Ratio	0.72	1.12dr	0.50	0.31	0.82	0.64
Control Delay	34.5	30.3	25.9	3.4	47.4	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	34.5	30.3	25.9	3.4	47.4	14.6
Queue Length 50th (ft)	195	187	153	0	136	211
Queue Length 95th (ft)	303	254	208	33	m#172	m281
Internal Link Dist (ft)		1027	1364			364
Turn Bay Length (ft)				200	250	
Base Capacity (vph)	581	1093	1234	1189	538	1964
Starvation Cap Reductn	0	0	0	0	0	123
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.69	0.50	0.31	0.79	0.68

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	359	684	352	837	989
v/c Ratio	0.78	0.70	0.92	0.40	0.62
Control Delay	42.7	25.7	64.4	14.3	28.3
Queue Delay	0.0	0.0	0.0	0.2	0.0
Total Delay	42.7	25.7	64.4	14.6	28.3
Queue Length 50th (ft)	198	141	217	146	179
Queue Length 95th (ft)	#320	205	m#292	m182	227
Internal Link Dist (ft)		807		364	483
Turn Bay Length (ft)			250		
Base Capacity (vph)	491	1039	396	2118	1595
Starvation Cap Reductn	0	0	0	560	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.73	0.66	0.89	0.54	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	288	1119	893	536	295	968
v/c Ratio	0.43	0.82	0.86	0.61	0.70	0.58
Control Delay	21.1	28.1	41.3	25.5	59.5	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	21.1	28.1	41.3	25.5	59.5	16.0
Queue Length 50th (ft)	121	283	262	121	94	136
Queue Length 95th (ft)	196	371	#385	182	m135	165
Internal Link Dist (ft)		1027	1364			364
Turn Bay Length (ft)				200	250	
Base Capacity (vph)	688	1424	1038	872	457	1668
Starvation Cap Reductn	0	0	0	0	0	96
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.79	0.86	0.61	0.65	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	450	862	310	749	1140
v/c Ratio	0.92	0.82	0.99	0.37	0.67
Control Delay	56.3	32.4	91.9	10.1	27.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	56.3	32.4	91.9	10.1	27.5
Queue Length 50th (ft)	269	213	194	101	200
Queue Length 95th (ft)	#470	#296	#359	126	248
Internal Link Dist (ft)		807		364	483
Turn Bay Length (ft)			250		
Base Capacity (vph)	491	1045	314	2044	1698
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.92	0.82	0.99	0.37	0.67

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	378	755	645	376	424	1254
v/c Ratio	0.71	1.12dr	0.52	0.32	0.82	0.64
Control Delay	34.3	30.4	26.3	3.3	47.3	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	34.3	30.4	26.3	3.3	47.3	14.6
Queue Length 50th (ft)	195	188	161	0	136	211
Queue Length 95th (ft)	303	256	217	33	m171	m282
Internal Link Dist (ft)		1027	1364			364
Turn Bay Length (ft)				200	250	
Base Capacity (vph)	581	1093	1232	1193	537	1962
Starvation Cap Reductn	0	0	0	0	0	119
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.69	0.52	0.32	0.79	0.68

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	364	686	363	841	996
v/c Ratio	0.79	0.70	0.93	0.40	0.64
Control Delay	42.7	25.5	65.3	14.8	29.0
Queue Delay	0.0	0.0	0.0	0.2	0.0
Total Delay	42.7	25.5	65.3	15.0	29.0
Queue Length 50th (ft)	203	142	224	149	181
Queue Length 95th (ft)	#341	206	m#297	m179	228
Internal Link Dist (ft)		807		364	483
Turn Bay Length (ft)			250		
Base Capacity (vph)	491	1038	398	2107	1558
Starvation Cap Reductn	0	0	0	562	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.74	0.66	0.91	0.54	0.64

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	288	1137	908	540	295	984
v/c Ratio	0.43	0.82	0.88	0.62	0.70	0.59
Control Delay	20.9	28.3	43.4	25.9	59.2	16.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	20.9	28.3	43.4	25.9	59.2	16.1
Queue Length 50th (ft)	121	290	267	122	94	138
Queue Length 95th (ft)	196	380	#395	185	m134	167
Internal Link Dist (ft)		1027	1364			364
Turn Bay Length (ft)				200	250	
Base Capacity (vph)	688	1423	1027	864	457	1658
Starvation Cap Reductn	0	0	0	0	0	93
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.80	0.88	0.63	0.65	0.63

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	504	989	379	799	1208
v/c Ratio	0.96	0.90	0.96	0.41	0.88
Control Delay	61.3	39.0	78.6	11.1	40.1
Queue Delay	3.1	0.6	0.0	0.0	0.0
Total Delay	64.4	39.6	78.6	11.1	40.1
Queue Length 50th (ft)	305	267	237	103	240
Queue Length 95th (ft)	#525	#396	m#405	m162	#318
Internal Link Dist (ft)		807		364	483
Turn Bay Length (ft)			250		
Base Capacity (vph)	527	1093	393	1966	1371
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	10	15	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.97	0.92	0.96	0.41	0.88

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	383	958	759	479	436	1480
v/c Ratio	0.65	1.40dr	0.71	0.41	0.81	0.81
Control Delay	29.5	36.6	32.7	3.6	45.4	22.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.7
Total Delay	29.5	36.6	32.7	3.6	45.4	22.9
Queue Length 50th (ft)	192	267	205	0	140	297
Queue Length 95th (ft)	301	#388	273	38	m155	m354
Internal Link Dist (ft)		1027	1364			364
Turn Bay Length (ft)				200	250	
Base Capacity (vph)	602	1110	1071	1158	572	1822
Starvation Cap Reductn	0	0	0	0	0	112
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.86	0.71	0.41	0.76	0.87

