

Traffic Impact Analysis

THE VILLAGES AT THE ALHAMBRA DEVELOPMENT

JUNE 2019 | REPORT

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EXECUTIVE SUMMARY

Kimley-Horn has been retained by The Ratkovich Company to prepare a Traffic Impact Analysis and Parking Study for The Villages at The Alhambra project located at 1000 S. Fremont Avenue in the City of Alhambra. The project size is approximately 38.38 acres and is bound by Fremont Avenue to the west, Mission Road to the south, Orange Street to the north, and Date Avenue to the east. This project is intended to provide housing options including apartments and townhomes and includes a parking garage.

- The proposed project is analyzed for two build out scenarios. Scenario 1 considers the full project to be built in one phase by 2028. Scenario 2 considers the project to be built in two phases with the first portion of the project to be completed by 2024 and the remainder to be built by 2028.
- The project site plan includes a total of 545 apartment units, 36 townhome units, and 480 condominium units.
- Access to the project site will be provided via three (3) full access driveways along Orange Street, three (3) full access driveways along Date Avenue, one (1) full access driveway along Mission Road, and one (1) full access driveway along Fremont Avenue. The full access driveway along Fremont Avenue is currently a signalized intersection providing access to existing land uses. Results from the driveway access analysis show that all driveways will operate at an acceptable level.
- The residential parking for the North Plan will be provided for by two-level parking garages at areas N1, N2, and N3, which contain condominiums and by individual driveways for each townhome at area N4. A total of 1,135 spaces will be available for the North Plan area. The residential parking for the Corner Plan will be provided for by a 337-space 6-story parking structure within the Corner Plan site. The residential parking for the South Plan will be provided for by 6-story parking structures within both S1 and S2, providing a total of 913 spaces. Office parking will be accommodated by two existing garages and one existing surface lot and a new 490-space parking structure that will be constructed on the East Plan site.
- This traffic impact study provides an analysis of 27 study intersections and 4 roadways segments in the vicinity of the project site. This study has been prepared in accordance with the Traffic Study guidelines of the County of Los Angeles based upon the direction received from City of Alhambra staff.
- For Scenario 1, in 2028, the project is estimated to generate a net project total of 6,088 trips on a daily basis, with 464 new trips during the AM peak hour and 530 new trips during the PM peak hour.
- For Scenario 2, the proposed project is estimated to generate 3,302 new trips on a daily basis for Opening Year (2024), with 240 new trips during the AM peak hour and 288 new trips during the PM peak hour. The project is estimated to generate a net project total of 6,088 trips on a daily basis in 2028, with 464 new trips during the AM peak hour and 530 new trips during the PM peak hour.
- The results for the Existing (2018) Plus Project Conditions indicate that 2 intersections operate at LOS E and 4 intersections operate at LOS F, while the remaining 21 intersections operate at LOS

D or better. During the PM peak period, 3 intersections operate at LOS E and 3 intersections operate at LOS F, while the remaining 21 intersections operate at LOS D or better.

- For Scenario 1, the Ambient (2028) Plus Project Conditions traffic analysis results indicate that 3 intersections are projected to operate at LOS E and 6 intersections are projected to operate at LOS F while the remaining 18 intersections will operate at LOS D or better during the AM peak period. During the PM peak period, 4 intersections are projected to operate at LOS E and 7 intersections will operate at LOS F while the remaining 16 intersections will operate at LOS D or better.
- For Scenario 1, the Cumulative (2028) Plus Project Conditions traffic analysis results indicate that 4 intersections are projected to operate at LOS E and 6 intersections are projected to operate at LOS F while the remaining 17 intersections will operate at LOS D or better during the AM peak period. During the PM peak period, 3 intersections are projected to operate at LOS E and 9 intersections will operate at LOS F while the remaining 15 intersections will operate at LOS D or better. The 10 following intersections would be significantly impacted by the proposed development during the AM and PM peak periods: S Fremont Avenue/W Mission Road, S Fremont Avenue/Orange Street, S Fremont Avenue/W Commonwealth Avenue, S Fremont Avenue/W Valley Boulevard, S Marengo Avenue/W Mission Road, W Valley Boulevard/I-710 SB On-Ramp, S Fremont Avenue/W Hellman Avenue, W Valley Boulevard/Westmont Drive, Date Avenue/Orange Street, and W Mission Road/Date Avenue.
- For Scenario 2, the Ambient (2024) Plus Project Conditions traffic analysis results indicate that 3 intersections are projected to operate at LOS E and 5 intersections are projected to operate at LOS F while the remaining 19 intersections will operate at LOS D or better during the AM peak period. During the PM peak period, 5 intersections are projected to operate at LOS E and 4 intersections will operate at LOS F while the remaining 18 intersections will operate at LOS D or better.
- For Scenario 2, the Cumulative (2024) Plus Project Conditions traffic analysis results indicate that 2 intersections are projected to operate at LOS E and 6 intersections are projected to operate at LOS F while the remaining 19 intersections would operate at LOS D or better during the AM peak period. During the PM peak period, 6 intersections are projected to operate at LOS E and 3 intersections would operate at LOS F while the remaining 18 intersections will operate at LOS D or better.
- For Scenario 2, no additional related project trips are added to the analysis for 2028 Conditions. As a result, Ambient (2028) and Cumulative (2028) Conditions are equivalent and only Cumulative (2028) Conditions are analyzed.
- For Scenario 2, the Cumulative (2028) Plus Project Conditions traffic analysis results indicate that 3 intersections are projected to operate at LOS E and 7 intersections are projected to operate at LOS F while the remaining 17 intersections would operate at LOS D or better during the AM peak period. During the PM peak period, 3 intersections are projected to operate at LOS E and 8 intersections would operate at LOS F while the remaining 16 intersections will operate at LOS D or better. The Scenario 2 results indicate that the 7 following intersections would be significantly impacted by the proposed development during the AM and PM peak periods: S Fremont Avenue/W Mission Road, S Fremont Avenue/Orange Street, S Fremont Avenue/W Valley Boulevard, S Marengo Avenue/W Mission Road, W Valley Boulevard/I-710 SB On-Ramp, Date Avenue/Orange Street, and W Mission Road/Date Avenue.

- Six roadway improvement projects have been funded by the Los Angeles County Metro as part of the SR-710 North Corridor Mobility Improvements. All six projects will be funded between FY20 and FY23 and it is likely they will be completed prior to completion of the Villages at the Alhambra. These projects may result in capacity increases at project study intersections and could cause them to operate at less than significant levels of service. Without knowledge of the specific design of each project, it is not yet possible to include them in the analyses for Cumulative conditions.
- The installation of traffic signals could be used to mitigate the impacted intersections at Date Avenue/Orange Street and W Mission Road/Date Avenue. Striping changes could be used as a potential mitigation measure at the impacted intersection of W Valley Boulevard/I-710 SB On-Ramp. Road widening could be used as a potential mitigation measure to mitigate the impacted intersections at S Fremont Avenue/W Mission Road, S Fremont Avenue/Orange Street, S Fremont Avenue/W Commonwealth Avenue, S Fremont Avenue/W Valley Boulevard, S Marengo Avenue/W Mission Road, S Fremont Avenue/W Hellman Avenue, and W Valley Boulevard/Westmont Drive.
- A traffic signal warrant analysis (Warrant 3) was conducted in Scenario 1 for 7 unsignalized study intersections. Traffic signals are warranted at the intersections of Date Avenue/Orange Street, W Mission Road/Date Avenue, and W Hellman Avenue/I-10 WB Ramps for Cumulative (2028) Plus Project Conditions. Mitigation measures for the project include installing traffic signals at the intersections of Date Avenue/Orange Street and W Mission Road/Date Avenue.

INTRODUCTION

This report documents a Traffic Impact Analysis (TIA) conducted for the proposed Villages at The Alhambra project for The Ratkovich Company. The proposed project consists of a master planned mixed-use development by The Ratkovich Company on a 38.38-acre site located at 1000 S. Fremont Avenue in the City of Alhambra, CA. The site is currently occupied by office buildings (including three private university tenants) and a fitness center. The remainder of the site is occupied by surface parking lots and other buildings that are mostly unused. For the current phase of the project, The Ratkovich Company plans to redevelop these unused sections as residential apartments, condominiums, and townhouses.

Figure 1 illustrates the study area and project location in its regional setting.

PROJECT DESCRIPTION

The site is divided into four plan areas – North, East, Corner, and South. The existing offices will be in the Office Plan area. The North Plan area is proposed to include 36 townhomes, three podium buildings with 480 condominiums, and an amenity pool and courtyard. The East Plan area is proposed to be a five-story, 490-space, parking structure to accommodate trips to the existing land use that currently use surface parking lots that would be removed. The Corner Plan area is proposed to be a single wrap building with 153 apartment units. The South Plan area is proposed to include two wrap buildings with 392 apartment units. The site is bound by Fremont Avenue to the west, Mission Road to the south, Date Street to the east, and Orange Avenue to the north. The land-use and building area summary associated with the proposed project is as follows:

Table 1: Land Use and Building Area Summary

Project Component	Units
For-Sale Townhomes	36
For-Sale Condominiums	480
Rental Apartments	545
TOTAL NEW	1,061
<i>Source: The Ratkovich Company, 2017</i>	

Project Area	For-Sale Townhomes/Condominiums	Rental Apartments	Total Units
S1	0	175	175
S2	0	217	217
C1	0	153	153
N1	149	0	149
N2	139	0	139
N3	192	0	192
N4	36	0	36
TOTAL NEW	516	545	1,061
<i>Source: The Ratkovich Company, 2017</i>			

Access to the site would be provided by eight (8) full access driveways. One driveway along Fremont Avenue will remain a signalized intersection and provide access to the South Plan area from the west. One driveway along Mission Road will be relocated approximately 280 feet west and provide access to the South Plan area from the south. Three driveways along Date Avenue will provide access to Corner, East, and North Plan areas from the east. The farthest south driveway on Date Avenue will provide access exclusively to the Corner Plan parking structure. Three driveways located along Orange Street will provide access to the North and Office Plan areas. The residential parking for the North Plan will be provided for by subterranean garages beneath the condominiums and driveways at the townhomes for a total of 1,135 parking spaces. The residential parking for the Corner Plan will be provided for by a 337-space parking structure within the Corner Plan building. The residential parking for the South Plan will be provided for by 6-story parking structures within each building for a total of 913 parking spaces. Office parking will be accommodated by two existing parking structures, one existing parking lot, and a new 490-space parking structure that will be constructed on the East Plan site. City of Alhambra and the County of Los Angeles guidelines for Traffic Impact Analysis will be followed. **Figure 2** illustrates the proposed project site plan.

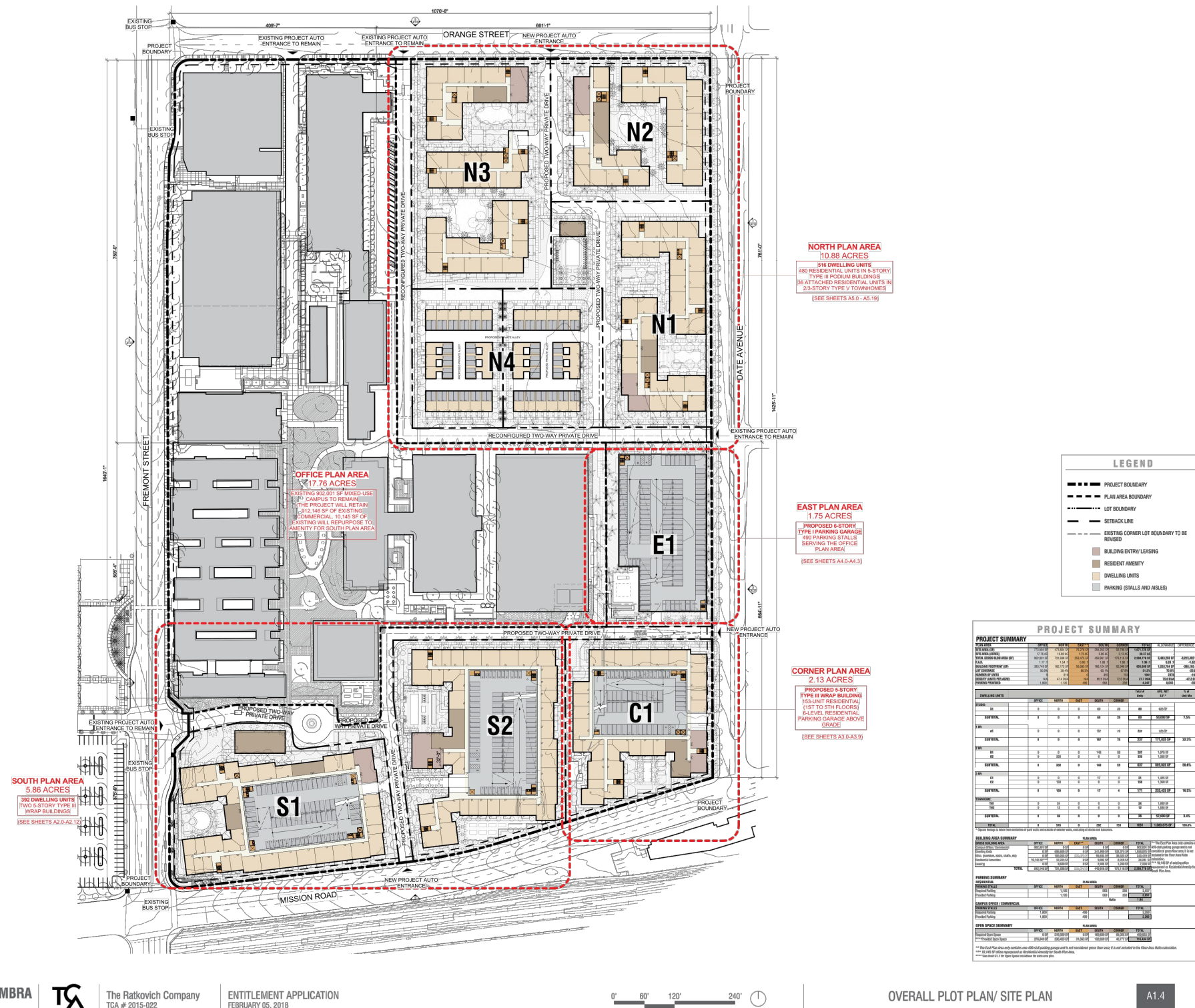


FIGURE 2
The Villages at The Alhambra Development
Project Site Plan

PROJECT SCENARIOS

Two scenarios will be analyzed in this traffic impact analysis to assess the potential benefits of phasing the project:

- Scenario 1 will consider the full project together (1,061 units) and assess impacts in 2028.
- Scenario 2 will consider the project to be phased with partial build-out expected to be complete by 2024. The Ratkovich Company plans to phase construction such that 516 condominium and townhouse units (project areas N1, N2, N3, and N4) will be built by 2024 and the remaining 545 apartment units (project areas S1, S2, and C) will be built by 2028. The traffic impact analysis will analyze project impacts at the opening year of 2024 when the first portion of units are built and again in 2028 when all the units are completed.

STUDY METHODOLOGY

The project site is located in the City of Alhambra in the County of Los Angeles. The format of the traffic study follows County of Los Angeles and Congestion Management Program (CMP) guidelines. The study area and intersections for this project were identified in consultation with the City of Alhambra and are consistent with the Los Angeles County CMP policy. This study provides analysis of the following 14 scenarios in accordance with County of Los Angeles Traffic Impact Analysis Report guidelines:

Existing Conditions

- Existing (2018) Conditions
- Existing (2018) Plus Project Conditions

Scenario 1

- Ambient (2028) Conditions (Existing, Plus 2028 Ambient Growth)
- Ambient (2028) Plus Project Conditions (Existing, Plus 2028 Ambient Growth, Plus Project)
- Cumulative (2028) Conditions (Existing, Plus 2028 Ambient Growth, Plus Cumulative Projects)
- Cumulative (2028) Plus Project Conditions (Existing, Plus 2028 Ambient Growth, Plus Cumulative Projects, Plus Project)
- Cumulative (2028) Plus Project Conditions with Potential Mitigations (Existing, Plus 2028 Ambient Growth, Plus Cumulative Projects, Plus Project, Plus Potential Mitigations)

Scenario 2

- Ambient (2024) Conditions (Existing, Plus 2024 Ambient Growth)
- Ambient (2024) Plus Project Conditions (Existing, Plus 2024 Ambient Growth, Plus 2024 Partial Project)
- Cumulative (2024) Conditions (Existing, Plus 2024 Ambient Growth, Plus Cumulative Projects)
- Cumulative (2024) Plus Project Conditions (Existing, Plus 2024 Ambient Growth, Plus Cumulative Projects, Plus 2024 Partial Project)
- Cumulative (2028) Conditions (Existing, Plus 2024 Ambient Growth, Plus Cumulative Projects, Plus 2024 Partial Project, Plus 2028 Ambient Growth)
- Cumulative (2028) Plus Project Conditions (Existing, Plus 2024 Ambient Growth, Plus Cumulative Projects, Plus 2024 Partial Project, Plus 2028 Ambient Growth, Plus 2028 Completed Project)
- Cumulative (2024) Plus Project Conditions with Potential Mitigations (Existing, Plus 2024 Ambient Growth, Plus Cumulative Projects, Plus 2024 Partial Project, Plus Potential Mitigations)

I. EXISTING CONDITIONS

STUDY AREA

The project site is located at 1000 S. Fremont Avenue in the City of Alhambra and is bounded by Fremont Avenue at the west, Mission Road at the south, Date Avenue at the east, and Orange Street at the north.

The information for the 27 study area intersections and four roadway segments identified in conjunction with City staff is listed below in **Table 2**. Existing lane configuration and traffic control for the study intersections and the study roadway locations are illustrated in **Figure 3** on the following page.

Table 2: Study Area Intersections and Roadways

Intersection #	Northbound/ Southbound	Eastbound/ Westbound	Signalized
1	S Fremont Ave	W Mission Rd	Yes
2	S Fremont Ave	Project Driveway	Yes
3	S Fremont Ave	Orange St	Yes
4	Date Ave	Orange St	No
5	Orange St	S Palm Ave	No
6	Chestnut Ave	S Palm Ave	No
7	S Fremont Ave	Poplar Blvd	Yes
8	W Mission Rd	Date Ave	No
9	Chestnut St	Date Ave	No
10	S Fremont Ave	Concord Ave	Yes
11	S Fremont Ave	Montezuma Ave	Yes
12	W Commonwealth Ave	S Palm Ave	Yes
13	Date Ave	W Commonwealth Ave	Yes
14	S Fremont Ave	W Commonwealth Ave	Yes
15	S Fremont Ave	W Valley Blvd	Yes
16	W Mission Rd	S Palm Ave	Yes
17	W Valley Blvd	S Marengo Ave	Yes
18	S Atlantic Blvd	W Mission Rd	Yes
19	S Marengo Ave	W Mission Rd	Yes
20	S Marengo Ave	Front St	Yes
21	W Valley Blvd	I-710 NB Off ramp	Yes
22	W Valley Blvd	I-710 SB On ramp	Yes
23	S Fremont Ave	W Hellman Ave	Yes
24	W Hellman Ave	I-10 WB Ramps/Elm St	No
25	S Fremont Ave	I-10 EB Ramps/Ramona Rd	No
26	S Fremont Ave	Ross Ave	Yes
27	W Valley Blvd	Westmont Dr	Yes

Roadway #	Name	From/To	# Lanes
1	Fremont Ave	Orange St/Mission Rd	4
2	Mission Rd	Fremont Ave/Date Ave	4
3	Orange St	Fremont Ave/Date Ave	2
4	Date Ave	Mission Rd/Orange St	2

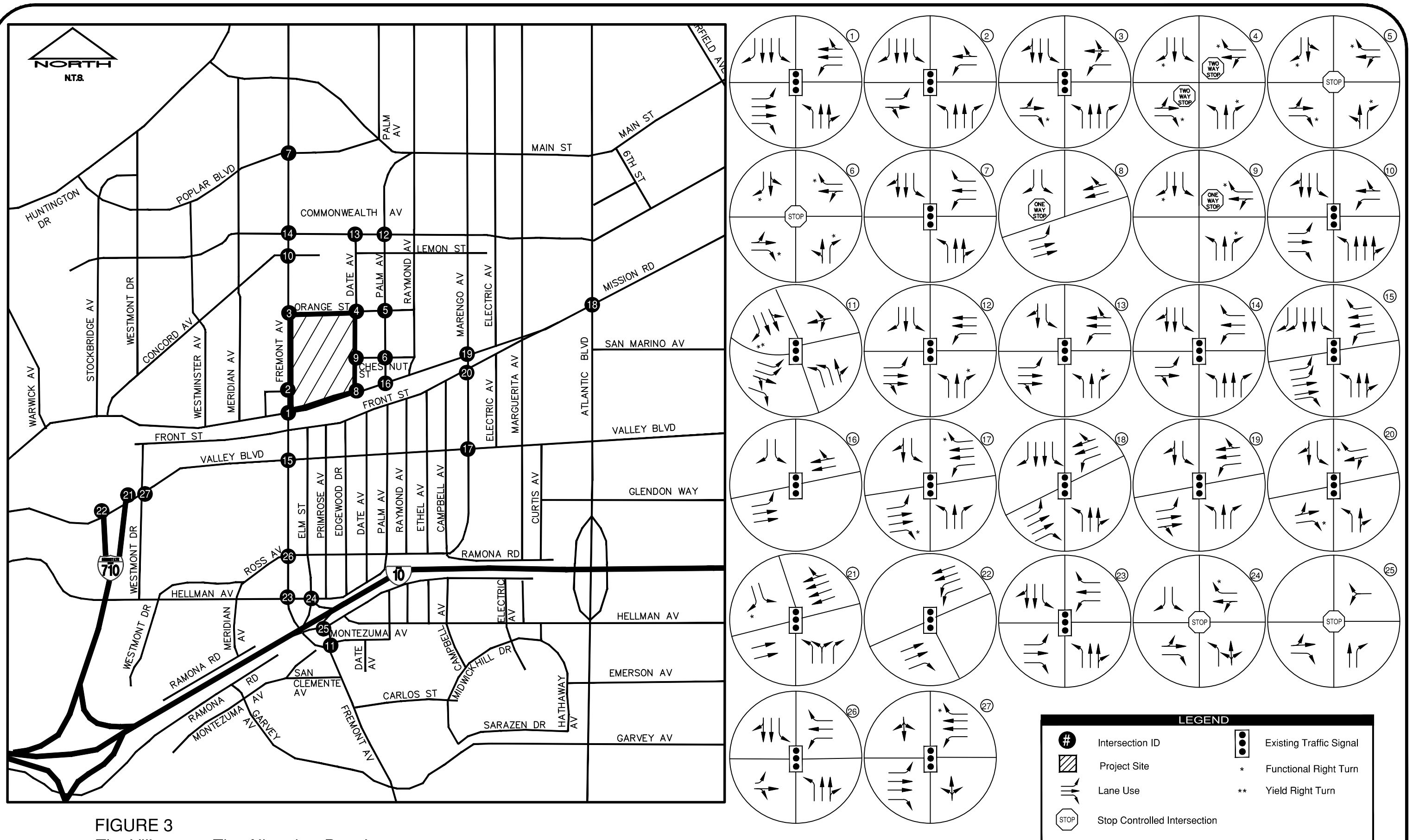


FIGURE 3
 The Villages at The Alhambra Development
 Existing (2018) Project Intersection Lane Configuration and Traffic Control

EXISTING ROADWAY SYSTEM

The following sections describe the roadway system including arterials, collectors, and local streets that traverse the study intersections and serve the project site.

Fremont Avenue is a north-south major arterial located at the west of the project site. It has two lanes in each direction between Orange Street at the north and Mission Road at the south. Fremont Avenue provides three lanes in the northbound direction between Orange Street and Commonwealth Avenue. Fremont Avenue connects to Interstate 210 to the north and Interstate 10 to the south. It also provides access to Pasadena to the north and Monterey Park to the south. Fremont Avenue provides direct access to the project site via a signalized intersection due north of Mission Road. On-street parking is prohibited on both sides of Fremont Avenue and the posted speed limit is 40 mph.

Mission Road is a major arterial that runs east-west located at the south of the project site. Mission Road provides two travel lanes in each direction and there is one full access driveway along Mission Road providing access to the project site. On-street parking is prohibited on both sides of the road and the posted speed limit along Mission Road is 40 mph.

Date Avenue is a local street that runs north-south from Commonwealth Avenue to Mission Street and is located at the east of the project site. Date Avenue provides one travel lane in each direction and there is one full access enter-only driveway along Date Avenue at Chestnut Street providing access to the project site. On-street parking is available on both sides of the street and the posted speed limit along Date Avenue is 30 mph.

Orange Street is a local street that runs east-west from Fremont Avenue to Raymond Avenue and is located at the north of the project site. Orange Street provides one travel lane in each direction and there are three full access driveways providing access to the project site. On-street parking is available on both sides of the street and the prima facie speed limit is 25 mph.

Palm Avenue is a local street that runs north-south from Mission Road to Main Street and is located at the east of the project site. Palm Avenue provides one travel lane in each direction and diagonal on-street parking is available on both sides of the street. The posted speed limit along Palm Avenue is 25 mph.

Chestnut Street is a local street that runs east-west from Date Avenue to Raymond Avenue and is located at the east side of the project site. Chestnut Street has one travel lane in each direction and on-street parking is available on both sides of the street. The west end of Chestnut Street leads to the full access enter-only driveway along Date Avenue providing access to the project site. The prima facie speed limit along Chestnut Street is 25 mph.

Commonwealth Avenue is a major collector that runs east-west located north of the project site. Commonwealth Avenue provides two travel lanes in each direction between Fremont Avenue and Palm Avenue. On-street parking is prohibited along both sides of the street between Fremont Avenue and Raymond Avenue and the posted speed limit is 35 mph.

Valley Boulevard is a major arterial that runs east-west located south of the project site. Valley Boulevard is an alternative route to Interstate 10 and has two lanes in each direction. On-street parking is available on both sides of the street and the posted speed limit is 35 mph.

Atlantic Boulevard is a major arterial that runs north-south located north of the project site and provides two travel lanes in each direction. On-street parking is prohibited along both sides of the street between Huntington Drive and Valley Boulevard and the posted speed limit is 35 mph.

EXISTING TRANSIT SYSTEM

The existing public transit lines that operate within the study area are shown in following **Table 3** below. Transit services include Alhambra Community Transit, Los Angeles County Metropolitan Transportation Authority (Metro), and University of Southern California (USC) Transit.

Table 3: Existing Public Transit Service Summary

Agency	Line	From	To	Via	Weekday Peak Frequency	Saturday Peak Frequency
Alhambra Community Transit	Blue Line	Circular Loop Within City Limit		Fremont Ave / Commonwealth Ave	20 minutes	20 minutes
Alhambra Community Transit	Green Line	Circular Loop Within City Limit		Fremont Ave / Valley Blvd	20 minutes	20 minutes
Metro	258	Paramount	Alhambra	Fremont Ave	35 to 45 minutes	n/a
Metro	76	Los Angeles	El Monte	Valley Blvd	12 to 15 minutes	15 to 20 minutes
Metro Rapid	762	Compton	Altadena	Atlantic Blvd	17 to 30 minutes	n/a
Metro Express	485	Downtown Los Angeles	Altadena	Fremont Ave	40 minutes	40 minutes
USC Transit	Alhambra Route	USC	Alhambra Campus	Fremont Ave	2-3 hours	n/a

EXISTING TRAFFIC VOLUMES

The sections below include the peak hour traffic volumes, methodology utilized for this analysis, and existing operating conditions.

Existing morning and evening peak hour turning movement counts were conducted at the first 25 locations on April 27, 2017 and at the intersections of S Fremont Ave at Ross Ave and Valley Blvd at Westmont Dr on November 14, 2017. Intersection counts were collected during the morning (7:00 AM to 9:00 AM) and evening (4:00 PM to 6:00 PM) peak periods.

24-hour ADT tube counts were collected on Fremont Ave and Mission Rd on April 27, 2017 and on Orange St and Date Ave on November 14, 2017. Copies of the traffic data collection worksheets are provided in **Appendix A**.

SIGNALIZED INTERSECTION ANALYSIS METHODOLOGY

Project impact for the 20 signalized study intersections was evaluated by conducting “Without Project” and “With Project” Level of Service (LOS) analysis for the proposed opening year of the project, using the Intersection Capacity Utilization (ICU) methodology. The ICU technique is used for signalized intersections and compares the volumes of traffic on each movement to the capacity for each movement, and calculates the sum of individual volume-to-capacity (V/C) ratios for key conflicting movements. The ICU numerical value represents the percent of signal green time, or capacity, required by existing or future traffic.

The Los Angeles County ICU methodology is used for signalized intersections, including an hourly capacity of 1,600 vehicles per lane for each through or turning lane (1,440 vehicles per lane for dual left-turn lanes), and a clearance interval of 10% per cycle.

Technical analysis of the intersection operating conditions will provide a qualitative assessment of the operating conditions of that intersection. Operating conditions are expressed in terms of Level of Service. Level of Service designations range from LOS “A” to “F,” with LOS “A” representing comfortable, free-flowing traffic conditions with minimal delays and LOS “F” representing congested conditions with long delays. A qualitative description of each Level of Service is presented in **Table 4** below. Traffix software, version 8 was used to analyze the 20 signalized study intersections.

Table 4: ICU and Level of Service Definitions

V/C Value	Level of Service (LOS)	Description
0 to 0.604	A	Free flow conditions; low traffic volumes and density; high speeds; no restriction to maneuver pass; drivers can maintain desired speeds with little or no delay
0.605 to 0.704	B	Stable flow; operating speeds beginning to be restricted; drivers still have some freedom to select speed and lane of operation
0.705 to 0.804	C	Still in the stable flow zone; Speeds and maneuverability closely controlled by higher volumes; most drivers' freedom restricted to select their own speed and lane; relatively satisfactory operating speed is still obtained
0.805 to 0.904	D	approaches unstable flow; tolerable operating speeds still maintained; fluctuations in volume and temporary restrictions to flow may substantially drop operating speeds; drivers have little freedom to maneuver
0.905 to 1.004	E	Unstable flow at or near capacity; lower operating speeds typically, but not always, 30 mph; stoppages for momentary duration
1.005+	F	Forced flow operation at low speeds; volumes are below capacity; in extreme cases both speed and volume can drop to zero; stoppages may occur for short or long periods of time due to downstream congestion

Source: *Intersection Capacity Utilization (ICU) 2000 Guidelines*

UNSIGNALIZED INTERSECTION ANALYSIS METHODOLOGY

Project impacts for the 7 unsignalized study intersections were evaluated by conducting “Without Project” and “With Project” Level of Service (LOS) analysis for the proposed opening year of the project, using the Highway Capacity Method (HCM 2010). The HCM method utilizes the average number of seconds of delay a driver would experience to define the LOS. Unsignalized LOS is reported for the worst approach for two-way stop controlled intersections and for the average approach for all way stop controlled intersections. Signal warrants were conducted for all unsignalized intersections.

Synchro 9 software was used for analysis of 7 unsignalized study intersections. **Table 5** presents the average intersection delay (per vehicle) ratio and the corresponding LOS, under the 2010 Highway Capacity Manual analysis utilized within the Synchro software.

Table 5: HCM 2010 Level of Service (LOS) for Unsignalized Intersections

Seconds of Delay (average per vehicle)	Related LOS Rating
10 or less	A – Free Flow
Between 10 and 15	B – Unconstrained Flow
Between 15 and 25	C – Somewhat constrained flow, maneuverability is reduced
Between 25 and 35	D – Constrained flow, little maneuverability
Between 35 and 50	E – Significant vehicle queuing; not all vehicles clear intersection in one cycle
Greater than 50	F – Excessive delay; vehicles require more than one signal cycle to clear the intersection

Source: *2010 Highway Capacity Manual*

SIGNIFICANT IMPACT THRESHOLDS

The City of Alhambra uses County of Los Angeles Level of Service (LOS) standards of significance to identify significant project impacts. The City of Alhambra is currently developing guidelines for analysis of project impacts on vehicle miles traveled (VMT) as required by the state of California, pursuant to Senate Bill 743. The state requires these new thresholds to be adopted by July 1, 2020. As of June 2019, only a few cities in Southern California have developed a model to analyze VMT. For now, the City of Alhambra will continue to use the County of Los Angeles standards of significance.

SIGNALIZED INTERSECTIONS

The County of Los Angeles impact criteria for signalized intersections states that a project's impact is considered to be significant if the project-related increase in the intersection volume-to-capacity ratio (v/c ratio) equals or exceeds the threshold shown in **Table 6** below:

Table 6: Signalized Intersection Significant Impact Threshold

Pre-Project Conditions		Project V/C Increase
Level of Service	V/C Ratio	
C	0.71 to 0.80	0.040 or more
D	0.81 to 0.90	0.020 or more
E/F	0.91 or more	0.010 or more

Source: Los Angeles County Traffic Impact Analysis Report Guidelines

Using the intersection significant impact criteria, a project will not have a significant impact at a signalized intersection if it operates at LOS D after the addition of the proposed project and the incremental change in V/C is less than 0.040. However, if the intersection is operating at LOS F after the addition of the proposed project traffic and the associated increase in V/C ratio is 0.020 or greater, the project will be considered to have a significant impact.

UNSIGNALIZED INTERSECTIONS

Based on review of the LA County TIA guidelines and the City's Circulation Element, there are no specific significance criteria for the performance of unsignalized intersections. Therefore, for purposes of determining project-specific impacts of the proposed project at unsignalized intersections, the following significance criteria was provided by the City:

1. The project would create a significant impact at an unsignalized intersection if the addition of the project-traffic would cause the intersection to operate from LOS D, or better in the baseline (pre-project) condition, to LOS E or F in the plus-project condition. A traffic signal warrant analysis shall be conducted to determine whether a traffic signal is warranted. If a traffic signal is warranted, the City may require the project applicant to pay its fair-share of fees to an applicable program (e.g., DIF, CIP, etc.) for the signalization of the intersection, when warranted.
2. If an unsignalized intersection is operating at LOS E or F in the baseline (pre-project) condition, the project would create a significant impact at that intersection if it contributes 10 percent, or more, to the total traffic volume of the impacted peak hour(s). A traffic signal warrant analysis shall be conducted to determine whether a traffic signal is warranted. If a traffic signal is warranted, the City may require the project applicant to pay its fair-share of fees to an applicable program (e.g., DIF, CIP, etc.) for the signalization of the intersection, when warranted.

EXISTING (2018) CONDITIONS

Existing morning and evening peak hour traffic counts were used for analysis of 27 study intersections. **Figure 4** on the following page illustrates the AM and PM peak hour traffic volumes at the study intersections for the Existing (2018) Conditions. The intersection analysis worksheets for Existing (2018) Conditions are provided in **Appendix B**.

Table 7 below presents a summary of the Existing (2018) Conditions V/C ratio or Delay (seconds) and the corresponding LOS for each study intersection.

Table 7: Summary of Intersection Operations – Existing (2018) Conditions

Signalized Study Intersections		LOS Analysis Results			
		AM Peak Hour		PM Peak Hour	
		V/C	LOS	V/C	LOS
1	S Fremont Ave/W Mission Rd	1.165	F	1.087	F
2	S Fremont Ave/Project Driveway	0.573	A	0.628	B
3	S Fremont Ave/Orange St	0.573	A	0.792	C
7	S Fremont Ave/Poplar Blvd	0.697	B	0.696	B
10	S Fremont Ave/Concord Ave	0.641	B	0.595	A
11	S Fremont Ave/Montezuma Ave	0.600	A	0.674	B
12	W Commonwealth Ave/S Palm Ave	0.387	A	0.524	A
13	Date Ave/W Commonwealth Ave	0.378	A	0.597	A
14	S Fremont Ave/W Commonwealth Ave	0.713	C	0.861	D
15	S Fremont Ave/W Valley Blvd	0.933	E	0.884	D
16	W Mission Rd/S Palm Ave	0.626	B	0.587	A
17	W Valley Blvd/S Marengo Ave	0.715	C	0.743	C
18	S Atlantic Blvd/W Mission Rd	0.855	D	0.916	E
19	S Marengo Ave/W Mission Rd	0.926	E	0.891	D
20	S Marengo Ave/Front St	0.732	C	0.772	C
21	W Valley Blvd/I-710 NB Off-ramp	0.696	B	0.647	B
22	W Valley Blvd/I-710 SB On-ramp	1.059	F	0.828	D
23	S Fremont Ave/W Hellman Ave	0.779	C	0.762	C
26	S Fremont Ave/Ross Ave	0.649	B	0.498	A
27	W Valley Blvd/Westmont Dr	0.808	D	0.636	B
Unsignalized Study Intersections		LOS Analysis Results			
		AM Peak Hour		PM Peak Hour	
		Delay (s)	LOS	Delay (s)	LOS
4	Date Ave/Orange St	12.3	B	21.0	C
5	Orange St/S Palm Ave	8.7	A	11.1	B
6	Chestnut Ave/S Palm Ave	8.6	A	11.6	B
8	W Mission Rd/Date Ave	21.8	C	37.6	E
9	Chestnut St/Date Ave	12.0	B	12.2	B
24	W Hellman Ave/I-10 WB Ramps (Elm St)	66.5	F	31.3	D
25	S Fremont Ave/I-10 EB Ramps (Ramona Rd)	109.4	F	112.2	F

The Existing (2018) Conditions traffic analysis results presented in **Table 7** indicate that during the AM peak period, 2 intersections operate at LOS E and 4 intersections operate at LOS F while the remaining 21 intersections operate at LOS D or better. During the PM peak period, 2 intersections operate at LOS E and 2 intersections operate at LOS F while the remaining 23 intersections operate at LOS D or better.

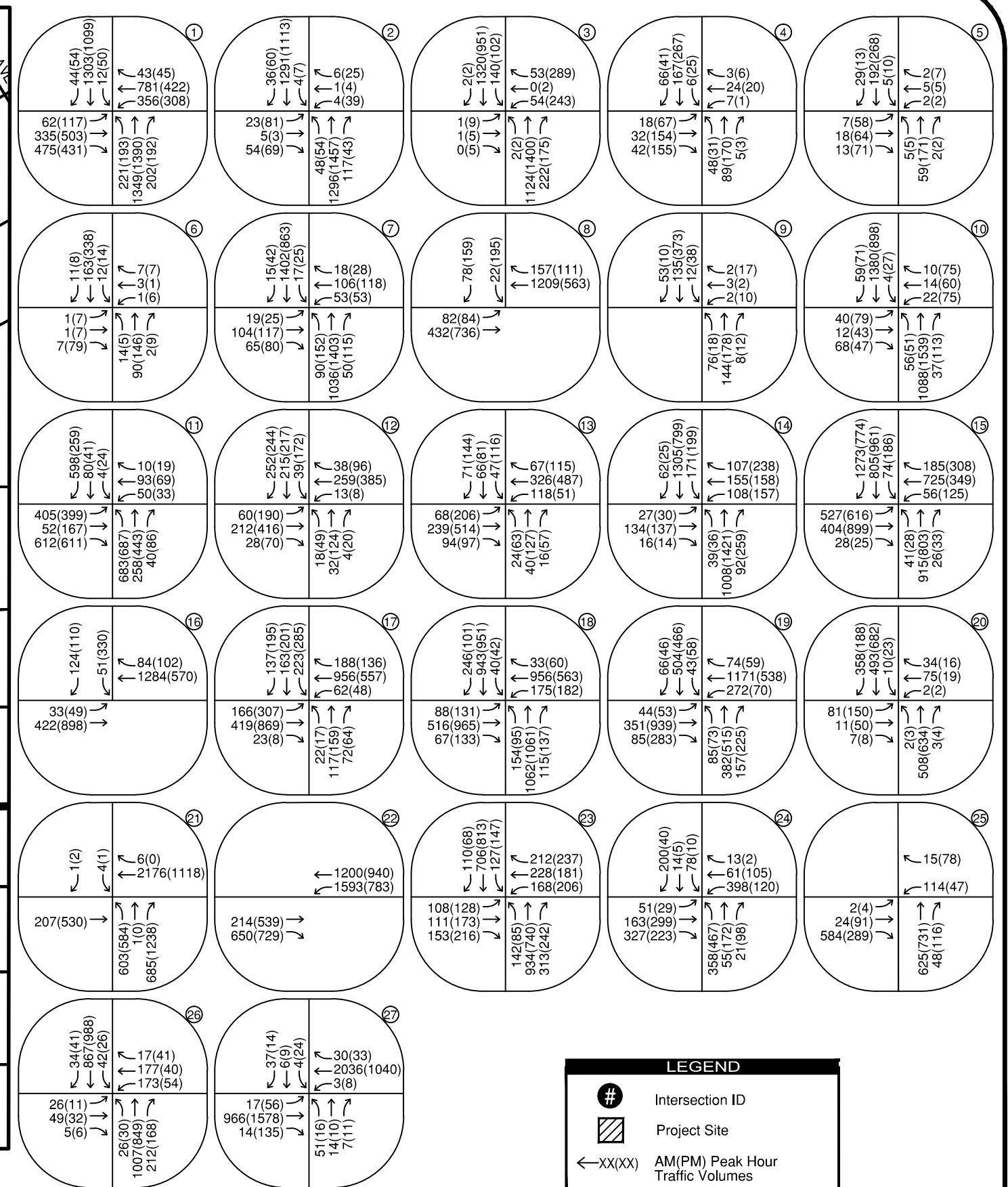
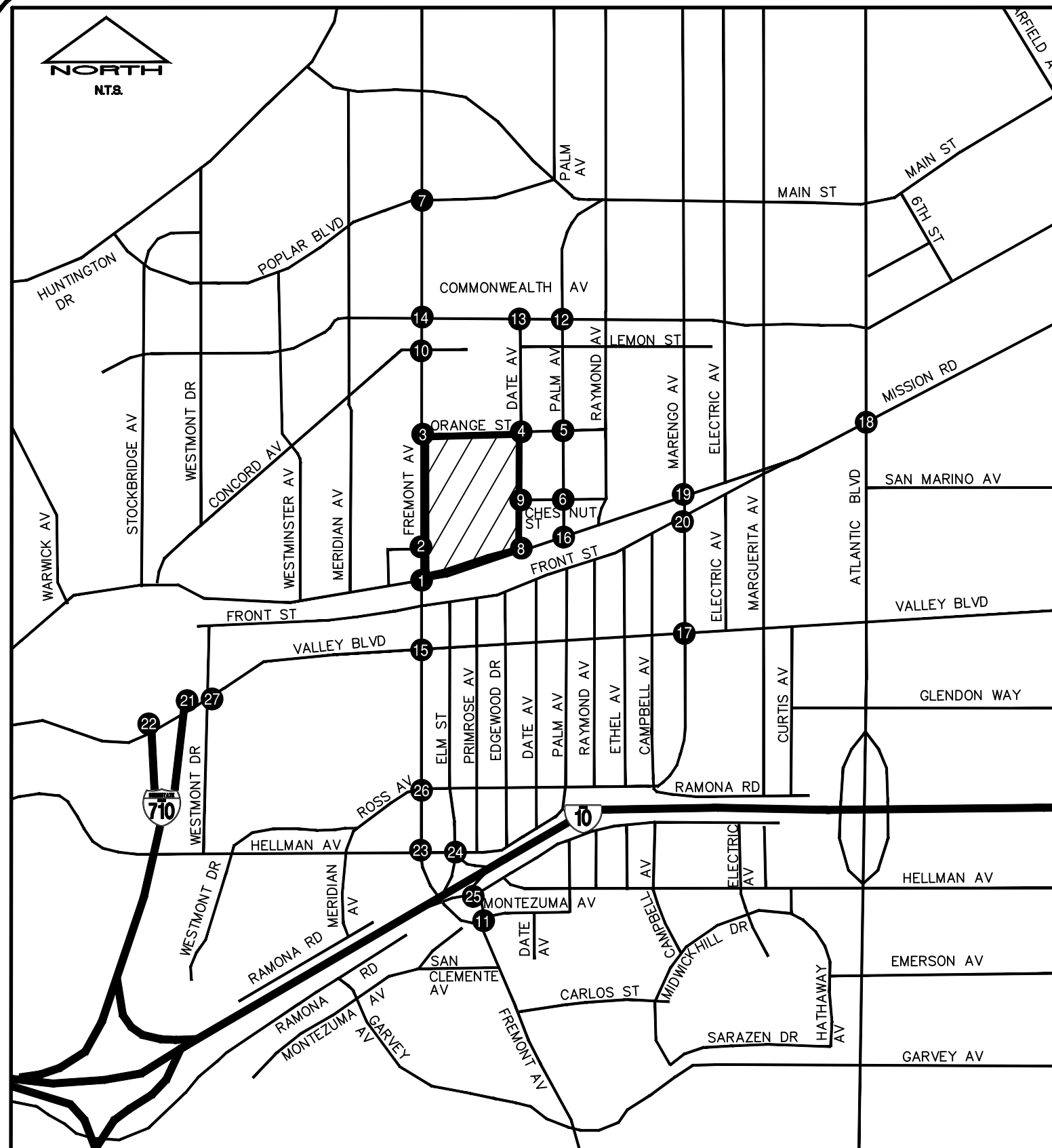


FIGURE 4
The Villages at The Alhambra Development
Existing (2018) Weekday Peak-Hour Turning Movement Volumes

The analysis of street segments that have closely spaced signalized intersections is not necessary for this exercise since traffic demand is represented by the arrival patterns and number of vehicles that are able to pass through an intersection over a specific period of time. For constrained situations true peak traffic flow midblock may not be accurately reflected because vehicles may be queued upstream or may not be served in a single signal cycle. For informational purposes the existing daily traffic on each segment has been reported but all operational analysis for future conditions are based on intersection analysis.

Existing roadway traffic volumes are shown on the following page in **Table 8**.