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	410	773	539	905	1054
v/c Ratio	0.87	0.78	0.99	0.43	0.95
Control Delay	50.6	29.8	62.9	23.0	52.2
Queue Delay	0.0	0.0	0.0	0.7	0.0
Total Delay	50.6	29.8	62.9	23.7	52.2
Queue Length 50th (ft)	239	180	~339	230	217
Queue Length 95th (ft)	#417	253	m#405	m252	#305
Internal Link Dist (ft)		807		364	483
Turn Bay Length (ft)			250		
Base Capacity (vph)	483	1015	543	2089	1112
Starvation Cap Reductn	0	0	0	773	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.85	0.76	0.99	0.69	0.95

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	291	1326	1140	708	298	1159
v/c Ratio	0.46	1.03	0.95	0.73	0.91	0.67
Control Delay	23.1	59.2	47.3	27.9	74.0	16.0
Queue Delay	0.5	29.2	0.3	0.0	0.0	0.9
Total Delay	23.6	88.4	47.5	27.9	74.0	16.9
Queue Length 50th (ft)	131	~437	330	174	95	140
Queue Length 95th (ft)	210	#577	#468	247	m#111	m162
Internal Link Dist (ft)		1027	1364			364
Turn Bay Length (ft)				200	250	
Base Capacity (vph)	635	1293	1195	970	328	1730
Starvation Cap Reductn	0	0	0	0	0	295
Spillback Cap Reductn	105	211	3	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.55	1.23	0.96	0.73	0.91	0.81

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	506	990	398	805	1211
v/c Ratio	0.96	0.91	1.01	0.41	0.88
Control Delay	62.1	39.1	89.1	11.3	40.2
Queue Delay	3.3	0.7	0.0	0.0	0.0
Total Delay	65.4	39.7	89.1	11.3	40.2
Queue Length 50th (ft)	307	267	~252	102	241
Queue Length 95th (ft)	#528	#397	m#431	m165	#319
Internal Link Dist (ft)		807		364	483
Turn Bay Length (ft)			250		
Base Capacity (vph)	527	1093	393	1966	1371
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	10	15	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.98	0.92	1.01	0.41	0.88

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	383	964	784	487	436	1485
v/c Ratio	0.65	1.41dr	0.73	0.42	0.81	0.82
Control Delay	29.5	37.1	33.4	3.6	45.4	22.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.7
Total Delay	29.5	37.1	33.4	3.6	45.4	23.0
Queue Length 50th (ft)	192	269	214	0	140	298
Queue Length 95th (ft)	301	#392	283	38	m155	m354
Internal Link Dist (ft)		1027	1364			364
Turn Bay Length (ft)				200	250	
Base Capacity (vph)	602	1110	1070	1163	572	1821
Starvation Cap Reductn	0	0	0	0	0	112
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.87	0.73	0.42	0.76	0.87

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	409	782	550	910	1061
v/c Ratio	0.87	0.79	1.01	0.44	0.95
Control Delay	50.5	30.4	67.0	23.0	53.2
Queue Delay	0.0	0.0	0.0	0.7	0.0
Total Delay	50.5	30.4	67.0	23.7	53.2
Queue Length 50th (ft)	238	184	~353	232	219
Queue Length 95th (ft)	#414	259	m#411	m251	#308
Internal Link Dist (ft)		807		364	483
Turn Bay Length (ft)			250		
Base Capacity (vph)	483	1014	544	2090	1112
Starvation Cap Reductn	0	0	0	774	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.85	0.77	1.01	0.69	0.95

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	291	1344	1154	712	298	1174
v/c Ratio	0.46	1.04	0.97	0.73	0.91	0.68
Control Delay	23.1	64.4	49.4	28.0	73.7	16.1
Queue Delay	0.5	23.4	0.8	0.0	0.0	1.0
Total Delay	23.6	87.7	50.2	28.0	73.7	17.1
Queue Length 50th (ft)	131	~451	335	175	95	142
Queue Length 95th (ft)	210	#591	#476	250	m#110	m163
Internal Link Dist (ft)		1027	1364			364
Turn Bay Length (ft)				200	250	
Base Capacity (vph)	635	1289	1195	970	328	1730
Starvation Cap Reductn	0	0	0	0	0	293
Spillback Cap Reductn	105	211	7	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.55	1.25	0.97	0.73	0.91	0.82

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases				4	4		1	6			2	
Permitted Phases												
Detector Phase				4	4		1	6			2	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	6.0			6.0	
Minimum Split (s)				32.5	32.5		9.0	20.0			20.0	
Total Split (s)				33.0	33.0		21.0	57.0			36.0	
Total Split (%)				36.7%	36.7%		23.3%	63.3%			40.0%	
Maximum Green (s)				27.5	27.5		16.0	52.0			31.0	
Yellow Time (s)				4.5	4.5		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				5.5	5.5		5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				4.0	4.0		1.5	4.0			4.0	
Minimum Gap (s)				3.0	3.0		1.5	3.0			3.0	
Time Before Reduce (s)				15.0	15.0		0.0	15.0			15.0	
Time To Reduce (s)				15.0	15.0		0.0	15.0			15.0	
Recall Mode				None	None		None	C-Max			C-Max	
Walk Time (s)				7.0	7.0			7.0			7.0	
Flash Dont Walk (s)				20.0	20.0			8.0			8.0	
Pedestrian Calls (#/hr)				0	0			0			0	
Act Effct Green (s)				27.5	27.5		15.8	52.0			31.2	
Actuated g/C Ratio				0.31	0.31		0.18	0.58			0.35	
v/c Ratio				0.91	0.82		0.94	0.36			0.67	
Control Delay				56.0	32.3		82.6	10.3			27.3	
Queue Delay				0.0	0.0		0.0	0.0			0.0	
Total Delay				56.0	32.3		82.6	10.3			27.3	
LOS				E	C		F	B			C	
Approach Delay					40.4			30.7			27.3	
Approach LOS					D			C			C	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 3 (3%), Referenced to phase 2:SBT and 6:NBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 33.2	Intersection LOS: C
Intersection Capacity Utilization 72.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: Central Avenue & Artesia Boulevard