Table 8: Summary of Existing Roadway Average Daily Traffic

Roadway	Street	From/To	# Lanes	Average Daily Traffic (vehicles)		
				Eastbound/ Northbound	Westbound/ Southbound	Total
1	Fremont Ave	Orange St/Mission Rd	4	22,412	20,541	42,953
2	Mission Rd	Fremont Ave/Date Ave	4	8,537	10,698	19,235
3	Orange St	Fremont Ave/Date Ave	2	3,239	2,917	6,156
4	Date Ave	Mission Rd/Orange St	2	2,758	3,396	6,154

II. PROJECT CONDITIONS

PROJECT TRAFFIC

Trip generation estimates were calculated for the proposed development in order to determine the potential traffic impacts of the proposed project on the study intersections and roadways providing access to the project site. The following paragraphs describe trip generation, distribution, and assignment for the project.

PROJECT TRAFFIC GENERATION

Weekday daily, AM, and PM peak hour trips were estimated for the project using trip generation rates from the Institute of Transportation Engineers (ITE) publication entitled *Trip Generation*, 9th Edition and from the Los Angeles County Traffic Impact Analysis (TIA) Report Guidelines. The morning and evening peak hours correspond to the peak hours of the adjacent street system. The Land Use Categories used for this analysis were 220 – Apartment, 230 – Residential Condominium/Townhouse, and 710 – General Office Building. Per County of Los Angeles TIA Report Guidelines, adjusted rates were used for the Residential Condominium/Townhouse land use. Trip generation rates are summarized in **Table 9**. The resulting trips that would be generated by the proposed project are summarized in **Table 10** for the opening year 2024 project trip generation in Scenario 2 and in **Table 11** for the 2028 full buildout project trip generation in Scenarios 1 and 2.

The trip generation estimate includes the following three types of credits:

- 1) The first trip generation credit is for existing land uses that will be demolished or repurposed as part of the Villages at The Alhambra Development. Many of the buildings currently on the site are warehouses and are not currently generating any trips. The Alhambra Medical University on the southeast corner of the project site has classes primarily in the evenings and on weekends and is estimated to generate a negligible number of trips during AM and PM peak periods. The buildings that are proposed to be removed from the North Plan area are currently unused so no credits are taken. The one credit that is applied is for 10,145 square feet of office space that will be repurposed to be residential amenity for the S1 building.
- 2) The second credit is an 11% drive ratio credit which indicates that 11% of the residential trips will be completed by public transit, biking, or walking, rather than single occupant vehicle trips. This credit is based on 2015 American Community Survey data that shows that 11% of those who work in the City of Alhambra commute to work using a non-auto mode and 11% carpool. In addition, in 2016, The Ratkovich Company performed a weeklong survey of employee commute mode as part of its LEED certification process. A total of 449 employees participated in the survey. On an average day, approximately 16% of employees do not drive to work. This includes those who are telecommuting or not working due to a compressed work week schedule.
- 3) The third credit is for internal capture of trips using multiple land uses within the Villages at The Alhambra. Internal capture credits are applied to projects where some of the trips generated by the project are expected to be captured by other land uses within the project. Since Alhambra Campus is a mixed-use development with office, residential, and restaurant land uses, internal capture can be applied. Internal capture rates are from the ITE publication entitled *Trip Generation Handbook*, 3rd Edition. In the AM peak hour, 2% of incoming trips and 3% of outgoing trips are expected to be generated internally by office, college, and retail land uses at the Villages at The Alhambra and adjacent Shops at the Alhambra. In the PM peak hour, 14% of incoming trips and 10% of outgoing trips are expected to be generated internally.

Table 9: ITE Trip Generation Rates

ITE Code	Land Use Description	Unit	Daily Rate	AM Rate	PM Rate	% AM Trips In	% AM Trips Out	% PM Trips In	% PM Trips Out
220	Apartment	Dwelling Unit(s)	6.65	0.51	0.62	20%	80%	65%	35%
230	Residential Condominium/Townhouse	Dwelling Unit(s)	8.00	0.54	0.73	11%	89%	64%	36%
710	General Office Building	1,000 Sq Ft	11.03	1.56	1.49	88%	12%	17%	83%

Source: Trip Generation Manual (ITE 9th Edition)

June 2019

Table 10: Project Trip Generation – Opening Year 2024 (Scenario 2)

ITE Code	Building	Land Use Description	Units	No. of Units	Project Generated Trips				
					Daily	AM Peak Hour		PM Peak Hour	
						In	Out	In	Out
Trips Generated									
230	N1	Residential Condominium/Townhouse*	DU	149	1,192	9	72	70	39
230	N2	Residential Condominium/Townhouse*	DU	139	1,112	8	67	65	36
230	N3	Residential Condominium/Townhouse*	DU	192	1,536	12	92	90	50
230	N4	Residential Condominium/Townhouse*	DU	36	288	2	17	17	9
Subtotal of Trips Generated					4,128	31	248	243	134
Trip Credits									
Drive Ratio Reduction (11%)					-454	-3	-27	-27	-15
Internal Capture** (2-3% AM, 7-11% PM)					-372	-1	-7	-34	-13
Subtotal of Trip Credits					-826	-4	-35	-61	-28
Net Project Total					3,302	27	213	182	106

Source: Trip Generation Manual (ITE 9th Edition)

June 2019

* Residential Condominium/Townhouse rates per LA County Traffic Impact Analysis Report guidelines were used.

** Internal capture rates based upon calculation. Calculations shown in **Appendix C**.

Table 10 above indicates that in the Opening Year 2024, the proposed project will generate approximately 3,302 new daily trips, with 240 new trips during AM peak hour and 288 new trips during the PM peak hour.

Table 11: Project Trip Generation – Full Project Build-Out (Scenarios 1 and 2)

ITE Code	Building	Land Use Description	Units	No. of Units	Project Generated Trips				
					Daily	Am Peak Hour		PM Peak Hour	
						In	Out	In	Out
Trips Generated									
220	S1	Apartment	DU	175	1,164	18	71	71	38
220	S2	Apartment	DU	217	1,443	22	89	87	47
220	C	Apartment	DU	153	1,017	16	62	62	33
230	N1	Residential Condominium/Townhouse*	DU	149	1,192	9	72	70	39
230	N2	Residential Condominium/Townhouse*	DU	139	1,112	8	67	65	36
230	N3	Residential Condominium/Townhouse*	DU	192	1,536	12	92	90	50
230	N4	Residential Condominium/Townhouse*	DU	36	288	2	17	17	9
Subtotal of Trips Generated					7,752	87	470	463	252
Trip Credits									
710	S1	General Office Building***	KSF	10.145	-112	-14	-2	-3	-13
Drive Ratio Reduction (11%)					-853	-10	-52	-51	-28
Internal Capture** (2-3% AM, 7-11% PM)					-699	-2	-14	-65	-25
Subtotal of Trip Credits					-1,664	-25	-68	-119	-66
Net Project Total					6,088	62	402	344	186

Source: Trip Generation Manual (ITE 9th Edition)

June 2019

* Residential Condominium/Townhouse rates per LA County Traffic Impact Analysis Report guidelines were used.

** Internal capture rates based upon calculation. Calculations shown in **Appendix C**.

*** Office space to be repurposed in S1 Plan area.

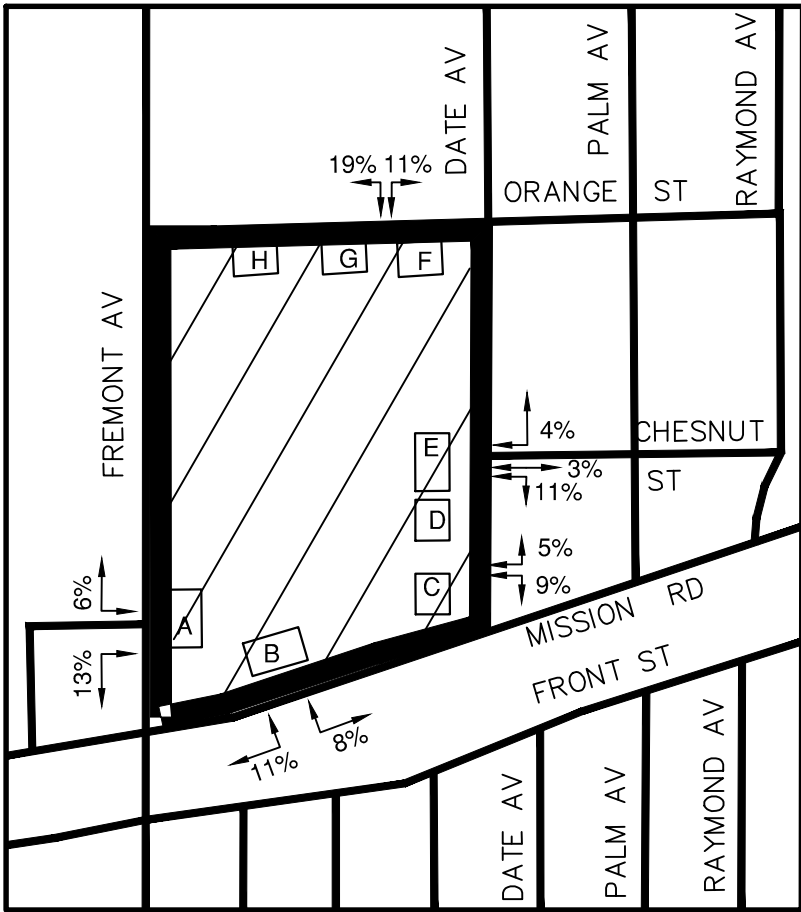
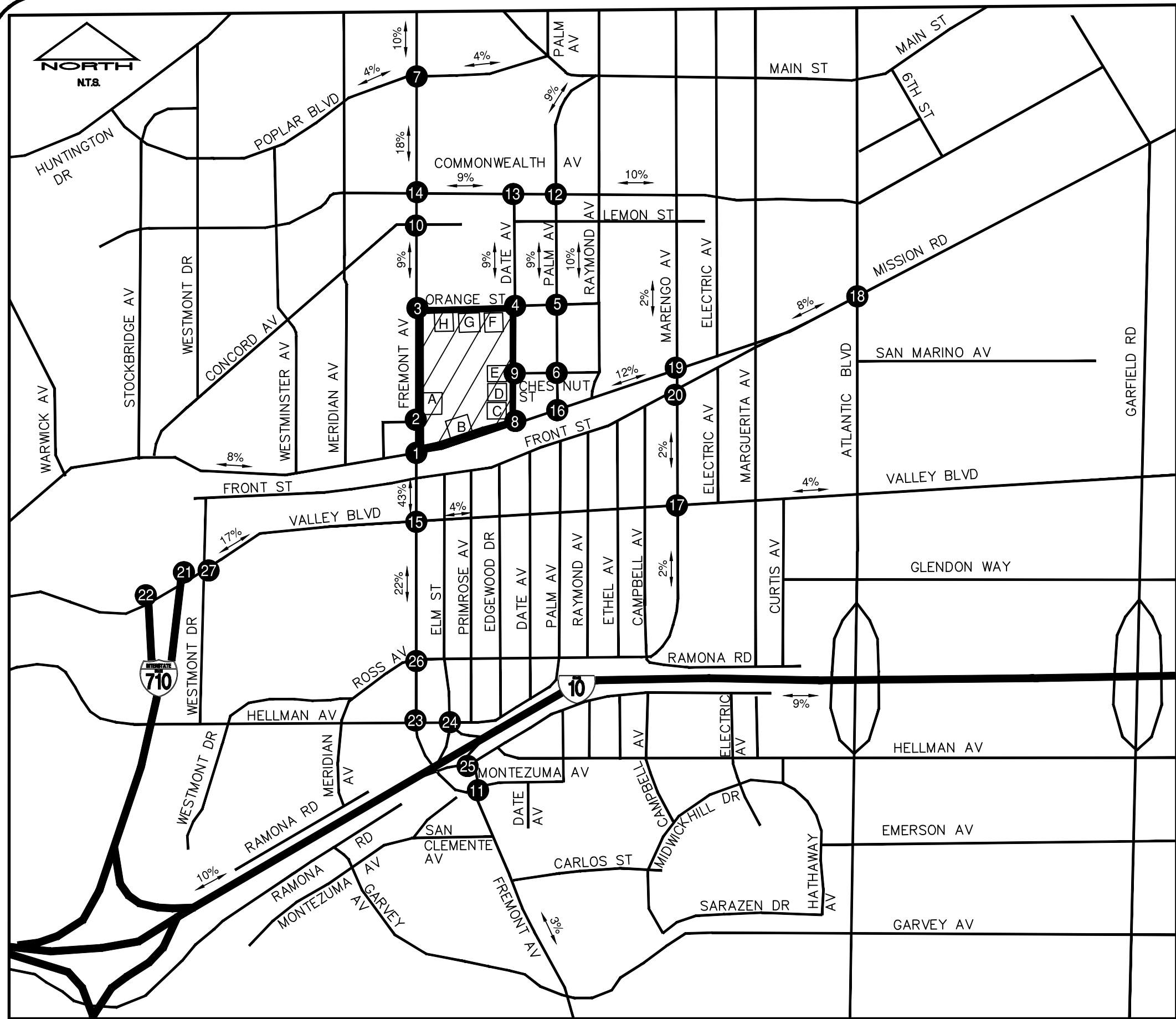
Table 11 above indicates that for the Project Buildout 2028 (Scenario 2) and Scenario 1 Conditions, the proposed will generate approximately 6,088 new daily trips, with 464 new trips during AM peak hour and 530 new trips during the PM peak hour.

PROJECT TRAFFIC DISTRIBUTION

Trip distribution assumptions for the project trips were developed based on the roadway system and land uses in the vicinity of the project. Trip distribution assumptions were submitted to and approved by City staff. **Figure 5** on the following page provides the Project Trip Distribution for the proposed land uses.

PROJECT TRAFFIC ASSIGNMENT

The project traffic shown in **Table 10** and **Table 11** was distributed to the street system within the study area based on the trip distribution percentages shown on **Figure 5** on the following page. The resulting project-related peak hour turning movements for Existing (2018) Plus Project are shown in **Figure 6**. This scenario includes project trips generated by all seven zones of The Villages at The Alhambra.



Project Driveway Trip Distribution

FIGURE 5
The Villages at The Alhambra Development
Project Trip Distribution Percentages

LEGEND

#

Intersection ID

Project Site

X

Project Driveway

XX%

% Project Traffic

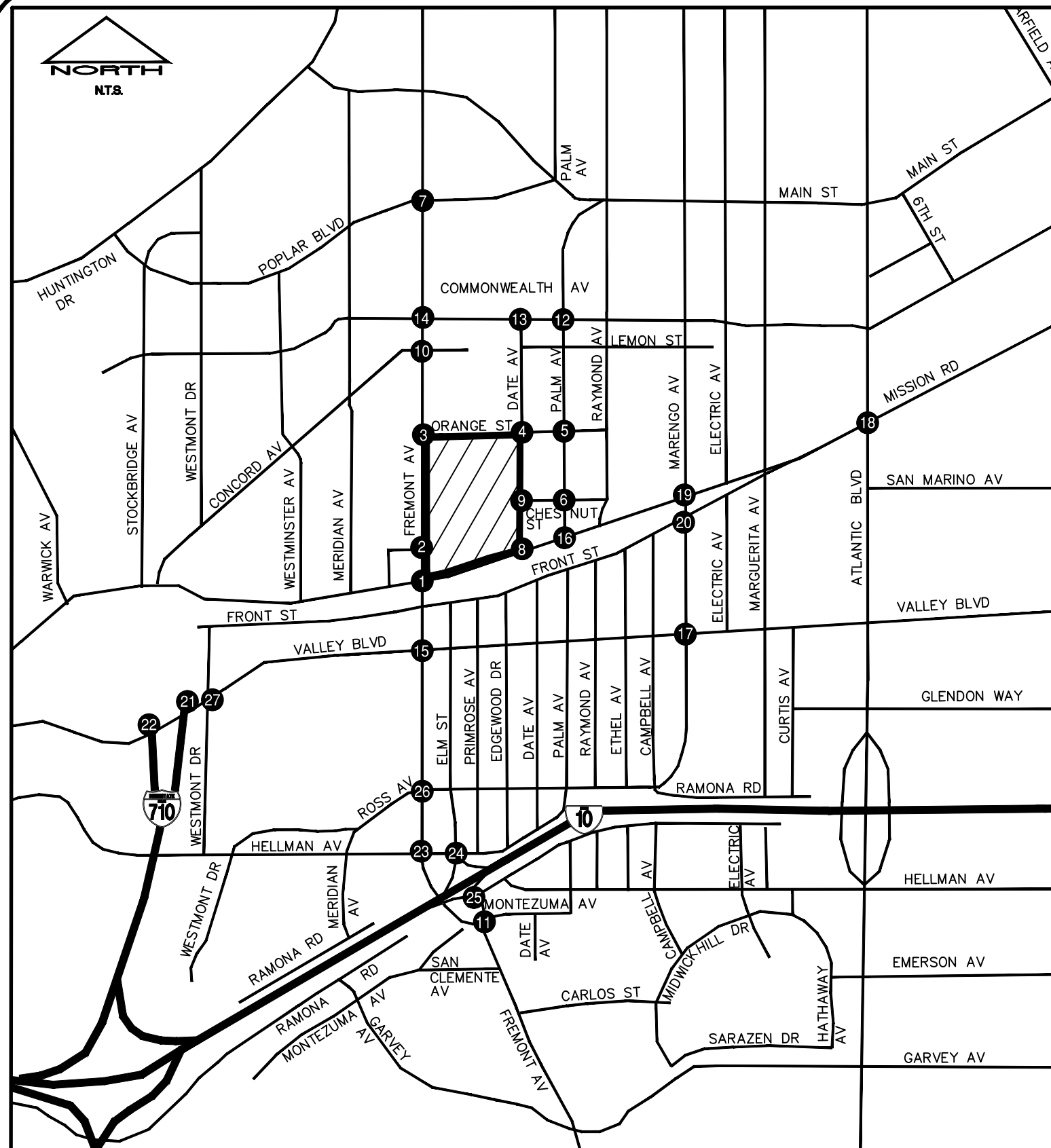
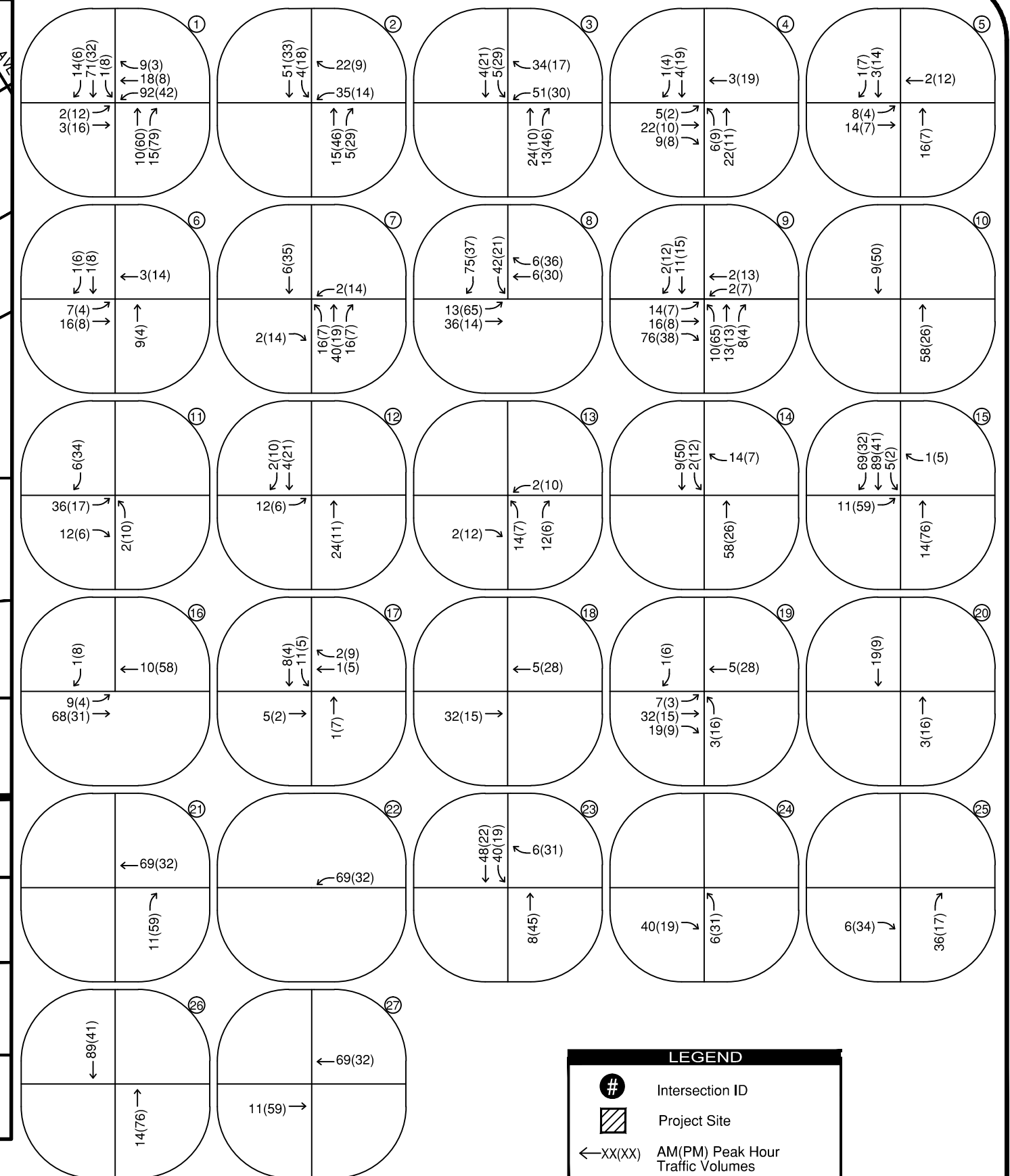


FIGURE 6
The Villages at The Alhambra Development
Project Weekday Peak-Hour Turning Movement Volumes



LEGEND

- # Intersection ID
- Project Site
- ←xx(xx) AM (PM) Peak Hour Traffic Volumes

EXISTING (2018) PLUS PROJECT CONDITIONS

Existing (2018) Plus Project Conditions add the estimated project trips to the Existing (2018) Conditions and are used to evaluate the net change in the traffic conditions resulting from the project. The Existing (2018) Plus Project traffic volumes represent the sum of existing traffic volumes and the project trips. These volumes were assigned to the street network and study intersections to evaluate the net change in traffic conditions and to identify potential traffic impacts associated with the proposed development.

The peak hour traffic volumes for the Existing (2018) Plus Project Conditions at each of the study intersections are illustrated in **Figure 7** on the following page. The intersection analysis worksheets for Existing (2018) Plus Project Conditions are provided in **Appendix D**.

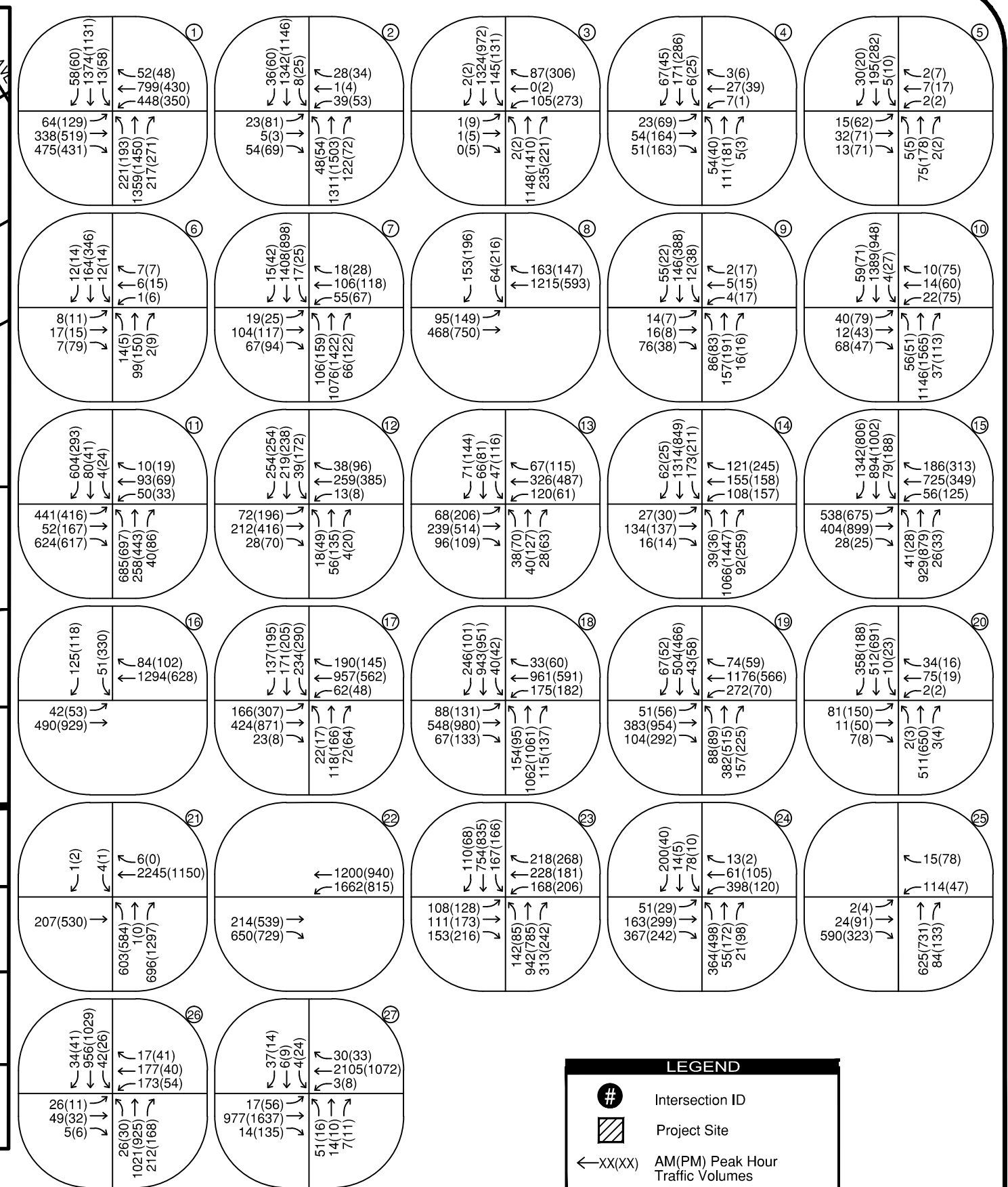
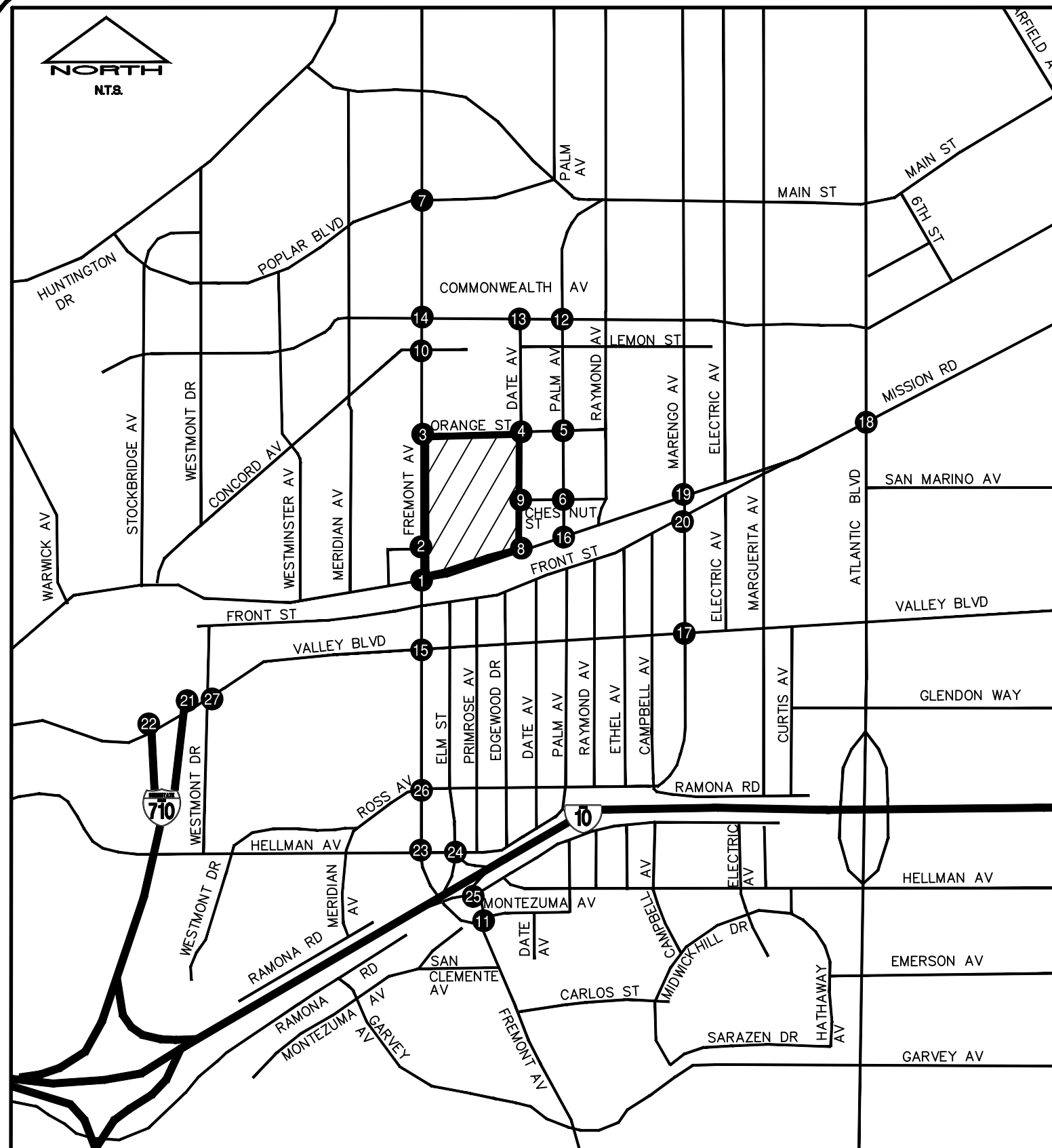


FIGURE 7
The Villages at The Alhambra Development
Existing (2018) with Project Weekday Peak-Hour Turning Movement Volumes

Table 12 below presents a summary of the Existing Plus Project Conditions V/C ratio or Delay (sec) and the corresponding LOS for each intersection.

Table 12: Summary of Intersection Operations – Existing (2018) + Project Conditions

Signalized Study Intersections		Existing (2018) Without Project LOS Analysis Results				Existing (2018) Plus Project LOS Analysis Results				Change in V/C	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	AM	PM
1	S Fremont Ave/W Mission Rd	1.165	F	1.087	F	1.244	F	1.162	F	0.079	0.075
2	S Fremont Ave/Project Driveway	0.573	A	0.628	B	0.611	B	0.663	B	0.038	0.035
3	S Fremont Ave/Orange St	0.573	A	0.792	C	0.611	B	0.824	D	0.038	0.032
7	S Fremont Ave/Poplar Blvd	0.697	B	0.696	B	0.710	C	0.713	C	0.013	0.017
10	S Fremont Ave/Concord Ave	0.641	B	0.595	A	0.644	B	0.600	B	0.003	0.005
11	S Fremont Ave/Montezuma Ave	0.600	A	0.674	B	0.613	B	0.676	B	0.013	0.002
12	W Commonwealth Ave/S Palm Ave	0.387	A	0.524	A	0.396	A	0.535	A	0.009	0.011
13	Date Ave/W Commonwealth Ave	0.378	A	0.597	A	0.389	A	0.601	B	0.011	0.004
14	S Fremont Ave/W Commonwealth Ave	0.713	C	0.861	D	0.716	C	0.877	D	0.003	0.016
15	S Fremont Ave/W Valley Blvd	0.933	E	0.884	D	0.958	E	0.933	D	0.025	0.049
16	W Mission Rd/S Palm Ave	0.626	B	0.587	A	0.635	B	0.597	A	0.009	0.010
17	W Valley Blvd/S Marengo Ave	0.715	C	0.743	C	0.723	C	0.752	C	0.008	0.009
18	S Atlantic Blvd/W Mission Rd	0.855	D	0.916	E	0.857	D	0.921	E	0.002	0.005
19	S Marengo Ave/W Mission Rd	0.926	E	0.891	D	0.934	E	0.912	E	0.008	0.021
20	S Marengo Ave/Front St	0.732	C	0.772	C	0.744	C	0.777	C	0.012	0.005
21	W Valley Blvd/I-710 NB Off-ramp	0.696	B	0.647	B	0.709	C	0.670	B	0.013	0.023
22	W Valley Blvd/I-710 SB On-ramp	1.059	F	0.828	D	1.083	F	0.839	D	0.024	0.011
23	S Fremont Ave/W Hellman Ave	0.779	C	0.762	C	0.807	D	0.788	C	0.028	0.026
26	S Fremont Ave/Ross Ave	0.649	B	0.498	A	0.653	B	0.515	A	0.004	0.017
27	W Valley Blvd/Westmont Dr	0.808	D	0.636	B	0.830	D	0.655	B	0.022	0.019
Unsignalized Study Intersections		Existing (2018) Without Project LOS Analysis Results				Existing (2018) Plus Project LOS Analysis Results				Change in Delay (s)	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	AM	PM
4	Date Ave/Orange St	12.3	B	21.0	C	12.9	B	26.7	D	0.6	5.7
5	Orange St/S Palm Ave	8.7	A	11.1	B	8.9	A	11.6	B	0.2	0.5
6	Chestnut Ave/S Palm Ave	8.6	A	11.6	B	8.8	A	11.9	B	0.2	0.3
8	W Mission Rd/Date Ave	21.8	C	37.6	E	33.5	D	110.6	F	11.7	73.0
9	Chestnut St/Date Ave	12.0	B	12.2	B	13.7	B	18.7	C	1.7	6.5
24	W Hellman Ave/I-10 WB Ramps (Elm St)	66.5	F	31.3	D	71.1	F	35.1	E	4.6	3.8
25	S Fremont Ave/I-10 EB Ramps (Ramona Rd)	109.4	F	112.2	F	106.2	F	114.2	F	-3.2	2.0
Source: Kimley-Horn, 2019 Significant impacts shown in bold											

The Existing (2018) Plus Project Conditions traffic analysis results presented in **Table 12** indicate that during the AM peak period, 2 intersections operate at LOS E and 4 intersections operate at LOS F while the remaining 21 intersections operate at LOS D or better. During the PM peak period, 3 intersections operate at LOS E and 3 intersections operate at LOS F while the remaining 21 intersections operate at LOS D or better.

For the Existing (2018) Plus Project Conditions, the following intersections have an increase in V/C ratio resulting in a significant impact in the AM and PM peak periods.

- Intersection #1 - S Fremont Avenue and W Mission Road (increase in V/C of 0.079 to LOS F in the AM peak and 0.075 to LOS F in the PM peak)
- Intersection #15 - S Fremont Avenue and W Valley Boulevard (increase in V/C of 0.025 to LOS E in the AM peak and 0.049 to LOS D in the PM peak)
- Intersection #19 - S Marengo Avenue and W Mission Road (increase in V/C of 0.021 to LOS F in the PM peak)
- Intersection #22 - W Valley Boulevard and I-710 SB On-Ramp (increase in V/C of 0.024 to LOS F in the AM peak)

Unsignalized intersections that operate at LOS E or F in Without Project Conditions are also analyzed to determine if the project added volume exceeds 10% of the total intersection traffic volume. The project adds the following volumes to intersections operating at LOS E or F in Without Project Conditions:

- Intersection #8 – W Mission Road and Date Avenue. No impact because the project contributes 9.9% of the total intersection volume in the PM peak period.
- Intersection #24 – W Hellman Avenue and I-10 WB Ramps (Elm Street). No impact because the project contributes 2.6% of the total intersection volume in the AM peak period and 3.1% in the PM peak period).
- Intersection #25 – S Fremont Avenue and I-10 EB Ramps (Ramona Road). No impact because the project contributes 2.9% of the total intersection volume in the AM peak period and 3.6% in the PM peak period).

CONSTRUCTION TRAFFIC

No construction activities with heavy equipment should occur beyond the normal weekday construction hours of 7 am to 8 pm and Saturday from 9 am to 4 pm. These activities could impact traffic and affect adjacent residents and may require after-hour permits. When feasible, materials being delivered to the site during the construction period should be scheduled at times that are not in conflict with peak public use of the roadways so that congestion is limited.

The potential impacts of construction traffic on the traffic operations within the study area will be temporary and are expected to be ongoing until 2028. The impacts of construction-related trips (trucks and construction employees) on the street system should be considered negligible since these trips can be scheduled and their frequency increased during off-peak (mid-day) hours. Any required excavation and hauling of material should also be scheduled for the mid-day period in order to reduce the impacts of traffic during construction.

The specifics of a work zone traffic control plan, which includes the use of flagmen and lane channelization devices, should be established in accordance with City guidelines. Contractor traffic control plans will need to be approved by the City of Alhambra. A flagman should be available at all times when construction activities are occurring to ensure vehicle and pedestrian safety, and they should be used whenever trucks are leaving the project site to prevent the impedance of the flow of traffic. The contractor should ensure the safety of pedestrians by installing a construction fence on the project site perimeter.

The contractor should provide an estimate of truck volume and schedule. Areas should be designated by the City for the staging of all trucks. All earth-moving and ready-mix trucks should be equipped with two-way radios so that the drivers at the staging areas are linked to a person controlling traffic at the project site. Trucks should follow a City-approved route to the project site.

When feasible, materials being delivered to the site should be scheduled with the least inconvenience to the public. Timing of material delivery would be subject to the approval of the City Engineer. The contractor should have a designated employee controlling the logistics of all deliveries. All materials requiring assembly should be accommodated on-site.

III. SCENARIO 1 – NO PHASING

SCENARIO 1

Scenario 1 considers the entire development to be built in one phase with completion scheduled for 2028.

Traffic conditions were analyzed for two future (2028) scenarios including Ambient and Cumulative Conditions. Ambient Conditions represent the sum of ambient traffic growth and existing traffic volumes to show the impacts of background growth and development in the area. Cumulative Conditions include traffic from other approved and pending projects in the immediate area to analyze the impacts of cumulative traffic. The sections below summarize the traffic conditions for both future (2028) scenarios.

AMBIENT (2028) CONDITIONS

Ambient Conditions represent the sum of ambient traffic growth and existing traffic volumes to show the impacts of background growth and development in the area.

Regional ambient traffic growth was estimated as an annual percentage increase over the existing traffic volumes. Based on discussions with City staff, a growth rate of 1% per year was applied to the peak hour traffic volumes to represent year 2028 traffic volumes. These volumes were assigned to the street network and study intersections.

Figure 8 on the following page illustrates the AM and PM peak hour traffic volumes at the study intersections for the Ambient (2028) Conditions. The intersection analysis worksheets for Ambient (2028) Conditions are provided in **Appendix E**

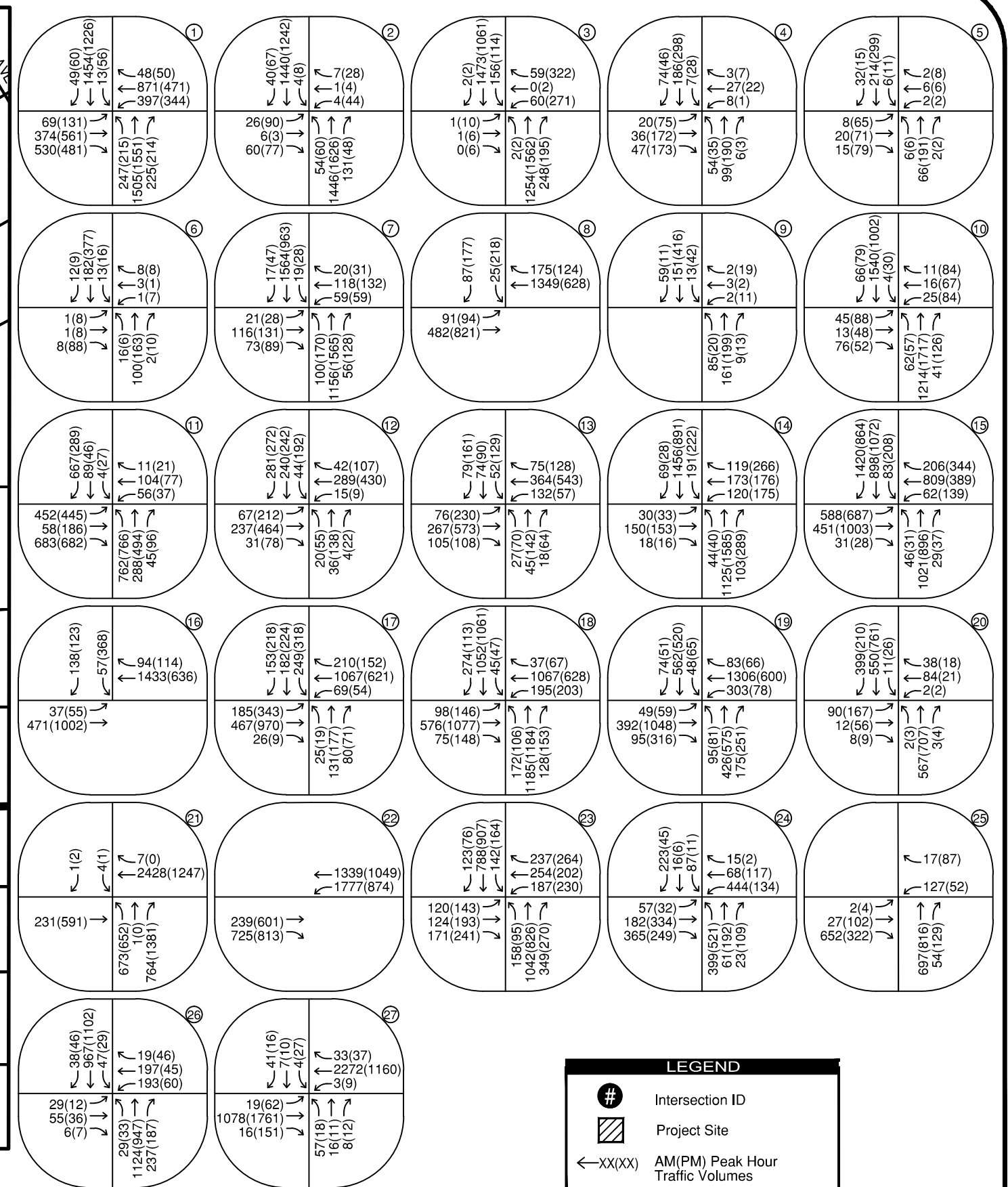
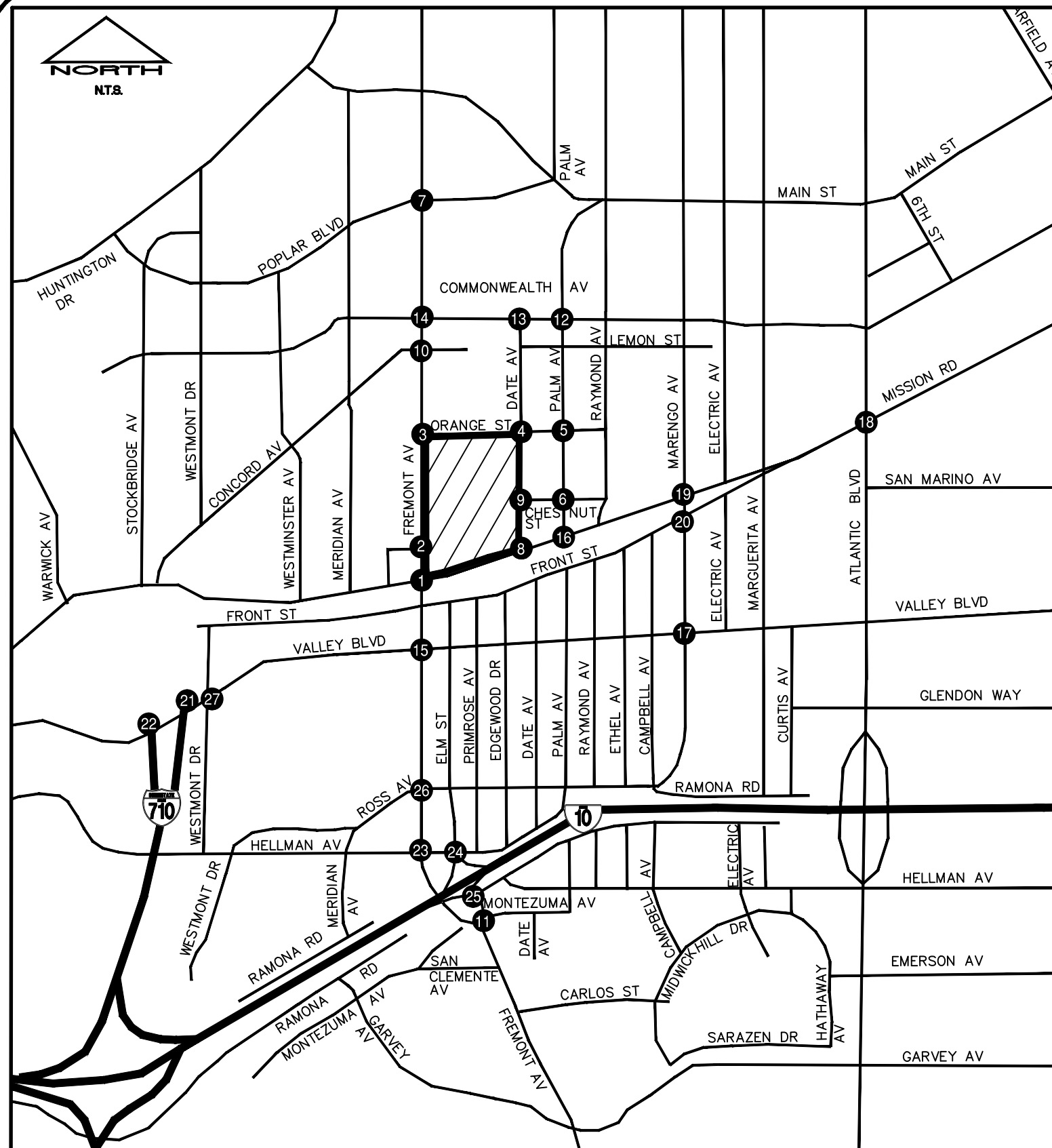


FIGURE 8
The Villages at The Alhambra Development
Ambient (2028) Weekday Peak-Hour Turning Movement Volumes

Table 13 below presents a summary of the Ambient (2028) Conditions V/C ratio or Delay (sec) and the corresponding LOS for each intersection.