Victoria Greens
5: Central Avenue & Albertoni Street

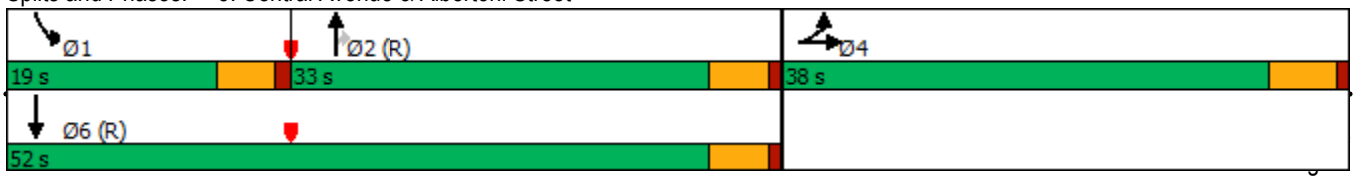
Existing
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Detector Phase	4	4						2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0						10.0	10.0	4.0	10.0	
Minimum Split (s)	34.5	34.5						22.5	22.5	9.5	22.5	
Total Split (s)	38.0	38.0						33.0	33.0	19.0	52.0	
Total Split (%)	42.2%	42.2%						36.7%	36.7%	21.1%	57.8%	
Maximum Green (s)	32.5	32.5						28.0	28.0	14.0	47.0	
Yellow Time (s)	4.5	4.5						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5						5.0	5.0	5.0	5.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	4.0	4.0						4.0	4.0	2.0	4.0	
Minimum Gap (s)	3.0	3.0						3.0	3.0	2.0	3.0	
Time Before Reduce (s)	15.0	15.0						15.0	15.0	0.0	15.0	
Time To Reduce (s)	15.0	15.0						15.0	15.0	0.0	15.0	
Recall Mode	None	None						C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0						7.0	7.0		7.0	
Flash Dont Walk (s)	22.0	22.0						10.0	10.0		10.0	
Pedestrian Calls (#/hr)	0	0						0	0		0	
Act Effct Green (s)	29.5	29.5						31.4	31.4	13.6	50.0	
Actuated g/C Ratio	0.33	0.33						0.35	0.35	0.15	0.56	
v/c Ratio	0.72	1.12dr						0.50	0.31	0.82	0.64	
Control Delay	34.5	30.3						25.9	3.4	47.4	14.4	
Queue Delay	0.0	0.0						0.0	0.0	0.0	0.1	
Total Delay	34.5	30.3						25.9	3.4	47.4	14.6	
LOS	C	C						C	A	D	B	
Approach Delay		31.7						17.5			22.9	
Approach LOS		C						B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 1 (1%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 24.1		Intersection LOS: C	
Intersection Capacity Utilization 72.5%		ICU Level of Service C	
Analysis Period (min) 15			

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 5: Central Avenue & Albertoni Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases				4	4		1	6			2	
Permitted Phases												
Detector Phase				4	4		1	6			2	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	6.0			6.0	
Minimum Split (s)				32.5	32.5		9.0	20.0			20.0	
Total Split (s)				33.0	33.0		25.0	57.0			32.0	
Total Split (%)				36.7%	36.7%		27.8%	63.3%			35.6%	
Maximum Green (s)				27.5	27.5		20.0	52.0			27.0	
Yellow Time (s)				4.5	4.5		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				5.5	5.5		5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				4.0	4.0		1.5	4.0			4.0	
Minimum Gap (s)				3.0	3.0		1.5	3.0			3.0	
Time Before Reduce (s)				15.0	15.0		0.0	15.0			15.0	
Time To Reduce (s)				15.0	15.0		0.0	15.0			15.0	
Recall Mode				None	None		None	C-Max			C-Max	
Walk Time (s)				7.0	7.0			7.0			7.0	
Flash Dont Walk (s)				20.0	20.0			8.0			8.0	
Pedestrian Calls (#/hr)				0	0			0			0	
Act Effct Green (s)				25.6	25.6		19.4	53.9			29.5	
Actuated g/C Ratio				0.28	0.28		0.22	0.60			0.33	
v/c Ratio				0.78	0.70		0.92	0.40			0.62	
Control Delay				42.7	25.7		64.4	14.3			28.3	
Queue Delay				0.0	0.0		0.0	0.2			0.0	
Total Delay				42.7	25.7		64.4	14.6			28.3	
LOS				D	C		E	B			C	
Approach Delay					31.5			29.3			28.3	
Approach LOS					C			C			C	

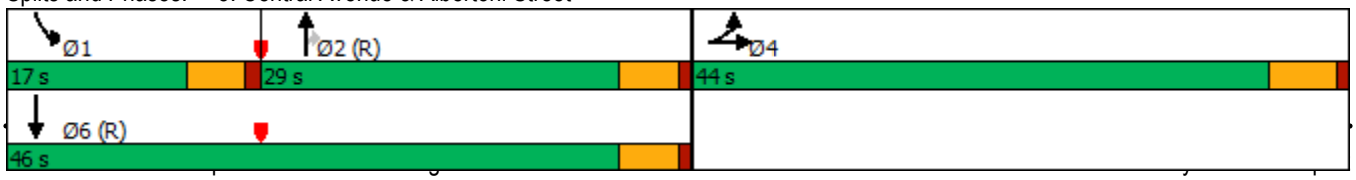
Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 27 (30%), Referenced to phase 2:SBT and 6:NBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 29.7		Intersection LOS: C	
Intersection Capacity Utilization 69.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 4: Central Avenue & Artesia Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Detector Phase	4	4						2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0						10.0	10.0	4.0	10.0	
Minimum Split (s)	34.5	34.5						22.5	22.5	9.5	22.5	
Total Split (s)	44.0	44.0						29.0	29.0	17.0	46.0	
Total Split (%)	48.9%	48.9%						32.2%	32.2%	18.9%	51.1%	
Maximum Green (s)	38.5	38.5						24.0	24.0	12.0	41.0	
Yellow Time (s)	4.5	4.5						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5						5.0	5.0	5.0	5.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	4.0	4.0						4.0	4.0	2.0	4.0	
Minimum Gap (s)	3.0	3.0						3.0	3.0	2.0	3.0	
Time Before Reduce (s)	15.0	15.0						15.0	15.0	0.0	15.0	
Time To Reduce (s)	15.0	15.0						15.0	15.0	0.0	15.0	
Recall Mode	None	None						C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0						7.0	7.0		7.0	
Flash Dont Walk (s)	22.0	22.0						10.0	10.0		10.0	
Pedestrian Calls (#/hr)	0	0						0	0		0	
Act Effct Green (s)	37.1	37.1						26.4	26.4	11.0	42.4	
Actuated g/C Ratio	0.41	0.41						0.29	0.29	0.12	0.47	
v/c Ratio	0.43	0.82						0.86	0.61	0.70	0.58	
Control Delay	21.1	28.1						41.3	25.5	59.5	15.9	
Queue Delay	0.0	0.0						0.0	0.0	0.0	0.1	
Total Delay	21.1	28.1						41.3	25.5	59.5	16.0	
LOS	C	C						D	C	E	B	
Approach Delay		26.7						35.4			26.1	
Approach LOS		C						D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 33 (37%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 29.5		Intersection LOS: C	
Intersection Capacity Utilization 69.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 5: Central Avenue & Albertoni Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases				4	4		1	6			2	
Permitted Phases												
Detector Phase				4	4		1	6			2	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	6.0			6.0	
Minimum Split (s)				32.5	32.5		9.0	20.0			20.0	
Total Split (s)				33.0	33.0		21.0	57.0			36.0	
Total Split (%)				36.7%	36.7%		23.3%	63.3%			40.0%	
Maximum Green (s)				27.5	27.5		16.0	52.0			31.0	
Yellow Time (s)				4.5	4.5		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				5.5	5.5		5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				4.0	4.0		1.5	4.0			4.0	
Minimum Gap (s)				3.0	3.0		1.5	3.0			3.0	
Time Before Reduce (s)				15.0	15.0		0.0	15.0			15.0	
Time To Reduce (s)				15.0	15.0		0.0	15.0			15.0	
Recall Mode				None	None		None	C-Max			C-Max	
Walk Time (s)				7.0	7.0			7.0			7.0	
Flash Dont Walk (s)				20.0	20.0			8.0			8.0	
Pedestrian Calls (#/hr)				0	0			0			0	
Act Effct Green (s)				27.5	27.5		16.0	52.0			31.0	
Actuated g/C Ratio				0.31	0.31		0.18	0.58			0.34	
v/c Ratio				0.92	0.82		0.99	0.37			0.67	
Control Delay				56.3	32.4		91.9	10.1			27.5	
Queue Delay				0.0	0.0		0.0	0.0			0.0	
Total Delay				56.3	32.4		91.9	10.1			27.5	
LOS				E	C		F	B			C	
Approach Delay					40.6			34.0			27.5	
Approach LOS					D			C			C	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 3 (3%), Referenced to phase 2:SBT and 6:NBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 34.4	Intersection LOS: C
Intersection Capacity Utilization 87.9%	ICU Level of Service E
Analysis Period (min) 15	

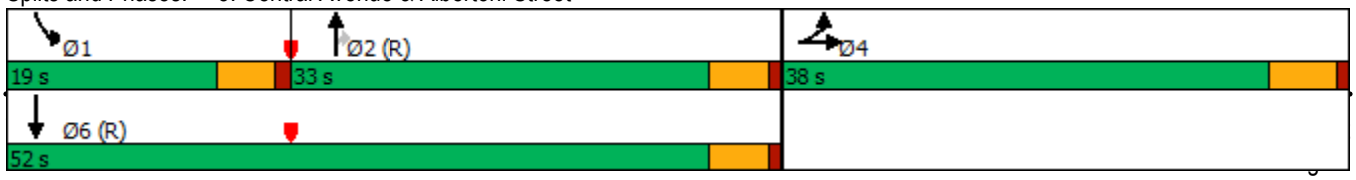
Splits and Phases: 4: Central Avenue & Artesia Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Detector Phase	4	4						2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0						10.0	10.0	4.0	10.0	
Minimum Split (s)	34.5	34.5						22.5	22.5	9.5	22.5	
Total Split (s)	38.0	38.0						33.0	33.0	19.0	52.0	
Total Split (%)	42.2%	42.2%						36.7%	36.7%	21.1%	57.8%	
Maximum Green (s)	32.5	32.5						28.0	28.0	14.0	47.0	
Yellow Time (s)	4.5	4.5						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5						5.0	5.0	5.0	5.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	4.0	4.0						4.0	4.0	2.0	4.0	
Minimum Gap (s)	3.0	3.0						3.0	3.0	2.0	3.0	
Time Before Reduce (s)	15.0	15.0						15.0	15.0	0.0	15.0	
Time To Reduce (s)	15.0	15.0						15.0	15.0	0.0	15.0	
Recall Mode	None	None						C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0						7.0	7.0		7.0	
Flash Dont Walk (s)	22.0	22.0						10.0	10.0		10.0	
Pedestrian Calls (#/hr)	0	0						0	0		0	
Act Effct Green (s)	29.6	29.6						31.3	31.3	13.6	49.9	
Actuated g/C Ratio	0.33	0.33						0.35	0.35	0.15	0.55	
v/c Ratio	0.71	1.12dr						0.52	0.32	0.82	0.64	
Control Delay	34.3	30.4						26.3	3.3	47.3	14.5	
Queue Delay	0.0	0.0						0.0	0.0	0.0	0.1	
Total Delay	34.3	30.4						26.3	3.3	47.3	14.6	
LOS	C	C						C	A	D	B	
Approach Delay		31.7						17.8			22.9	
Approach LOS		C						B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 1 (1%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 24.2		Intersection LOS: C	
Intersection Capacity Utilization 87.9%		ICU Level of Service E	
Analysis Period (min) 15			