Table 13: Summary of Intersection Operations – Ambient (2028) Conditions

Signalized Study Intersections		LOS Analysis Results			
		AM Peak Hour		PM Peak Hour	
		V/C	LOS	V/C	LOS
1	S Fremont Ave/W Mission Rd	1.288	F	1.202	F
2	S Fremont Ave/Project Driveway	0.628	B	0.690	B
3	S Fremont Ave/Orange St	0.628	B	0.872	D
7	S Fremont Ave/Poplar Blvd	0.766	C	0.765	C
10	S Fremont Ave/Concord Ave	0.704	C	0.652	B
11	S Fremont Ave/Montezuma Ave	0.657	B	0.740	C
12	W Commonwealth Ave/S Palm Ave	0.420	A	0.573	A
13	Date Ave/W Commonwealth Ave	0.411	A	0.654	B
14	S Fremont Ave/W Commonwealth Ave	0.784	C	0.949	E
15	S Fremont Ave/W Valley Blvd	1.029	F	0.975	E
16	W Mission Rd/S Palm Ave	0.686	B	0.643	B
17	W Valley Blvd/S Marengo Ave	0.786	C	0.818	D
18	S Atlantic Blvd/W Mission Rd	0.942	E	1.010	F
19	S Marengo Ave/W Mission Rd	1.021	F	0.983	E
20	S Marengo Ave/Front St	0.805	D	0.850	D
21	W Valley Blvd/I-710 NB Off-ramp	0.767	C	0.712	C
22	W Valley Blvd/I-710 SB On-ramp	1.170	F	0.912	E
23	S Fremont Ave/W Hellman Ave	0.858	D	0.839	D
26	S Fremont Ave/Ross Ave	0.713	C	0.544	A
27	W Valley Blvd/Westmont Dr	0.890	D	0.698	B
Unsignalized Study Intersections		LOS Analysis Results			
		AM Peak Hour		PM Peak Hour	
		Delay (s)	LOS	Delay (s)	LOS
4	Date Ave/Orange St	12.9	B	29.7	D
5	Orange St/S Palm Ave	8.9	A	12.2	B
6	Chestnut Ave/S Palm Ave	8.8	A	12.7	B
8	W Mission Rd/Date Ave	26.9	D	74.8	F
9	Chestnut St/Date Ave	12.5	B	13.0	B
24	W Hellman Ave/I-10 WB Ramps (Elm St)	99.0	F	48.0	E
25	S Fremont Ave/I-10 EB Ramps (Ramona Rd)	157.1	F	160.2	F

The Ambient (2028) Conditions traffic analysis results presented in **Table 13** indicate that 1 intersection is projected to operate at LOS E and 6 intersections would operate at LOS F while the remaining 20 intersections would operate at LOS D or better during the AM peak period. During the PM peak period, 5 intersections are projected to operate LOS E and 4 intersections are projected to operate at LOS F while the remaining 18 intersections would operate at LOS D or better.

AMBIENT (2028) PLUS PROJECT CONDITIONS

Ambient (2028) Plus Project Conditions add the estimated project trips to the Ambient (2028) base conditions and are used to evaluate the net change in the traffic conditions and to identify potential traffic impacts associated with the proposed development. The Ambient (2028) Plus Project traffic volumes represent the sum of existing traffic volumes raised by the ambient growth factor and the project trips. These volumes were assigned to the street network and study intersections to evaluate the net change in traffic conditions and to identify potential traffic impacts associated with the proposed development.

The peak hour traffic volumes for the Ambient (2028) Plus Project Conditions at each of the study intersections are illustrated in **Figure 9** on the following page. The intersection analysis worksheets for Ambient (2018) Plus Project Conditions are provided in **Appendix F**.

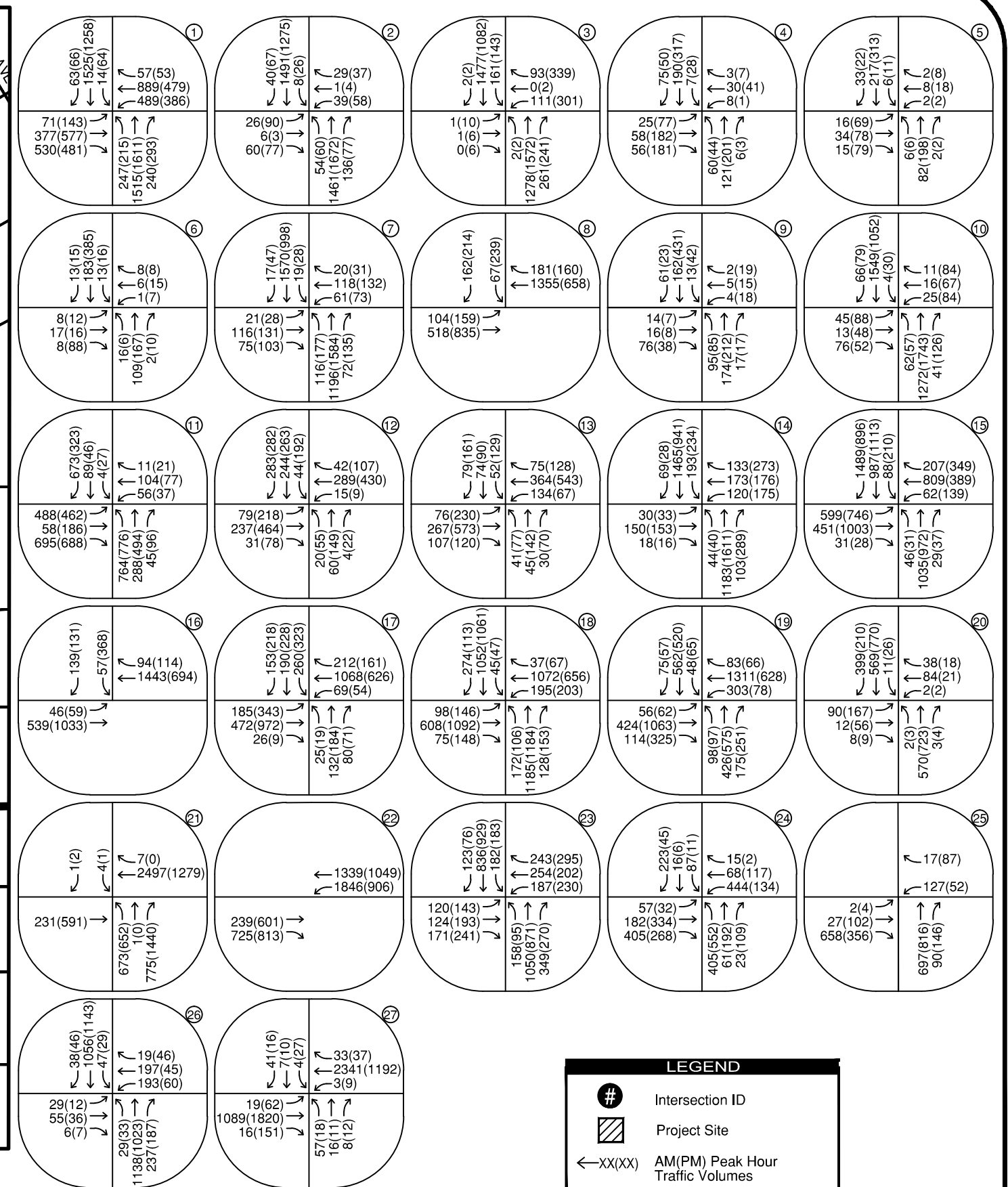
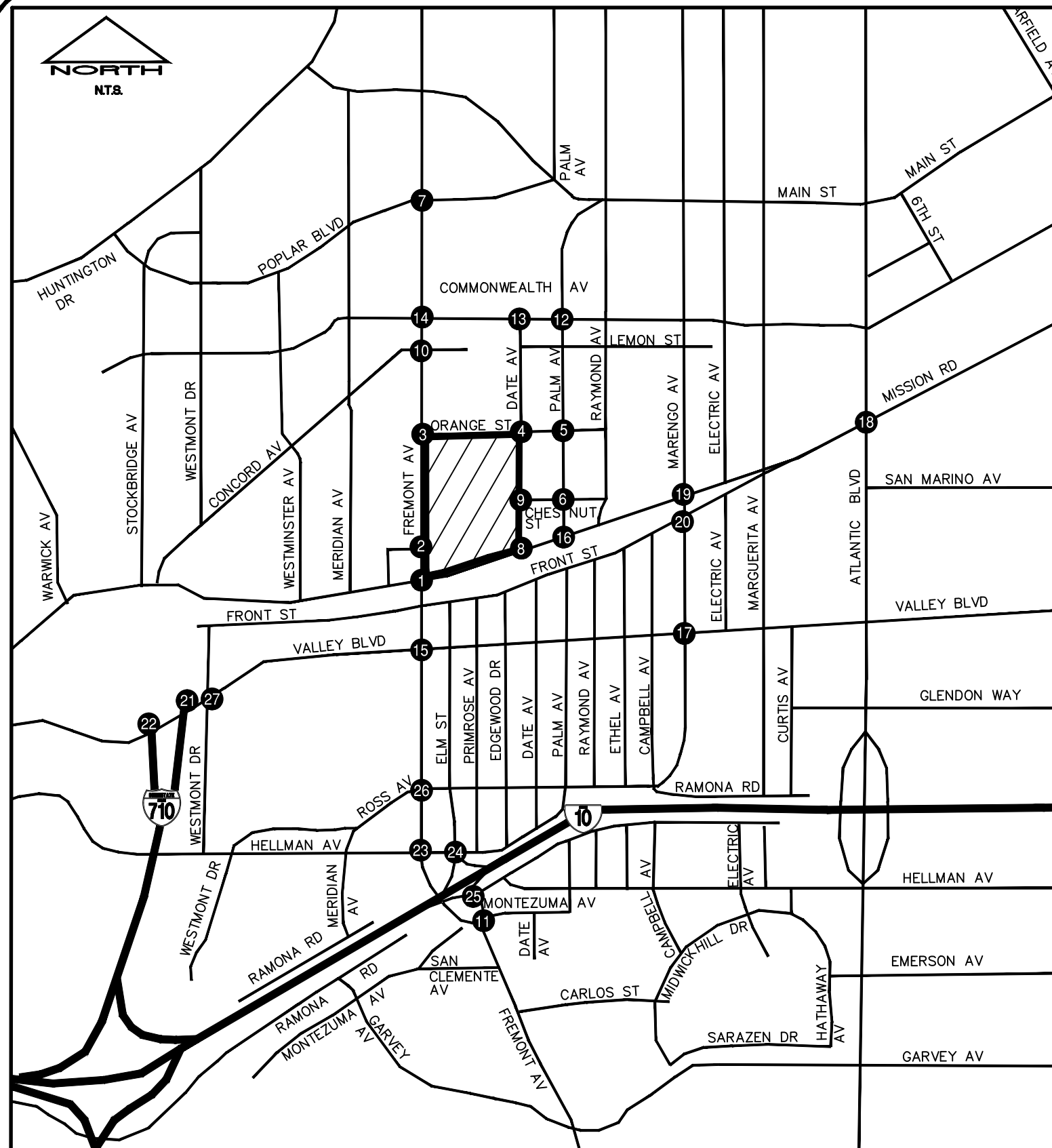


FIGURE 9
The Villages at The Alhambra Development
Ambient (2028) with Project Weekday Peak-Hour Turning Movement Volumes

Table 14 below presents a summary of the Ambient Plus Project Conditions V/C ratio or Delay (sec) and the corresponding LOS for each intersection.

Table 14: Summary of Intersection Operations – Ambient (2028) Plus Project Conditions

Study Intersections		Ambient (2028) Without Project LOS Analysis Results				Ambient (2028) Plus Project LOS Analysis Results				Change In V/C	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	AM	PM
1	S Fremont Ave/W Mission Rd	1.288	F	1.202	F	1.368	F	1.276	F	0.080	0.074
2	S Fremont Ave/Project Driveway	0.628	B	0.690	B	0.665	B	0.721	C	0.037	0.031
3	S Fremont Ave/Orange St	0.628	B	0.872	D	0.665	B	0.904	E	0.037	0.032
7	S Fremont Ave/Poplar Blvd	0.766	C	0.765	C	0.779	C	0.782	C	0.013	0.017
10	S Fremont Ave/Concord Ave	0.704	C	0.652	B	0.706	C	0.657	B	0.002	0.005
11	S Fremont Ave/Montezuma Ave	0.657	B	0.740	C	0.671	B	0.742	C	0.014	0.002
12	W Commonwealth Ave/S Palm Ave	0.420	A	0.573	A	0.429	A	0.584	A	0.009	0.011
13	Date Ave/W Commonwealth Ave	0.411	A	0.654	B	0.421	A	0.659	B	0.010	0.005
14	S Fremont Ave/W Commonwealth Ave	0.784	C	0.949	E	0.787	C	0.965	E	0.003	0.016
15	S Fremont Ave/W Valley Blvd	1.029	F	0.975	E	1.055	F	1.023	F	0.026	0.048
16	W Mission Rd/S Palm Ave	0.686	B	0.643	B	0.696	B	0.653	B	0.010	0.010
17	W Valley Blvd/S Marengo Ave	0.786	C	0.818	D	0.794	C	0.827	D	0.008	0.009
18	S Atlantic Blvd/W Mission Rd	0.942	E	1.010	F	0.944	E	1.015	F	0.002	0.005
19	S Marengo Ave/W Mission Rd	1.021	F	0.983	E	1.030	F	1.004	F	0.009	0.021
20	S Marengo Ave/Front St	0.805	D	0.850	D	0.817	D	0.855	D	0.012	0.005
21	W Valley Blvd/I-710 NB Off-ramp	0.767	C	0.712	C	0.780	C	0.735	C	0.013	0.023
22	W Valley Blvd/I-710 SB On-ramp	1.170	F	0.912	E	1.194	F	0.923	E	0.024	0.011
23	S Fremont Ave/W Hellman Ave	0.858	D	0.839	D	0.885	D	0.865	D	0.027	0.026
26	S Fremont Ave/Ross Ave	0.713	C	0.544	A	0.717	C	0.561	A	0.004	0.017
27	W Valley Blvd/Westmont Dr	0.890	D	0.698	B	0.912	E	0.717	C	0.022	0.019
Unsignalized Study Intersections		Ambient (2028) Without Project LOS Analysis Results				Ambient (2028) Plus Project LOS Analysis Results				Change in Delay (s)	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	AM	PM
4	Date Ave/Orange St	12.9	B	29.7	D	13.7	B	42.9	E	0.8	13.2
5	Orange St/S Palm Ave	8.9	A	12.2	B	9.1	A	12.8	B	0.2	0.6
6	Chestnut Ave/S Palm Ave	8.8	A	12.7	B	8.9	A	13.3	B	0.1	0.6
8	W Mission Rd/Date Ave	26.9	D	74.8	F	48.4	E	222.6	F	21.5	147.8
9	Chestnut St/Date Ave	12.5	B	13.0	B	14.5	B	20.6	C	2.0	7.6
24	W Hellman Ave/I-10 WB Ramps (Elm St)	99.0	F	48.0	E	101.9	F	51.6	F	2.9	3.6
25	S Fremont Ave/I-10 EB Ramps (Ramona Rd)	157.1	F	160.2	F	156.7	F	162.0	F	-0.4	1.8
Source: Kimley-Horn, 2019 Significant impacts shown in bold .											

The Ambient (2028) Plus Project Conditions traffic analysis results presented in **Table 14** indicate that 3 intersections are projected to operate at LOS E and 6 intersections are projected to operate at LOS F while the remaining 18 intersections will operate at LOS D or better during the AM peak period. During the PM

peak period, 4 intersections are projected to operate at LOS E and 7 intersections will operate at LOS F while the remaining 16 intersections will operate at LOS D or better.

For the Ambient (2028) Plus Project Conditions, the following 8 intersections have an increase in V/C ratio resulting in a significant impact in the AM and PM peak periods.

- Intersection #1: S Fremont Avenue and W Mission Road (increase in V/C of 0.080 to LOS F in the AM peak and 0.074 to LOS F in the PM peak)
- Intersection #3: S Fremont Avenue and Orange Street (increase in V/C of 0.032 to LOS E in the PM peak)
- Intersection #14: S Fremont Avenue and W Commonwealth Avenue (increase in V/C of 0.016 to LOS E in the PM peak period)
- Intersection #15: S Fremont Avenue and W Valley Boulevard (increase in V/C of 0.026 to LOS F in the AM peak and 0.048 to LOS F in the PM peak)
- Intersection #19: S Marengo and W Mission (increase in V/C of 0.021 in the PM peak)
- Intersection #22: W Valley Boulevard and I-710 SB On-Ramp (increase in V/C of 0.024 to LOS F in the AM peak and 0.011 in the PM peak)
- Intersection #23: S Fremont Avenue and W Hellman Avenue (increase in V/C of 0.027 to LOS E in the AM peak and 0.026 to LOS F in the PM peak)
- Intersection #27: W Valley Boulevard and Westmont Drive (increase in V/C of 0.022 to LOS E in the AM peak)
- Intersection #4: Date Avenue and Orange Street (increase in LOS from D to E in the PM peak)
- Intersection #8: W Mission Road and Date Avenue (increase in LOS from D to E in the AM peak)

Unsignalized intersections that operate at LOS E or F in Without Project Conditions are also analyzed to determine if the project added volume exceeds 10% of the total intersection traffic volume. The project adds the following volumes to intersections operating at LOS E or F in Without Project Conditions:

- Intersection #8 – W Mission Road and Date Avenue. No impact because the project contributes 9.0% of the total intersection volume in the PM peak period.
- Intersection #24 – W Hellman Avenue and I-10 WB Ramps (Elm Street). No impact because the project contributes 2.3% of the total intersection volume in the AM peak period and 2.8% in the PM peak period).
- Intersection #25 – S Fremont Avenue and I-10 EB Ramps (Ramona Road). No impact because the project contributes 2.6% of the total intersection volume in the AM peak period and 3.3% in the PM peak period).

RELATED PROJECTS TRIP GENERATION AND ASSIGNMENT

As per the direction and information provided by City staff as of February 14, 2018, a total of 9 related projects were identified in the vicinity of the proposed development to be included in this analysis. Related projects are approved and pending projects expected to be built by the year 2028 within 1.5 miles of the proposed development. Trip generation and distribution information for each related project is found in **Appendix G**. The daily and peak hour trips generated by the related projects are summarized in **Table 15** on the following page and are based upon the trip generation rates from the Institute of Transportation Engineers (ITE) publication entitled *Trip Generation*, 9th Edition publication. **Figure 10** illustrates the location of these related projects and provides the projected peak hour trips for these related projects.

Table 15: Related Projects – Weekday Trip Generation Summary

#	Project Name	Address	ITE Land-Use	Size	Project Generated Trips						
					Daily	AM Peak Hour			PM Peak Hour		
						In	Out	Total	In	Out	Total
1	Wondries Toyota	1515 W. Main St., Alhambra	#841 Automobile Sales	45,985 sq. ft. of automobile sales	1,484	67	22	89	48	72	120
2	Atherton Baptist Homes Master Plan	214 S. Atlantic Blvd., Alhambra	#255 Continuing Care Retirement Community	177 continuing care retirement units	444	16	9	25	11	17	28
3	Camelia Court	SW corner of Benito Ave. and W. Valley Blvd., Alhambra	#720 Medical-Dental Office Building #820 Shopping Center	126 condo/townhome units 18,000 sq. ft. medical office 12,490 sq. ft. shopping center	1,783	44	68	113	81	85	166
4	CFT Commonwealth Plaza	SW Corner of Commonwealth Ave. & Date Ave., Alhambra	#934 Fast-Food Restaurant #932 High Turnover (Sit-Down) Restaurant #826 Specialty Retail Center	3,981 sq. ft. fast-food rest. 10,265 sq. ft. sit-down rest. 7,423 sq. ft. specialty retail center	2,545	158	153	311	102	87	189
5	City Ventures Housing Project	NE Corner of Fremont Ave. & Carlos St., Alhambra	#210 Single-Family Detached Housing #230 Residential Condominium/Townhouse	37 single home units 25 townhouse units	552	9	33	42	35	20	55
6	Monterey Park Hotel	808 W. Garvey Ave., Monterey Park	#220 Apartment #310 Hotel #931 Quality Restaurant #826 Specialty Retail Center	98 unit apartment 148 room hotel 5,421 sq. ft. quality restaurant 1,570 sq. ft. sp. retail center	2,140	59	74	133	98	73	171
7	Hotel 220 MPK	220 N. Atlantic Blvd., Monterey Park	#310 Hotel #932 High Turnover (Sit-Down) Restaurant	187 room hotel 3,428 sq. ft. sit-down restaurant	1,964	78	58	136	77	69	146
8	Atlantic Gateway Hotel	521-633 N. Atlantic Blvd., Monterey Park	#310 Hotel #820 Shopping Center	288 room hotel 6,200 sq. ft. shopping center	916	45	28	73	17	15	32
9	Alhambra Place	SE Corner of Main St. & Garfield Ave., Alhambra	#220 Apartment #820 Shopping Center	260 unit apartment 142,000 sq. ft. shopping center	2,727	23	87	110	137	86	223
Total Net Trips Generated					14,555	499	532	1,032	606	524	1,130

Note: The list of related projects is based on direction and information provided from the City as of February 14, 2018.

Source: Kimley-Horn, 2019

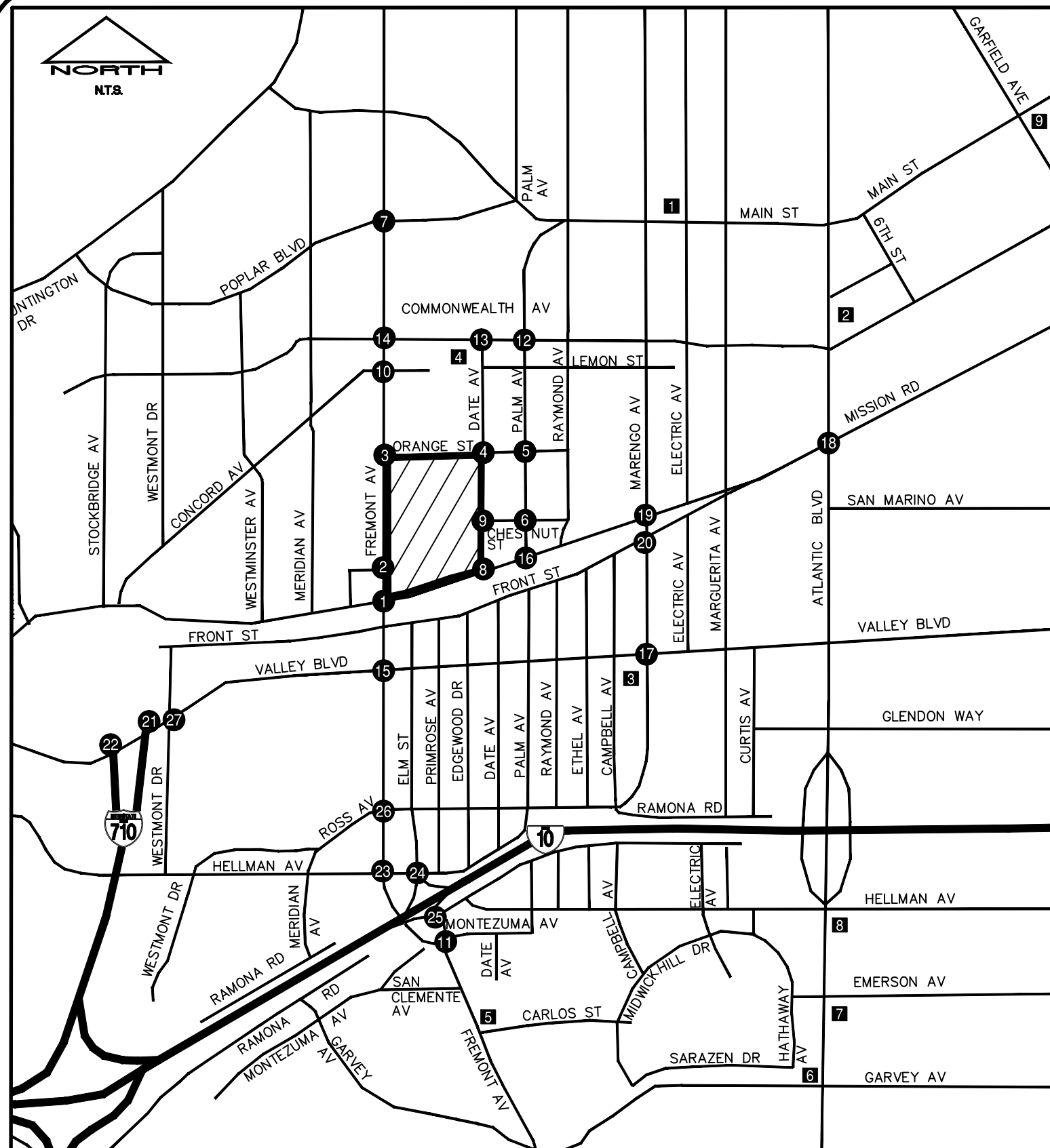
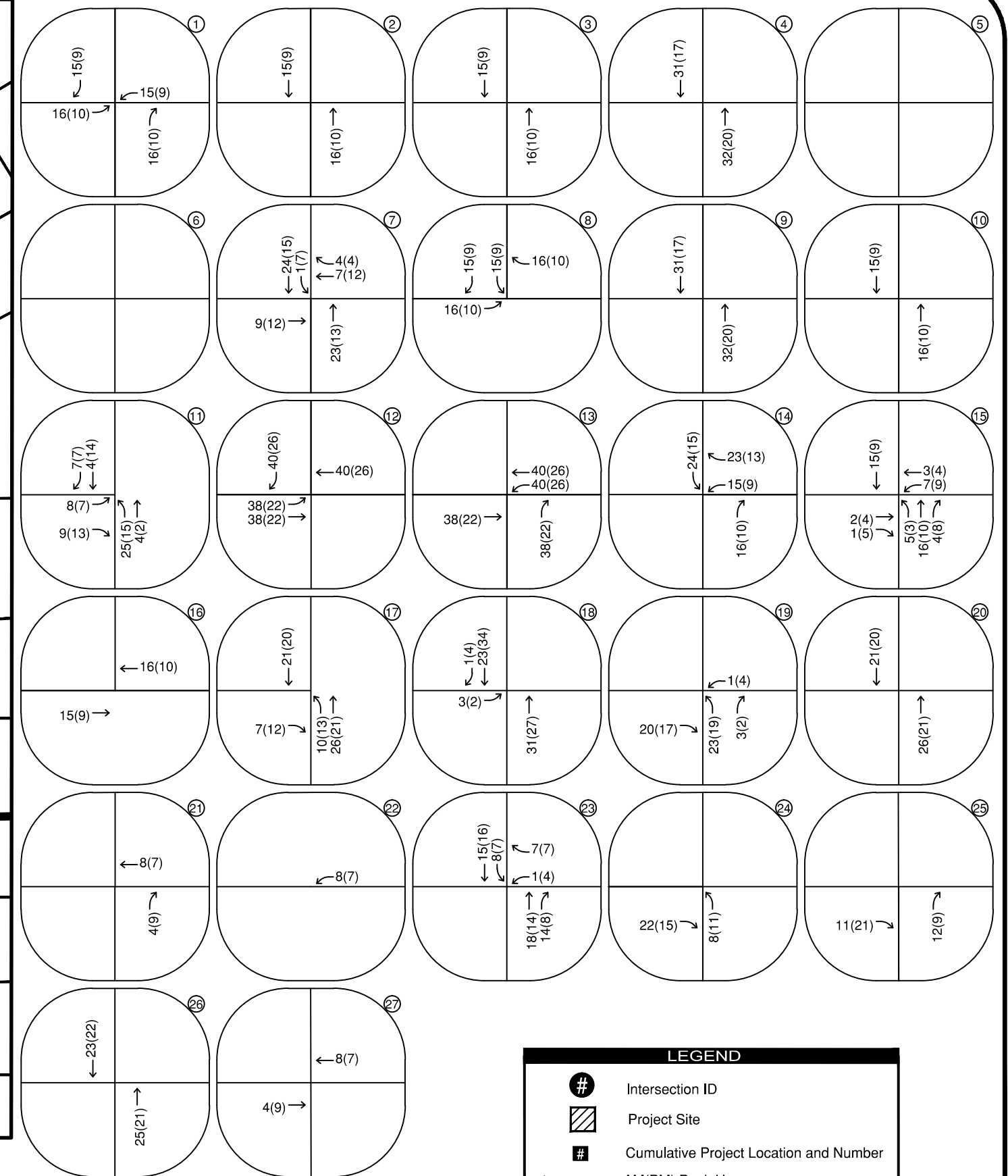


FIGURE 10
The Villages at The Alhambra Development
Related Projects Weekday Peak-Hour Turning Movement Volumes



CUMULATIVE (2028) CONDITIONS

The Cumulative (2028) Conditions represent the sum of existing volumes, ambient growth, and the traffic estimated from related projects. Traffic volumes from related projects were added to the study intersections to simulate cumulative traffic conditions with expected new growth in development in the area.

Figure 11 on the following page illustrates the AM and PM peak hour traffic volumes at the study intersections for Cumulative (2028) Conditions. The intersection analysis worksheets for Cumulative (2028) Conditions are provided in **Appendix H**.

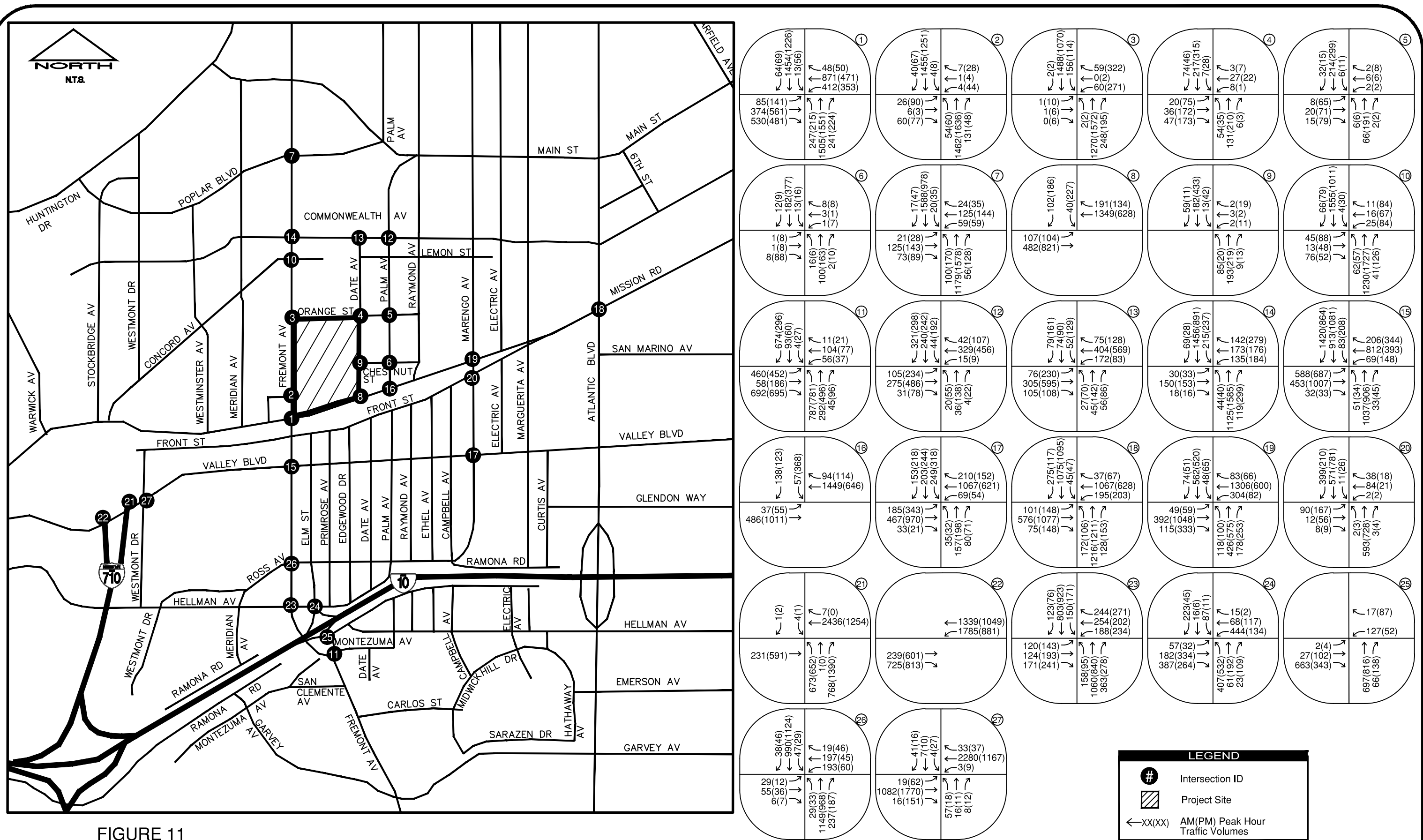


FIGURE 11
The Villages at The Alhambra Development
Cumulative (2028) Weekday Peak-Hour Turning Movement Volumes

Table 16 below presents a summary of the Cumulative (2028) Conditions V/C ratio or Delay (sec) and the corresponding LOS for each intersection.

Table 16: Summary of Intersection Operations – Cumulative (2028) Conditions

Signalized Study Intersections		LOS Analysis Results			
		AM Peak Hour		PM Peak Hour	
		V/C	LOS	V/C	LOS
1	S Fremont Ave/W Mission Rd	1.297	F	1.211	F
2	S Fremont Ave/Project Driveway	0.632	B	0.693	B
3	S Fremont Ave/Orange St	0.633	B	0.875	D
7	S Fremont Ave/Poplar Blvd	0.779	C	0.781	C
10	S Fremont Ave/Concord Ave	0.708	C	0.654	B
11	S Fremont Ave/Montezuma Ave	0.670	B	0.745	C
12	W Commonwealth Ave/S Palm Ave	0.482	A	0.609	B
13	Date Ave/W Commonwealth Ave	0.448	A	0.662	B
14	S Fremont Ave/W Commonwealth Ave	0.793	C	0.964	E
15	S Fremont Ave/W Valley Blvd	1.033	F	0.980	E
16	W Mission Rd/S Palm Ave	0.691	B	0.646	B
17	W Valley Blvd/S Marengo Ave	0.802	D	0.831	D
18	S Atlantic Blvd/W Mission Rd	0.951	E	1.019	F
19	S Marengo Ave/W Mission Rd	1.036	F	1.002	F
20	S Marengo Ave/Front St	0.818	D	0.862	D
21	W Valley Blvd/I-710 NB Off-ramp	0.769	C	0.716	C
22	W Valley Blvd/I-710 SB On-ramp	1.173	F	0.914	E
23	S Fremont Ave/W Hellman Ave	0.873	D	0.853	D
26	S Fremont Ave/Ross Ave	0.720	C	0.551	A
27	W Valley Blvd/Westmont Dr	0.893	D	0.701	C
Unsignalized Study Intersections		LOS Analysis Results			
		AM Peak Hour		PM Peak Hour	
		Delay (s)	LOS	Delay (s)	LOS
4	Date Ave/Orange St	13.8	B	34.0	D
5	Orange St/S Palm Ave	8.9	A	12.2	B
6	Chestnut Ave/S Palm Ave	8.8	A	12.7	B
8	W Mission Rd/Date Ave	33.1	D	93.2	F
9	Chestnut St/Date Ave	13.2	B	13.4	B
24	W Hellman Ave/I-10 WB Ramps (Elm St)	102.9	F	50.5	F
25	S Fremont Ave/I-10 EB Ramps (Ramona Rd)	159.6	F	161.4	F

The Cumulative (2028) Conditions traffic analysis results presented in **Table 16** indicate that 1 intersection is projected to operate at LOS E and 6 intersections will operate at LOS F while the remaining 20 intersections will operate at LOS D or better during the AM peak period. During the PM peak period, 3 intersections are projected to operate at LOS E and 6 intersections are projected to operate at LOS F while the remaining 18 intersections will operate at LOS D or better.

CUMULATIVE (2028) PLUS PROJECT CONDITIONS

Cumulative (2028) Plus Project Conditions add the estimated project traffic to the Cumulative (2028) base conditions and are used to evaluate the net change in the traffic conditions and to identify potential traffic impacts associated with the proposed project. The Cumulative Plus Project traffic volumes represent the sum of existing traffic volumes raised by ambient growth factor, the traffic estimated from related projects, and the project trips. These volumes were assigned to the street network and study intersections to evaluate the net change in the traffic conditions and to identify potential traffic impacts associated with the proposed project for the buildout conditions.

Figure 12 on the following page illustrates the AM and PM peak hour traffic volumes at the study intersection for Cumulative (2028) Plus Project Conditions. The intersection analysis worksheets for Cumulative (2028) Plus Project Conditions are provided in **Appendix I**.

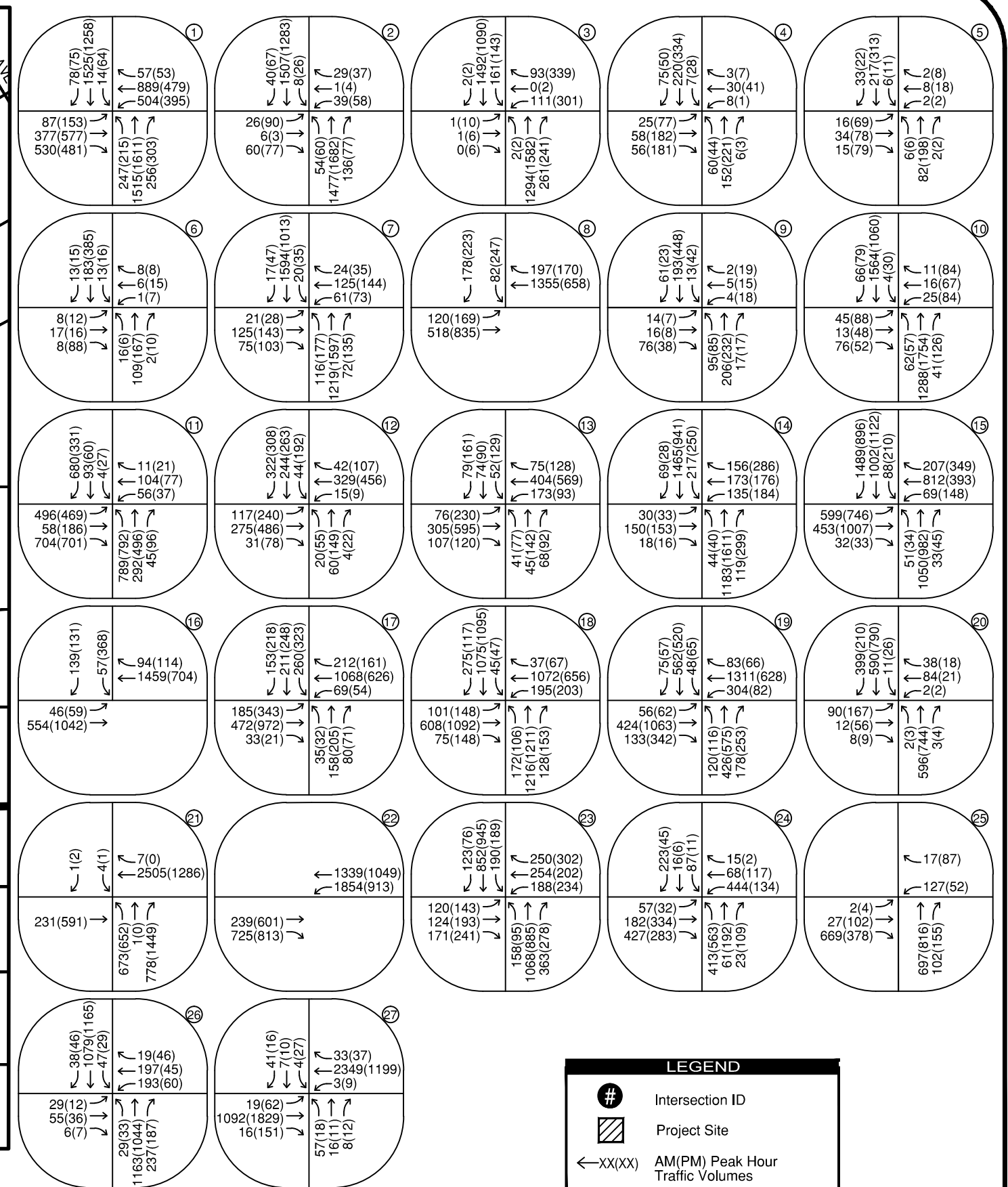
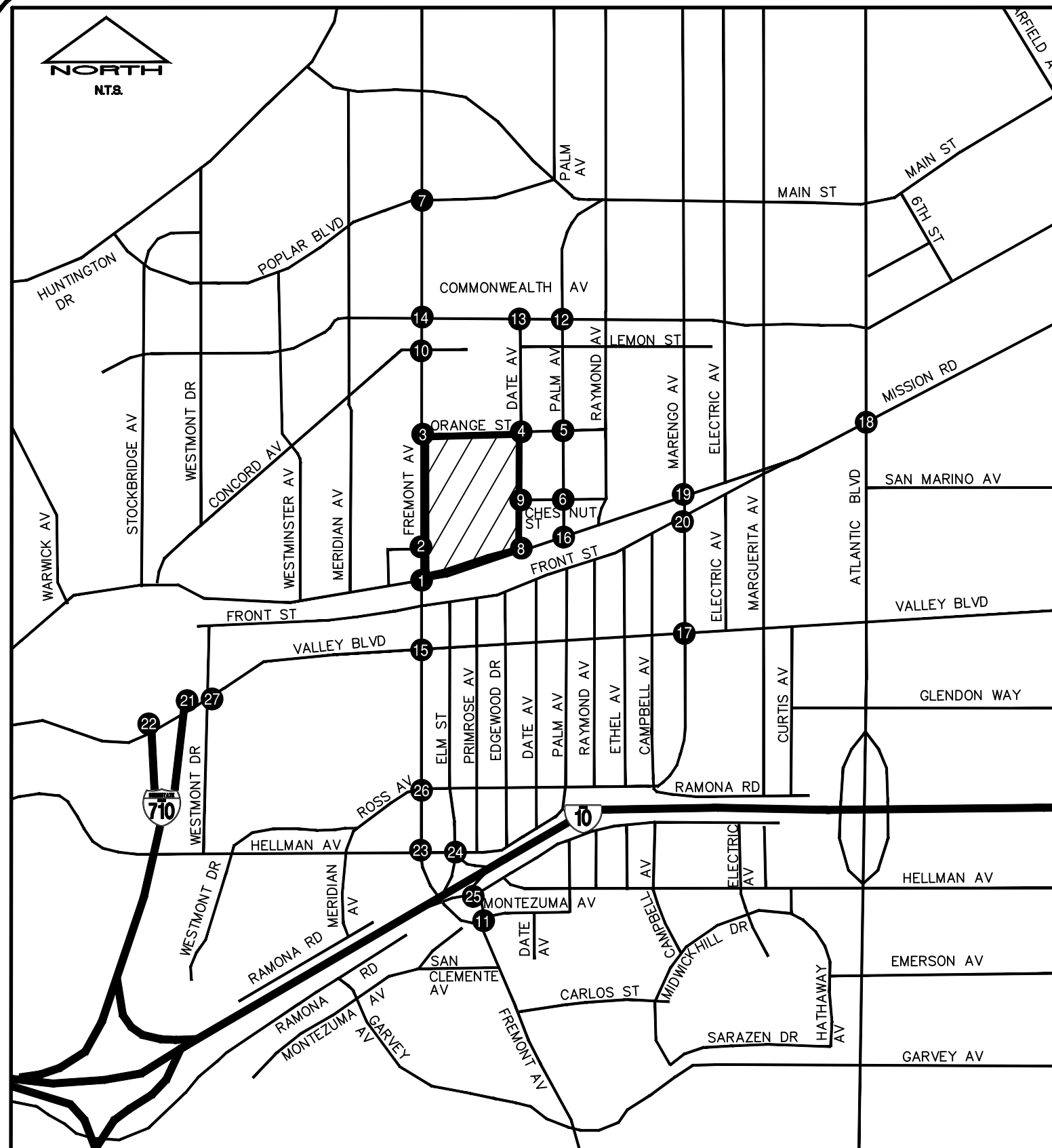


FIGURE 12
The Villages at The Alhambra Development
Cumulative (2028) with Project Weekday Peak-Hour Turning Movement Volumes

Table 17 below presents a summary of the Cumulative (2028) Plus Project Conditions V/C ratio or Delay (sec) and the corresponding LOS for each intersection.