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 5: Central Avenue & Albertoni Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases				4	4		1	6			2	
Permitted Phases												
Detector Phase				4	4		1	6			2	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	6.0			6.0	
Minimum Split (s)				32.5	32.5		9.0	20.0			20.0	
Total Split (s)				33.0	33.0		25.0	57.0			32.0	
Total Split (%)				36.7%	36.7%		27.8%	63.3%			35.6%	
Maximum Green (s)				27.5	27.5		20.0	52.0			27.0	
Yellow Time (s)				4.5	4.5		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				5.5	5.5		5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				4.0	4.0		1.5	4.0			4.0	
Minimum Gap (s)				3.0	3.0		1.5	3.0			3.0	
Time Before Reduce (s)				15.0	15.0		0.0	15.0			15.0	
Time To Reduce (s)				15.0	15.0		0.0	15.0			15.0	
Recall Mode				None	None		None	C-Max			C-Max	
Walk Time (s)				7.0	7.0			7.0			7.0	
Flash Dont Walk (s)				20.0	20.0			8.0			8.0	
Pedestrian Calls (#/hr)				0	0			0			0	
Act Effct Green (s)				25.9	25.9		19.8	53.6			28.8	
Actuated g/C Ratio				0.29	0.29		0.22	0.60			0.32	
v/c Ratio				0.79	0.70		0.93	0.40			0.64	
Control Delay				42.7	25.5		65.3	14.8			29.0	
Queue Delay				0.0	0.0		0.0	0.2			0.0	
Total Delay				42.7	25.5		65.3	15.0			29.0	
LOS				D	C		E	B			C	
Approach Delay					31.5			30.2			29.0	
Approach LOS					C			C			C	

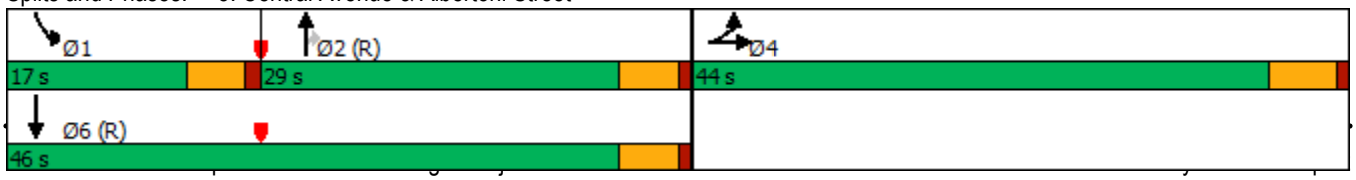
Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 27 (30%), Referenced to phase 2:SBT and 6:NBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 30.2		Intersection LOS: C	
Intersection Capacity Utilization 69.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 4: Central Avenue & Artesia Boulevard

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Detector Phase	4	4						2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0						10.0	10.0	4.0	10.0	
Minimum Split (s)	34.5	34.5						22.5	22.5	9.5	22.5	
Total Split (s)	44.0	44.0						29.0	29.0	17.0	46.0	
Total Split (%)	48.9%	48.9%						32.2%	32.2%	18.9%	51.1%	
Maximum Green (s)	38.5	38.5						24.0	24.0	12.0	41.0	
Yellow Time (s)	4.5	4.5						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5						5.0	5.0	5.0	5.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	4.0	4.0						4.0	4.0	2.0	4.0	
Minimum Gap (s)	3.0	3.0						3.0	3.0	2.0	3.0	
Time Before Reduce (s)	15.0	15.0						15.0	15.0	0.0	15.0	
Time To Reduce (s)	15.0	15.0						15.0	15.0	0.0	15.0	
Recall Mode	None	None						C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0						7.0	7.0		7.0	
Flash Dont Walk (s)	22.0	22.0						10.0	10.0		10.0	
Pedestrian Calls (#/hr)	0	0						0	0		0	
Act Effct Green (s)	37.3	37.3						26.1	26.1	11.0	42.2	
Actuated g/C Ratio	0.41	0.41						0.29	0.29	0.12	0.47	
v/c Ratio	0.43	0.82						0.88	0.62	0.70	0.59	
Control Delay	20.9	28.3						43.4	25.9	59.2	16.0	
Queue Delay	0.0	0.0						0.0	0.0	0.0	0.1	
Total Delay	20.9	28.3						43.4	25.9	59.2	16.1	
LOS	C	C						D	C	E	B	
Approach Delay		26.8						36.9			26.1	
Approach LOS		C						D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 33 (37%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 30.1		Intersection LOS: C	
Intersection Capacity Utilization 69.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 5: Central Avenue & Albertoni Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases				4	4		1	6			2	
Permitted Phases												
Detector Phase				4	4		1	6			2	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	6.0			6.0	
Minimum Split (s)				32.5	32.5		9.0	20.0			20.0	
Total Split (s)				35.0	35.0		25.0	55.0			30.0	
Total Split (%)				38.9%	38.9%		27.8%	61.1%			33.3%	
Maximum Green (s)				29.5	29.5		20.0	50.0			25.0	
Yellow Time (s)				4.5	4.5		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				5.5	5.5		5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				4.0	4.0		1.5	4.0			4.0	
Minimum Gap (s)				3.0	3.0		1.5	3.0			3.0	
Time Before Reduce (s)				15.0	15.0		0.0	15.0			15.0	
Time To Reduce (s)				15.0	15.0		0.0	15.0			15.0	
Recall Mode				None	None		None	C-Max			C-Max	
Walk Time (s)				7.0	7.0			7.0			7.0	
Flash Dont Walk (s)				20.0	20.0			8.0			8.0	
Pedestrian Calls (#/hr)				0	0			0			0	
Act Effct Green (s)				29.5	29.5		20.0	50.0			25.0	
Actuated g/C Ratio				0.33	0.33		0.22	0.56			0.28	
v/c Ratio				0.96	0.90		0.96	0.41			0.88	
Control Delay				61.3	39.0		78.6	11.1			40.1	
Queue Delay				3.1	0.6		0.0	0.0			0.0	
Total Delay				64.4	39.6		78.6	11.1			40.1	
LOS				E	D		E	B			D	
Approach Delay					48.0			32.8			40.1	
Approach LOS					D			C			D	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 3 (3%), Referenced to phase 2:SBT and 6:NBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 40.9	Intersection LOS: D
Intersection Capacity Utilization 99.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: Central Avenue & Artesia Boulevard