Table 17: Summary of Intersection Operations – Cumulative (2028) Plus Project Conditions

Signalized Study Intersections		Cumulative (2028) Without Project LOS Analysis Results				Cumulative (2028) Plus Project LOS Analysis Results				Change in V/C	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	AM	PM
1	S Fremont Ave/W Mission Rd	1.297	F	1.211	F	1.377	F	1.285	F	0.080	0.074
2	S Fremont Ave/Project Driveway	0.632	B	0.693	B	0.670	B	0.724	C	0.038	0.031
3	S Fremont Ave/Orange St	0.633	B	0.875	D	0.670	B	0.907	E	0.037	0.032
7	S Fremont Ave/Poplar Blvd	0.779	C	0.781	C	0.793	C	0.798	C	0.014	0.017
10	S Fremont Ave/Concord Ave	0.708	C	0.654	B	0.711	C	0.660	B	0.003	0.006
11	S Fremont Ave/Montezuma Ave	0.670	B	0.745	C	0.683	B	0.747	C	0.013	0.002
12	W Commonwealth Ave/S Palm Ave	0.482	A	0.609	B	0.490	A	0.619	B	0.008	0.010
13	Date Ave/W Commonwealth Ave	0.448	A	0.662	B	0.458	A	0.667	B	0.010	0.005
14	S Fremont Ave/W Commonwealth Ave	0.793	C	0.964	E	0.794	C	0.980	E	0.001	0.016
15	S Fremont Ave/W Valley Blvd	1.033	F	0.980	E	1.059	F	1.029	F	0.026	0.049
16	W Mission Rd/S Palm Ave	0.691	B	0.646	B	0.701	C	0.656	B	0.010	0.010
17	W Valley Blvd/S Marengo Ave	0.802	D	0.831	D	0.810	D	0.840	D	0.008	0.009
18	S Atlantic Blvd/W Mission Rd	0.951	E	1.019	F	0.953	E	1.023	F	0.002	0.004
19	S Marengo Ave/W Mission Rd	1.036	F	1.002	F	1.044	F	1.024	F	0.008	0.022
20	S Marengo Ave/Front St	0.818	D	0.862	D	0.830	D	0.868	D	0.012	0.006
21	W Valley Blvd/I-710 NB Off-ramp	0.769	C	0.716	C	0.782	C	0.739	C	0.013	0.023
22	W Valley Blvd/I-710 SB On-ramp	1.173	F	0.914	E	1.197	F	0.925	E	0.024	0.011
23	S Fremont Ave/W Hellman Ave	0.873	D	0.853	D	0.900	E	0.878	D	0.027	0.025
26	S Fremont Ave/Ross Ave	0.720	C	0.551	A	0.725	C	0.564	A	0.005	0.013
27	W Valley Blvd/Westmont Dr	0.893	D	0.701	C	0.914	E	0.720	C	0.021	0.019
Unsignalized Study Intersections		Cumulative (2028) Without Project LOS Analysis Results				Cumulative (2028) Plus Project LOS Analysis Results				Change in Delay (s)	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	AM	PM
4	Date Ave/Orange St	13.8	B	34.0	D	14.7	B	50.7	F	0.9	16.7
5	Orange St/S Palm Ave	8.9	A	12.2	B	9.1	A	12.8	B	0.2	0.6
6	Chestnut Ave/S Palm Ave	8.8	A	12.7	B	8.9	A	13.3	B	0.1	0.6
8	W Mission Rd/Date Ave	33.1	D	93.2	F	68.7	E	266.2	F	35.6	173.0
9	Chestnut St/Date Ave	13.2	B	13.4	B	15.5	C	21.9	C	2.3	8.5
24	W Hellman Ave/I-10 WB Ramps (Elm St)	102.9	F	50.5	F	106.7	F	53.9	F	3.8	3.4
25	S Fremont Ave/I-10 EB Ramps (Ramona Rd)	159.6	F	161.4	F	159.3	F	163.7	F	-0.3	2.3
Source: Kimley-Horn, 2019 Significant impacts shown in bold .											

The Cumulative (2028) Plus Project Conditions traffic analysis results presented in **Table 17** indicate that 4 intersections are projected to operate at LOS E and 6 intersections are projected to operate at LOS F while the remaining 17 intersections will operate at LOS D or better during the AM peak period. During the PM peak period, 3 intersections are projected to operate at LOS E and 9 intersections will operate at LOS F while the remaining 15 intersections will operate at LOS D or better.

For the Cumulative (2028) Plus Project Conditions, the following intersections have an increase in V/C ratio resulting in a significant impact during the AM and PM peak periods.

- Intersection #1: S Fremont Avenue and W Mission Road (increase in V/C of 0.080 to LOS F in the AM peak and 0.074 to LOS F in the PM peak)
- Intersection #3: S Fremont Avenue and Orange Street (increase in V/C of 0.032 to LOS E in the PM peak)
- Intersection #14: S Fremont Avenue and W Commonwealth Avenue (increase in V/C of 0.016 to LOS E in the PM peak)
- Intersection #15: S Fremont Avenue and W Valley Boulevard (increase in V/C of 0.026 to LOS F in the AM peak and 0.049 to LOS F in the PM peak)
- Intersection #19: S Marengo Avenue and W Mission Road (increase in V/C of 0.022 to LOS F in the PM peak)
- Intersection #22: W Valley Boulevard and I-710 SB On-Ramp (increase in V/C of 0.024 to LOS E in the AM peak and 0.011 to LOS E in the PM peak)
- Intersection #23: S Fremont Avenue and W Hellman Avenue (increase in V/C of 0.027 to LOS E in the AM peak and 0.025 to LOS D in the PM peak)
- Intersection #27: W Valley Boulevard and Westmont Drive (increase in V/C of 0.021 to LOS E in the AM peak)
- Intersection #4: Date Avenue and Orange Street (increase in LOS from D to F in the PM peak)
- Intersection #8: W Mission Road and Date Avenue (increase in LOS from D to E in the AM peak)

Unsignalized intersections that operate at LOS E or F in Without Project Conditions are also analyzed to determine if the project added volume exceeds 10% of the total intersection traffic volume. The project adds the following volumes to intersections operating at LOS E or F in Without Project Conditions:

- Intersection #8 – W Mission Road and Date Avenue. No impact because the project contributes 8.8% of the total intersection volume in the PM peak period.
- Intersection #24 – W Hellman Avenue and I-10 WB Ramps (Elm Street). No impact because the project contributes 2.3% of the total intersection volume in the AM peak period and 2.7% in the PM peak period).
- Intersection #25 – S Fremont Avenue and I-10 EB Ramps (Ramona Road). No impact because the project contributes 2.6% of the total intersection volume in the AM peak period and 3.2% in the PM peak period).

IV. SCENARIO 2 – PROJECT PHASING

SCENARIO 2

The Ratkovich Company plans to develop the project site by phased construction. 516 condominium and townhouse units (project areas N1, N2, N3, and N4) will be built by 2024 and the remaining 545 apartment units (project areas S1, S2, and C) will be built by 2028. Phasing construction into two periods over 10 years partially decreases the impacts to the surrounding transportation network.

The traffic impact analysis will analyze project impacts at the opening year of 2024 when the first portion of units are built and again in 2028 when all the units are built.

For the Opening Year 2024 analysis, Ambient (2024), Ambient (2024) Plus Project, Cumulative (2024), and Cumulative (2024) Plus Project Conditions were analyzed. For both ambient plus project and cumulative plus project scenarios, analysis includes the trips expected to be generated by project areas N1, N2, N3, and N4.

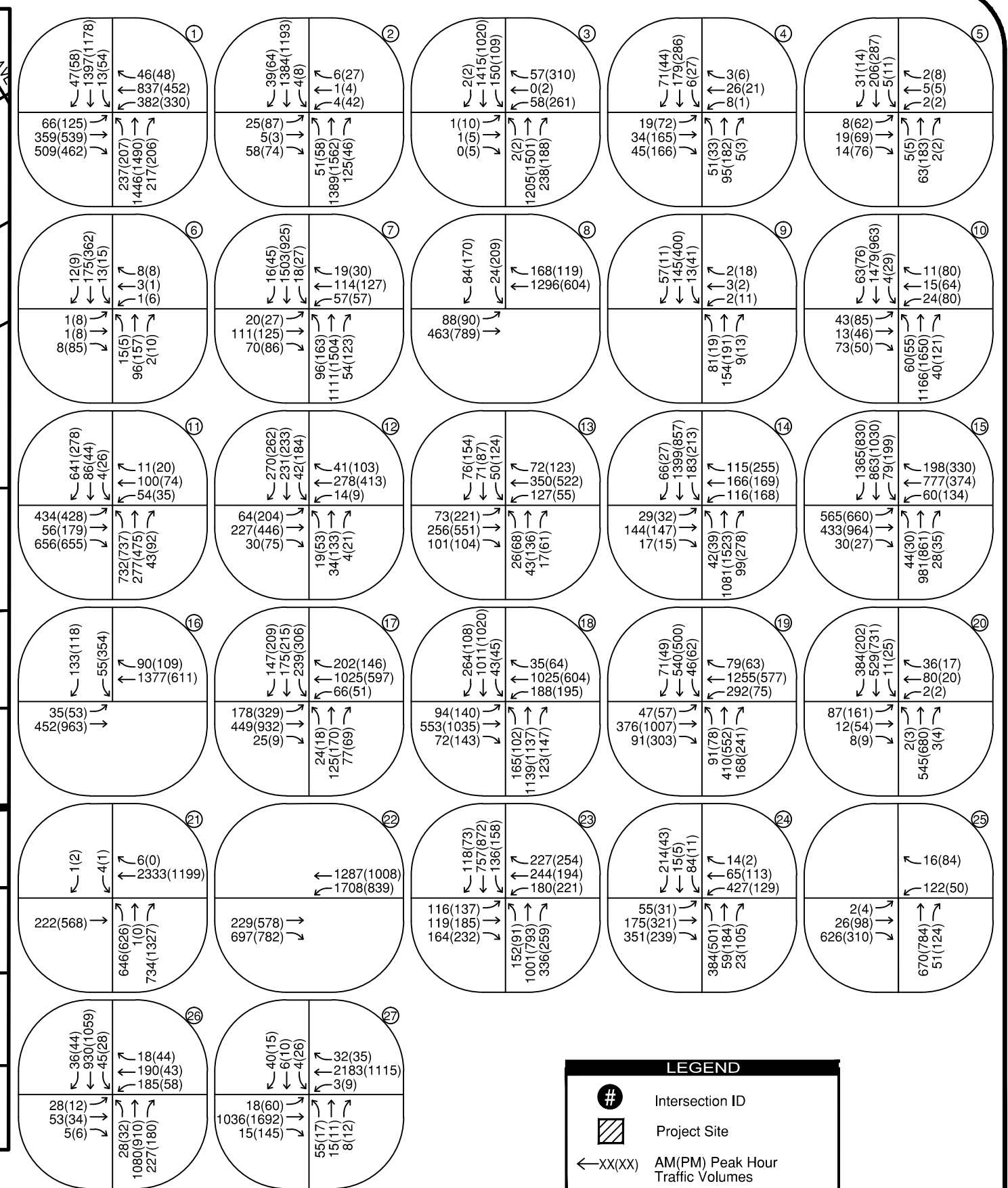
For the 2028 analysis, Cumulative (2028) and Cumulative (2028) Plus Project were analyzed. Both scenarios use Cumulative (2024) Plus Project with Mitigations Conditions as a base.

AMBIENT (2024) CONDITIONS

Ambient Conditions represent the sum of ambient traffic growth and existing traffic volumes to show the impacts of background growth and development in the area.

Regional ambient traffic growth was estimated as an annual percentage increase over the existing traffic volumes. Based on discussions with City staff, a growth rate of 1% per year was applied to the peak hour traffic volumes to represent year 2024 traffic volumes. These volumes were assigned to the street network and study intersections.

Figure 8 on the following page illustrates the AM and PM peak hour traffic volumes at the study intersections for the Ambient (2024) Conditions. The intersection analysis worksheets for Ambient (2024) Conditions are provided in **Appendix J**.



LEGEND




-  Intersection ID
-  Project Site
-  AM(PM) Peak Hour Traffic Volumes

Table 18 below presents a summary of the Ambient (2024) Conditions V/C ratio or Delay (sec) and the corresponding LOS for each intersection.

Table 18: Summary of Intersection Operations – Ambient (2024) Conditions

Signalized Study Intersections		LOS Analysis Results			
		AM Peak Hour		PM Peak Hour	
		V/C	LOS	V/C	LOS
1	S Fremont Ave/W Mission Rd	1.241	F	1.159	F
2	S Fremont Ave/Project Driveway	0.607	B	0.667	B
3	S Fremont Ave/Orange St	0.608	B	0.842	D
7	S Fremont Ave/Poplar Blvd	0.740	C	0.739	C
10	S Fremont Ave/Concord Ave	0.680	B	0.630	B
11	S Fremont Ave/Montezuma Ave	0.636	B	0.715	C
12	W Commonwealth Ave/S Palm Ave	0.408	A	0.555	A
13	Date Ave/W Commonwealth Ave	0.399	A	0.633	B
14	S Fremont Ave/W Commonwealth Ave	0.757	C	0.916	E
15	S Fremont Ave/W Valley Blvd	0.993	E	0.940	E
16	W Mission Rd/S Palm Ave	0.664	B	0.622	B
17	W Valley Blvd/S Marengo Ave	0.759	C	0.790	C
18	S Atlantic Blvd/W Mission Rd	0.909	E	0.975	E
19	S Marengo Ave/W Mission Rd	0.985	E	0.948	E
20	S Marengo Ave/Front St	0.777	C	0.820	D
21	W Valley Blvd/I-710 NB Off-ramp	0.740	C	0.687	B
22	W Valley Blvd/I-710 SB On-ramp	1.129	F	0.880	D
23	S Fremont Ave/W Hellman Ave	0.828	D	0.810	D
26	S Fremont Ave/Ross Ave	0.689	B	0.526	A
27	W Valley Blvd/Westmont Dr	0.859	D	0.675	B
Unsignalized Study Intersections		LOS Analysis Results			
		AM Peak Hour		PM Peak Hour	
		Delay (s)	LOS	Delay (s)	LOS
4	Date Ave/Orange St	12.7	B	25.4	D
5	Orange St/S Palm Ave	8.9	A	11.7	B
6	Chestnut Ave/S Palm Ave	8.7	A	12.2	B
8	W Mission Rd/Date Ave	24.8	C	56.3	F
9	Chestnut St/Date Ave	12.2	B	12.8	B
24	W Hellman Ave/I-10 WB Ramps (Elm St)	86.2	F	41.0	E
25	S Fremont Ave/I-10 EB Ramps (Ramona Rd)	140.8	F	141.8	F

The Ambient (2024) Conditions traffic analysis results presented in **Table 18** indicate that 3 intersections are projected to operate at LOS E and 4 intersections will operate at LOS F while the remaining 20 intersections will operate at LOS D or better during the AM peak period. During the PM peak period, 5 intersections are projected to operate LOS E and 3 intersections are projected to operate at LOS F while the remaining 19 intersections will operate at LOS D or better.

AMBIENT (2024) PLUS PROJECT CONDITIONS

Ambient Plus Project Conditions add the estimated project trips to the Ambient base conditions and are used to evaluate the net change in the traffic conditions and to identify potential traffic impacts associated with the proposed development. The Ambient Plus Project traffic volumes represent the sum of existing traffic volumes raised by the ambient growth factor and the project trips. These volumes were assigned to the street network and study intersections to evaluate the net change in traffic conditions and to identify potential traffic impacts associated with the proposed development.

The peak hour traffic volumes for the Ambient (2024) Plus Project Conditions at each of the study intersections are illustrated in **Figure 14** on the following page. The intersection analysis worksheets for Ambient (2024) Plus Project Conditions are provided in **Appendix K**.

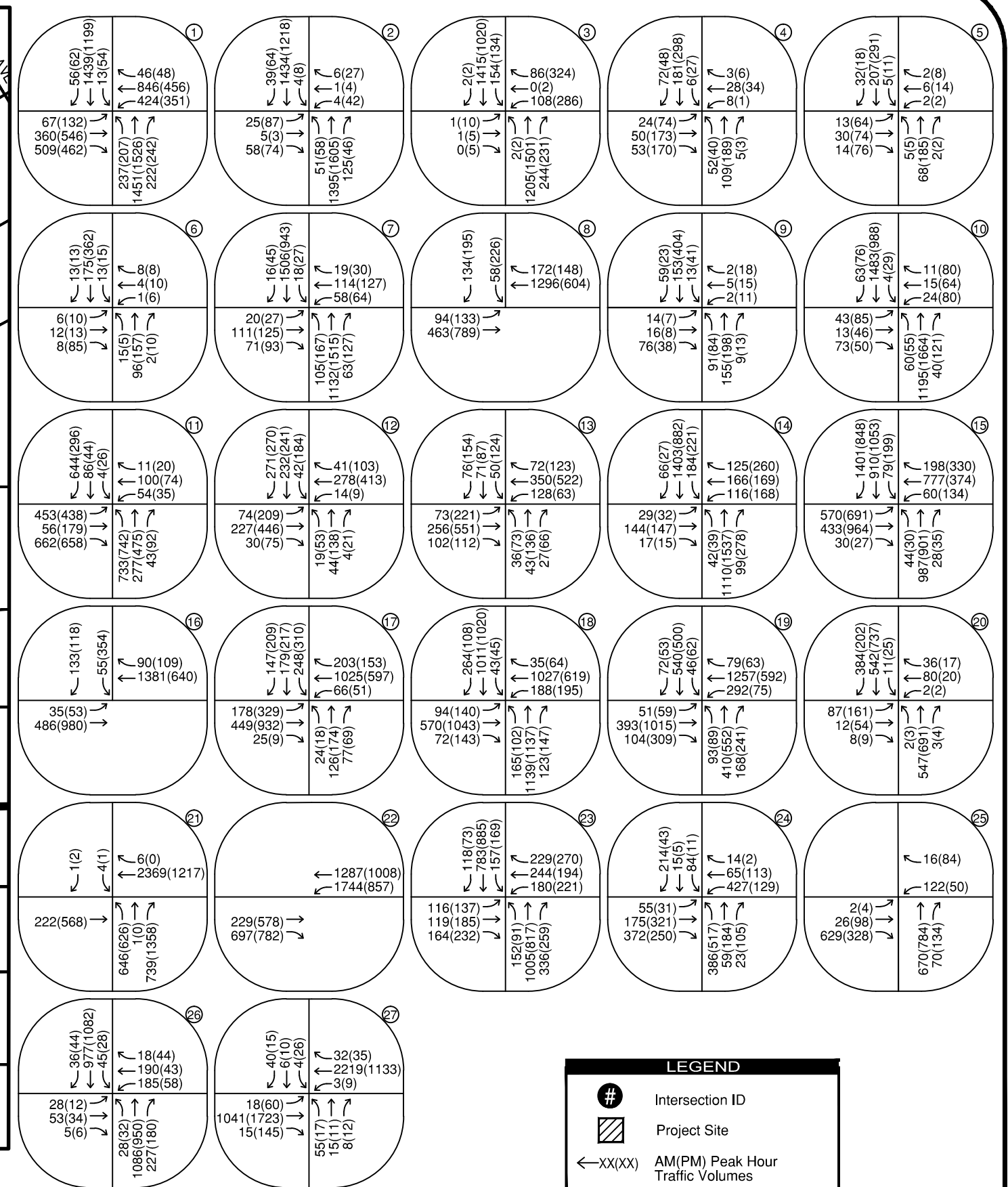
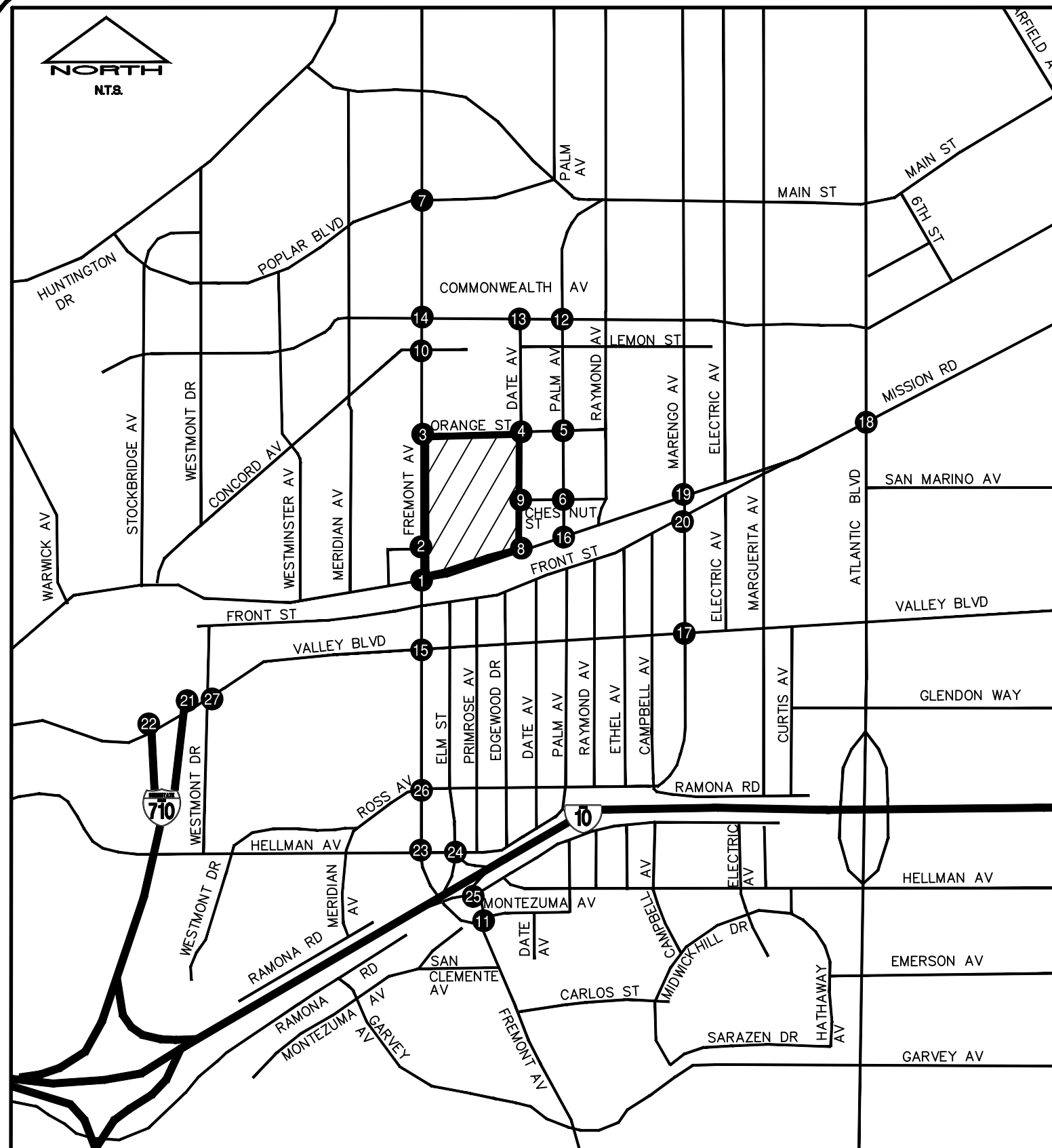


FIGURE 14
The Villages at The Alhambra Development
Ambient (2024) with Project Weekday Peak-Hour Turning Movement Volumes (Build-Out Scenario 2)

Table 19 below presents a summary of the Ambient (2024) Plus Project Conditions V/C ratio or Delay (sec) and the corresponding LOS for each intersection

Table 19: Summary of Intersection Operations – Ambient (2024) Plus Project Conditions

Signalized Study Intersections		Ambient (2024) Without Project LOS Analysis Results				Ambient (2024) Plus Project LOS Analysis Results				Change in V/C	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	AM	PM
1	S Fremont Ave/W Mission Rd	1.241	F	1.159	F	1.281	F	1.194	F	0.040	0.035
2	S Fremont Ave/Project Driveway	0.607	B	0.667	B	0.623	B	0.681	B	0.016	0.014
3	S Fremont Ave/Orange St	0.608	B	0.842	D	0.635	B	0.866	D	0.027	0.024
7	S Fremont Ave/Poplar Blvd	0.740	C	0.739	C	0.747	C	0.748	C	0.007	0.009
10	S Fremont Ave/Concord Ave	0.680	B	0.630	B	0.681	B	0.633	B	0.001	0.003
11	S Fremont Ave/Montezuma Ave	0.636	B	0.715	C	0.643	B	0.716	C	0.007	0.001
12	W Commonwealth Ave/S Palm Ave	0.408	A	0.555	A	0.415	A	0.561	A	0.007	0.006
13	Date Ave/W Commonwealth Ave	0.399	A	0.633	B	0.406	A	0.636	B	0.007	0.003
14	S Fremont Ave/W Commonwealth Ave	0.757	C	0.916	E	0.758	C	0.925	E	0.001	0.009
15	S Fremont Ave/W Valley Blvd	0.993	E	0.940	E	1.006	F	0.964	E	0.013	0.024
16	W Mission Rd/S Palm Ave	0.664	B	0.622	B	0.665	B	0.627	B	0.001	0.005
17	W Valley Blvd/S Marengo Ave	0.759	C	0.790	C	0.766	C	0.795	C	0.007	0.005
18	S Atlantic Blvd/W Mission Rd	0.909	E	0.975	E	0.910	E	0.977	E	0.001	0.002
19	S Marengo Ave/W Mission Rd	0.985	E	0.948	E	0.990	E	0.962	E	0.005	0.014
20	S Marengo Ave/Front St	0.777	C	0.820	D	0.786	C	0.824	D	0.009	0.004
21	W Valley Blvd/I-710 NB Off-ramp	0.740	C	0.687	B	0.747	C	0.700	B	0.007	0.013
22	W Valley Blvd/I-710 SB On-ramp	1.129	F	0.880	D	1.141	F	0.886	D	0.012	0.006
23	S Fremont Ave/W Hellman Ave	0.828	D	0.810	D	0.842	D	0.825	D	0.014	0.015
26	S Fremont Ave/Ross Ave	0.689	B	0.526	A	0.691	B	0.534	A	0.002	0.008
27	W Valley Blvd/Westmont Dr	0.859	D	0.675	B	0.870	D	0.685	B	0.011	0.010
Unsignalized Study Intersections		Ambient (2024) Without Project LOS Analysis Results				Ambient (2024) Plus Project LOS Analysis Results				Change in Delay (s)	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	AM	PM
4	Date Ave/Orange St	12.7	B	25.4	D	13.1	B	31.7	F	0.4	6.3
5	Orange St/S Palm Ave	8.9	A	11.7	B	8.9	A	12.0	B	0.0	0.3
6	Chestnut Ave/S Palm Ave	8.7	A	12.2	B	8.7	A	12.3	B	0.0	0.1
8	W Mission Rd/Date Ave	24.8	C	56.3	F	35.6	E	115.4	F	10.8	59.1
9	Chestnut St/Date Ave	12.2	B	12.8	B	13.5	B	18.0	C	1.3	5.2
24	W Hellman Ave/I-10 WB Ramps (Elm St)	86.2	F	41.0	E	89.0	F	43.5	E	2.8	2.5
25	S Fremont Ave/I-10 EB Ramps (Ramona Rd)	140.8	F	141.8	F	137.5	F	142.6	F	-3.3	0.8

Source: Kimley-Horn, 2019
Significant impacts shown in **bold**.

The Ambient (2024) Plus Project Conditions traffic analysis results presented in **Table 19** indicate that 3 intersections are projected to operate at LOS E and 5 intersections are projected to operate at LOS F while the remaining 19 intersections will operate at LOS D or better during the AM peak period. During the PM peak period, 5 intersections are projected to operate at LOS E and 4 intersections will operate at LOS F while the remaining 18 intersections will operate at LOS D or better.

For the Ambient (2024) Plus Project Conditions, the following intersections have an increase in V/C ratio resulting in a significant impact in the AM and PM peak periods.

- Intersection #1: S Fremont Avenue and W Mission Road (increase in V/C of 0.040 to LOS F in the AM peak and 0.035 to LOS F in the PM peak)
- Intersection #3: S Fremont Avenue and Orange Street (increase in V/C of 0.024 to LOS D in the PM peak)
- Intersection #15: S Fremont Avenue and W Valley Boulevard (increase in V/C of 0.013 to LOS F in the AM peak and 0.024 to LOS E in the PM peak)
- Intersection #19: S Marengo Avenue and W Mission Road (increase in V/C of 0.014 to LOS E in PM peak)
- Intersection #22: W Valley Boulevard and I-710 SB Off-ramp (increase in V/C of 0.012 to LOS D in the AM peak)
- Intersection #4: Date Avenue and Orange Street (increase in LOS from D to F in the PM peak)
- Intersection #8: W Mission Road and Date Avenue (increase in LOS from C to E in the AM peak)

Unsignalized intersections that operate at LOS E or F in Without Project Conditions are also analyzed to determine if the project added volume exceeds 10% of the total intersection traffic volume. The project adds the following volumes to intersections operating at LOS E or F in Without Project Conditions:

- Intersection #8 – W Mission Road and Date Avenue. No impact because the project contributes 9.3% of the total intersection volume in the PM peak period.
- Intersection #24 – W Hellman Avenue and I-10 WB Ramps (Elm Street). No impact because the project contributes 2.4% of the total intersection volume in the AM peak period and 2.9% in the PM peak period).
- Intersection #25 – S Fremont Avenue and I-10 EB Ramps (Ramona Road). No impact because the project contributes 2.7% of the total intersection volume in the AM peak period and 3.4% in the PM peak period).

CUMULATIVE (2024) CONDITIONS

Cumulative Conditions include traffic from other pending and approved projects in the immediate area to analyze the impacts of cumulative traffic.

The Cumulative (2024) Conditions represent the sum of existing volumes, ambient growth, and the traffic estimated from related projects. Traffic volumes from related projects (approved and pending projects expected to be built by the year 2024 within 1.5 miles of the proposed development) were added to the study intersections to simulate cumulative traffic conditions with expected new growth in development in the area. Scenario 2 analyzes cumulative conditions in both 2024 and 2028. Since all nine related projects identified by the City of Alhambra are expected to be built by 2024, they are all included in the Cumulative (2024) conditions as well as in the base conditions for Ambient (2028) analysis. No additional related projects are considered for Cumulative (2028) conditions.

Figure 15 on the following page illustrates the AM and PM peak hour traffic volumes at the study intersections for Cumulative (2024) Conditions. The intersection analysis worksheets for Cumulative (2024) Conditions are provided in **Appendix L**.

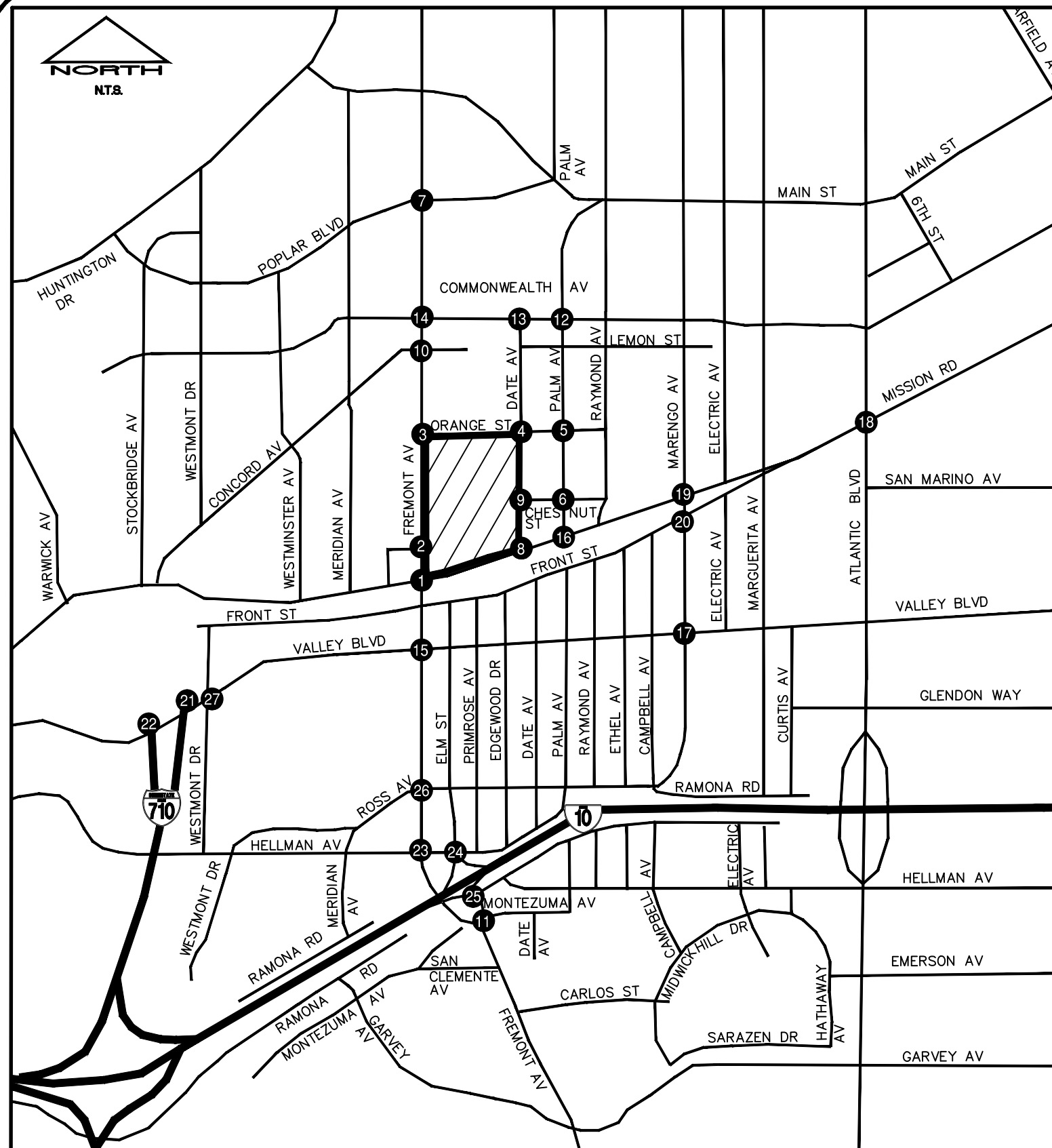


FIGURE 15
The Villages at The Alhambra Development
Cumulative (2024) Weekday Peak-Hour Turning Movement Volumes (Build-Out Scenario 2)

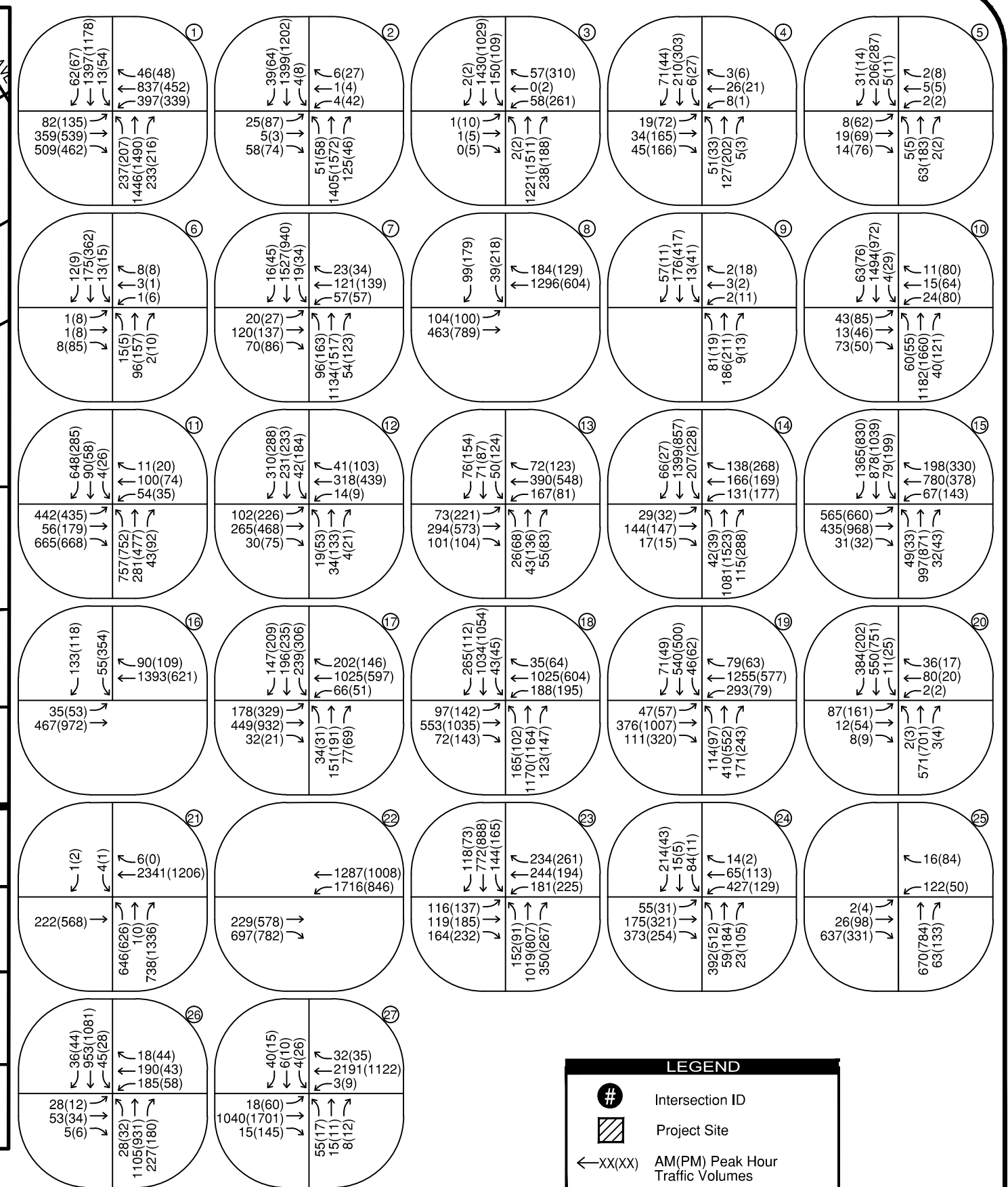


Table 20 below presents a summary of the Cumulative (2024) Conditions V/C ratio or Delay (sec) and the corresponding LOS for each intersection.

Table 20: Summary of Intersection Operations – Cumulative (2024) Conditions

Signalized Study Intersections		LOS Analysis Results			
		AM Peak Hour		PM Peak Hour	
		V/C	LOS	V/C	LOS
1	S Fremont Ave/W Mission Rd	1.251	F	1.167	F
2	S Fremont Ave/Project Driveway	0.612	B	0.670	B
3	S Fremont Ave/Orange St	0.613	B	0.845	D
7	S Fremont Ave/Poplar Blvd	0.753	C	0.755	C
10	S Fremont Ave/Concord Ave	0.685	B	0.633	B
11	S Fremont Ave/Montezuma Ave	0.648	B	0.720	C
12	W Commonwealth Ave/S Palm Ave	0.469	A	0.591	A
13	Date Ave/W Commonwealth Ave	0.435	A	0.641	B
14	S Fremont Ave/W Commonwealth Ave	0.766	C	0.931	E
15	S Fremont Ave/W Valley Blvd	0.997	E	0.946	E
16	W Mission Rd/S Palm Ave	0.669	B	0.625	B
17	W Valley Blvd/S Marengo Ave	0.776	C	0.803	D
18	S Atlantic Blvd/W Mission Rd	0.923	E	0.983	E
19	S Marengo Ave/W Mission Rd	1.000	E	0.968	E
20	S Marengo Ave/Front St	0.791	C	0.833	D
21	W Valley Blvd/I-710 NB Off-ramp	0.742	C	0.691	B
22	W Valley Blvd/I-710 SB On-ramp	1.131	F	0.882	D
23	S Fremont Ave/W Hellman Ave	0.843	D	0.824	D
26	S Fremont Ave/Ross Ave	0.696	B	0.533	A
27	W Valley Blvd/Westmont Dr	0.862	D	0.678	B
Unsignalized Study Intersections		LOS Analysis Results			
		AM Peak Hour		PM Peak Hour	
		Delay (s)	LOS	Delay (s)	LOS
4	Date Ave/Orange St	13.5	B	28.6	D
5	Orange St/S Palm Ave	8.9	A	11.7	B
6	Chestnut Ave/S Palm Ave	8.7	A	12.2	B
8	W Mission Rd/Date Ave	30.1	C	70.8	F
9	Chestnut St/Date Ave	12.9	B	13.2	B
24	W Hellman Ave/I-10 WB Ramps (Elm St)	89.5	F	43.1	E
25	S Fremont Ave/I-10 EB Ramps (Ramona Rd)	140.2	F	142.9	F

The Cumulative (2024) Conditions traffic analysis results presented in **Table 20** indicate that 3 intersections are projected to operate at LOS E and 4 intersections will operate at LOS F while the remaining 20 intersections would operate at LOS D or better during the AM peak period. During the PM peak period, 5 intersections are projected to operate LOS E and 3 intersections are projected to operate at LOS F while the remaining 19 intersections would operate at LOS D or better.

CUMULATIVE (2024) PLUS PROJECT CONDITIONS

Cumulative (2024) Plus Project Conditions add the estimated project traffic to the Cumulative (2024) base conditions and are used to evaluate the net change in the traffic conditions and to identify potential traffic impacts associated with the proposed project. The Cumulative Plus Project traffic volumes represent the sum of existing traffic volumes raised by ambient growth factor, the traffic estimated from related projects, and the project trips. These volumes were assigned to the street network and study intersections to evaluate the net change in the traffic conditions and to identify potential traffic impacts associated with the proposed project.

Figure 16 on the following page illustrates the AM and PM peak hour traffic volumes at the study intersection for Cumulative (2024) Plus Project Conditions. The intersection analysis worksheets for Cumulative (2024) Plus Project Conditions are provided in **Appendix M**.

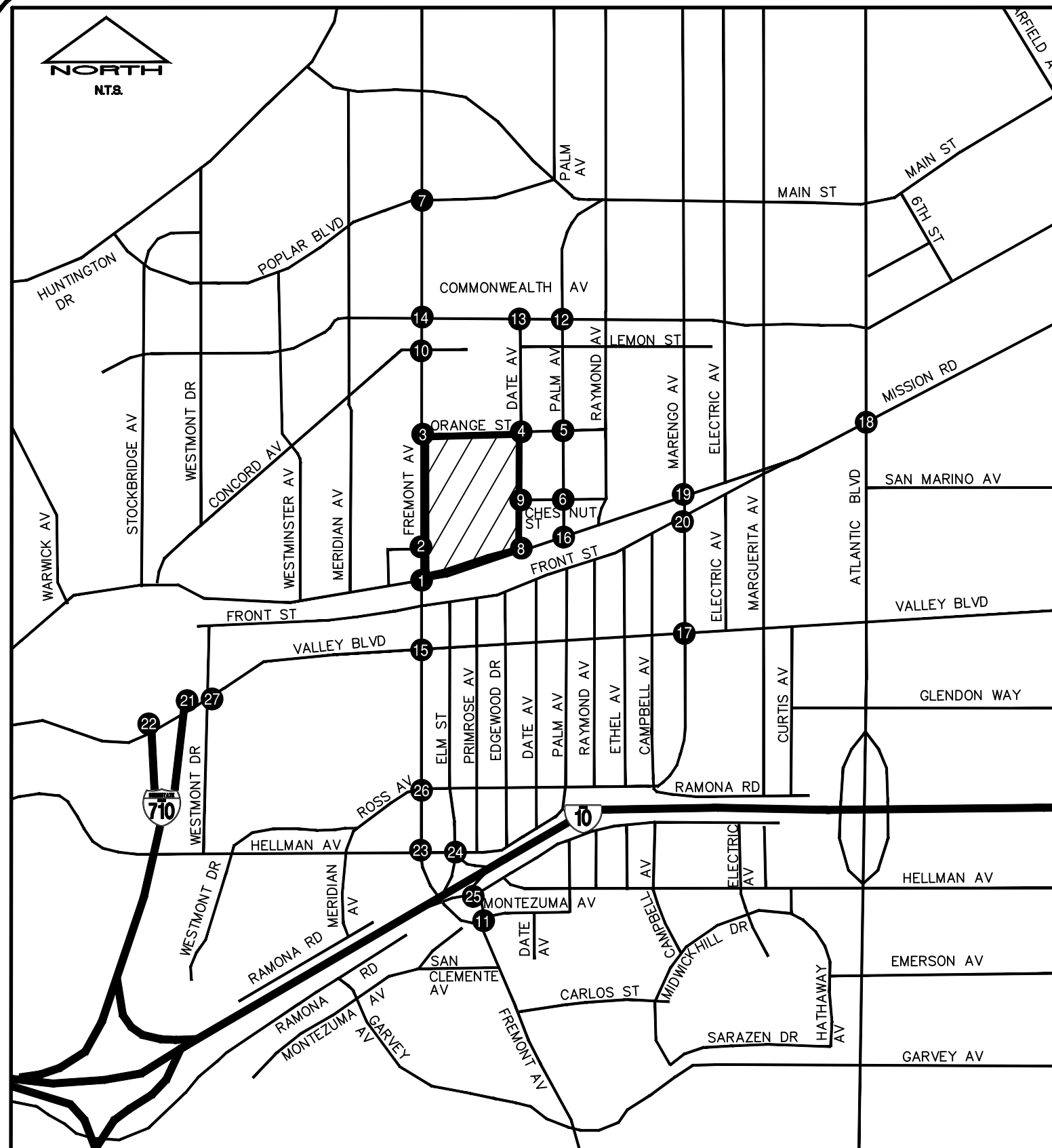


FIGURE 16
The Villages at The Alhambra Development
Cumulative (2024) with Project Weekday Peak-Hour Turning Movement Volumes (Build-Out Scenario 2)

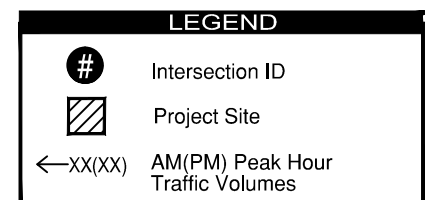
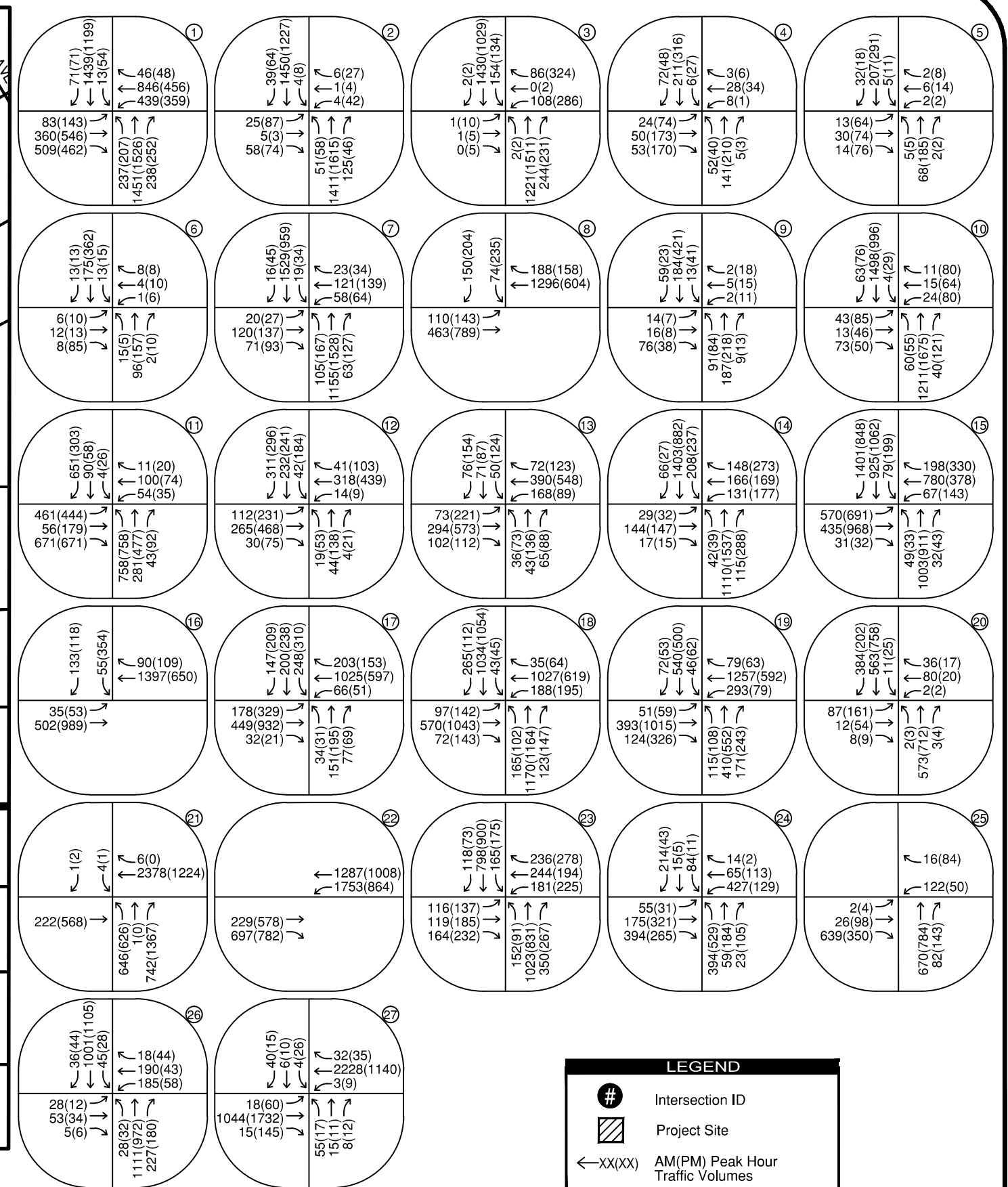


Table 21 below presents a summary of the Cumulative (2024) Plus Project Conditions V/C ratio or Delay (sec) and the corresponding LOS for each intersection.

Table 21: Summary of Intersection Operations – Cumulative (2024) Plus Project Conditions

Signalized Study Intersections		Cumulative (2024) Without Project LOS Analysis Results				Cumulative (2024) Plus Project LOS Analysis Results				Change in V/C	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	AM	PM
1	S Fremont Ave/W Mission Rd	1.251	F	1.167	F	1.290	F	1.202	F	0.039	0.035
2	S Fremont Ave/Project Driveway	0.612	B	0.670	B	0.628	B	0.684	B	0.016	0.014
3	S Fremont Ave/Orange St	0.613	B	0.845	D	0.640	B	0.869	D	0.027	0.024
7	S Fremont Ave/Poplar Blvd	0.753	C	0.755	C	0.760	C	0.764	C	0.007	0.009
10	S Fremont Ave/Concord Ave	0.685	B	0.633	B	0.686	B	0.636	B	0.001	0.003
11	S Fremont Ave/Montezuma Ave	0.648	B	0.720	C	0.655	B	0.721	C	0.007	0.001
12	W Commonwealth Ave/S Palm Ave	0.469	A	0.591	A	0.476	A	0.583	A	0.007	-0.008
13	Date Ave/W Commonwealth Ave	0.435	A	0.641	B	0.443	A	0.644	B	0.008	0.003
14	S Fremont Ave/W Commonwealth Ave	0.766	C	0.931	E	0.768	C	0.941	E	0.002	0.010
15	S Fremont Ave/W Valley Blvd	0.997	E	0.946	E	1.010	F	0.969	E	0.013	0.023
16	W Mission Rd/S Palm Ave	0.669	B	0.625	B	0.670	B	0.630	B	0.001	0.005
17	W Valley Blvd/S Marengo Ave	0.776	C	0.803	D	0.781	C	0.808	D	0.005	0.005
18	S Atlantic Blvd/W Mission Rd	0.923	E	0.983	E	0.924	E	0.986	E	0.001	0.003
19	S Marengo Ave/W Mission Rd	1.000	E	0.968	E	1.004	F	0.982	E	0.004	0.014
20	S Marengo Ave/Front St	0.791	C	0.833	D	0.799	C	0.837	D	0.008	0.004
21	W Valley Blvd/I-710 NB Off-ramp	0.742	C	0.691	B	0.749	C	0.704	C	0.007	0.013
22	W Valley Blvd/I-710 SB On-ramp	1.131	F	0.882	D	1.144	F	0.889	D	0.013	0.007
23	S Fremont Ave/W Hellman Ave	0.843	D	0.824	D	0.857	D	0.838	D	0.014	0.014
26	S Fremont Ave/Ross Ave	0.696	B	0.533	A	0.698	B	0.541	A	0.002	0.008
27	W Valley Blvd/Westmont Dr	0.862	D	0.678	B	0.873	D	0.687	B	0.011	0.009
Unsignalized Study Intersections		Cumulative (2024) Without Project LOS Analysis Results				Cumulative (2024) Plus Project LOS Analysis Results				Change in Delay (s)	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	AM	PM
4	Date Ave/Orange St	13.5	B	28.6	D	13.9	B	37.2	E	0.4	8.6
5	Orange St/S Palm Ave	8.9	A	11.7	B	8.9	A	12.0	B	0.0	0.3
6	Chestnut Ave/S Palm Ave	8.7	A	12.2	B	8.7	A	12.3	B	0.0	0.1
8	W Mission Rd/Date Ave	30.1	C	70.8	F	47.3	E	144.0	F	17.2	73.2
9	Chestnut St/Date Ave	12.9	B	13.2	B	14.3	B	18.8	C	1.4	5.6
24	W Hellman Ave/I-10 WB Ramps (Elm St)	89.5	F	43.1	E	92.9	F	45.3	E	3.4	2.2
25	S Fremont Ave/I-10 EB Ramps (Ramona Rd)	140.2	F	142.9	F	139.6	F	144.2	F	-0.6	1.3
Source: Kimley-Horn, 2019 Significant impacts shown in bold .											

The Cumulative (2024) Plus Project Conditions traffic analysis results presented in **Table 21** indicate that 2 intersections are projected to operate at LOS E and 6 intersections are projected to operate at LOS F while the remaining 19 intersections would operate at LOS D or better during the AM peak period. During the PM peak period, 6 intersections are projected to operate at LOS E and 3 intersections would operate at LOS F while the remaining 18 intersections will operate at LOS D or better.

For the Cumulative (2024) Plus Project Conditions, the following intersections have an increase in V/C ratio resulting in a significant impact during the AM and PM peak periods.

- Intersection #1: S Fremont Avenue and W Mission Road (increase in V/C of 0.039 to LOS F in the AM peak and 0.035 to LOS F in the PM peak)
- Intersection #3: S Fremont Avenue and Orange Street (increase in V/C of 0.024 to LOS D in the PM peak)
- Intersection #15: S Fremont Avenue and W Valley Boulevard (increase in V/C of 0.013 to LOS F in the AM peak and 0.023 to LOS D in the PM peak)
- Intersection #19: S Marengo and W Mission road (increase in V/C of 0.014 to LOS E in the PM peak)
- Intersection #22: W Valley Boulevard and I-710 SB On-Ramp (increase in V/C of 0.013 to LOS F in the AM peak)
- Intersection #4: Date Avenue and Orange Street (increase in LOS from D to E in the PM peak)
- Intersection #8: W Mission Road and Date Avenue (increase in LOS from C to E in the AM peak)

Unsignalized intersections that operate at LOS E or F in Without Project Conditions are also analyzed to determine if the project added volume exceeds 10% of the total intersection traffic volume. The project adds the following volumes to intersections operating at LOS E or F in Without Project Conditions:

- Intersection #8 – W Mission Road and Date Avenue. No impact because the project contributes 9.1% of the total intersection volume in the PM peak period.
- Intersection #24 – W Hellman Avenue and I-10 WB Ramps (Elm Street). No impact because the project contributes 2.4% of the total intersection volume in the AM peak period and 2.8% in the PM peak period).
- Intersection #25 – S Fremont Avenue and I-10 EB Ramps (Ramona Road). No impact because the project contributes 2.7% of the total intersection volume in the AM peak period and 3.3% in the PM peak period).

AMBIENT (2028) CONDITIONS

For Scenario 2, Ambient (2028) Conditions use Cumulative (2024) Plus Project Plus Mitigations Conditions as a baseline. The baseline conditions include the portion of the Villages at The Alhambra that will be completed by 2024, all nine related projects considered in this analysis, and the growth expected to occur between 2018 and 2024.

The baseline conditions also include infrastructure improvements that are expected to be built as a result of the mitigations required by project impacts in 2024. Project impacts and mitigations are discussed in **Section V** (Project Impacts and Mitigation Measures). There are no feasible mitigations at any of the impacted intersections, so Cumulative (2024) Plus Project Plus Mitigations Conditions is equivalent to the Cumulative (2024) Plus Project Conditions.

Ambient (2028) Conditions applies a growth factor from 2024 to 2028 to the Cumulative (2024) Plus Project Plus Mitigation Conditions.

Because all nine related projects are assumed to be completed by 2024, they are all included in the baseline for Ambient (2028) Conditions. No additional related projects are included in the analysis. Therefore, Cumulative (2028) conditions are the same as Ambient (2028) Conditions. Similarly, Cumulative (2028) Plus Project Conditions are the same as Ambient (2028) Plus Project Conditions.

CUMULATIVE (2028) CONDITIONS

Cumulative (2028) Conditions applies a growth factor to the Cumulative (2024) Plus Project Conditions. Cumulative (2028) Conditions include the portion of the Villages at The Alhambra that will be completed by 2024 as well as all nine related projects included in this analysis.

Figure 17 on the following page illustrates the AM and PM peak hour traffic volumes at the study intersections for the Cumulative (2028) Conditions. The intersection analysis worksheets for Cumulative (2028) Conditions are provided in **Appendix N**.

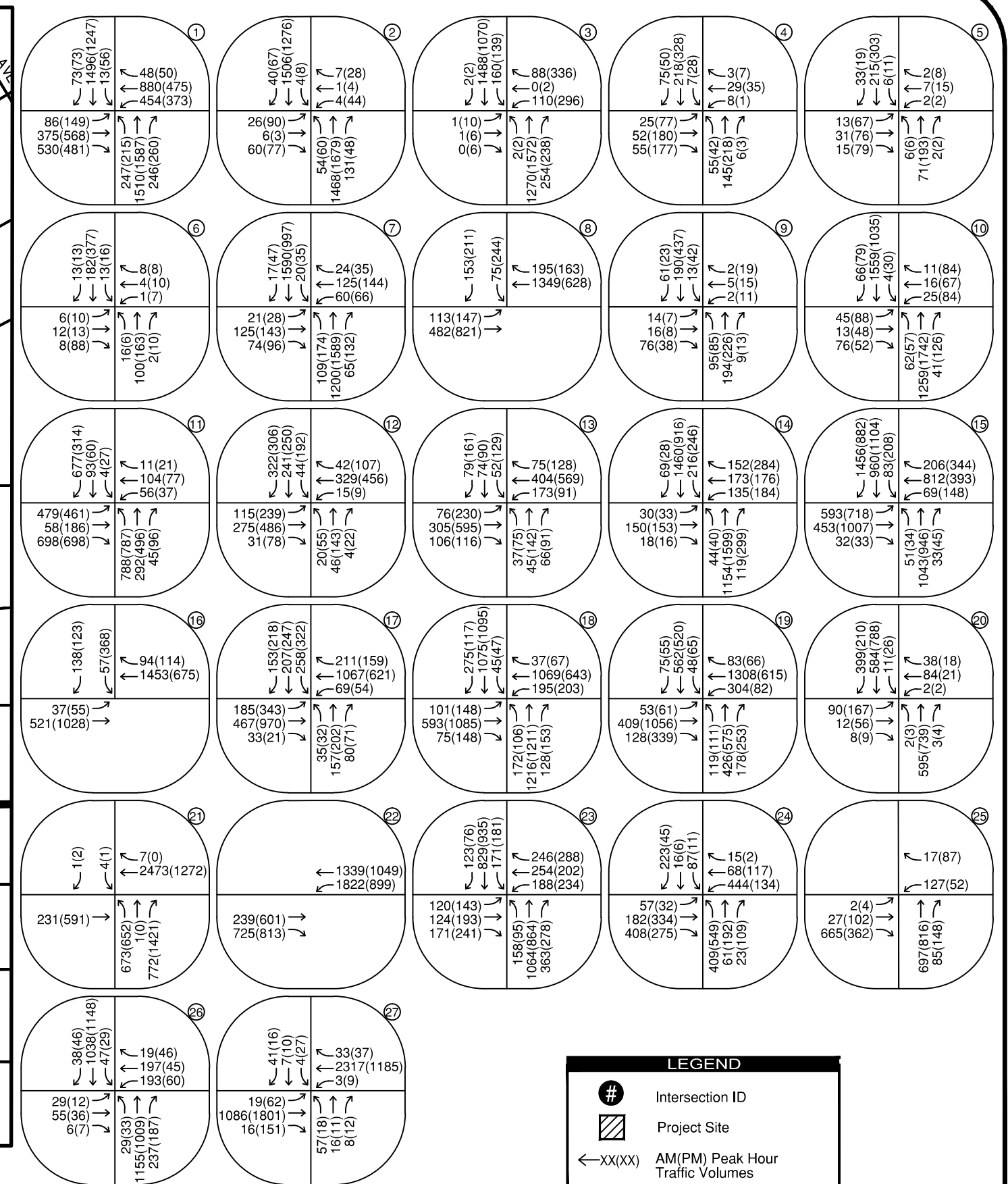
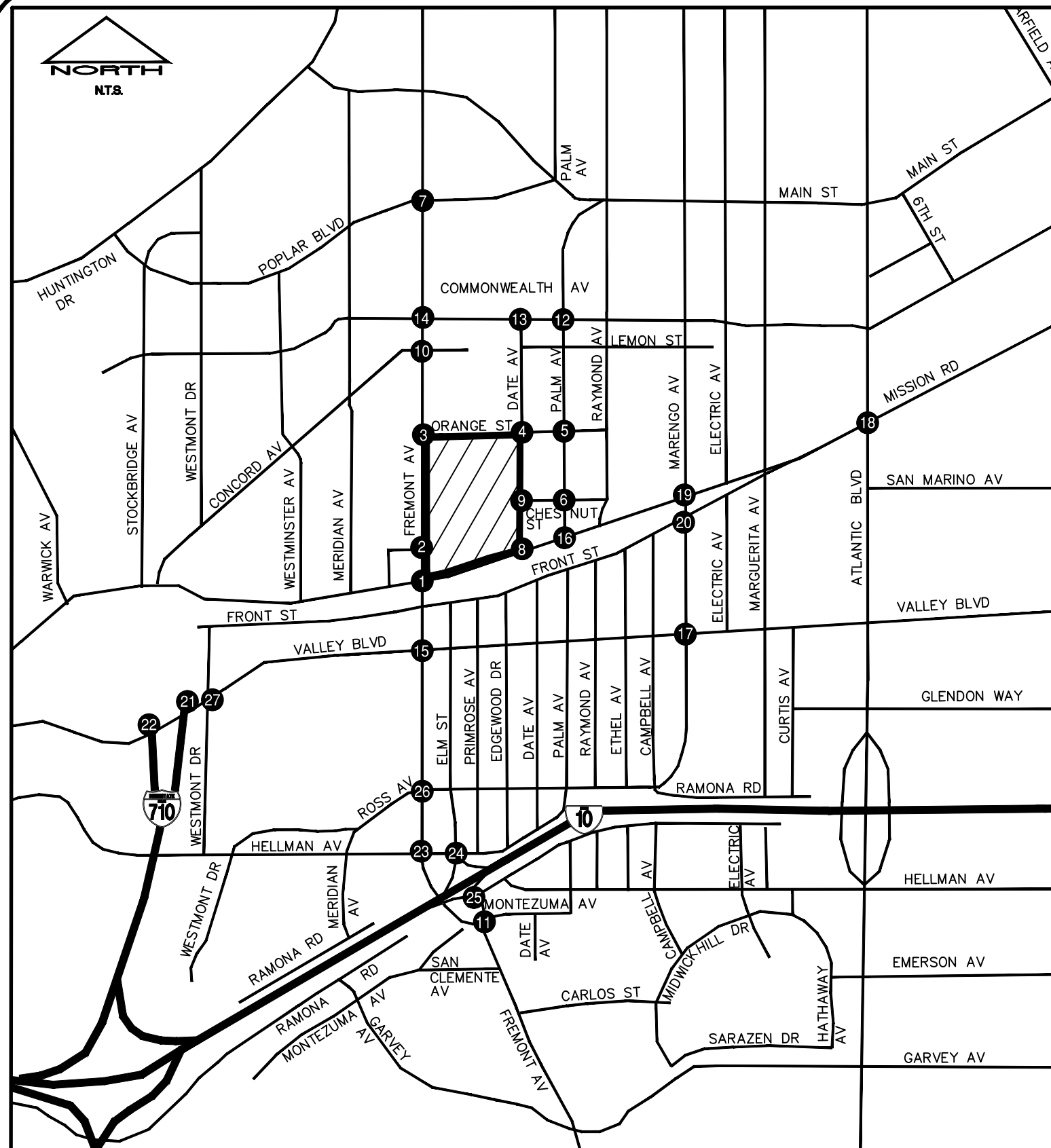


FIGURE 17
The Villages at The Alhambra Development
Cumulative (2028) Weekday Peak-Hour Turning Movement Volumes (Build-Out Scenario 2)

Table 22 below presents a summary of the Cumulative (2028) Conditions V/C ratio or Delay (sec) and the corresponding LOS for each intersection.

Table 22: Summary of Intersection Operations –Cumulative (2028) Conditions

Signalized Study Intersections		LOS Analysis Results			
		AM Peak Hour		PM Peak Hour	
		V/C	LOS	V/C	LOS
1	S Fremont Ave/W Mission Rd	1.337	F	1.246	F
2	S Fremont Ave/Project Driveway	0.648	B	0.706	C
3	S Fremont Ave/Orange St	0.660	B	0.899	D
7	S Fremont Ave/Poplar Blvd	0.786	C	0.790	C
10	S Fremont Ave/Concord Ave	0.709	C	0.657	B
11	S Fremont Ave/Montezuma Ave	0.677	B	0.746	C
12	W Commonwealth Ave/S Palm Ave	0.489	A	0.617	B
13	Date Ave/W Commonwealth Ave	0.455	A	0.666	B
14	S Fremont Ave/W Commonwealth Ave	0.794	C	0.974	E
15	S Fremont Ave/W Valley Blvd	1.046	F	1.003	F
16	W Mission Rd/S Palm Ave	0.693	B	0.651	B
17	W Valley Blvd/S Marengo Ave	0.808	D	0.836	D
18	S Atlantic Blvd/W Mission Rd	0.952	E	1.021	F
19	S Marengo Ave/W Mission Rd	1.040	F	1.016	F
20	S Marengo Ave/Front St	0.826	D	0.866	D
21	W Valley Blvd/I-710 NB Off-ramp	0.776	C	0.728	C
22	W Valley Blvd/I-710 SB On-ramp	1.186	F	0.920	E
23	S Fremont Ave/W Hellman Ave	0.887	D	0.867	D
26	S Fremont Ave/Ross Ave	0.722	C	0.558	A
27	W Valley Blvd/Westmont Dr	0.904	E	0.711	C
Unsignalized Study Intersections		LOS Analysis Results			
		AM Peak Hour		PM Peak Hour	
		Delay (s)	LOS	Delay (s)	LOS
4	Date Ave/Orange St	14.3	B	46.1	E
5	Orange St/S Palm Ave	9.0	A	12.4	B
6	Chestnut Ave/S Palm Ave	8.8	A	12.9	B
8	W Mission Rd/Date Ave	55.7	F	187.3	F
9	Chestnut St/Date Ave	14.6	B	19.2	C
24	W Hellman Ave/I-10 WB Ramps (Elm St)	102.9	F	53.8	F
25	S Fremont Ave/I-10 EB Ramps (Ramona Rd)	159.1	F	162.5	F

The Cumulative (2028) Conditions traffic analysis results presented in **Table 22** indicate that 2 intersections are projected to operate at LOS E and 7 intersections will operate at LOS F while the remaining 18 intersections will operate at LOS D or better during the AM peak period. During the PM peak period, 3 intersections are projected to operate LOS E and 7 intersections are projected to operate at LOS F while the remaining 17 intersections will operate at LOS D or better.

CUMULATIVE (2028) PLUS PROJECT CONDITIONS

Cumulative (2028) Plus Project Conditions add the estimated project traffic to the Cumulative (2028) base conditions and are used to evaluate the net change in the traffic conditions and to identify potential traffic impacts associated with the proposed project. Project zones S1, S2, and C are added in this step because the other portions of the project are already included in Cumulative (2028) base conditions. The Cumulative (2028) Plus Project traffic volumes represent the sum of existing traffic volumes raised by ambient growth factor, the traffic estimated from related projects, and the project trips. These volumes were assigned to the street network and study intersections to evaluate the net change in the traffic conditions and to identify potential traffic impacts associated with the proposed project

The peak hour traffic volumes for the Cumulative (2028) Plus Project Conditions at each of the study intersections are illustrated in **Figure 18** on the following page. The intersection analysis worksheets for Cumulative (2028) Plus Project Conditions are provided in **Appendix O**.

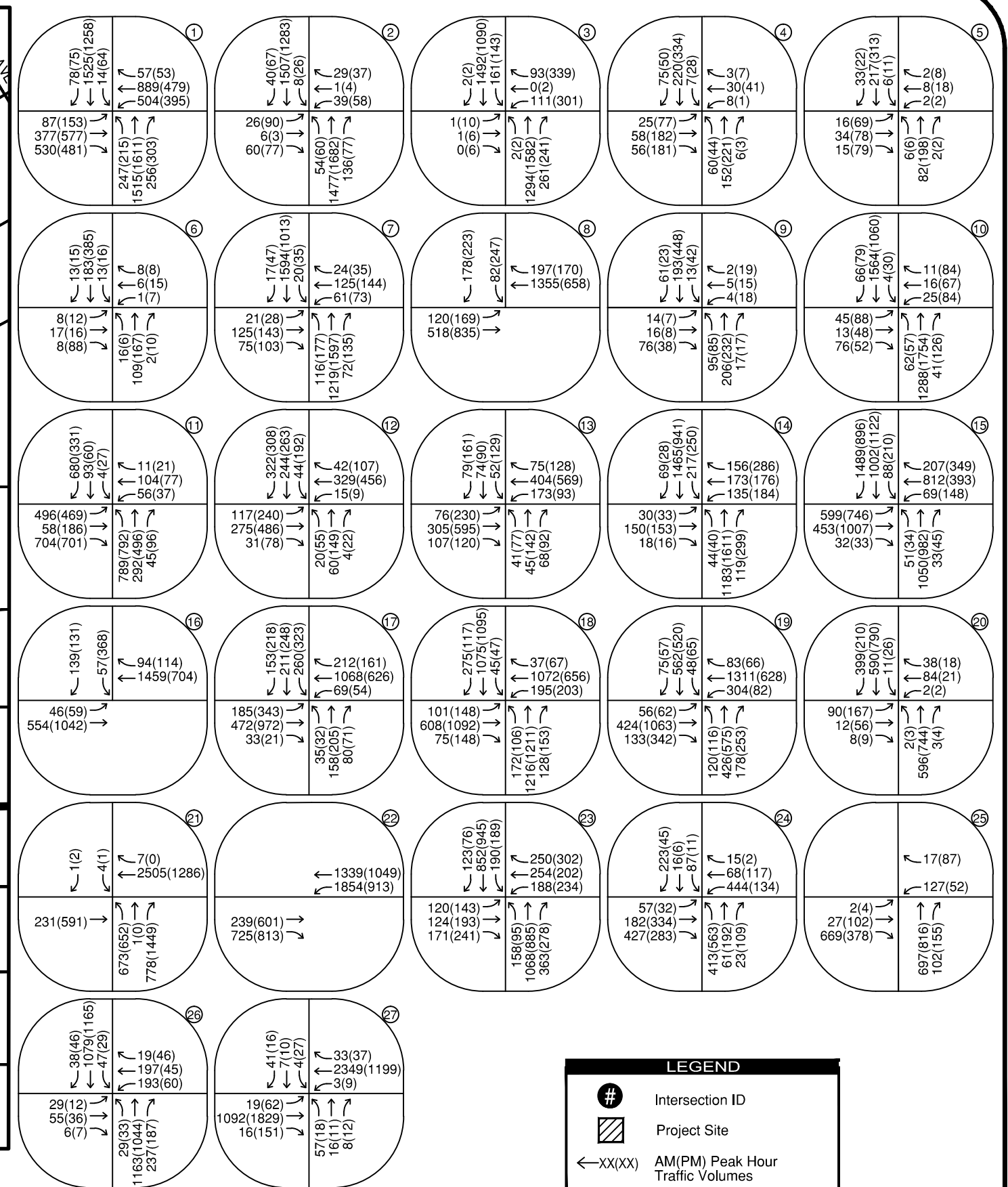
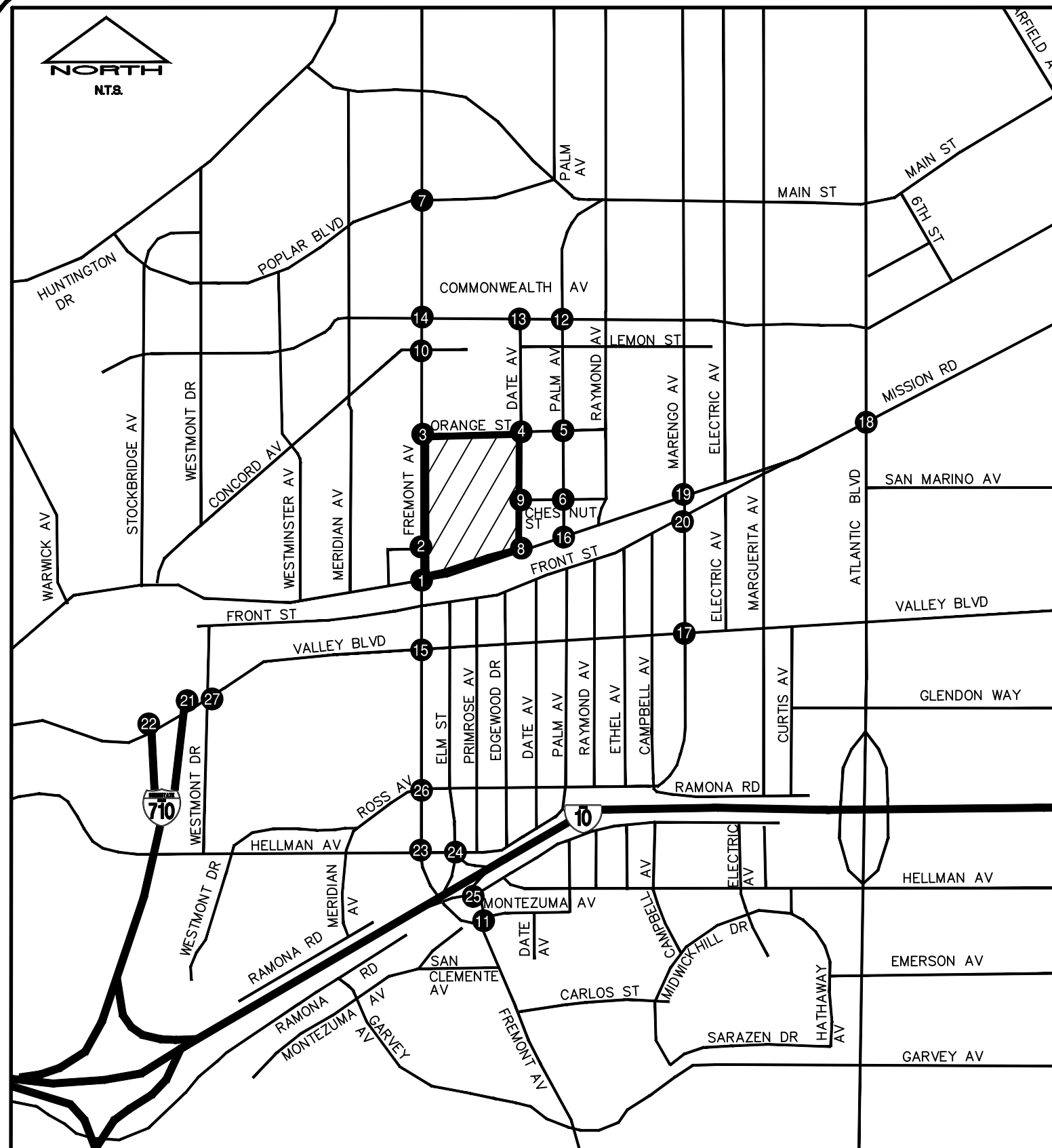


FIGURE 18
The Villages at The Alhambra Development
Cumulative (2028) with Project Weekday Peak-Hour Turning Movement Volumes (Build-Out Scenario 2)

Table 23 below presents a summary of the Cumulative (2028) Plus Project Conditions V/C ratio or Delay (sec) and the corresponding LOS for each intersection.

Table 23: Summary of Intersection Operations –Cumulative (2028) Plus Project Conditions

Signalized Study Intersections		Cumulative (2028) Without Project LOS Analysis Results				Cumulative (2028) Plus Project LOS Analysis Results				Change in V/C	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	AM	PM
1	S Fremont Ave/W Mission Rd	1.337	F	1.246	F	1.377	F	1.285	F	0.040	0.039
2	S Fremont Ave/Project Driveway	0.648	B	0.706	C	0.670	B	0.724	C	0.022	0.018
3	S Fremont Ave/Orange St	0.660	B	0.899	D	0.670	B	0.907	E	0.010	0.008
7	S Fremont Ave/Poplar Blvd	0.786	C	0.790	C	0.793	C	0.798	C	0.007	0.008
10	S Fremont Ave/Concord Ave	0.709	C	0.657	B	0.711	C	0.660	B	0.002	0.003
11	S Fremont Ave/Montezuma Ave	0.677	B	0.746	C	0.683	B	0.747	C	0.006	0.001
12	W Commonwealth Ave/S Palm Ave	0.489	A	0.617	B	0.490	A	0.619	B	0.001	0.002
13	Date Ave/W Commonwealth Ave	0.455	A	0.666	B	0.458	A	0.667	B	0.003	0.001
14	S Fremont Ave/W Commonwealth Ave	0.794	C	0.974	E	0.794	C	0.980	E	0.000	0.006
15	S Fremont Ave/W Valley Blvd	1.046	F	1.003	F	1.059	F	1.029	F	0.013	0.026
16	W Mission Rd/S Palm Ave	0.693	B	0.651	B	0.701	C	0.656	B	0.008	0.005
17	W Valley Blvd/S Marengo Ave	0.808	D	0.836	D	0.810	D	0.840	D	0.002	0.004
18	S Atlantic Blvd/W Mission Rd	0.952	E	1.021	F	0.953	E	1.023	F	0.001	0.002
19	S Marengo Ave/W Mission Rd	1.040	F	1.016	F	1.044	F	1.024	F	0.004	0.008
20	S Marengo Ave/Front St	0.826	D	0.866	D	0.830	D	0.868	D	0.004	0.002
21	W Valley Blvd/I-710 NB Off-ramp	0.776	C	0.728	C	0.782	C	0.739	C	0.006	0.011
22	W Valley Blvd/I-710 SB On-ramp	1.186	F	0.920	E	1.197	F	0.925	E	0.011	0.005
23	S Fremont Ave/W Hellman Ave	0.887	D	0.867	D	0.900	E	0.878	D	0.013	0.011
26	S Fremont Ave/Ross Ave	0.722	C	0.558	A	0.725	C	0.564	A	0.003	0.006
27	W Valley Blvd/Westmont Dr	0.904	E	0.711	C	0.914	E	0.720	C	0.010	0.009
Unsignalized Study Intersections		Cumulative (2028) Without Project LOS Analysis Results				Cumulative (2028) Plus Project LOS Analysis Results				Change in Delay (s)	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	AM	PM
4	Date Ave/Orange St	14.3	B	46.1	E	14.7	B	50.7	F	0.4	4.6
5	Orange St/S Palm Ave	9.0	A	12.4	B	9.1	A	12.8	B	0.1	0.4
6	Chestnut Ave/S Palm Ave	8.8	A	12.9	B	8.9	A	13.3	B	0.1	0.4
8	W Mission Rd/Date Ave	55.7	F	187.3	F	68.7	F	266.2	F	13.0	78.9
9	Chestnut St/Date Ave	14.6	B	19.2	C	15.5	C	21.9	C	0.9	2.7
24	W Hellman Ave/I-10 WB Ramps (Elm St)	102.9	F	53.8	F	106.7	F	53.9	F	3.8	0.1
25	S Fremont Ave/I-10 EB Ramps (Ramona Rd)	159.1	F	162.5	F	159.3	F	163.7	F	0.2	1.2
Source: Kimley-Horn, 2019 Significant impacts shown in bold .											

The Cumulative (2028) Plus Project Conditions traffic analysis results presented in **Table 23** indicate that 3 intersections are projected to operate at LOS E and 7 intersections are projected to operate at LOS F while the remaining 17 intersections will operate at LOS D or better during the AM peak period. During the PM peak period, 3 intersections are projected to operate at LOS E and 8 intersections will operate at LOS F while the remaining 16 intersections will operate at LOS D or better.

For the Cumulative (2028) Plus Project Conditions, the following intersections have an increase in V/C ratio resulting in a significant impact in the AM and PM peak periods.

- Intersection #1: S Fremont Avenue and W Mission Road (increase in V/C of 0.040 to LOS F in the AM peak and 0.039 to LOS F in the PM peak)
- Intersection #15: S Fremont Avenue and W Valley Boulevard (increase in V/C of 0.013 to LOS F in the AM peak and 0.026 to LOS F in the PM peak)
- Intersection #22: W Valley Boulevard and I-710 SB On-ramp (increase in V/C of 0.011 to LOS F in the AM peak)

Unsignalized intersections that operate at LOS E or F in Without Project Conditions are also analyzed to determine if the project added volume exceeds 10% of the total intersection traffic volume. The project adds the following volumes to intersections operating at LOS E or F in Without Project Conditions:

- Intersection #4 – Date Avenue and Orange Street. No impact because the project contributes 6.7% of the total intersection volume in the PM peak period.
- Intersection #8 – W Mission Road and Date Avenue. No impact because the project contributes 7.9% of the total intersection volume in the AM peak period and 8.4% in the PM peak period.
- Intersection #24 – W Hellman Avenue and I-10 WB Ramps (Elm Street). No impact because the project contributes 2.3% of the total intersection volume in the AM peak period and 2.7% in the PM peak period).
- Intersection #25 – S Fremont Avenue and I-10 EB Ramps (Ramona Road). No impact because the project contributes 2.5% of the total intersection volume in the AM peak period and 3.1% in the PM peak period).

V. PROJECT IMPACTS AND POTENTIAL MITIGATION MEASURES

The following section reports the project impacts and the potential mitigation measures for Scenario 1 (no project phasing) and Scenario 2 (project phased with a midpoint in 2024).

SCENARIO 1 IMPACTS AND POTENTIAL MITIGATION MEASURES

Table 24 below lists the impacted study intersections for Cumulative (2028) Plus Project Conditions during the AM and PM peak periods based on the significant impact criteria defined by Los Angeles County. For Cumulative (2028) Conditions, V/C ratios are compared between without project and with project scenarios to assess significant impacts.

Table 24: Summary of Impacted Intersections for Scenario 1

Signalized Study Intersections		Cumulative (2028) Plus Project Compared to Cumulative (2028)	
		AM Peak Hour	PM Peak Hour
1	S Fremont Ave/W Mission Rd	X	X
2	S Fremont Ave/Project Driveway		
3	S Fremont Ave/Orange St		X
7	S Fremont Ave/Poplar Blvd		
10	S Fremont Ave/Concord Ave		
11	S Fremont Ave/Montezuma Ave		
12	W Commonwealth Ave/S Palm Ave		
13	Date Ave/W Commonwealth Ave		
14	S Fremont Ave/W Commonwealth Ave		X
15	S Fremont Ave/W Valley Blvd	X	X
16	W Mission Rd/S Palm Ave		
17	W Valley Blvd/S Marengo Ave		
18	S Atlantic Blvd/W Mission Rd		
19	S Marengo Ave/W Mission Rd		X
20	S Marengo Ave/Front St		
21	W Valley Blvd/I-710 NB Off-ramp		
22	W Valley Blvd/I-710 SB On-ramp	X	X
23	S Fremont Ave/W Hellman Ave	X	X
26	S Fremont Ave/Ross Ave		
27	W Valley Blvd/Westmont Dr	X	
Unsignalized Study Intersections		Cumulative (2028) Plus Project Compared to Cumulative (2028)	
		AM Peak Hour	PM Peak Hour
4	Date Ave/Orange St		X
5	Orange St/S Palm Ave		
6	Chestnut Ave/S Palm Ave		
8	W Mission Rd/Date Ave	X	
9	Chestnut St/Date Ave		
24	W Hellman Ave/I-10 WB Ramps (Elm St)		
25	S Fremont Ave/I-10 EB Ramps (Ramona Rd)		
X – Intersection with Significant Impact			

Table 24 indicates that the following 10 study intersections would be significantly impacted by the proposed development during the AM and PM peak periods.

- Intersection #1: S Fremont Avenue and W Mission Road
- Intersection #3: S Fremont Avenue and Orange Street
- Intersection #14: S Fremont Avenue and W Commonwealth Avenue
- Intersection #15: S Fremont Avenue and W Valley Boulevard
- Intersection #19: S Marengo Avenue and W Mission Road
- Intersection #22: W Valley Boulevard and I-710 SB On-ramp
- Intersection #23: S Fremont Avenue and W Hellman Avenue
- Intersection #27: W Valley Boulevard and Westmont Drive
- Intersection #4: Date Avenue and Orange Street
- Intersection #8: W Mission Road and Date Avenue

Potential mitigation measures including road widening, striping changes, and traffic signal installation could be utilized to mitigate project significant impacts. A summary of the potential mitigation measures for each impacted study intersection is presented below in **Table 25**.

Table 25: Summary of Potential Mitigation Measures for Scenario 1

Impacted Intersection		Potential Mitigation Measures
1	S Fremont Ave / W Mission Rd	• Add one additional eastbound right turn lane.
3	S Fremont Ave / Orange St	• Add one additional northbound through lane.
14	S Fremont Ave / W Commonwealth Ave	• Add one additional northbound through lane.
15	S Fremont Ave / W Valley Blvd	• Add one additional southbound right turn lane and one additional westbound receiving lane.
19	S Marengo Ave / W Mission Rd	• Add one additional westbound through lane and one additional eastbound right turn lane.
22	W Valley Blvd / I-710 SB On-ramp	• Restripe eastbound approach to change middle lane from through lane to through and right turn lane.
23	S Fremont Ave / W Hellman Ave	• Add one additional northbound through lane.
27	W Valley Blvd / Westmont Dr	• Add one additional westbound through lane.
4	Date Ave / Orange St	• Install a traffic signal.
8	W Mission Rd / Date Ave	• Install a traffic signal.
<i>Source: Kimley-Horn, 2019</i>		

The potential mitigation measures at all ten intersections listed above would mitigate the project's significant impacts to a level of insignificance.

Lane configuration and traffic control for the study intersections with potential mitigation measures built are illustrated in **Figure 19** on the following page. The intersection analysis worksheets for Cumulative (2028) Conditions with potential mitigations are provided in **Appendix P**.

The potential mitigation measures recommended at five of the eight signalized intersections with significant impacts involve right-of-way (ROW) take from property owners. Refer to **Exhibits 1-7** on the following pages for the work that would be required to complete each potential mitigation measure.