Victoria Greens
5: Central Avenue & Albertoni Street

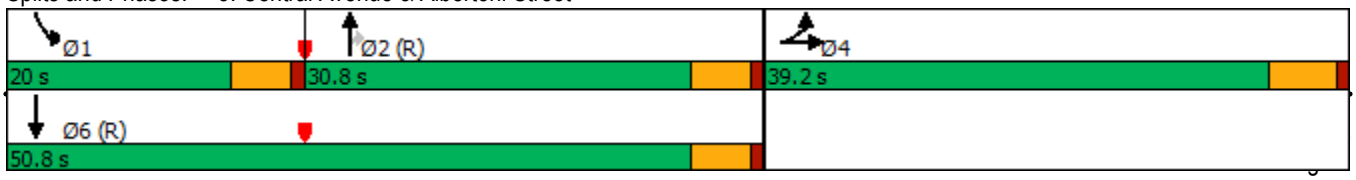
Future
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Detector Phase	4	4						2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0						10.0	10.0	4.0	10.0	
Minimum Split (s)	34.5	34.5						22.5	22.5	9.5	22.5	
Total Split (s)	39.2	39.2						30.8	30.8	20.0	50.8	
Total Split (%)	43.6%	43.6%						34.2%	34.2%	22.2%	56.4%	
Maximum Green (s)	33.7	33.7						25.8	25.8	15.0	45.8	
Yellow Time (s)	4.5	4.5						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5						5.0	5.0	5.0	5.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	4.0	4.0						4.0	4.0	2.0	4.0	
Minimum Gap (s)	3.0	3.0						3.0	3.0	2.0	3.0	
Time Before Reduce (s)	15.0	15.0						15.0	15.0	0.0	15.0	
Time To Reduce (s)	15.0	15.0						15.0	15.0	0.0	15.0	
Recall Mode	None	None						C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0						7.0	7.0		7.0	
Flash Dont Walk (s)	22.0	22.0						10.0	10.0		10.0	
Pedestrian Calls (#/hr)	0	0						0	0		0	
Act Effct Green (s)	33.1	33.1						27.2	27.2	14.1	46.4	
Actuated g/C Ratio	0.37	0.37						0.30	0.30	0.16	0.52	
v/c Ratio	0.65	1.40dr						0.71	0.41	0.81	0.81	
Control Delay	29.5	36.6						32.7	3.6	45.4	22.2	
Queue Delay	0.0	0.0						0.0	0.0	0.0	0.7	
Total Delay	29.5	36.6						32.7	3.6	45.4	22.9	
LOS	C	D						C	A	D	C	
Approach Delay		34.6						21.4			28.0	
Approach LOS		C						C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 1 (1%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 28.2		Intersection LOS: C	
Intersection Capacity Utilization 99.0%		ICU Level of Service F	
Analysis Period (min) 15			

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

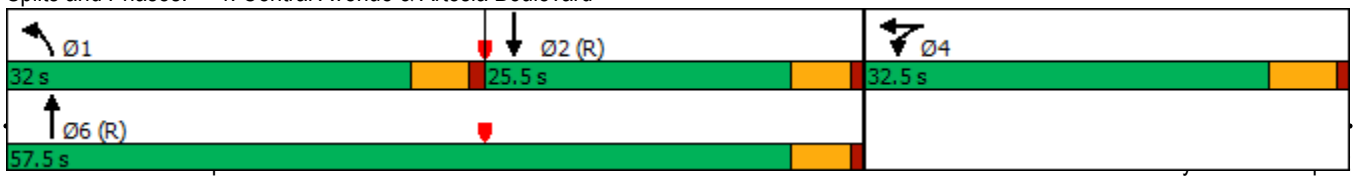
Splits and Phases: 5: Central Avenue & Albertoni Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases				4	4		1	6			2	
Permitted Phases												
Detector Phase				4	4		1	6			2	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	6.0			6.0	
Minimum Split (s)				32.5	32.5		9.0	20.0			20.0	
Total Split (s)				32.5	32.5		32.0	57.5			25.5	
Total Split (%)				36.1%	36.1%		35.6%	63.9%			28.3%	
Maximum Green (s)				27.0	27.0		27.0	52.5			20.5	
Yellow Time (s)				4.5	4.5		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				5.5	5.5		5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				4.0	4.0		1.5	4.0			4.0	
Minimum Gap (s)				3.0	3.0		1.5	3.0			3.0	
Time Before Reduce (s)				15.0	15.0		0.0	15.0			15.0	
Time To Reduce (s)				15.0	15.0		0.0	15.0			15.0	
Recall Mode				None	None		None	C-Max			C-Max	
Walk Time (s)				7.0	7.0			7.0			7.0	
Flash Dont Walk (s)				20.0	20.0			8.0			8.0	
Pedestrian Calls (#/hr)				0	0			0			0	
Act Effct Green (s)				26.4	26.4		27.6	53.1			20.5	
Actuated g/C Ratio				0.29	0.29		0.31	0.59			0.23	
v/c Ratio				0.87	0.78		0.99	0.43			0.95	
Control Delay				50.6	29.8		62.9	23.0			52.2	
Queue Delay				0.0	0.0		0.0	0.7			0.0	
Total Delay				50.6	29.8		62.9	23.7			52.2	
LOS				D	C		E	C			D	
Approach Delay					37.0			38.3			52.2	
Approach LOS					D			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 27 (30%), Referenced to phase 2:SBT and 6:NBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 41.9		Intersection LOS: D	
Intersection Capacity Utilization 81.9%		ICU Level of Service D	
Analysis Period (min) 15			