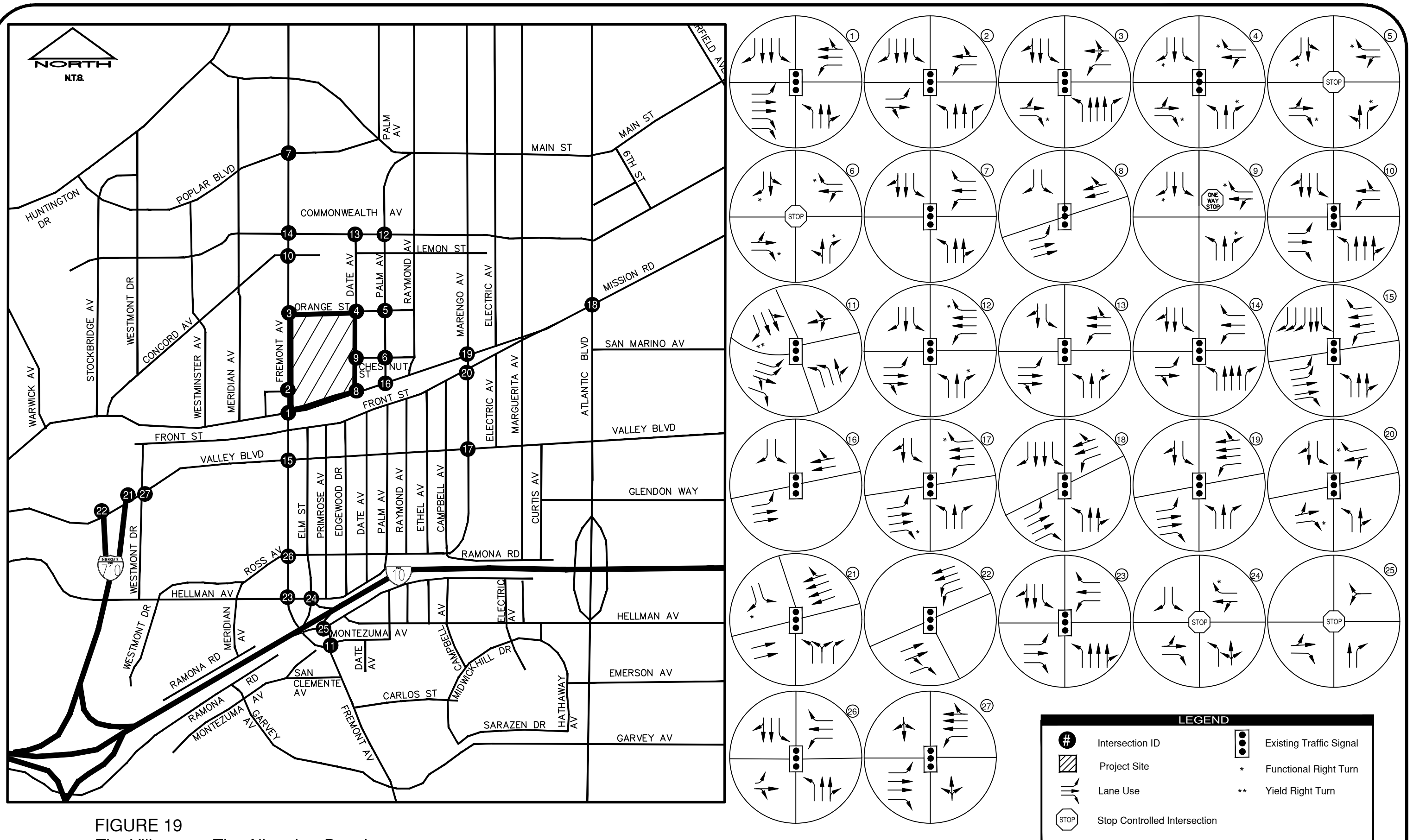
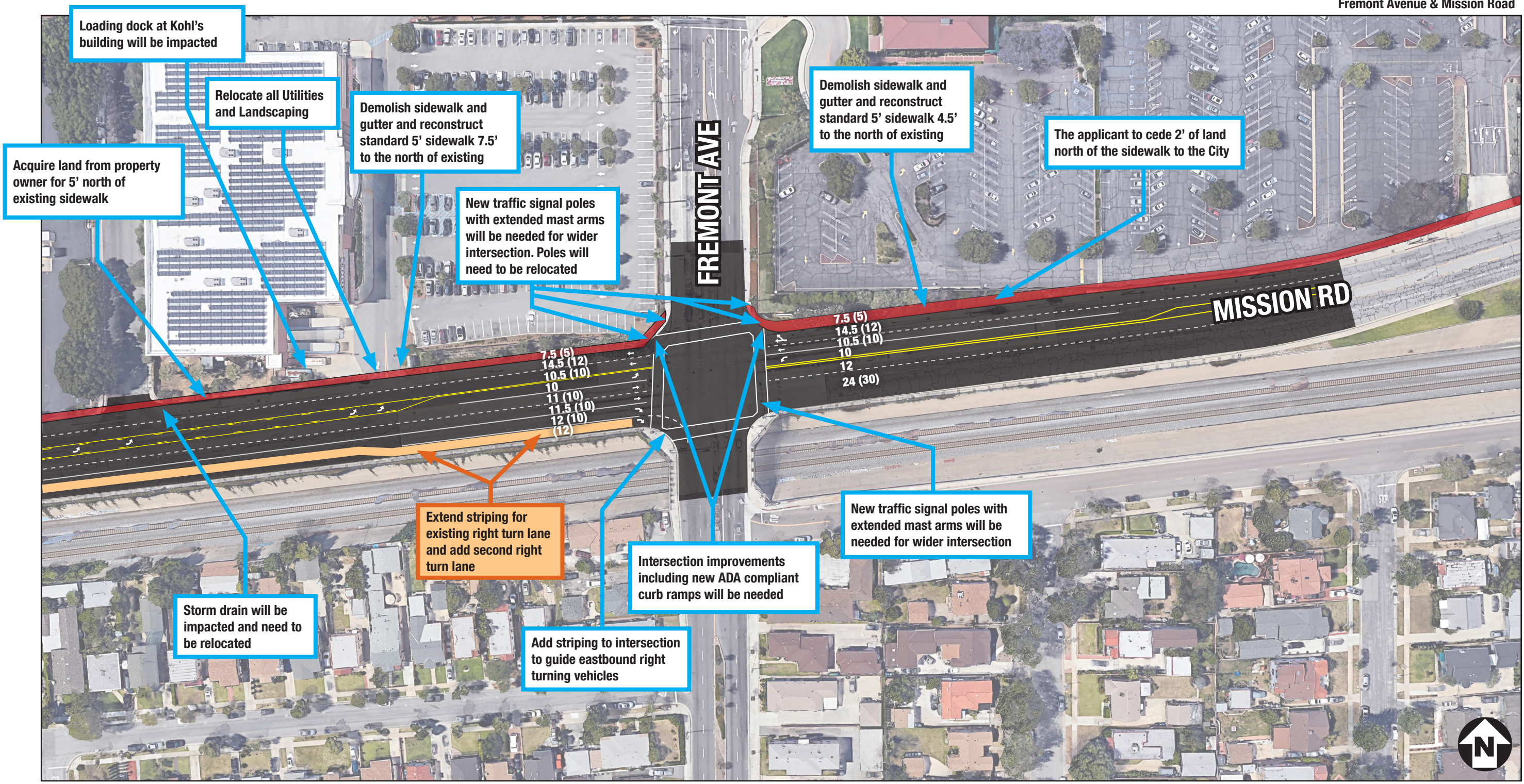
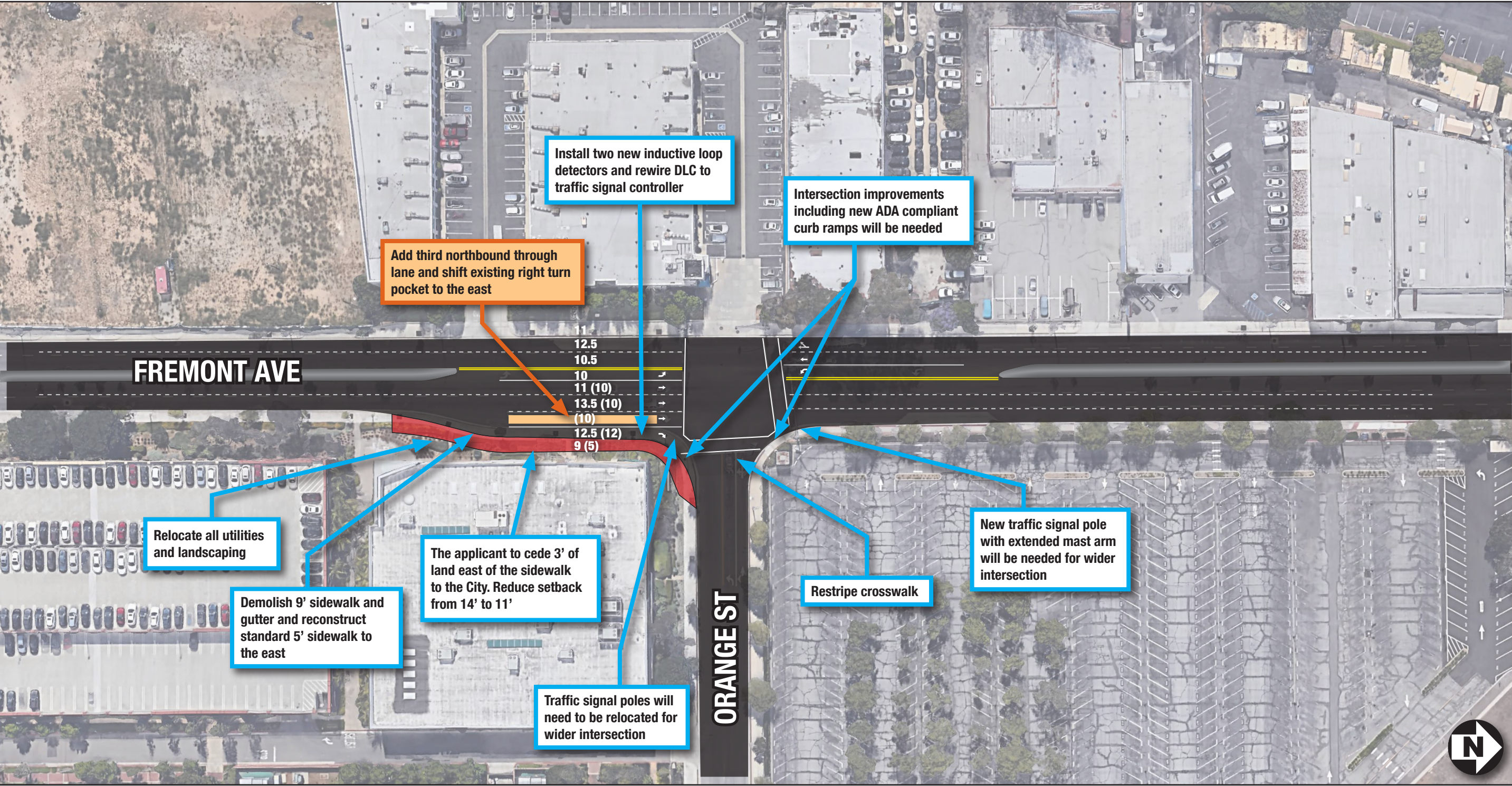


FIGURE 19
 The Villages at The Alhambra Development
 Project Intersection Lane Configuration and Traffic Control with Potential Mitigations (2028)



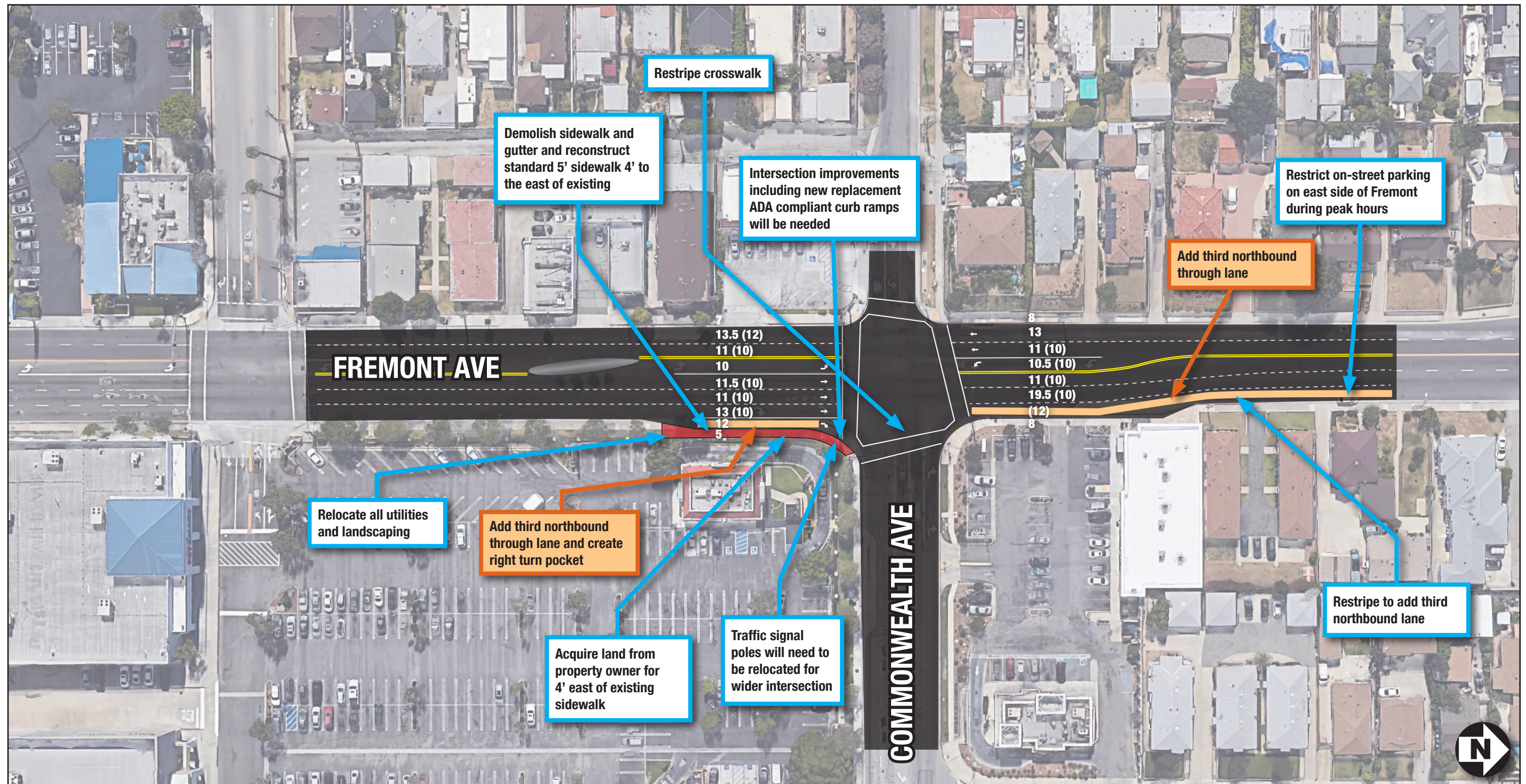


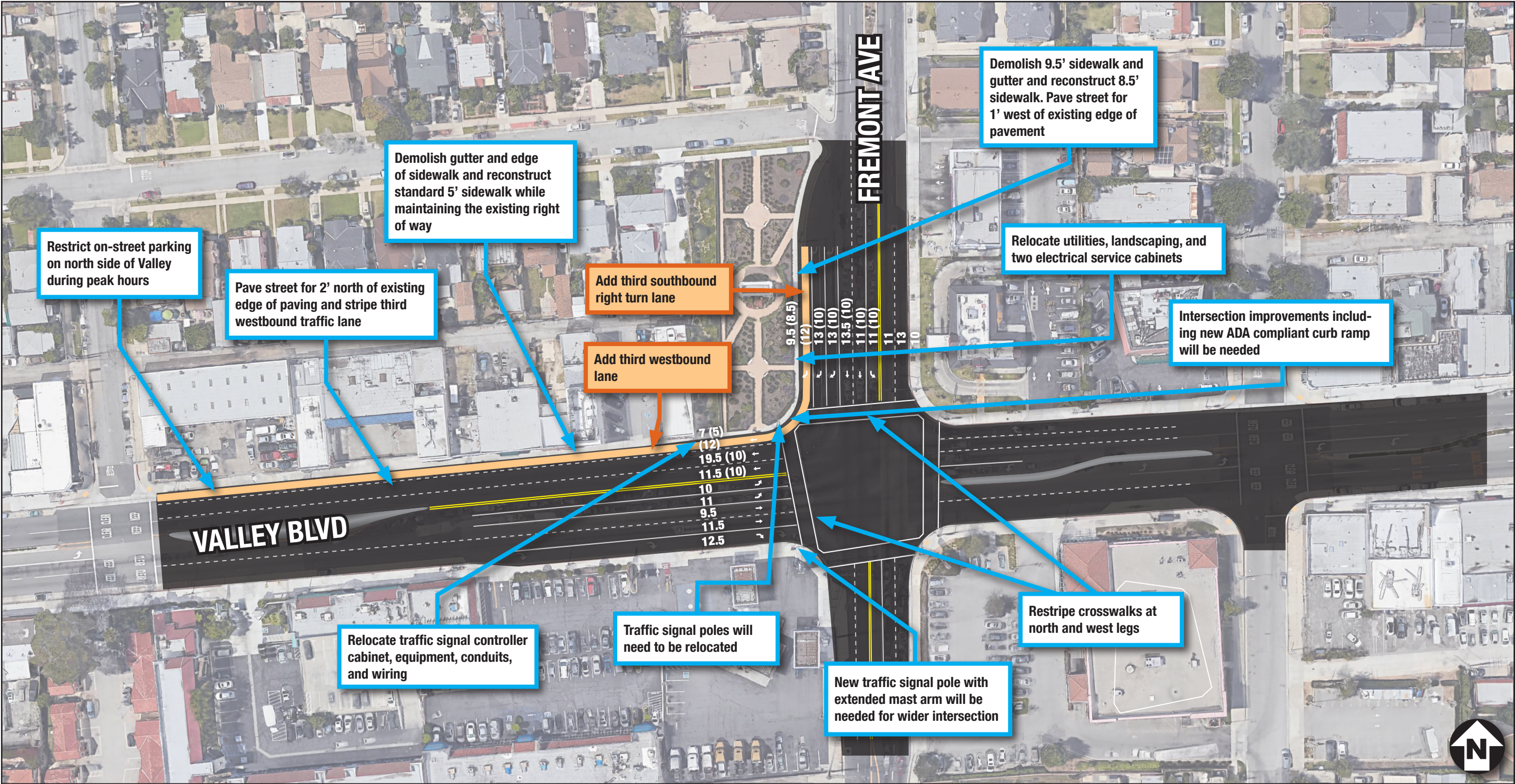
New Sidewalk / Right of Way (ROW) Needed for Widening

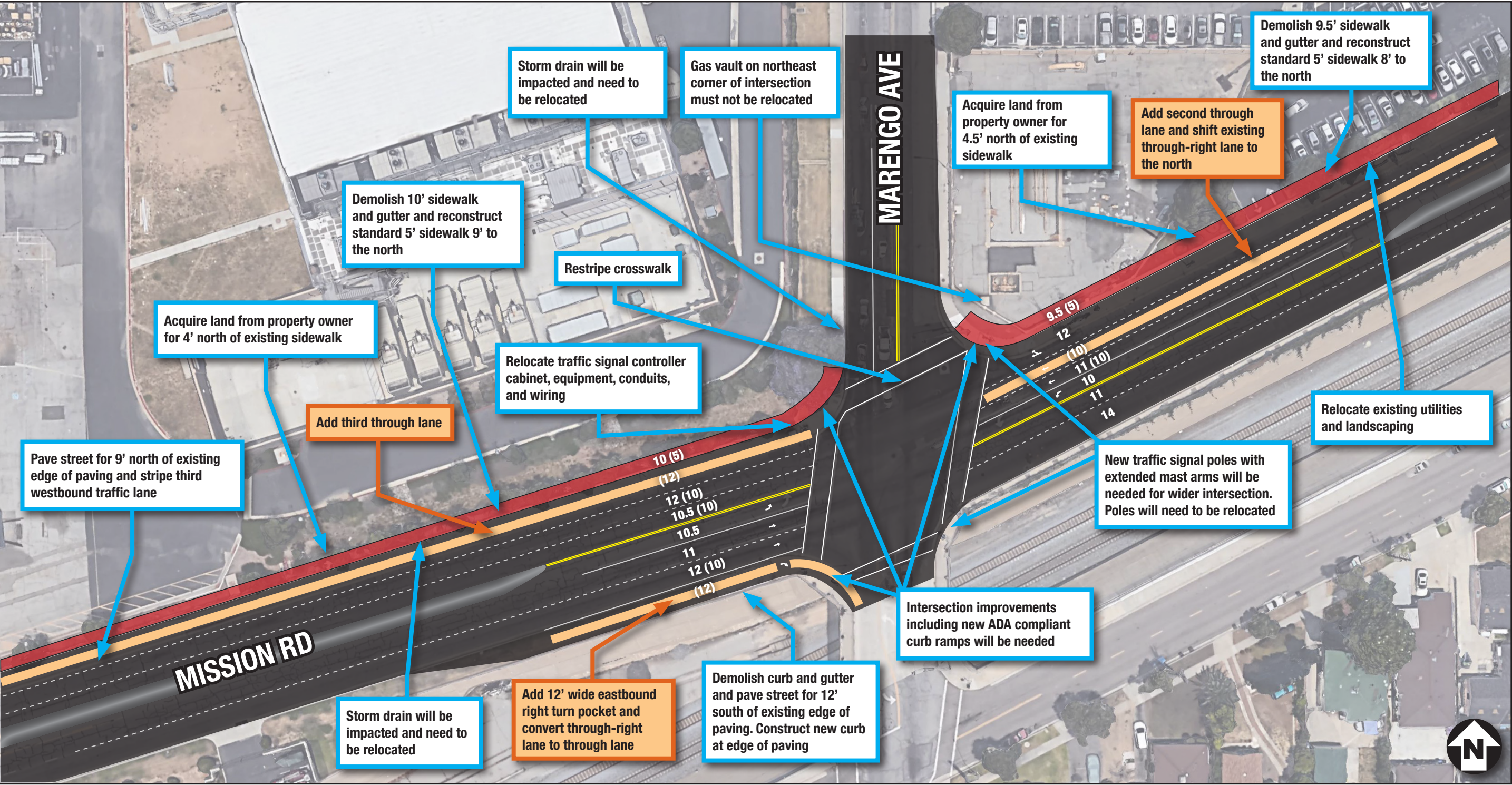
Work Required to Construct Potential Mitigation

Potential Improvements Necessary to Mitigate the Significant Impact

00/ (00) = Lane/Sidewalk Width - Existing (Proposed)





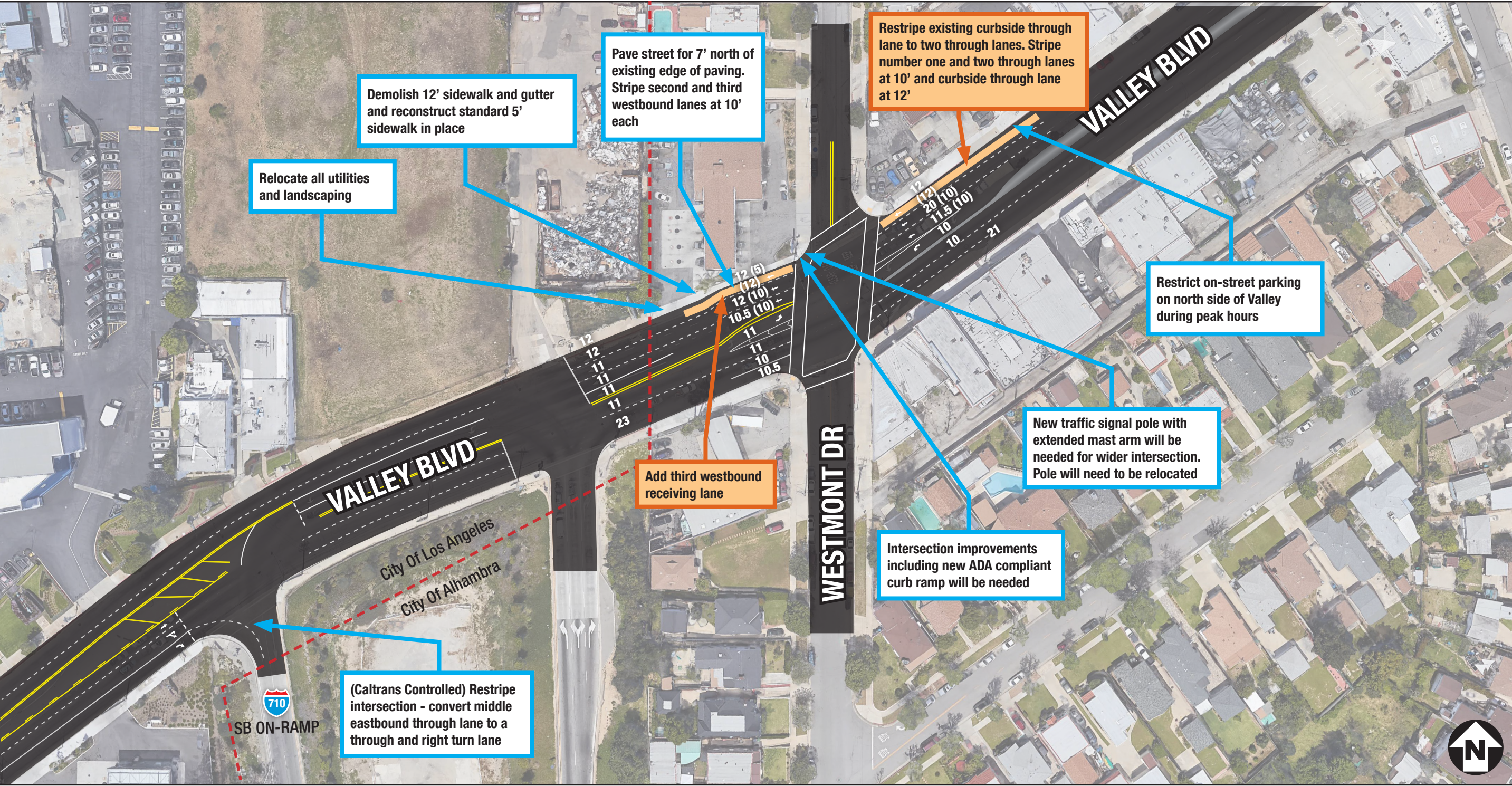


New Sidewalk / Right of Way (ROW) Needed for Widening

Work Required to Construct Potential Mitigation

Potential Improvements Necessary to Mitigate the Significant Impact

00/ (00) = Lane/Sidewalk Width - Existing (Proposed)



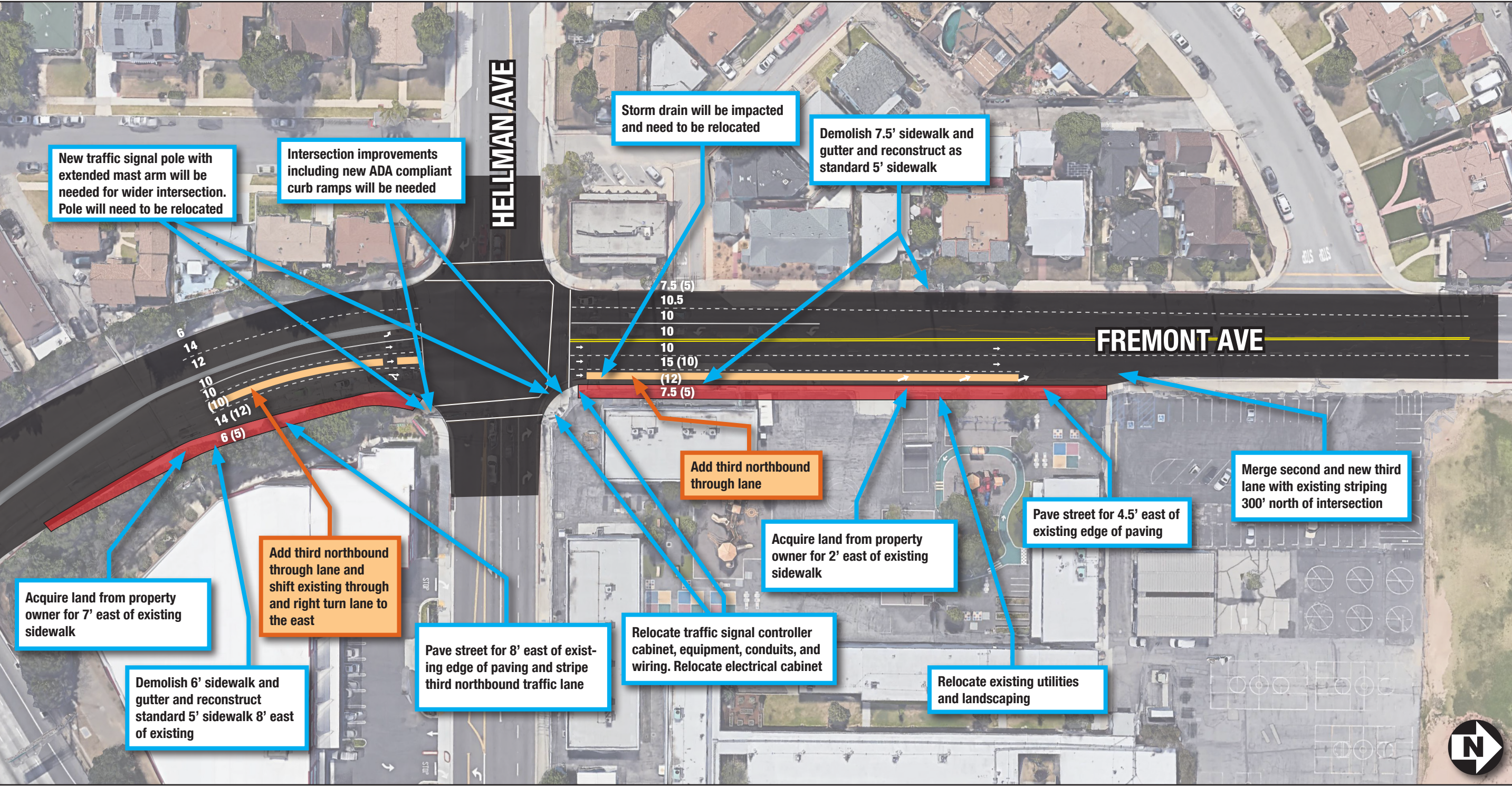


Table 26 below presents a summary of the Cumulative (2028) Plus Project Conditions with Potential Mitigations V/C ratio or Delay (sec) and the corresponding LOS for each intersection for Scenario 1.

Table 26: LOS Summary with Potential Mitigations – Cumulative (2028) Plus Project Conditions

Signalized Study Intersections		Cumulative (2028) Plus Project				Cumulative (2028) Plus Project With Potential Mitigations				Significant Impact Mitigated with Potential Mitigation? (Decrease in V/C)	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	AM	PM
1	S Fremont Ave/W Mission Rd	1.377	F	1.285	F	1.163	F	1.165	F	Y (0.21)	Y (0.12)
3	S Fremont Ave/Orange St	0.670	B	0.907	E	0.634	B	0.742	C	(0.04)	Y (0.17)
14	S Fremont Ave/W Commonwealth Ave	0.794	C	0.980	E	0.796	C	0.812	D	(-0.00)	Y (0.17)
15	S Fremont Ave/W Valley Blvd	1.059	F	1.029	F	0.955	E	0.966	E	Y (0.10)	Y (0.06)
19	S Marengo Ave/W Mission Rd	1.044	F	1.024	F	0.898	E	0.917	F	(0.15)	Y (0.11)
22	W Valley Blvd/I-710 SB On-ramp	1.197	F	0.925	E	0.970	E	0.712	C	Y (0.23)	Y (0.21)
23	S Fremont Ave/W Hellman Ave	0.900	E	0.878	D	0.751	C	0.775	C	Y (0.15)	Y (0.10)
27	W Valley Blvd/Westmont Dr	0.914	E	0.720	C	0.676	B	0.720	C	Y (0.24)	(0.00)
Unsignalized Study Intersections (Signalized for Mitigation Analysis)		Cumulative (2028) Plus Project				Cumulative (2028) Plus Project With Mitigations				Significant Impact Mitigated with Potential Mitigation?	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		Delay (s)	LOS	Delay (s)	LOS	V/C	LOS	V/C	LOS	AM	PM
4	Date Ave / Orange St	14.7	B	50.7	F	0.332	A	0.498	A	Yes	Yes
8	W Mission Rd / Date Ave	68.7	E	266.2	F	0.772	C	0.618	B	Yes	Yes
Source: Kimley-Horn, 2019 Significant impacts shown in bold .											

Source: Kimley-Horn, 2019

Significant impacts shown in **bold**.

The Cumulative (2028) Plus Project with Potential Mitigations Conditions traffic analysis results presented in **Table 26** indicate that the impacts at all ten impacted intersections would be mitigated by the potential mitigation measures noted in **Table 25**.

SCENARIO 2 IMPACTS AND POTENTIAL MITIGATION MEASURES

For Scenario 2, project impacts are assessed in 2024 when a portion of the project is complete and in 2028 when the full project is complete.

Table 27 below lists the impacted study intersections for Cumulative (2024) Plus Project and Cumulative (2028) Plus Project Conditions during the AM and PM peak periods based on the significant impact criteria defined by Los Angeles County. For both periods, V/C ratios are compared between Without Project and With Project scenarios to assess significant impacts.

Table 27: Summary of Impacted Intersections for Scenario 2

Signalized Study Intersections		Cumulative (2024) Plus Project Compared to Cumulative (2024)		Cumulative (2028) Plus Project Compared to Cumulative (2028)	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1	S Fremont Ave/W Mission Rd	X	X	X	X
2	S Fremont Ave/Project Driveway				
3	S Fremont Ave/Orange St		X		
7	S Fremont Ave/Poplar Blvd				
10	S Fremont Ave/Concord Ave				
11	S Fremont Ave/Montezuma Ave				
12	W Commonwealth Ave/S Palm Ave				
13	Date Ave/W Commonwealth Ave				
14	S Fremont Ave/W Commonwealth Ave				
15	S Fremont Ave/W Valley Blvd	X	X	X	X
16	W Mission Rd/S Palm Ave				
17	W Valley Blvd/S Marengo Ave				
18	S Atlantic Blvd/W Mission Rd				
19	S Marengo Ave/W Mission Rd		X		
20	S Marengo Ave/Front St				
21	W Valley Blvd/I-710 NB Off-ramp				
22	W Valley Blvd/I-710 SB On-ramp	X		X	
23	S Fremont Ave/W Hellman Ave				
26	S Fremont Ave/Ross Ave				
27	W Valley Blvd/Westmont Dr				
Unsignalized Study Intersections		Cumulative (2024) Plus Project Compared to Cumulative (2024)		Cumulative (2028) Plus Project Compared to Cumulative (2028)	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
4	Date Ave/Orange St		X		
5	Orange St/S Palm Ave				
6	Chestnut Ave/S Palm Ave				
8	W Mission Rd/Date Ave	X			
9	Chestnut St/Date Ave				
24	W Hellman Ave/I-10 WB Ramps (Elm St)				
25	S Fremont Ave/I-10 EB Ramps (Ramona Rd)				

X – Intersection with Significant Impact

Table 27 indicates that the following 7 study intersections will be significantly impacted by the proposed development in 2024 during the AM and PM peak periods.

- Intersection #1: S Fremont Avenue and W Mission Road
- Intersection #3: S Fremont Avenue and Orange Street
- Intersection #15: S Fremont Avenue and W Valley Boulevard
- Intersection #19: S Marengo Avenue and W Mission Road
- Intersection #22: W Valley Boulevard and I-710 SB On-Ramp
- Intersection #4: Date Avenue and Orange Street
- Intersection #8: W Mission Road and Date Avenue

Table 27 shows that three of the same study intersections will be significantly impacted by the proposed development in 2028 during the AM and PM peak periods. Due to project phasing, three fewer intersections are impacted in Scenario 2 than in Scenario 1.

Potential mitigation measures including road widening, striping changes, and traffic signal installation could be utilized to mitigate project significant impacts. A summary of the potential mitigation measures for each impacted study intersection is presented below in **Table 28**.

Table 28: Summary of Potential Mitigation Measures for Scenario 2

Impacted Intersection		Potential Mitigation Measures
1	S Fremont Ave / W Mission Rd	• Add one additional eastbound right turn lane.
3	S Fremont Ave / Orange St	• Add one additional northbound through lane.
15	S Fremont Ave / W Valley Blvd	• Add one additional southbound right turn lane and one additional westbound receiving lane.
19	S Marengo Ave / W Mission Rd	• Add one additional westbound through lane and one additional eastbound right turn lane.
22	W Valley Blvd / I-710 SB On-Ramp	• Restripe eastbound approach to change middle through lane from through lane to through and right turn lane.
4	Date Ave / Orange St	• Install a traffic signal.
8	W Mission Rd / Date Ave	• Install a traffic signal.

Source: Kimley-Horn, 2019

The potential mitigation measures at all seven intersections listed above would mitigate the project's significant impacts to a level of insignificance.

Lane configuration and traffic control for the study intersections with potential mitigation measures built are illustrated in **Figure 20** on the following page. The potential mitigations would also be sufficient to mitigate the projects significant impacts in 2028.

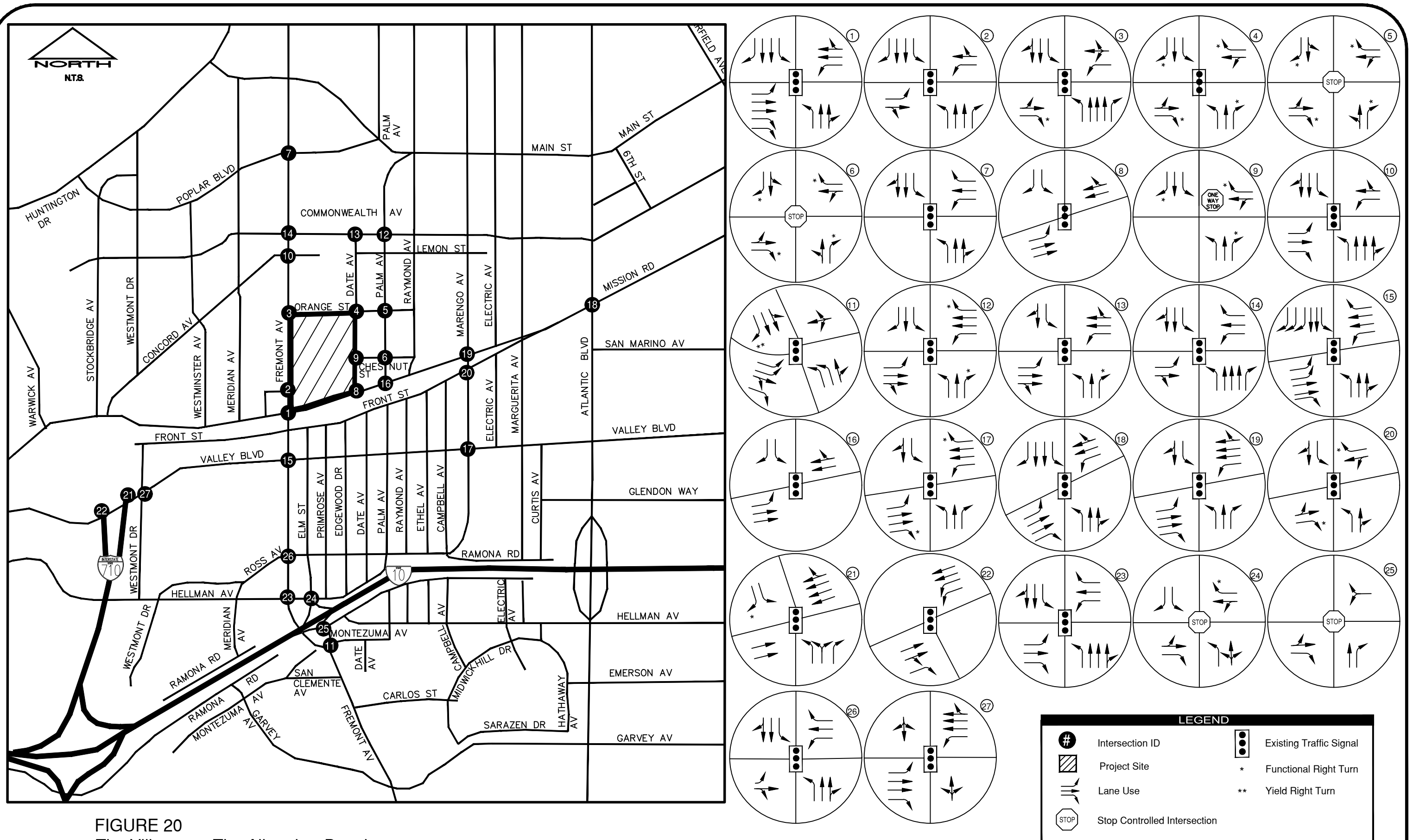


FIGURE 20
 The Villages at The Alhambra Development
 Project Intersection Lane Configuration and Traffic Control with Potential Mitigations (2024, Scenario 2)

Table 29 below presents a summary of the Cumulative (2024) Plus Project Conditions with Potential Mitigation V/C ratio or Delay (sec) and the corresponding LOS for each intersection for Scenario 2.

Table 29: LOS Summary with Potential Mitigations –Cumulative (2024) Plus Project Conditions

Signalized Study Intersections		Cumulative (2024) Plus Project				Cumulative (2024) Plus Project With Mitigation				Significant Impact Mitigated with Potential Mitigations? (Decrease in V/C)	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	AM	PM
1	S Fremont Ave/W Mission Rd	1.290	F	1.202	F	1.084	F	1.084	F	Y (0.21)	Y (0.12)
3	S Fremont Ave/Orange St	0.640	B	0.869	D	0.611	B	0.712	D	(0.03)	Y (0.16)
15	S Fremont Ave/W Valley Blvd	1.010	F	0.969	D	0.915	E	0.910	E	Y (0.10)	Y (0.06)
19	S Marengo Ave/W Mission Rd	1.004	F	0.982	E	0.865	D	0.880	D	(0.14)	Y (0.10)
22	W Valley Blvd/I-710 SB On-ramp	1.144	F	0.889	D	0.926	E	0.683	B	Y (0.22)	Y (0.21)
Unsignalized Study Intersections (Signalized for Mitigation Analysis)		Cumulative (2024) Plus Project				Cumulative (2024) Plus Project With Mitigation				Significant Impact Mitigated with Potential Mitigations?	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		Delay (s)	LOS	Delay (s)	LOS	V/C	LOS	V/C	LOS	AM	PM
4	Date Ave / Orange St	14.7	B	50.7	F	0.316	A	0.478	A	Yes	Yes
8	W Mission Rd / Date Ave	68.7	E	266.2	F	0.726	C	0.574	A	Yes	Yes
Source: Kimley-Horn, 2019 Significant impacts not alleviated by mitigations shown in bold .											

The Cumulative (2024) Plus Project with Potential Mitigations Conditions traffic analysis results presented in **Table 29** indicate that the impacts at all ten impacted intersections would be mitigated by the potential mitigation measures noted in **Table 28**.

PROPOSED ROADWAY IMPROVEMENT PROJECTS

Several transportation projects are programmed to be constructed in the City of Alhambra prior to completion of the Villages at the Alhambra. The six projects listed below have been approved to be funded by the Los Angeles County Metro as part of the SR-710 North Corridor Mobility Improvements. All six projects will be funded between FY20 and FY23. No expected completion date has been announced but it is feasible that many of the below projects will be completed prior to the completion of the Villages at the Alhambra. These projects may result in capacity increases at project study intersections and could cause them to operate at less than significant levels of service. Without knowledge of the specific design of each project, it is not yet possible to include them in the analyses for Cumulative conditions.

- **I-10/SR-710 Interchange Reconfiguration Project:** Reconfigure the I10/SR-710 Interchange to provide a two-lane connector [eastbound and westbound] from I-10 to the campus of Cal State Los Angeles pending completion of supporting traffic studies, environmental document(s) and final design.
- **I-10/Fremont Avenue On and Off Ramp Reconfiguration Project:** Reconfigure existing westbound on and off ramps at the I-10/Fremont Avenue local interchange to increase capacity and storage; improve mobility by directing vehicles to Fremont Avenue, while also protecting adjacent residential neighborhoods and Fremont Elementary School; and remove and/or relocate the soundwall at Elm/Hellman/Ramona. Also, reconfigure existing eastbound on and off ramps at I-10 at Fremont/Montezuma to increase capacity and storage; improve mobility; and reduce the potential for freeway traffic backing onto traffic through lanes on major arterials.
- **I-10/Atlantic Boulevard On and Off Ramp Reconfiguration Project:** Reconfigure existing eastbound and westbound on and off ramps at the I-10/Atlantic Boulevard local interchange to increase capacity and storage; improve mobility; and reduce the potential for freeway traffic backing onto traffic through lanes on major arterials.
- **I-10/Garfield Avenue On and Off Ramp Reconfiguration Project:** Reconfigure existing eastbound and westbound on and off ramps at the I-10/Garfield Avenue local interchange to increase capacity and storage; improve mobility; and reduce the potential for freeway traffic backing onto traffic through lanes on major arterials.
- **Garfield Avenue Traffic Signal Synchronization Project:** On Garfield Avenue, from Huntington Drive to I-10 Freeway [18 intersections], install new signal controllers, signal control firmware, system detection, communications, and additional signal hardware to improve corridor operations and conform with updated signal control standards and requirements to improve arterial operations.
- **Fremont Avenue Traffic Signal Synchronization Project:** On Fremont Avenue, from the northerly city limit to Montezuma/I-10 Freeway [11 intersections], install new signal controllers, signal control firmware, system detection, communications, and additional signal hardware to improve corridor operations and conform with updated signal control standards and requirements to improve arterial operations.

TRAFFIC SIGNAL WARRANT ANALYSIS

A traffic signal warrant analysis was conducted as per the 2014 edition of the California Manual for Uniform Traffic Control Devices (MUTCD) for evaluating the need for traffic signals at the unsignalized study intersections. Warrant 3 (Peak Hour) was evaluated using AM and PM peak hour data for 7 unsignalized intersections. The warrant analysis was conducted for Scenario 1 only because this is the more conservative scenario.

According to Peak Hour Warrant (Warrant 3) of the MUTCD, the need for a traffic control signal shall be considered if *either of the following* two parts is met:

- A. If **all three** of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:
 1. The total stopped time delay experienced by the traffic on one minor street approach (one direction only) equals or exceeds: 5 vehicle-hours for a one-lane approach, and
 2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vph for two moving lanes; and
 3. The total entering volume serviced during the hour equals or exceeds 800 vehicles per hour for intersections with four or more approaches or 650 vph for intersections with three approaches.
- B. The plotted point representing the vehicles per hour (total of both approaches) and the corresponding vehicles per hour on the minor street (higher approach - one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.

The peak hour warrant analysis was conducted for the 7 unsignalized study intersections under Cumulative (2028) Plus Project Conditions during AM and PM peak hours. For intersections that met Signal Warrant 3 for this most conservative case, signal warrant analysis was also conducted Cumulative (2028), Existing (2018) Plus Project, and Existing (2018) Conditions. **Table 30** on the following page presents the summary of the traffic signal peak hour warrant analysis for the unsignalized study intersections.

Table 30: Summary of Peak Hour Signal Warrants Met

#	Intersection	Peak Period Signal Warrant Met				Project Significant Impact?
		Existing Conditions	Existing Plus Project Conditions	Cumulative (2028) Conditions	Cumulative (2028) Plus Project Conditions	
4	Date Ave / Orange St	No	No	No	Yes (PM)	Yes
5	Orange St / Palm Ave	No	No	No	No	
6	Chestnut Ave / Palm Ave	No	No	No	No	
8	W Mission Rd / Date Ave	Yes (PM)	Yes (AM & PM)	Yes (PM)	Yes (AM & PM)	Yes
9	Chestnut St / Date Ave	No	No	No	No	
24	W Hellman Ave / I-10 WB Ramps	Yes (AM & PM)	Yes (AM & PM)	Yes (AM & PM)	Yes (AM & PM)	
25	S Fremont Ave / I-10 EB Ramps	No	No	No	No	

Source: Kimley-Horn, 2019

Table 30 indicates that the intersections of Date Avenue and Orange Street, W Mission Road and Date Avenue, and W Hellman Avenue and I-10 WB Ramps meet the peak hour signal warrant for AM and PM peak conditions in the Cumulative (2028) Plus Project Conditions.

The intersections of W Mission Road/Date Avenue and W Hellman Avenue/I-10 WB Ramps both meet the unsignalized significant impact thresholds for Scenario 1 and Scenario 2. Because the traffic signal is warranted, the City may require the project applicant to pay its fair-share of fees to an applicable program (e.g., DIF, CIP, etc.) for the signalization of the intersection.

The intersection of W Hellman Avenue/I-10 WB Ramps does not meet the unsignalized impact threshold for either Scenario 1 or Scenario 2 so the project does not cause a significant impact. The traffic signal warrant analysis shows that a signal is warranted in both Existing and Cumulative conditions, with and without the project. It should be noted that the intersection is controlled by Caltrans so the decision whether or not to install a traffic signal will be made by them.

Traffic Signal Peak Hour Warrant Analysis worksheets are attached in **Appendix Q**.

TRANSPORTATION SYSTEM MANAGEMENT (TSM) PLAN

The Los Angeles County TIA Report Guidelines encourage Transportation System Management (TSM) techniques to mitigate the project and/or other related projects' significant impacts to a level of insignificance. TSM helps residents and patrons of the development use the available transportation options more efficiently. While the Villages at The Alhambra will not officially employ a TSM plan to mitigate impacts, some TSM measures are available for residents. For example, there is a shuttle that travels between USC's Alhambra Campus and its Health Science Campus that operates Monday through Friday from 7:40 AM to 5:30 PM.

VI. CMP EVALUATION

The Los Angeles County Congestion Management Program (CMP) was developed in response to California Proposition 111, approved June 1990, and is intended to address regional congestion by linking land use, transportation, and air quality decisions.

Among the elements of the CMP is a land use analysis program which "requires local jurisdictions to analyze the impacts of land use decisions on the regional transportation system, for projects preparing an Environmental Impact Report (EIR)."

The CMP document identifies the County's CMP System which includes arterial roadways and all freeways and requires that the traffic impact of individual development projects of potentially regional significance be analyzed. Per CMP guidelines, a traffic impact analysis is conducted where:

- At CMP arterial monitoring intersections, including freeway on-ramp or off-ramps, the proposed Project will add 50 or more vehicle trips during either AM or PM peak weekday peak hours.
- At CMP mainline freeway monitoring locations, the proposed Project will add 150 or more vehicle trips, in either direction, during either AM or PM peak hours.

CMP ARTERIAL MONITORING INTERSECTIONS EVALUATION

The nearest CMP arterial monitoring intersections to the project are W Fremont Avenue / W Valley Boulevard (CMP ID 1) and W Valley Boulevard / I-710 NB off-ramp (CMP ID 69). As indicated in **Table 31** below, the proposed project is projected to contribute more than 50 peak hour trips to the CMP monitored intersections of S Fremont Avenue / W Valley Boulevard and W Valley Boulevard / I-710 NB Off-ramp during both AM and PM peak hours, and therefore, additional evaluation for CMP purposes was completed.

Table 31: Summary of CMP Intersection Screening

Intersection	Peak Period	Project Volumes	CMP Criteria*	Analysis Required
S Fremont Ave / W Valley Boulevard	AM	189	50	Yes
	PM	215	50	Yes
W Valley Boulevard / I-710 NB Offramp	AM	80	50	Yes
	PM	91	50	Yes
<i>*CMP criteria of 50 or more vehicle trips to require further analysis Source: Kimley-Horn, 2019</i>				

Per Los Angeles Metropolitan Transit Authority's Congestion Management Program guidelines, the CMP evaluation requires traffic data collection, physical description of intersections, and intersection Level of Service (LOS) calculations. The CMP monitored intersections of S Fremont Avenue / W Valley Boulevard and W Valley Boulevard / I-710 NB Off-ramp were evaluated during both AM and PM peak hours for Existing (2018) Conditions.

Table 32 below provides a summary of the Existing (2018) Conditions V/C ratio and corresponding LOS for each CMP intersection. The CMP analysis worksheets are provided in **Appendix R**.

Table 32: Summary of CMP Intersection Analysis

CMP Station #	Intersection	Data Collection Date	Peak Hour	Peak Hour Time	V/C Ratio	LOS
1	S Fremont Ave / W Valley Boulevard	Thursday, 4/27/17	AM	7:15 - 8:15	0.937	E
			PM	5:00 - 6:00	0.957	E
69	W Valley Boulevard / I-710 NB Offramp	Thursday, 4/27/17	AM	7:15 - 8:15	0.774	C
			PM	5:00 - 6:00	0.815	D
Source: Kimley-Horn, 2019						

The previous sections of this report document the traffic impact analysis per which the intersection of S Fremont Avenue and W Valley Boulevard would be significantly impacted by the project in the Cumulative (2028) Plus Project scenario. The project increases the V/C ratio at the intersection by 0.080 in the AM peak and 0.074 in the PM peak. The proposed mitigation is to re-stripe the eastbound approach to include 1 additional right turn lane and to implement signal timing improvements including protected E/W left turns and an overlap eastbound right turn. The mitigations would decrease the V/C ratio by 0.214 in the AM peak and 0.120 in the PM peak.

CMP FREEWAY MONITORING LOCATIONS EVALUATION

Based on the CMP, analysis of a project's impact on a freeway segment would be required of any project that would add 150 trips or more in either direction during the AM or PM weekday peak hours. The nearest CMP mainline freeway monitoring locations are along Interstate 10 at East Los Angeles city limit (station 1014) and at Atlantic Boulevard (station 1015), and along Interstate 710 south of Route 60 (station 1081).

As indicated in **Table 33** below, the project volume will not add 150 or more trips along I-10 and I-710 in either peak hour. Therefore, further analysis of CMP freeway facilities is not required for CMP purposes.

Table 33: Summary of CMP Freeway Screening

Freeway	Peak Period	Project Volumes	CMP Criteria*	Analysis Required
Interstate 710	AM	69	150	No
	PM	59	150	No
Interstate 10	AM	40	150	No
	PM	34	150	No
<i>*CMP criteria of 150 or more vehicle trips to require further analysis</i>				
<i>Source: Kimley-Horn, 2019</i>				

VII. SITE ANALYSIS

SITE CIRCULATION AND ACCESS

The project site will be accessible by eight (8) driveways. One driveway along Fremont Avenue will remain a signalized intersection and provide access to the South Plan area from the west. One driveway along Mission Road will be relocated approximately 280 feet west and provide access to the South Plan area from the south. Three driveways along Date Avenue will provide access to Corner, East, and North Plan areas from the east. The farthest south driveway on Date Avenue will provide access exclusively to the Corner Plan parking structure. Three driveways located along Orange Street will provide access to the North and Office Plan areas.

Driveway A on Fremont Avenue is proposed to remain a full access driveway. The driveway is 40 feet wide at its entrance and provides a westbound left turn lane and a westbound through and right turn lane. Parking is not allowed on Fremont Avenue near the project driveway so no red curb is required to meet line of sight guidelines.

Driveway B on Mission Road is proposed to be located 450 feet east of the intersection of Fremont Avenue and Mission Road. The driveway would be 40 feet wide and would be a full access driveway. There are no line of sight concerns at the driveway. Vehicles are not allowed to stop at any time on the section of Mission Road that borders the project site so no red curb is required to meet line of sight guidelines.

Driveway C is the farthest south driveway on Date Avenue and is proposed to lead into a parking garage for the Corner plan area. Date Avenue is a two-lane road and is 50 feet wide. Parking is allowed on both sides of Date Avenue. There is an existing 30-foot-long median with a street light at the location of Driveway C. Therefore, access to Driveway C should be restricted to right turns in and out only.

Driveway D is proposed to be a new driveway on Date Avenue that would provide access to the parking structure at the East Plan area and to the South Plan areas. The driveway would be offset approximately 30 feet south from an existing driveway and would line up with an access road on site. There is an existing median with a street light at the location of Driveway D so Driveway D should be restricted to right turns in and out only.

Driveway E on Date Avenue is an existing full access driveway that would provide access to the North Plan areas. The driveway is located across Chestnut Street and is 30 feet wide. There is an existing 30-foot northbound left turn pocket. The existing amount of red curb along Date Avenue on both sides of the driveway allow for adequate line of sight.

Driveway F on Orange Street is an existing full access driveway that is 30 feet wide and is proposed to allow access to the North Plan areas. There is 30 feet of red curb along Orange Street on both sides of the driveway which allows for adequate sight distance.

Driveway G on Orange Street is an existing full access driveway that is 30 feet wide and is proposed to allow access to the North Plan areas. There is 40 feet of red curb west of the driveway and 45 feet or red curb east of the driveway which allows for adequate sight distance.

Driveway H on Orange Street is an existing full access driveway that is 25 feet wide and provides access to the office uses and parking structure. This driveway is not proposed to be modified.

QUEUING ANALYSIS

A queueing analysis was conducted for the five project driveways that are proposed to be used for residential uses. The analysis was conducted for Scenario 1 for Existing (2018), Existing (2018) Plus Project, Cumulative (2028), and Cumulative (2028) Plus Project Conditions to determine the storage lengths necessary to accommodate 95th percentile queues. The analysis was conducted for the weekday AM and PM peak periods.

Queue lengths were tested using the Sim Traffic 9 package from Synchro, version 9. The 95th percentile queues for the five project intersections are summarized in **Table 34**. The queue analysis are provided in **Appendix S**.

Table 34: 95th Percentile Queues

Driveway		95 th Percentile Queue (Feet)							
		Existing		Existing Plus Project		Cumulative (2028)		Cumulative (2028) Plus Project	
		AM	PM	AM	PM	AM	PM	AM	PM
A – Fremont	SBL	33	33	25	64	10	49	21	79
A – Fremont	NBR	58	19	64	63	33	56	45	67
B – Mission	EBL	N/A	N/A	48	75	N/A	N/A	30	207
E – Date	NBL	34	10	42	42	44	23	43	32
F - Orange	WBL	N/A	N/A	N/A	28	N/A	N/A	N/A	10

The southbound left turn from Fremont Avenue into Driveway A has 80 feet of storage which provides for the 95th percentile queue for both peak periods in the Existing (2018) Plus Project and Cumulative (2028) Plus Project scenarios.

The northbound right turn from Fremont Avenue into Driveway A has 80 feet of storage which provides for the 95th percentile queue for both peak periods in the Existing (2018) Plus Project and Cumulative (2028) Plus Project scenarios.

Driveway B is proposed to be located 450 feet east of the intersection of Fremont Avenue and Mission Road. The existing westbound left turn lane on Mission Road has 250 feet of storage. East of the left turn

lane is a 65-foot taper zone and further east is a two way left turn lane. There would be 135 feet of two way left turn storage west of Driveway B. This distance provides adequate storage for 95th percentile queues for an eastbound left turn from Mission Road into Driveway B.

Driveway E on Date Avenue is proposed to allow access to North Plan areas N1, N2, N3, and N4. The driveway is located opposite Chestnut Street on Date Avenue. There is an existing 30-foot northbound left turn pocket. The distance does not provide adequate storage for 95th percentile queues in either the PM peak period for Existing (2018) Plus Project or the PM peak period for Cumulative (2028) Plus Project scenarios. We recommend that the northbound left turn lane be lengthened to 65 feet to provide adequate storage for 95th percentile queues.

Driveway F on Orange Street is also proposed to allow access to North Plan areas N1, N2, N3, and N4. The 95th percentile queue for the westbound left turn lane into Driveway F is 32 feet in the PM Peak in the Cumulative (2028) Plus Project scenario. There is existing red curb on the north side of Orange Street for 30 feet across from the driveway. Vehicles traveling westbound on Orange Street beyond Driveway F can pass westbound left queued vehicles using the space that prohibits parking.

VIII. CONCLUSION

- The proposed project is analyzed for two build out scenarios. Scenario 1 considers the full project to be built in one phase by 2028. Scenario 2 considers the project to be built in two phases with the first portion of the project to be completed by 2024 and the remainder to be built by 2028.
- The project site plan includes a total of 545 apartment units, 36 townhome units, and 480 condominium units.
- Access to the project site will be provided via three (3) full access driveways along Orange Street, three (3) full access driveways along Date Avenue, one (1) full access driveway along Mission Road, and one (1) full access driveway along Fremont Avenue. The full access driveway along Fremont Avenue is currently a signalized intersection providing access to existing land uses. Results from the driveway access analysis show that all driveways will operate at an acceptable level.
- The residential parking for the North Plan will be provided for by two-level parking garages at areas N1, N2, and N3, which contain condominiums and by individual driveways for each townhome at area N4. A total of 1,135 spaces will be available for the North Plan area. The residential parking for the Corner Plan will be provided for by a 337-space 6-story parking structure within the Corner Plan site. The residential parking for the South Plan will be provided for by 6-story parking structures within both S1 and S2, providing a total of 913 spaces. Office parking will be accommodated by two existing garages and one existing surface lot and a new 490-space parking structure that will be constructed on the East Plan site.
- This traffic impact study provides an analysis of 27 study intersections and 4 roadways segments in the vicinity of the project site. This study has been prepared in accordance with the Traffic Study guidelines of the County of Los Angeles based upon the direction received from City of Alhambra staff.
- For Scenario 1, in 2028, the project is estimated to generate a net project total of 6,088 trips on a daily basis, with 464 new trips during the AM peak hour and 530 new trips during the PM peak hour.
- For Scenario 2, the proposed project is estimated to generate 3,302 new trips on a daily basis for Opening Year (2024), with 240 new trips during the AM peak hour and 288 new trips during the PM peak hour. The project is estimated to generate a net project total of 6,088 trips on a daily basis in 2028, with 464 new trips during the AM peak hour and 530 new trips during the PM peak hour.
- The results for the Existing (2018) Plus Project Conditions indicate that 2 intersections operate at LOS E and 4 intersections operate at LOS F, while the remaining 21 intersections operate at LOS D or better. During the PM peak period, 3 intersections operate at LOS E and 3 intersections operate at LOS F, while the remaining 21 intersections operate at LOS D or better.

- For Scenario 1, the Ambient (2028) Plus Project Conditions traffic analysis results indicate that 3 intersections are projected to operate at LOS E and 6 intersections are projected to operate at LOS F while the remaining 18 intersections will operate at LOS D or better during the AM peak period. During the PM peak period, 4 intersections are projected to operate at LOS E and 7 intersections will operate at LOS F while the remaining 16 intersections will operate at LOS D or better.
- For Scenario 1, the Cumulative (2028) Plus Project Conditions traffic analysis results indicate that 4 intersections are projected to operate at LOS E and 6 intersections are projected to operate at LOS F while the remaining 17 intersections will operate at LOS D or better during the AM peak period. During the PM peak period, 3 intersections are projected to operate at LOS E and 9 intersections will operate at LOS F while the remaining 15 intersections will operate at LOS D or better. The 10 following intersections would be significantly impacted by the proposed development during the AM and PM peak periods: S Fremont Avenue/W Mission Road, S Fremont Avenue/Orange Street, S Fremont Avenue/W Commonwealth Avenue, S Fremont Avenue/W Valley Boulevard, S Marengo Avenue/W Mission Road, W Valley Boulevard/I-710 SB On-Ramp, S Fremont Avenue/W Hellman Avenue, W Valley Boulevard/Westmont Drive, Date Avenue/Orange Street, and W Mission Road/Date Avenue.
- For Scenario 2, the Ambient (2024) Plus Project Conditions traffic analysis results indicate that 3 intersections are projected to operate at LOS E and 5 intersections are projected to operate at LOS F while the remaining 19 intersections will operate at LOS D or better during the AM peak period. During the PM peak period, 5 intersections are projected to operate at LOS E and 4 intersections will operate at LOS F while the remaining 18 intersections will operate at LOS D or better.
- For Scenario 2, the Cumulative (2024) Plus Project Conditions traffic analysis results indicate that 2 intersections are projected to operate at LOS E and 6 intersections are projected to operate at LOS F while the remaining 19 intersections would operate at LOS D or better during the AM peak period. During the PM peak period, 6 intersections are projected to operate at LOS E and 3 intersections would operate at LOS F while the remaining 18 intersections will operate at LOS D or better.
- For Scenario 2, no additional related project trips are added to the analysis for 2028 Conditions. As a result, Ambient (2028) and Cumulative (2028) Conditions are equivalent and only Cumulative (2028) Conditions are analyzed.
- For Scenario 2, the Cumulative (2028) Plus Project Conditions traffic analysis results indicate that 3 intersections are projected to operate at LOS E and 7 intersections are projected to operate at LOS F while the remaining 17 intersections would operate at LOS D or better during the AM peak period. During the PM peak period, 3 intersections are projected to operate at LOS E and 8 intersections would operate at LOS F while the remaining 16 intersections will operate at LOS D or better. The Scenario 2 results indicate that the 7 following intersections would be significantly impacted by the proposed development during the AM and PM peak periods: S Fremont Avenue/W Mission Road, S Fremont Avenue/Orange Street, S Fremont Avenue/W Valley Boulevard, S

Marengo Avenue/W Mission Road, W Valley Boulevard/I-710 SB On-Ramp, Date Avenue/Orange Street, and W Mission Road/Date Avenue.

- Six roadway improvement projects have been funded by the Los Angeles County Metro as part of the SR-710 North Corridor Mobility Improvements. All six projects will be funded between FY20 and FY23 and it is likely they will be completed prior to completion of the Villages at the Alhambra. These projects may result in capacity increases at project study intersections and could cause them to operate at less than significant levels of service. Without knowledge of the specific design of each project, it is not yet possible to include them in the analyses for Cumulative conditions.
- The installation of traffic signals could be used to mitigate the impacted intersections at Date Avenue/Orange Street and W Mission Road/Date Avenue. Striping changes could be used as a potential mitigation measure at the impacted intersection of W Valley Boulevard/I-710 SB On-Ramp. Road widening could be used as a potential mitigation measure to mitigate the impacted intersections at S Fremont Avenue/W Mission Road, S Fremont Avenue/Orange Street, S Fremont Avenue/W Commonwealth Avenue, S Fremont Avenue/W Valley Boulevard, S Marengo Avenue/W Mission Road, S Fremont Avenue/W Hellman Avenue, and W Valley Boulevard/Westmont Drive.
- A traffic signal warrant analysis (Warrant 3) was conducted in Scenario 1 for 7 unsignalized study intersections. Traffic signals are warranted at the intersections of Date Avenue/Orange Street, W Mission Road/Date Avenue, and W Hellman Avenue/I-10 WB Ramps for Cumulative (2028) Plus Project Conditions. Mitigation measures for the project include installing traffic signals at the intersections of Date Avenue/Orange Street and W Mission Road/Date Avenue.

Appendix A – Traffic Data Collection Worksheets

Counts Unlimited, Inc.

City of Alhambra
Freemont Avenue
N. Mission Road
24 Hour Directional Volume Count

PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

AHB001
Site Code: 108-17281

Start Time	4/27/2017 Thu	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		65	306			71	283				
12:15		57	343			54	292				
12:30		39	336			64	329				
12:45		49	354	210	1339	37	297	226	1201	436	2540
01:00		32	299			36	305				
01:15		39	341			29	310				
01:30		28	332			39	315				
01:45		38	351	137	1323	40	287	144	1217	281	2540
02:00		30	320			30	280				
02:15		15	322			21	311				
02:30		23	309			31	306				
02:45		31	367	99	1318	19	263	101	1160	200	2478
03:00		14	322			28	278				
03:15		17	327			17	291				
03:30		18	228			22	303				
03:45		46	249	95	1126	28	313	95	1185	190	2311
04:00		25	278			32	327				
04:15		25	408			40	320				
04:30		39	345			53	244				
04:45		69	380	158	1411	67	244	192	1135	350	2546
05:00		80	386			72	309				
05:15		100	384			91	255				
05:30		121	363			134	299				
05:45		165	384	466	1517	159	267	456	1130	922	2647
06:00		205	359			215	327				
06:15		269	383			217	282				
06:30		275	387			270	282				
06:45		303	393	1052	1522	287	286	989	1177	2041	2699
07:00		337	322			341	267				
07:15		337	349			323	275				
07:30		323	359			326	252				
07:45		307	352	1304	1382	272	268	1262	1062	2566	2444
08:00		295	288			355	261				
08:15		316	297			285	273				
08:30		303	262			313	227				
08:45		300	292	1214	1139	306	276	1259	1037	2473	2176
09:00		267	240			338	258				
09:15		329	237			306	239				
09:30		327	219			302	231				
09:45		304	226	1227	922	331	220	1277	948	2504	1870
10:00		288	181			311	186				
10:15		304	150			283	140				
10:30		317	147			302	143				
10:45		325	137	1234	615	268	129	1164	598	2398	1213
11:00		299	99			277	105				
11:15		331	105			276	96				
11:30		286	78			305	87				
11:45		326	78	1242	360	289	91	1147	379	2389	739
Total		8438	13974	8438	13974	8312	12229	8312	12229	16750	26203
Combined Total		22412		22412		20541		20541		42953	
AM Peak	-	07:00	-	-	-	06:45	-	-	-	-	-
Vol.	-	1304	-	-	-	1277	-	-	-	-	-
P.H.F.		0.967				0.936					
PM Peak	-	-	06:00	-	-	-	03:30	-	-	-	-
Vol.	-	-	1522	-	-	-	1263	-	-	-	-
P.H.F.			0.968				0.966				
Percentage		37.6%	62.4%			40.5%	59.5%				
ADT/AADT		ADT 42,953		AADT 42,953							

Counts Unlimited, Inc.

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City of Alhambra
Mission Road
E/ Freemont Avenue
24 Hour Directional Volume Count

PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

AHB002
Site Code: 108-17281

Start Time	4/27/2017 Thu	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		12	135			30	130				
12:15		10	121			16	152				
12:30		21	141			13	151				
12:45		9	137	52	534	16	152	75	585	127	1119
01:00		9	155			9	163				
01:15		12	136			8	166				
01:30		10	156			8	167				
01:45		7	130	38	577	11	134	36	630	74	1207
02:00		7	131			13	135				
02:15		6	118			6	147				
02:30		4	147			8	164				
02:45		4	148	21	544	3	153	30	599	51	1143
03:00		6	152			4	152				
03:15		3	122			7	146				
03:30		11	96			11	148				
03:45		5	94	25	464	12	109	34	555	59	1019
04:00		6	116			11	127				
04:15		7	160			10	129				
04:30		13	152			18	130				
04:45		18	188	44	616	9	153	48	539	92	1155
05:00		13	184			18	198				
05:15		24	159			36	158				
05:30		27	197			57	159				
05:45		59	169	123	709	72	176	183	691	306	1400
06:00		46	210			119	173				
06:15		65	188			140	149				
06:30		97	182			176	155				
06:45		85	142	293	722	198	167	633	644	926	1366
07:00		90	148			229	134				
07:15		125	147			246	143				
07:30		139	117			295	140				
07:45		157	112	511	524	203	121	973	538	1484	1062
08:00		115	96			231	125				
08:15		109	92			218	131				
08:30		112	81			271	115				
08:45		121	77	457	346	176	114	896	485	1353	831
09:00		117	87			170	120				
09:15		116	72			209	80				
09:30		111	55			171	80				
09:45		117	60	461	274	171	56	721	336	1182	610
10:00		133	45			141	54				
10:15		140	32			140	59				
10:30		123	44			147	47				
10:45		107	35	503	156	140	40	568	200	1071	356
11:00		120	17			125	39				
11:15		104	23			148	29				
11:30		139	14			150	28				
11:45		104	22	467	76	153	27	576	123	1043	199
Total		2995	5542	2995	5542	4773	5925	4773	5925	7768	11467
Combined Total		8537		8537		10698		10698		19235	
AM Peak	-	07:15	-	-	-	07:15	-	-	-	-	-
Vol.	-	536	-	-	-	975	-	-	-	-	-
P.H.F.		0.854				0.826					
PM Peak	-	-	05:30	-	-	-	05:00	-	-	-	-
Vol.	-	-	764	-	-	-	691	-	-	-	-
P.H.F.			0.910				0.872				
Percentage		35.1%	64.9%			44.6%	55.4%				
ADT/AADT		ADT 19,235		AADT 19,235							

Counts Unlimited, Inc.

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City of Alhambra
Date Avenue
B/ Mission Street - Orange Street
24 Hour Directional Volume Count

PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

AHB002
Site Code: 108-17789

Start Time	14-Nov-17 Tue	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	40			2	52				
12:15		0	52			2	64				
12:30		1	64			1	56				
12:45		0	49	1	205	1	72	6	244	7	449
01:00		0	50			0	62				
01:15		0	50			0	52				
01:30		2	55			1	46				
01:45		1	38	3	193	0	57	1	217	4	410
02:00		0	34			0	50				
02:15		0	36			2	36				
02:30		0	36			0	52				
02:45		0	49	0	155	0	65	2	203	2	358
03:00		1	47			0	48				
03:15		0	48			0	50				
03:30		1	40			0	50				
03:45		2	27	4	162	1	55	1	203	5	365
04:00		1	42			1	54				
04:15		0	58			0	93				
04:30		9	51			3	77				
04:45		5	51	15	202	0	97	4	321	19	523
05:00		7	56			4	145				
05:15		16	49			15	134				
05:30		31	51			15	100				
05:45		33	42	87	198	25	79	59	458	146	656
06:00		59	38			33	65				
06:15		54	27			20	43				
06:30		62	41			39	38				
06:45		63	47	238	153	33	54	125	200	363	353
07:00		38	38			52	45				
07:15		30	30			42	47				
07:30		51	36			48	35				
07:45		54	27	173	131	43	44	185	171	358	302
08:00		42	15			46	36				
08:15		32	15			33	35				
08:30		32	15			34	22				
08:45		33	10	139	55	31	37	144	130	283	185
09:00		42	16			25	25				
09:15		50	5			37	12				
09:30		61	4			35	6				
09:45		60	6	213	31	43	6	140	49	353	80
10:00		42	3			57	11				
10:15		48	2			38	8				
10:30		47	2			37	5				
10:45		37	8	174	15	58	14	190	38	364	53
11:00		47	4			72	6				
11:15		46	1			89	9				
11:30		50	0			65	2				
11:45		63	0	206	5	59	3	285	20	491	25
Total		1253	1505	1253	1505	1142	2254	1142	2254	2395	3759
Combined Total		2758		2758		3396		3396		6154	
AM Peak	-	06:00	-	-	-	11:00	-	-	-	-	-
Vol.	-	238	-	-	-	285	-	-	-	-	-
P.H.F.		0.944				0.801					
PM Peak	-	-	04:15	-	-	-	04:45	-	-	-	-
Vol.	-	-	216	-	-	-	476	-	-	-	-
P.H.F.			0.844				0.821				
Percentage		45.4%	54.6%			33.6%	66.4%				
ADT/AADT		ADT 6,154		AADT 6,154							

Counts Unlimited, Inc.

City of Alhambra
Orange Street
B/ Fremont Avenue - Date Avenue
24 Hour Directional Volume Count

PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

AHB001
Site Code: 108-17789

Start Time	14-Nov-17 Tue	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		3	43			6	64				
12:15		1	60			0	61				
12:30		1	75			1	46				
12:45		0	78	5	256	4	47	11	218	16	474
01:00		0	51			0	37				
01:15		0	56			0	37				
01:30		0	54			0	37				
01:45		0	34	0	195	0	37	0	148	0	343
02:00		1	32			1	53				
02:15		0	30			2	30				
02:30		0	34			5	28				
02:45		0	37	1	133	2	33	10	144	11	277
03:00		0	40			0	54				
03:15		0	28			0	58				
03:30		0	45			0	74				
03:45		1	32	1	145	0	44	0	230	1	375
04:00		1	48			0	50				
04:15		2	35			0	58				
04:30		4	39			1	80				
04:45		9	30	16	152	9	83	10	271	26	423
05:00		11	57			9	106				
05:15		17	53			8	147				
05:30		26	78			5	102				
05:45		49	32	103	220	5	113	27	468	130	688
06:00		69	44			9	70				
06:15		133	32			20	66				
06:30		144	23			18	42				
06:45		169	21	515	120	9	32	56	210	571	330
07:00		90	28			20	36				
07:15		80	21			22	26				
07:30		93	22			22	24				
07:45		103	30	366	101	36	29	100	115	466	216
08:00		66	24			41	43				
08:15		48	15			31	19				
08:30		47	19			36	12				
08:45		65	13	226	71	46	20	154	94	380	165
09:00		48	18			30	20				
09:15		37	11			35	7				
09:30		35	7			30	6				
09:45		53	8	173	44	35	5	130	38	303	82
10:00		45	6			41	13				
10:15		46	5			44	6				
10:30		41	6			44	3				
10:45		30	4	162	21	60	2	189	24	351	45
11:00		34	7			59	3				
11:15		45	13			58	2				
11:30		55	11			77	5				
11:45		41	7	175	38	60	6	254	16	429	54
Total		1743	1496	1743	1496	941	1976	941	1976	2684	3472
Combined Total		3239		3239		2917		2917		6156	
AM Peak	-	06:15	-	-	-	10:45	-	-	-	-	-
Vol.	-	536	-	-	-	254	-	-	-	-	-
P.H.F.	-	0.793	-	-	-	0.825	-	-	-	-	-
PM Peak	-	-	00:15	-	-	-	05:00	-	-	-	-
Vol.	-	-	264	-	-	-	468	-	-	-	-
P.H.F.	-	-	0.846	-	-	-	0.796	-	-	-	-
Percentage		53.8%	46.2%			32.3%	67.7%				
ADT/AADT		ADT 6,156		AADT 6,156							

City of Alhambra
N/S: South Fremont Avenue
E/W: West Mission Road
Weather: Clear

File Name : 01_AHBFMI AM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

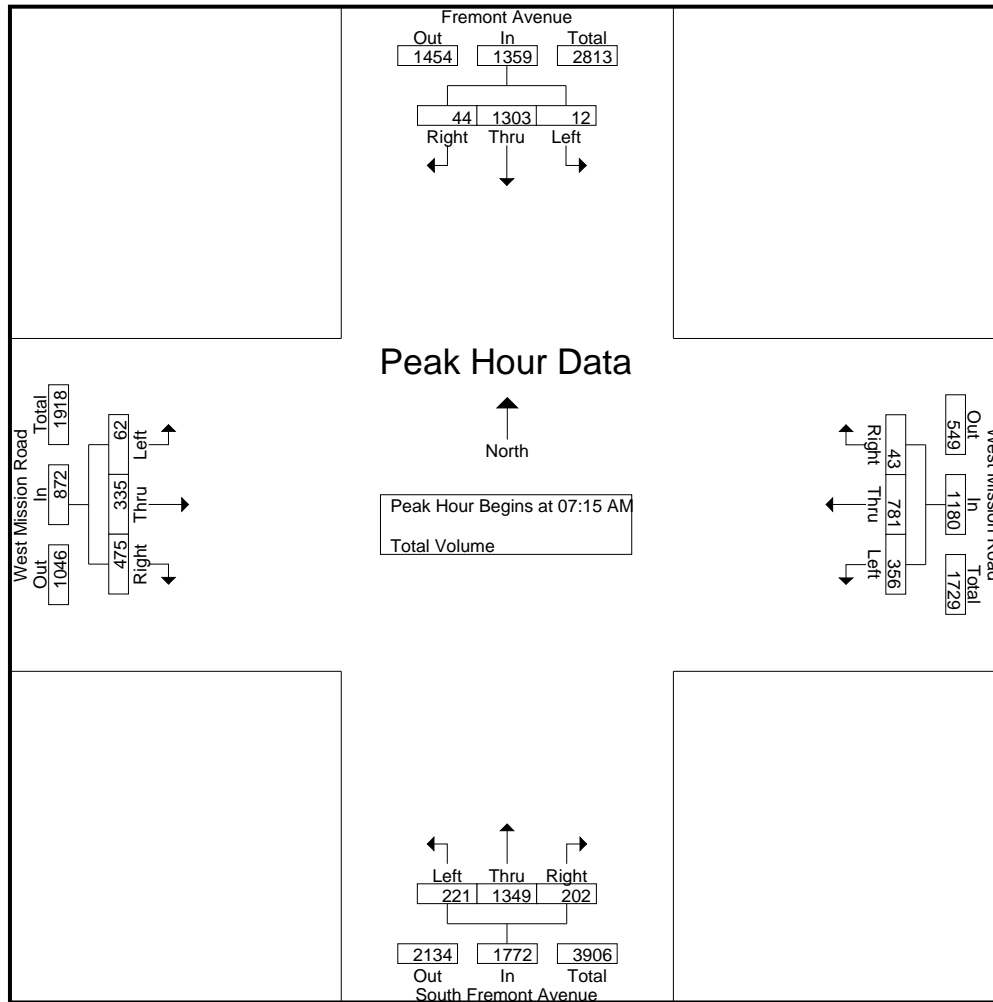
Groups Printed- Total Volume

	Fremont Avenue Southbound				West Mission Road Westbound				South Fremont Avenue Northbound				West Mission Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	338	9	351	75	119	11	205	39	355	62	456	9	26	85	120	1132
07:15 AM	2	329	9	340	95	187	9	291	34	349	49	432	12	82	113	207	1270
07:30 AM	4	342	8	354	83	188	11	282	65	345	50	460	13	73	109	195	1291
07:45 AM	4	274	14	292	94	217	11	322	63	327	51	441	18	120	139	277	1332
Total	14	1283	40	1337	347	711	42	1100	201	1376	212	1789	52	301	446	799	5025
08:00 AM	2	358	13	373	84	189	12	285	59	328	52	439	19	60	114	193	1290
08:15 AM	6	288	9	303	92	214	18	324	53	318	46	417	13	65	119	197	1241
08:30 AM	9	329	11	349	89	152	11	252	49	337	57	443	14	46	110	170	1214
08:45 AM	6	306	11	323	97	157	16	270	54	302	61	417	15	63	116	194	1204
Total	23	1281	44	1348	362	712	57	1131	215	1285	216	1716	61	234	459	754	4949
Grand Total	37	2564	84	2685	709	1423	99	2231	416	2661	428	3505	113	535	905	1553	9974
Apprch %	1.4	95.5	3.1		31.8	63.8	4.4		11.9	75.9	12.2		7.3	34.4	58.3		
Total %	0.4	25.7	0.8	26.9	7.1	14.3	1	22.4	4.2	26.7	4.3	35.1	1.1	5.4	9.1	15.6	

	Fremont Avenue Southbound				West Mission Road Westbound				South Fremont Avenue Northbound				West Mission Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	2	329	9	340	95	187	9	291	34	349	49	432	12	82	113	207	1270
07:30 AM	4	342	8	354	83	188	11	282	65	345	50	460	13	73	109	195	1291
07:45 AM	4	274	14	292	94	217	11	322	63	327	51	441	18	120	139	277	1332
08:00 AM	2	358	13	373	84	189	12	285	59	328	52	439	19	60	114	193	1290
Total Volume	12	1303	44	1359	356	781	43	1180	221	1349	202	1772	62	335	475	872	5183
% App. Total	0.9	95.9	3.2		30.2	66.2	3.6		12.5	76.1	11.4		7.1	38.4	54.5		
PHF	.750	.910	.786	.911	.937	.900	.896	.916	.850	.966	.971	.963	.816	.698	.854	.787	.973

City of Alhambra
N/S: South Fremont Avenue
E/W: West Mission Road
Weather: Clear

File Name : 01_AHBFMI AM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:30 AM				07:00 AM				07:15 AM			
+0 mins.	2	329	9	340	83	188	11	282	39	355	62	456	12	82	113	207
+15 mins.	4	342	8	354	94	217	11	322	34	349	49	432	13	73	109	195
+30 mins.	4	274	14	292	84	189	12	285	65	345	50	460	18	120	139	277
+45 mins.	2	358	13	373	92	214	18	324	63	327	51	441	19	60	114	193
Total Volume	12	1303	44	1359	353	808	52	1213	201	1376	212	1789	62	335	475	872
% App. Total	0.9	95.9	3.2		29.1	66.6	4.3		11.2	76.9	11.9		7.1	38.4	54.5	
PHF	.750	.910	.786	.911	.939	.931	.722	.936	.773	.969	.855	.972	.816	.698	.854	.787

City of Alhambra
N/S: South Fremont Avenue
E/W: West Mission Road
Weather: Clear

File Name : 01_AHBFMI PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

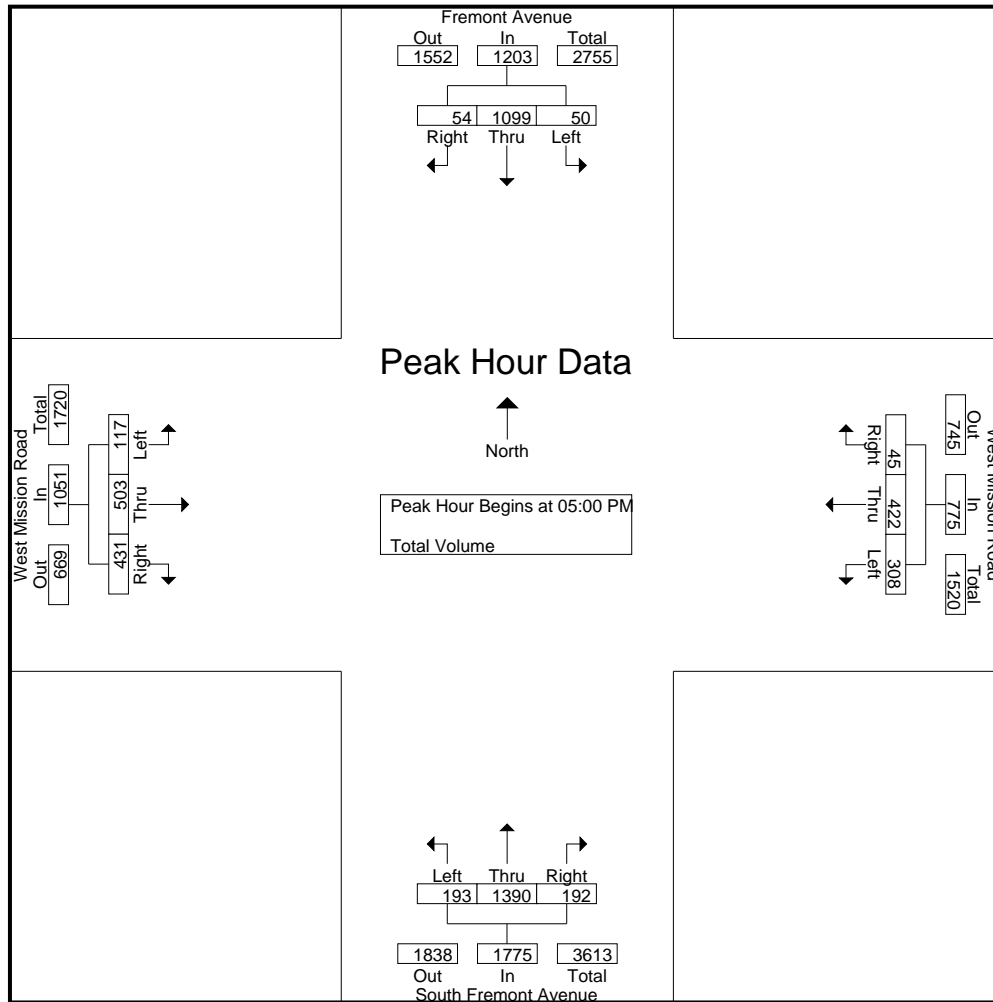
Groups Printed- Total Volume

	Fremont Avenue Southbound				West Mission Road Westbound				South Fremont Avenue Northbound				West Mission Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	8	118	9	135	85	93	18	196	42	271	34	347	19	72	119	210	888
04:15 PM	15	231	17	263	87	119	22	228	48	324	29	401	24	127	112	263	1155
04:30 PM	18	219	16	253	77	83	12	172	52	349	34	435	15	101	104	220	1080
04:45 PM	22	235	21	278	75	98	19	192	43	334	45	422	22	157	116	295	1187
Total	63	803	63	929	324	393	71	788	185	1278	142	1605	80	457	451	988	4310
05:00 PM	16	285	15	316	76	97	12	185	45	348	38	431	25	122	104	251	1183
05:15 PM	5	267	12	284	75	105	12	192	51	341	47	439	27	124	110	261	1176
05:30 PM	15	296	16	327	72	116	11	199	50	348	55	453	29	114	111	254	1233
05:45 PM	14	251	11	276	85	104	10	199	47	353	52	452	36	143	106	285	1212
Total	50	1099	54	1203	308	422	45	775	193	1390	192	1775	117	503	431	1051	4804
Grand Total	113	1902	117	2132	632	815	116	1563	378	2668	334	3380	197	960	882	2039	9114
Apprch %	5.3	89.2	5.5		40.4	52.1	7.4		11.2	78.9	9.9		9.7	47.1	43.3		
Total %	1.2	20.9	1.3	23.4	6.9	8.9	1.3	17.1	4.1	29.3	3.7	37.1	2.2	10.5	9.7	22.4	

	Fremont Avenue Southbound				West Mission Road Westbound				South Fremont Avenue Northbound				West Mission Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	16	285	15	316	76	97	12	185	45	348	38	431	25	122	104	251	1183
05:15 PM	5	267	12	284	75	105	12	192	51	341	47	439	27	124	110	261	1176
05:30 PM	15	296	16	327	72	116	11	199	50	348	55	453	29	114	111	254	1233
05:45 PM	14	251	11	276	85	104	10	199	47	353	52	452	36	143	106	285	1212
Total Volume	50	1099	54	1203	308	422	45	775	193	1390	192	1775	117	503	431	1051	4804
% App. Total	4.2	91.4	4.5		39.7	54.5	5.8		10.9	78.3	10.8		11.1	47.9	41		
PHF	.781	.928	.844	.920	.906	.909	.938	.974	.946	.984	.873	.980	.813	.879	.971	.922	.974

City of Alhambra
N/S: South Fremont Avenue
E/W: West Mission Road
Weather: Clear

File Name : 01_AHBFRMI PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:00 PM				05:00 PM				04:45 PM			
+0 mins.	22	235	21	278	85	93	18	196	45	348	38	431	22	157	116	295
+15 mins.	16	285	15	316	87	119	22	228	51	341	47	439	25	122	104	251
+30 mins.	5	267	12	284	77	83	12	172	50	348	55	453	27	124	110	261
+45 mins.	15	296	16	327	75	98	19	192	47	353	52	452	29	114	111	254
Total Volume	58	1083	64	1205	324	393	71	788	193	1390	192	1775	103	517	441	1061
% App. Total	4.8	89.9	5.3		41.1	49.9	9		10.9	78.3	10.8		9.7	48.7	41.6	
PHF	.659	.915	.762	.921	.931	.826	.807	.864	.946	.984	.873	.980	.888	.823	.950	.899

Location: Alhambra
N/S: South Fremont Avenue
E/W: West Mission Road



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

	North Leg South Fremont Avenue	East Leg West Mission Road	South Leg South Fremont Avenue	West Leg West Mission Road	TOTAL
7:00 AM	0	0	0	2	2
7:15 AM	1	1	1	1	4
7:30 AM	1	2	0	3	6
7:45 AM	1	4	1	0	6
8:00 AM	1	5	0	5	11
8:15 AM	2	3	0	1	6
8:30 AM	0	3	0	1	4
8:45 AM	3	4	1	1	9
TOTAL VOLUMES:	9	22	3	14	48

	North Leg South Fremont Avenue	East Leg West Mission Road	South Leg South Fremont Avenue	West Leg West Mission Road	TOTAL
4:00 PM	4	8	3	3	18
4:15 PM	1	2	0	3	6
4:30 PM	1	0	1	8	10
4:45 PM	2	1	1	3	7
5:00 PM	0	0	1	1	2
5:15 PM	0	0	0	0	0
5:30 PM	0	3	0	5	8
5:45 PM	1	4	2	5	12
TOTAL VOLUMES:	9	18	8	28	63

Location: Alhambra
N/S: South Fremont Avenue
E/W: West Mission Road



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg South Fremont Avenue	East Leg West Mission Road	South Leg South Fremont Avenue	West Leg West Mission Road	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	1	1
	7:45 AM	0	1	0	1	2
	8:00 AM	1	2	0	0	3
	8:15 AM	0	0	0	0	0
	8:30 AM	0	3	0	0	3
	8:45 AM	0	1	0	0	1
TOTAL VOLUMES:		1	7	0	2	10

		North Leg South Fremont Avenue	East Leg West Mission Road	South Leg South Fremont Avenue	West Leg West Mission Road	TOTAL
	4:00 PM	0	1	0	0	1
	4:15 PM	3	2	0	0	5
	4:30 PM	1	1	0	1	3
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
TOTAL VOLUMES:		4	4	0	1	9

City of Alhambra
N/S: South Fremont Avenue
E/W: 1000 Fremont Avenue
Weather: Clear

File Name : 02_AHBFRDW AM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

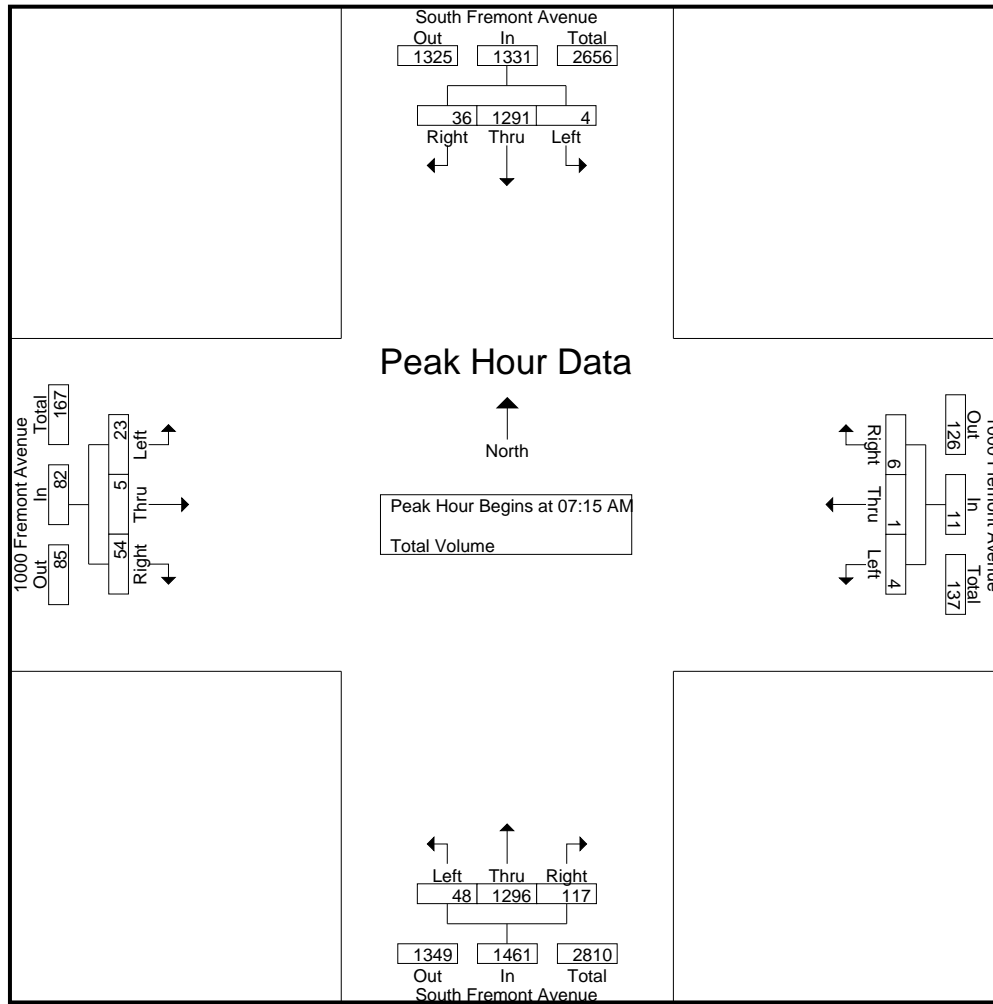
Groups Printed- Total Volume

	South Fremont Avenue Southbound				1000 Fremont Avenue Westbound				South Fremont Avenue Northbound				1000 Fremont Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	355	13	370	1	0	0	1	11	345	11	367	5	3	4	12	750
07:15 AM	1	319	3	323	0	0	2	2	11	338	26	375	9	1	12	22	722
07:30 AM	0	340	11	351	2	0	1	3	10	330	31	371	5	1	9	15	740
07:45 AM	2	267	10	279	1	0	1	2	13	304	37	354	7	0	20	27	662
Total	5	1281	37	1323	4	0	4	8	45	1317	105	1467	26	5	45	76	2874
08:00 AM	1	365	12	378	1	1	2	4	14	324	23	361	2	3	13	18	761
08:15 AM	1	291	8	300	2	0	2	4	23	309	17	349	9	4	18	31	684
08:30 AM	3	335	10	348	0	0	2	2	20	311	27	358	6	2	22	30	738
08:45 AM	3	296	14	313	4	0	3	7	23	289	17	329	10	1	16	27	676
Total	8	1287	44	1339	7	1	9	17	80	1233	84	1397	27	10	69	106	2859
Grand Total	13	2568	81	2662	11	1	13	25	125	2550	189	2864	53	15	114	182	5733
Apprch %	0.5	96.5	3		44	4	52		4.4	89	6.6		29.1	8.2	62.6		
Total %	0.2	44.8	1.4	46.4	0.2	0	0.2	0.4	2.2	44.5	3.3	50	0.9	0.3	2	3.2	