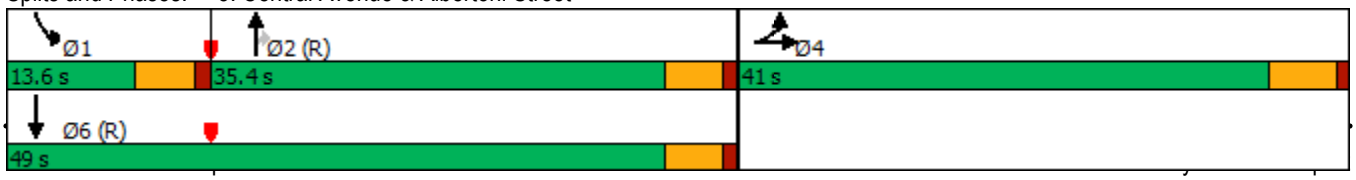
Splits and Phases: 4: Central Avenue & Artesia Boulevard



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Detector Phase	4	4						2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0						10.0	10.0	4.0	10.0	
Minimum Split (s)	34.5	34.5						22.5	22.5	9.5	22.5	
Total Split (s)	41.0	41.0						35.4	35.4	13.6	49.0	
Total Split (%)	45.6%	45.6%						39.3%	39.3%	15.1%	54.4%	
Maximum Green (s)	35.5	35.5						30.4	30.4	8.6	44.0	
Yellow Time (s)	4.5	4.5						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5						5.0	5.0	5.0	5.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	4.0	4.0						4.0	4.0	2.0	4.0	
Minimum Gap (s)	3.0	3.0						3.0	3.0	2.0	3.0	
Time Before Reduce (s)	15.0	15.0						15.0	15.0	0.0	15.0	
Time To Reduce (s)	15.0	15.0						15.0	15.0	0.0	15.0	
Recall Mode	None	None						C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0						7.0	7.0		7.0	
Flash Dont Walk (s)	22.0	22.0						10.0	10.0		10.0	
Pedestrian Calls (#/hr)	0	0						0	0		0	
Act Effct Green (s)	35.5	35.5						30.4	30.4	8.6	44.0	
Actuated g/C Ratio	0.39	0.39						0.34	0.34	0.10	0.49	
v/c Ratio	0.46	1.03						0.95	0.73	0.91	0.67	
Control Delay	23.1	59.2						47.3	27.9	74.0	16.0	
Queue Delay	0.5	29.2						0.3	0.0	0.0	0.9	
Total Delay	23.6	88.4						47.5	27.9	74.0	16.9	
LOS	C	F						D	C	E	B	
Approach Delay		76.7						40.0			28.6	
Approach LOS		E						D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 33 (37%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay: 48.7		Intersection LOS: D	
Intersection Capacity Utilization 81.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 5: Central Avenue & Albertoni Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases				4	4		1	6			2	
Permitted Phases												
Detector Phase				4	4		1	6			2	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	6.0			6.0	
Minimum Split (s)				32.5	32.5		9.0	20.0			20.0	
Total Split (s)				35.0	35.0		25.0	55.0			30.0	
Total Split (%)				38.9%	38.9%		27.8%	61.1%			33.3%	
Maximum Green (s)				29.5	29.5		20.0	50.0			25.0	
Yellow Time (s)				4.5	4.5		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				5.5	5.5		5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				4.0	4.0		1.5	4.0			4.0	
Minimum Gap (s)				3.0	3.0		1.5	3.0			3.0	
Time Before Reduce (s)				15.0	15.0		0.0	15.0			15.0	
Time To Reduce (s)				15.0	15.0		0.0	15.0			15.0	
Recall Mode				None	None		None	C-Max			C-Max	
Walk Time (s)				7.0	7.0			7.0			7.0	
Flash Dont Walk (s)				20.0	20.0			8.0			8.0	
Pedestrian Calls (#/hr)				0	0			0			0	
Act Effct Green (s)				29.5	29.5		20.0	50.0			25.0	
Actuated g/C Ratio				0.33	0.33		0.22	0.56			0.28	
v/c Ratio				0.96	0.91		1.01	0.41			0.88	
Control Delay				62.1	39.1		89.1	11.3			40.2	
Queue Delay				3.3	0.7		0.0	0.0			0.0	
Total Delay				65.4	39.7		89.1	11.3			40.2	
LOS				E	D		F	B			D	
Approach Delay					48.4			37.0			40.2	
Approach LOS					D			D			D	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 3 (3%), Referenced to phase 2:SBT and 6:NBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 42.4	Intersection LOS: D
Intersection Capacity Utilization 99.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: Central Avenue & Artesia Boulevard

Victoria Greens
5: Central Avenue & Albertoni Street

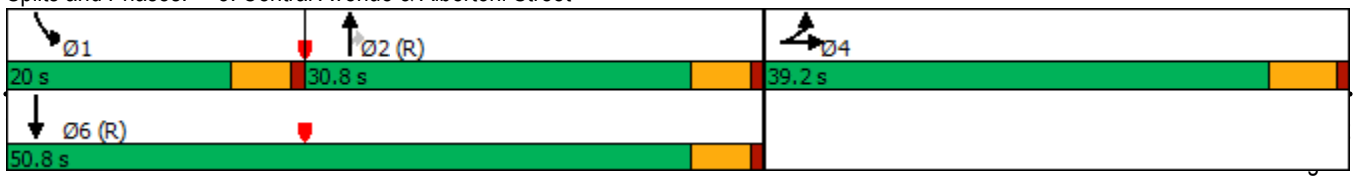
Future + Project
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Detector Phase	4	4						2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0						10.0	10.0	4.0	10.0	
Minimum Split (s)	34.5	34.5						22.5	22.5	9.5	22.5	
Total Split (s)	39.2	39.2						30.8	30.8	20.0	50.8	
Total Split (%)	43.6%	43.6%						34.2%	34.2%	22.2%	56.4%	
Maximum Green (s)	33.7	33.7						25.8	25.8	15.0	45.8	
Yellow Time (s)	4.5	4.5						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5						5.0	5.0	5.0	5.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	4.0	4.0						4.0	4.0	2.0	4.0	
Minimum Gap (s)	3.0	3.0						3.0	3.0	2.0	3.0	
Time Before Reduce (s)	15.0	15.0						15.0	15.0	0.0	15.0	
Time To Reduce (s)	15.0	15.0						15.0	15.0	0.0	15.0	
Recall Mode	None	None						C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0						7.0	7.0		7.0	
Flash Dont Walk (s)	22.0	22.0						10.0	10.0		10.0	
Pedestrian Calls (#/hr)	0	0						0	0		0	
Act Effct Green (s)	33.2	33.2						27.2	27.2	14.1	46.3	
Actuated g/C Ratio	0.37	0.37						0.30	0.30	0.16	0.51	
v/c Ratio	0.65	1.41dr						0.73	0.42	0.81	0.82	
Control Delay	29.5	37.1						33.4	3.6	45.4	22.3	
Queue Delay	0.0	0.0						0.0	0.0	0.0	0.7	
Total Delay	29.5	37.1						33.4	3.6	45.4	23.0	
LOS	C	D						C	A	D	C	
Approach Delay		34.9						22.0			28.1	
Approach LOS		C						C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 1 (1%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 28.4		Intersection LOS: C	
Intersection Capacity Utilization 99.8%		ICU Level of Service F	
Analysis Period (min) 15			

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

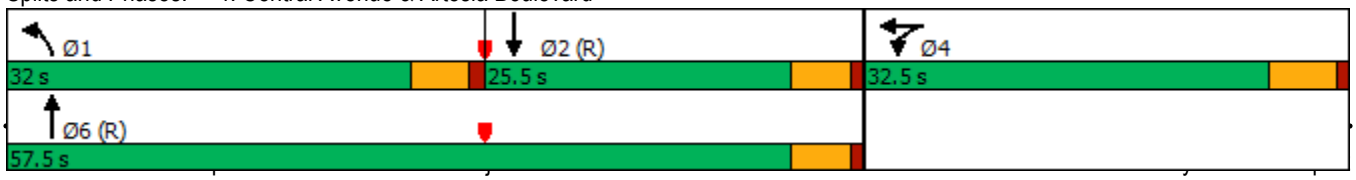
Splits and Phases: 5: Central Avenue & Albertoni Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases				4	4		1	6			2	
Permitted Phases												
Detector Phase				4	4		1	6			2	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	6.0			6.0	
Minimum Split (s)				32.5	32.5		9.0	20.0			20.0	
Total Split (s)				32.5	32.5		32.0	57.5			25.5	
Total Split (%)				36.1%	36.1%		35.6%	63.9%			28.3%	
Maximum Green (s)				27.0	27.0		27.0	52.5			20.5	
Yellow Time (s)				4.5	4.5		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				5.5	5.5		5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				4.0	4.0		1.5	4.0			4.0	
Minimum Gap (s)				3.0	3.0		1.5	3.0			3.0	
Time Before Reduce (s)				15.0	15.0		0.0	15.0			15.0	
Time To Reduce (s)				15.0	15.0		0.0	15.0			15.0	
Recall Mode				None	None		None	C-Max			C-Max	
Walk Time (s)				7.0	7.0			7.0			7.0	
Flash Dont Walk (s)				20.0	20.0			8.0			8.0	
Pedestrian Calls (#/hr)				0	0			0			0	
Act Effct Green (s)				26.3	26.3		27.7	53.2			20.5	
Actuated g/C Ratio				0.29	0.29		0.31	0.59			0.23	
v/c Ratio				0.87	0.79		1.01	0.44			0.95	
Control Delay				50.5	30.4		67.0	23.0			53.2	
Queue Delay				0.0	0.0		0.0	0.7			0.0	
Total Delay				50.5	30.4		67.0	23.7			53.2	
LOS				D	C		E	C			D	
Approach Delay					37.3			40.0			53.2	
Approach LOS					D			D			D	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 27 (30%), Referenced to phase 2:SBT and 6:NBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 42.9	Intersection LOS: D
Intersection Capacity Utilization 82.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: Central Avenue & Artesia Boulevard



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Detector Phase	4	4						2	2	1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0						10.0	10.0	4.0	10.0	
Minimum Split (s)	34.5	34.5						22.5	22.5	9.5	22.5	
Total Split (s)	41.0	41.0						35.4	35.4	13.6	49.0	
Total Split (%)	45.6%	45.6%						39.3%	39.3%	15.1%	54.4%	
Maximum Green (s)	35.5	35.5						30.4	30.4	8.6	44.0	
Yellow Time (s)	4.5	4.5						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5						5.0	5.0	5.0	5.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	4.0	4.0						4.0	4.0	2.0	4.0	
Minimum Gap (s)	3.0	3.0						3.0	3.0	2.0	3.0	
Time Before Reduce (s)	15.0	15.0						15.0	15.0	0.0	15.0	
Time To Reduce (s)	15.0	15.0						15.0	15.0	0.0	15.0	
Recall Mode	None	None						C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0						7.0	7.0		7.0	
Flash Dont Walk (s)	22.0	22.0						10.0	10.0		10.0	
Pedestrian Calls (#/hr)	0	0						0	0		0	
Act Effct Green (s)	35.5	35.5						30.4	30.4	8.6	44.0	
Actuated g/C Ratio	0.39	0.39						0.34	0.34	0.10	0.49	
v/c Ratio	0.46	1.04						0.97	0.73	0.91	0.68	
Control Delay	23.1	64.4						49.4	28.0	73.7	16.1	
Queue Delay	0.5	23.4						0.8	0.0	0.0	1.0	
Total Delay	23.6	87.7						50.2	28.0	73.7	17.1	
LOS	C	F						D	C	E	B	
Approach Delay		76.3						41.7			28.5	
Approach LOS		E						D			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 33 (37%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 49.2 Intersection LOS: D
Intersection Capacity Utilization 82.7% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 5: Central Avenue & Albertoni Street