	South Fremont Avenue Southbound				1000 Fremont Avenue Westbound				South Fremont Avenue Northbound				1000 Fremont Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	319	3	323	0	0	2	2	11	338	26	375	9	1	12	22	722
07:30 AM	0	340	11	351	2	0	1	3	10	330	31	371	5	1	9	15	740
07:45 AM	2	267	10	279	1	0	1	2	13	304	37	354	7	0	20	27	662
08:00 AM	1	365	12	378	1	1	2	4	14	324	23	361	2	3	13	18	761
Total Volume	4	1291	36	1331	4	1	6	11	48	1296	117	1461	23	5	54	82	2885
% App. Total	0.3	97	2.7		36.4	9.1	54.5		3.3	88.7	8		28	6.1	65.9		
PHF	.500	.884	.750	.880	.500	.250	.750	.688	.857	.959	.791	.974	.639	.417	.675	.759	.948

City of Alhambra
N/S: South Fremont Avenue
E/W: 1000 Fremont Avenue
Weather: Clear

File Name : 02_AHBFRDW AM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				07:00 AM				07:45 AM			
+0 mins.	1	365	12	378	1	1	2	4	11	345	11	367	7	0	20	27
+15 mins.	1	291	8	300	2	0	2	4	11	338	26	375	2	3	13	18
+30 mins.	3	335	10	348	0	0	2	2	10	330	31	371	9	4	18	31
+45 mins.	3	296	14	313	4	0	3	7	13	304	37	354	6	2	22	30
Total Volume	8	1287	44	1339	7	1	9	17	45	1317	105	1467	24	9	73	106
% App. Total	0.6	96.1	3.3		41.2	5.9	52.9		3.1	89.8	7.2		22.6	8.5	68.9	
PHF	.667	.882	.786	.886	.438	.250	.750	.607	.865	.954	.709	.978	.667	.563	.830	.855

City of Alhambra
N/S: South Fremont Avenue
E/W: 1000 Fremont Avenue
Weather: Clear

File Name : 02_AHBFRDW PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

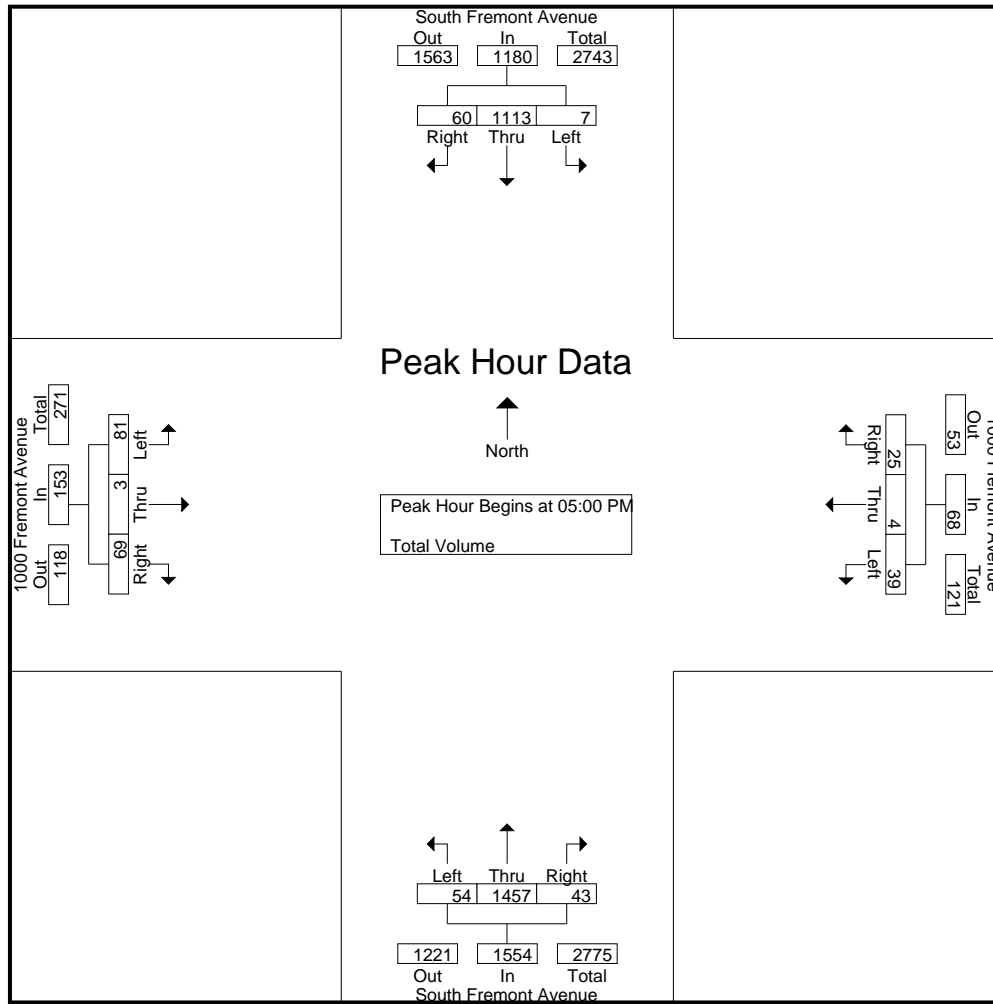
Groups Printed- Total Volume

	South Fremont Avenue Southbound				1000 Fremont Avenue Westbound				South Fremont Avenue Northbound				1000 Fremont Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	119	2	121	2	2	14	18	78	229	5	312	37	1	5	43	494
04:15 PM	0	249	22	271	7	4	10	21	28	341	8	377	16	0	9	25	694
04:30 PM	2	234	19	255	10	2	10	22	13	358	5	376	10	1	14	25	678
04:45 PM	2	248	15	265	13	2	7	22	15	356	4	375	15	0	17	32	694
Total	4	850	58	912	32	10	41	83	134	1284	22	1440	78	2	45	125	2560
05:00 PM	3	292	14	309	7	1	14	22	15	360	12	387	25	1	11	37	755
05:15 PM	1	259	14	274	11	1	3	15	7	375	6	388	14	0	20	34	711
05:30 PM	2	305	15	322	12	1	4	17	14	351	15	380	17	0	19	36	755
05:45 PM	1	257	17	275	9	1	4	14	18	371	10	399	25	2	19	46	734
Total	7	1113	60	1180	39	4	25	68	54	1457	43	1554	81	3	69	153	2955
Grand Total	11	1963	118	2092	71	14	66	151	188	2741	65	2994	159	5	114	278	5515
Apprch %	0.5	93.8	5.6		47	9.3	43.7		6.3	91.5	2.2		57.2	1.8	41		
Total %	0.2	35.6	2.1	37.9	1.3	0.3	1.2	2.7	3.4	49.7	1.2	54.3	2.9	0.1	2.1	5	

	South Fremont Avenue Southbound				1000 Fremont Avenue Westbound				South Fremont Avenue Northbound				1000 Fremont Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	3	292	14	309	7	1	14	22	15	360	12	387	25	1	11	37	755
05:15 PM	1	259	14	274	11	1	3	15	7	375	6	388	14	0	20	34	711
05:30 PM	2	305	15	322	12	1	4	17	14	351	15	380	17	0	19	36	755
05:45 PM	1	257	17	275	9	1	4	14	18	371	10	399	25	2	19	46	734
Total Volume	7	1113	60	1180	39	4	25	68	54	1457	43	1554	81	3	69	153	2955
% App. Total	0.6	94.3	5.1		57.4	5.9	36.8		3.5	93.8	2.8		52.9	2	45.1		
PHF	.583	.912	.882	.916	.813	1.00	.446	.773	.750	.971	.717	.974	.810	.375	.863	.832	.978

City of Alhambra
N/S: South Fremont Avenue
E/W: 1000 Fremont Avenue
Weather: Clear

File Name : 02_AHBFRDW PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:15 PM				05:00 PM				05:00 PM			
+0 mins.	3	292	14	309	7	4	10	21	15	360	12	387	25	1	11	37
+15 mins.	1	259	14	274	10	2	10	22	7	375	6	388	14	0	20	34
+30 mins.	2	305	15	322	13	2	7	22	14	351	15	380	17	0	19	36
+45 mins.	1	257	17	275	7	1	14	22	18	371	10	399	25	2	19	46
Total Volume	7	1113	60	1180	37	9	41	87	54	1457	43	1554	81	3	69	153
% App. Total	0.6	94.3	5.1		42.5	10.3	47.1		3.5	93.8	2.8		52.9	2	45.1	
PHF	.583	.912	.882	.916	.712	.563	.732	.989	.750	.971	.717	.974	.810	.375	.863	.832

Location: Alhambra
N/S: South Fremont Avenue
E/W: 1000 Fremont Ave DW



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

		North Leg South Fremont Avenue	East Leg 1000 Fremont Ave DW	South Leg South Fremont Avenue	West Leg 1000 Fremont Ave DW	TOTAL
	7:00 AM	1	1	1	5	8
	7:15 AM	1	0	0	2	3
	7:30 AM	2	1	0	3	6
	7:45 AM	1	1	1	2	5
	8:00 AM	2	3	0	3	8
	8:15 AM	2	2	2	2	8
	8:30 AM	2	3	0	2	7
	8:45 AM	7	7	0	0	14
TOTAL VOLUMES:		18	18	4	19	59

		North Leg South Fremont Avenue	East Leg 1000 Fremont Ave DW	South Leg South Fremont Avenue	West Leg 1000 Fremont Ave DW	TOTAL
	4:00 PM	5	3	3	4	15
	4:15 PM	7	4	2	4	17
	4:30 PM	1	0	2	10	13
	4:45 PM	0	1	1	0	2
	5:00 PM	1	0	4	4	9
	5:15 PM	1	0	1	0	2
	5:30 PM	0	2	1	1	4
	5:45 PM	1	2	1	4	8
TOTAL VOLUMES:		16	12	15	27	70

Location: Alhambra
N/S: South Fremont Avenue
E/W: 1000 Fremont Ave DW



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg South Fremont Avenue	East Leg 1000 Fremont Ave DW	South Leg South Fremont Avenue	West Leg 1000 Fremont Ave DW	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	1	1
	7:30 AM	0	0	0	0	0
	7:45 AM	0	1	0	0	1
	8:00 AM	0	1	0	0	1
	8:15 AM	0	0	0	0	0
	8:30 AM	0	4	0	0	4
	8:45 AM	0	0	0	0	0
TOTAL VOLUMES:		0	6	0	1	7

		North Leg South Fremont Avenue	East Leg 1000 Fremont Ave DW	South Leg South Fremont Avenue	West Leg 1000 Fremont Ave DW	TOTAL
	4:00 PM	0	1	0	0	1
	4:15 PM	1	0	0	1	2
	4:30 PM	0	2	0	0	2
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	1	1	0	0	2
	5:30 PM	0	2	0	0	2
	5:45 PM	0	0	0	1	1
TOTAL VOLUMES:		2	6	0	2	10

City of Alhambra
N/S: Fremont Avenue
E/W: Orange Street
Weather: Clear

File Name : 03_AHBFRROR AM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

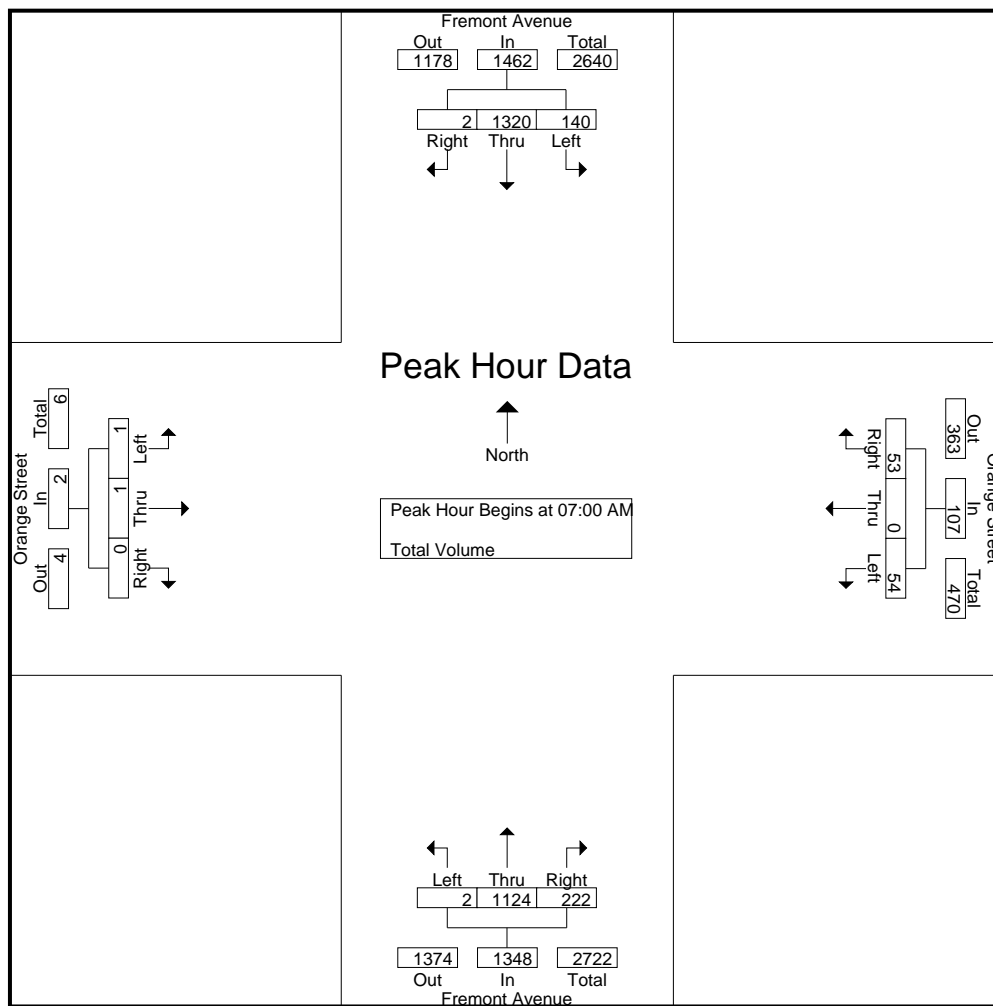
Groups Printed- Total Volume

	Fremont Avenue Southbound				Orange Street Westbound				Fremont Avenue Northbound				Orange Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	44	363	1	408	11	0	15	26	0	258	81	339	0	0	0	0	773
07:15 AM	30	329	0	359	15	0	11	26	0	305	60	365	0	1	0	1	751
07:30 AM	34	343	0	377	11	0	12	23	1	274	45	320	0	0	0	0	720
07:45 AM	32	285	1	318	17	0	15	32	1	287	36	324	1	0	0	1	675
Total	140	1320	2	1462	54	0	53	107	2	1124	222	1348	1	1	0	2	2919
08:00 AM	31	337	1	369	18	1	16	35	0	268	42	310	0	0	0	0	714
08:15 AM	38	316	2	356	15	2	15	32	2	294	38	334	0	0	0	0	722
08:30 AM	31	308	3	342	8	2	20	30	2	269	41	312	0	0	0	0	684
08:45 AM	48	298	1	347	16	0	26	42	4	265	46	315	0	0	0	0	704
Total	148	1259	7	1414	57	5	77	139	8	1096	167	1271	0	0	0	0	2824
Grand Total	288	2579	9	2876	111	5	130	246	10	2220	389	2619	1	1	0	2	5743
Apprch %	10	89.7	0.3		45.1	2	52.8		0.4	84.8	14.9		50	50	0		
Total %	5	44.9	0.2	50.1	1.9	0.1	2.3	4.3	0.2	38.7	6.8	45.6	0	0	0	0	

	Fremont Avenue Southbound				Orange Street Westbound				Fremont Avenue Northbound				Orange Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	44	363	1	408	11	0	15	26	0	258	81	339	0	0	0	0	773
07:15 AM	30	329	0	359	15	0	11	26	0	305	60	365	0	1	0	1	751
07:30 AM	34	343	0	377	11	0	12	23	1	274	45	320	0	0	0	0	720
07:45 AM	32	285	1	318	17	0	15	32	1	287	36	324	1	0	0	1	675
Total Volume	140	1320	2	1462	54	0	53	107	2	1124	222	1348	1	1	0	2	2919
% App. Total	9.6	90.3	0.1		50.5	0	49.5		0.1	83.4	16.5		50	50	0		
PHF	.795	.909	.500	.896	.794	.000	.883	.836	.500	.921	.685	.923	.250	.250	.000	.500	.944

City of Alhambra
N/S: Fremont Avenue
E/W: Orange Street
Weather: Clear

File Name : 03_AHBFRROR AM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				08:00 AM				07:00 AM				07:00 AM			
+0 mins.	44	363	1	408	18	1	16	35	0	258	81	339	0	0	0	0
+15 mins.	30	329	0	359	15	2	15	32	0	305	60	365	0	1	0	1
+30 mins.	34	343	0	377	8	2	20	30	1	274	45	320	0	0	0	0
+45 mins.	32	285	1	318	16	0	26	42	1	287	36	324	1	0	0	1
Total Volume	140	1320	2	1462	57	5	77	139	2	1124	222	1348	1	1	0	2
% App. Total	9.6	90.3	0.1		41	3.6	55.4		0.1	83.4	16.5		50	50	0	
PHF	.795	.909	.500	.896	.792	.625	.740	.827	.500	.921	.685	.923	.250	.250	.000	.500

City of Alhambra
N/S: Fremont Avenue
E/W: Orange Street
Weather: Clear

File Name : 03_AHBFRROR PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

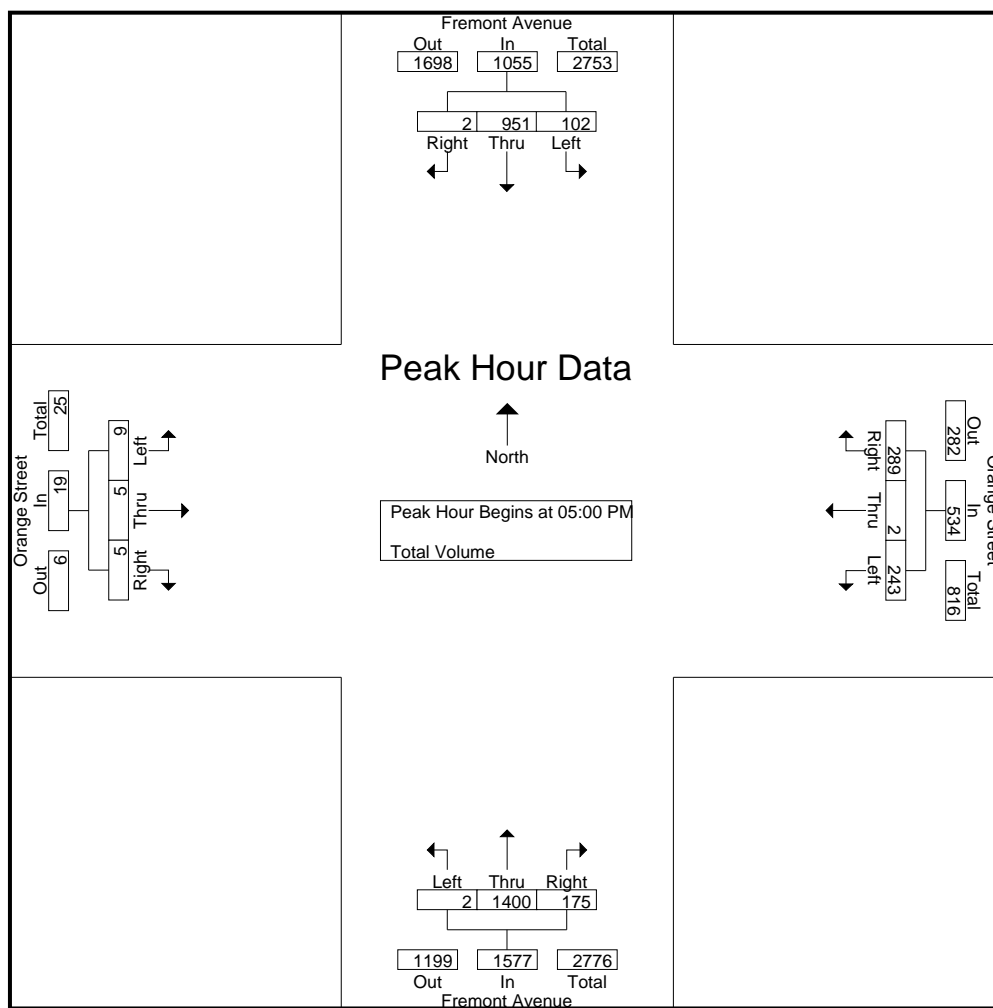
Groups Printed- Total Volume

	Fremont Avenue Southbound				Orange Street Westbound				Fremont Avenue Northbound				Orange Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	95	102	1	198	29	2	111	142	1	251	31	283	3	1	0	4	627
04:15 PM	28	298	1	327	34	0	54	88	2	388	45	435	0	0	1	1	851
04:30 PM	26	244	0	270	37	0	60	97	0	354	30	384	1	1	1	3	754
04:45 PM	34	178	0	212	47	0	46	93	0	349	25	374	2	2	1	5	684
Total	183	822	2	1007	147	2	271	420	3	1342	131	1476	6	4	3	13	2916
05:00 PM	26	268	1	295	46	0	70	116	1	376	30	407	4	0	2	6	824
05:15 PM	27	217	1	245	68	0	66	134	1	351	47	399	2	2	2	6	784
05:30 PM	22	242	0	264	71	0	77	148	0	326	48	374	1	1	1	3	789
05:45 PM	27	224	0	251	58	2	76	136	0	347	50	397	2	2	0	4	788
Total	102	951	2	1055	243	2	289	534	2	1400	175	1577	9	5	5	19	3185
Grand Total	285	1773	4	2062	390	4	560	954	5	2742	306	3053	15	9	8	32	6101
Apprch %	13.8	86	0.2		40.9	0.4	58.7		0.2	89.8	10		46.9	28.1	25		
Total %	4.7	29.1	0.1	33.8	6.4	0.1	9.2	15.6	0.1	44.9	5	50	0.2	0.1	0.1	0.5	

	Fremont Avenue Southbound				Orange Street Westbound				Fremont Avenue Northbound				Orange Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	26	268	1	295	46	0	70	116	1	376	30	407	4	0	2	6	824
05:15 PM	27	217	1	245	68	0	66	134	1	351	47	399	2	2	2	6	784
05:30 PM	22	242	0	264	71	0	77	148	0	326	48	374	1	1	1	3	789
05:45 PM	27	224	0	251	58	2	76	136	0	347	50	397	2	2	0	4	788
Total Volume	102	951	2	1055	243	2	289	534	2	1400	175	1577	9	5	5	19	3185
% App. Total	9.7	90.1	0.2		45.5	0.4	54.1		0.1	88.8	11.1		47.4	26.3	26.3		
PHF	.944	.887	.500	.894	.856	.250	.938	.902	.500	.931	.875	.969	.563	.625	.625	.792	.966

City of Alhambra
N/S: Fremont Avenue
E/W: Orange Street
Weather: Clear

File Name : 03_AHBFRROR PM
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				05:00 PM				04:15 PM				04:30 PM			
+0 mins.	28	298	1	327	46	0	70	116	2	388	45	435	1	1	1	3
+15 mins.	26	244	0	270	68	0	66	134	0	354	30	384	2	2	1	5
+30 mins.	34	178	0	212	71	0	77	148	0	349	25	374	4	0	2	6
+45 mins.	26	268	1	295	58	2	76	136	1	376	30	407	2	2	2	6
Total Volume	114	988	2	1104	243	2	289	534	3	1467	130	1600	9	5	6	20
% App. Total	10.3	89.5	0.2		45.5	0.4	54.1		0.2	91.7	8.1		45	25	30	
PHF	.838	.829	.500	.844	.856	.250	.938	.902	.375	.945	.722	.920	.563	.625	.750	.833

Location: Alhambra
N/S: Fremont Avenue
E/W: Orange Street



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

	North Leg Fremont Avenue	East Leg Orange Street	South Leg Fremont Avenue	West Leg Orange Street	TOTAL
7:00 AM	1	1	0	0	2
7:15 AM	0	1	0	0	1
7:30 AM	0	0	0	0	0
7:45 AM	3	4	0	0	7
8:00 AM	1	3	0	0	4
8:15 AM	0	1	0	0	1
8:30 AM	1	2	0	0	3
8:45 AM	1	5	0	0	6
TOTAL VOLUMES:	7	17	0	0	24

	North Leg Fremont Avenue	East Leg Orange Street	South Leg Fremont Avenue	West Leg Orange Street	TOTAL
4:00 PM	0	3	0	0	3
4:15 PM	1	3	0	0	4
4:30 PM	1	2	0	0	3
4:45 PM	3	3	0	0	6
5:00 PM	4	3	0	0	7
5:15 PM	2	4	0	2	8
5:30 PM	0	4	0	0	4
5:45 PM	2	7	0	0	9
TOTAL VOLUMES:	13	29	0	2	44

Location: Alhambra
N/S: Fremont Avenue
E/W: Orange Street



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg Fremont Avenue	East Leg Orange Street	South Leg Fremont Avenue	West Leg Orange Street	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	1	1
	7:30 AM	0	0	0	0	0
	7:45 AM	0	1	0	0	1
	8:00 AM	0	1	0	0	1
	8:15 AM	0	2	0	0	2
	8:30 AM	0	3	0	0	3
	8:45 AM	0	1	0	0	1
TOTAL VOLUMES:		0	8	0	1	9

		North Leg Fremont Avenue	East Leg Orange Street	South Leg Fremont Avenue	West Leg Orange Street	TOTAL
	4:00 PM	0	1	0	1	2
	4:15 PM	0	1	0	0	1
	4:30 PM	0	2	0	0	2
	4:45 PM	0	0	0	0	0
	5:00 PM	1	0	0	0	1
	5:15 PM	0	1	0	0	1
	5:30 PM	1	1	0	0	2
	5:45 PM	0	0	0	1	1
TOTAL VOLUMES:		2	6	0	2	10

City of Alhambra
N/S: Date Avenue
E/W: Orange Street
Weather: Clear

File Name : 04_AHBDAR AM
Site Code : 10817000
Start Date : 4/27/2017
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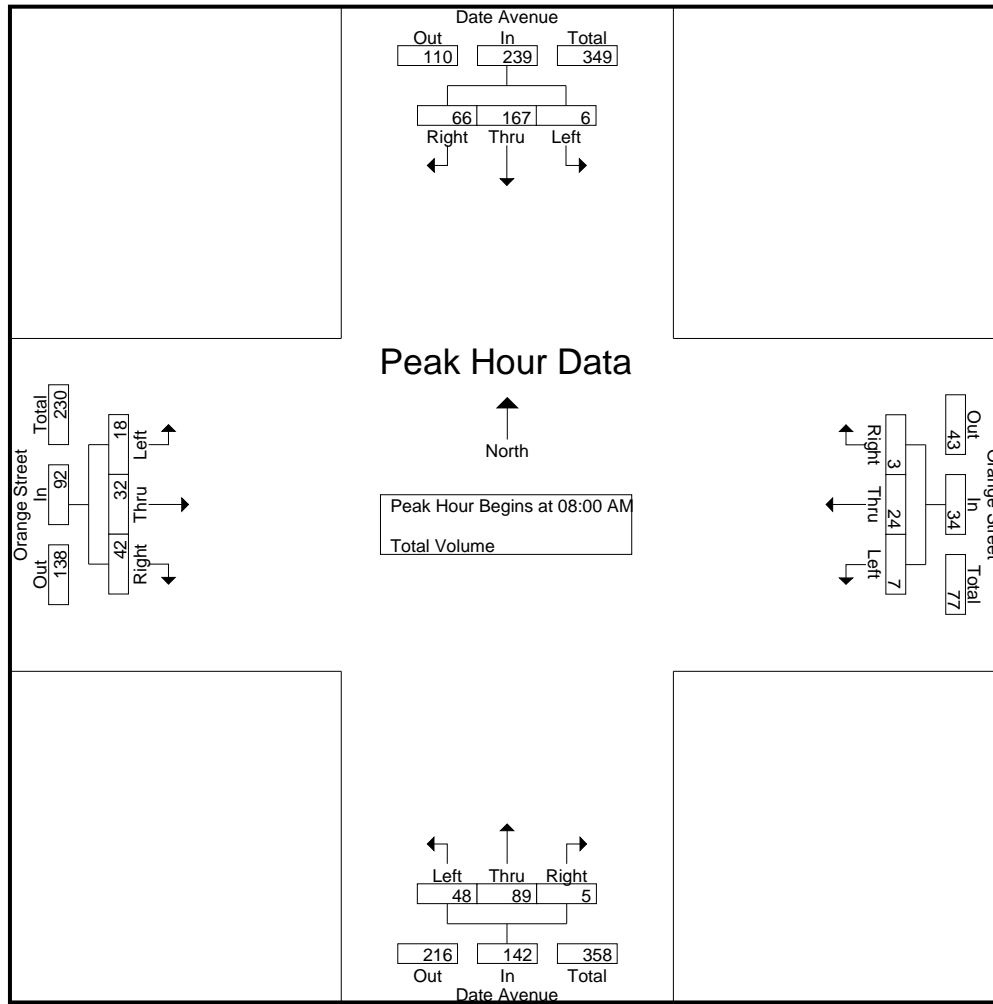
Groups Printed- Total Volume

	Date Avenue Southbound				Orange Street Westbound				Date Avenue Northbound				Orange Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	24	13	37	2	2	0	4	24	35	3	62	5	4	3	12	115
07:15 AM	0	30	26	56	0	3	0	3	20	16	1	37	4	11	6	21	117
07:30 AM	0	37	22	59	1	4	0	5	10	19	1	30	1	11	6	18	112
07:45 AM	1	42	23	66	0	10	1	11	14	20	2	36	3	6	6	15	128
Total	1	133	84	218	3	19	1	23	68	90	7	165	13	32	21	66	472
08:00 AM	1	46	17	64	1	7	1	9	9	26	1	36	2	13	4	19	128
08:15 AM	1	38	17	56	4	4	1	9	15	17	0	32	4	4	9	17	114
08:30 AM	0	44	15	59	1	7	0	8	12	19	1	32	6	8	12	26	125
08:45 AM	4	39	17	60	1	6	1	8	12	27	3	42	6	7	17	30	140
Total	6	167	66	239	7	24	3	34	48	89	5	142	18	32	42	92	507
Grand Total	7	300	150	457	10	43	4	57	116	179	12	307	31	64	63	158	979
Apprch %	1.5	65.6	32.8		17.5	75.4	7		37.8	58.3	3.9		19.6	40.5	39.9		
Total %	0.7	30.6	15.3	46.7	1	4.4	0.4	5.8	11.8	18.3	1.2	31.4	3.2	6.5	6.4	16.1	

	Date Avenue Southbound				Orange Street Westbound				Date Avenue Northbound				Orange Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	1	46	17	64	1	7	1	9	9	26	1	36	2	13	4	19	128
08:15 AM	1	38	17	56	4	4	1	9	15	17	0	32	4	4	9	17	114
08:30 AM	0	44	15	59	1	7	0	8	12	19	1	32	6	8	12	26	125
08:45 AM	4	39	17	60	1	6	1	8	12	27	3	42	6	7	17	30	140
Total Volume	6	167	66	239	7	24	3	34	48	89	5	142	18	32	42	92	507
% App. Total	2.5	69.9	27.6		20.6	70.6	8.8		33.8	62.7	3.5		19.6	34.8	45.7		
PHF	.375	.908	.971	.934	.438	.857	.750	.944	.800	.824	.417	.845	.750	.615	.618	.767	.905

City of Alhambra
N/S: Date Avenue
E/W: Orange Street
Weather: Clear

File Name : 04_AHBDAR AM
Site Code : 10817000
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:45 AM				07:00 AM				08:00 AM			
+0 mins.	0	30	26	56	0	10	1	11	24	35	3	62	2	13	4	19
+15 mins.	0	37	22	59	1	7	1	9	20	16	1	37	4	4	9	17
+30 mins.	1	42	23	66	4	4	1	9	10	19	1	30	6	8	12	26
+45 mins.	1	46	17	64	1	7	0	8	14	20	2	36	6	7	17	30
Total Volume	2	155	88	245	6	28	3	37	68	90	7	165	18	32	42	92
% App. Total	0.8	63.3	35.9		16.2	75.7	8.1		41.2	54.5	4.2		19.6	34.8	45.7	
PHF	.500	.842	.846	.928	.375	.700	.750	.841	.708	.643	.583	.665	.750	.615	.618	.767

City of Alhambra
N/S: Date Avenue
E/W: Orange Street
Weather: Clear

File Name : 04_AHBDAR PM
Site Code : 10817000
Start Date : 4/27/2017
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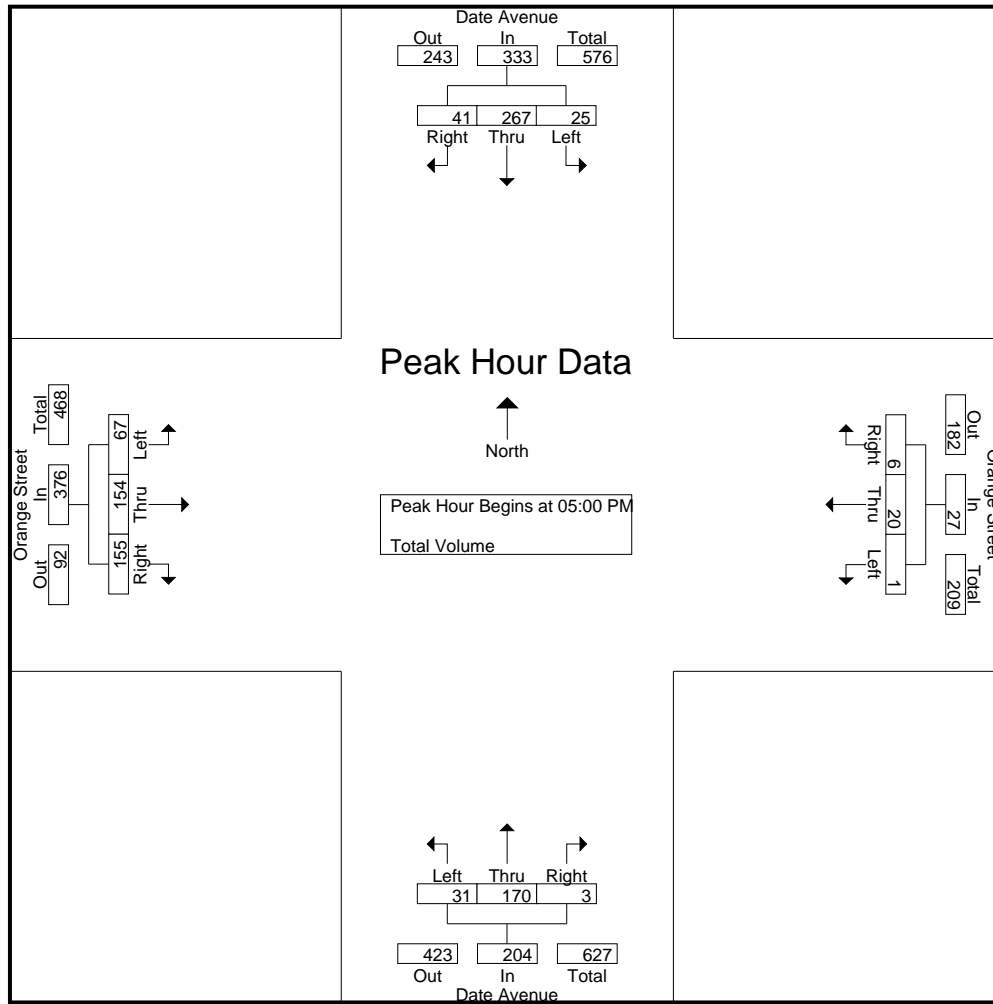
Groups Printed- Total Volume

	Date Avenue Southbound				Orange Street Westbound				Date Avenue Northbound				Orange Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	3	66	18	87	3	8	2	13	16	36	4	56	14	44	95	153	309
04:15 PM	2	46	14	62	0	8	0	8	11	45	1	57	16	24	46	86	213
04:30 PM	1	36	5	42	2	8	0	10	6	41	1	48	15	32	36	83	183
04:45 PM	3	55	11	69	1	5	2	8	11	36	3	50	15	25	31	71	198
Total	9	203	48	260	6	29	4	39	44	158	9	211	60	125	208	393	903
05:00 PM	4	56	5	65	1	5	1	7	5	44	1	50	17	45	37	99	221
05:15 PM	2	79	6	87	0	6	1	7	6	34	0	40	15	42	38	95	229
05:30 PM	12	79	16	107	0	2	2	4	9	45	2	56	16	39	41	96	263
05:45 PM	7	53	14	74	0	7	2	9	11	47	0	58	19	28	39	86	227
Total	25	267	41	333	1	20	6	27	31	170	3	204	67	154	155	376	940
Grand Total	34	470	89	593	7	49	10	66	75	328	12	415	127	279	363	769	1843
Apprch %	5.7	79.3	15		10.6	74.2	15.2		18.1	79	2.9		16.5	36.3	47.2		
Total %	1.8	25.5	4.8	32.2	0.4	2.7	0.5	3.6	4.1	17.8	0.7	22.5	6.9	15.1	19.7	41.7	

	Date Avenue Southbound				Orange Street Westbound				Date Avenue Northbound				Orange Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	4	56	5	65	1	5	1	7	5	44	1	50	17	45	37	99	221
05:15 PM	2	79	6	87	0	6	1	7	6	34	0	40	15	42	38	95	229
05:30 PM	12	79	16	107	0	2	2	4	9	45	2	56	16	39	41	96	263
05:45 PM	7	53	14	74	0	7	2	9	11	47	0	58	19	28	39	86	227
Total Volume	25	267	41	333	1	20	6	27	31	170	3	204	67	154	155	376	940
% App. Total	7.5	80.2	12.3		3.7	74.1	22.2		15.2	83.3	1.5		17.8	41	41.2		
PHF	.521	.845	.641	.778	.250	.714	.750	.750	.705	.904	.375	.879	.882	.856	.945	.949	.894

City of Alhambra
N/S: Date Avenue
E/W: Orange Street
Weather: Clear

File Name : 04_AHBDAR PM
Site Code : 10817000
Start Date : 4/27/2017
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	4	56	5	65	3	8	2	13	16	36	4	56	14	44	95	153
+15 mins.	2	79	6	87	0	8	0	8	11	45	1	57	16	24	46	86
+30 mins.	12	79	16	107	2	8	0	10	6	41	1	48	15	32	36	83
+45 mins.	7	53	14	74	1	5	2	8	11	36	3	50	15	25	31	71
Total Volume	25	267	41	333	6	29	4	39	44	158	9	211	60	125	208	393
% App. Total	7.5	80.2	12.3		15.4	74.4	10.3		20.9	74.9	4.3		15.3	31.8	52.9	
PHF	.521	.845	.641	.778	.500	.906	.500	.750	.688	.878	.563	.925	.938	.710	.547	.642

Location: Alhambra
N/S: Date Avenue
E/W: Orange Street



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

	North Leg Date Avenue	East Leg Orange Street	South Leg Date Avenue	West Leg Orange Street	TOTAL
7:00 AM	2	1	0	0	3
7:15 AM	0	0	0	0	0
7:30 AM	0	2	0	1	3
7:45 AM	0	1	1	1	3
8:00 AM	0	1	2	0	3
8:15 AM	0	1	0	0	1
8:30 AM	0	0	0	0	0
8:45 AM	4	3	3	0	10
TOTAL VOLUMES:	6	9	6	2	23

	North Leg Date Avenue	East Leg Orange Street	South Leg Date Avenue	West Leg Orange Street	TOTAL
4:00 PM	0	0	1	1	2
4:15 PM	0	0	0	2	2
4:30 PM	1	1	1	3	6
4:45 PM	2	0	0	0	2
5:00 PM	0	0	2	0	2
5:15 PM	0	0	0	1	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	1	1	2
TOTAL VOLUMES:	3	1	5	8	17

Location: Alhambra
N/S: Date Avenue
E/W: Orange Street



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg Date Avenue	East Leg Orange Street	South Leg Date Avenue	West Leg Orange Street	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0

		North Leg Date Avenue	East Leg Orange Street	South Leg Date Avenue	West Leg Orange Street	TOTAL
	4:00 PM	0	0	0	0	0
	4:15 PM	1	0	0	0	1
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
TOTAL VOLUMES:		1	0	0	0	1

City of Alhambra
N/S: South Palm Avenue
E/W: Orange Street
Weather: Clear

File Name : 05_AHBPAOR AM
Site Code : 10817000
Start Date : 4/27/2017
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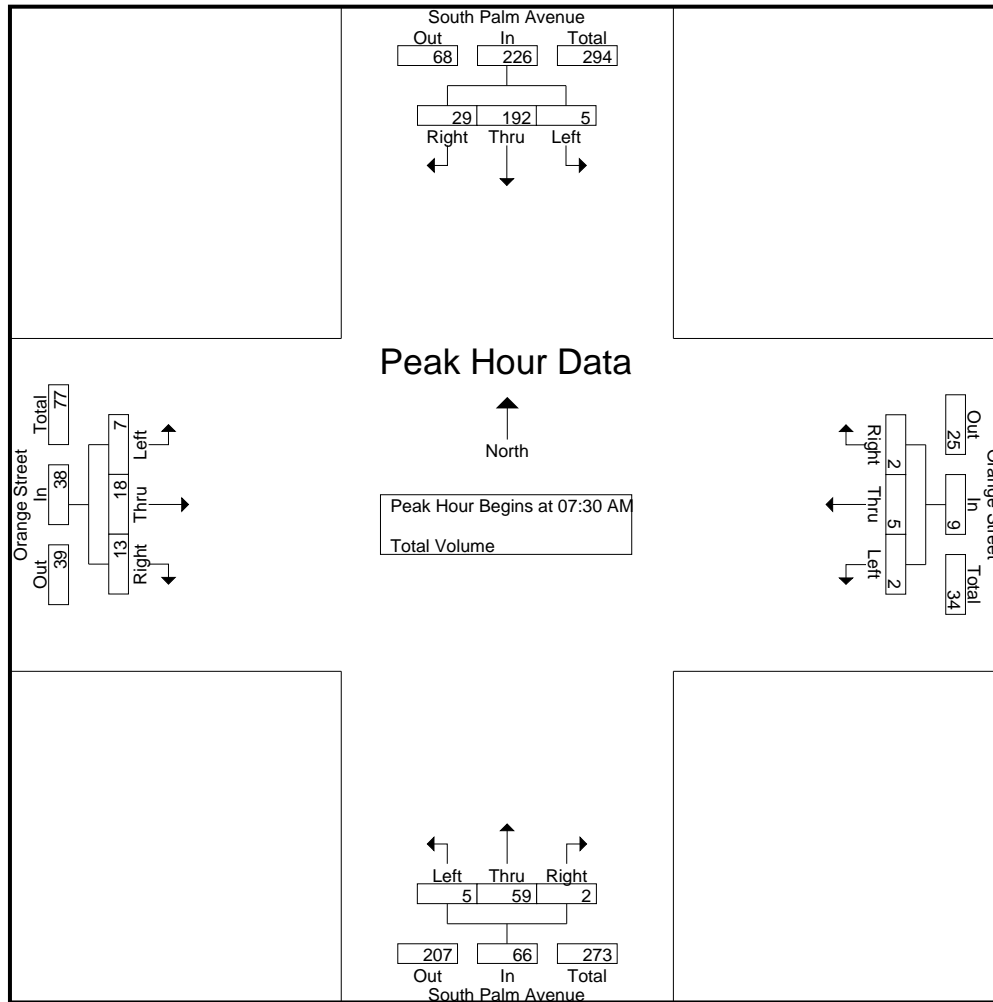
Groups Printed- Total Volume

	South Palm Avenue Southbound				Orange Street Westbound				South Palm Avenue Northbound				Orange Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	11	2	14	0	2	0	2	0	8	1	9	3	2	1	6	31
07:15 AM	1	32	2	35	0	3	1	4	2	16	0	18	4	3	4	11	68
07:30 AM	0	48	5	53	0	1	1	2	1	11	0	12	1	9	2	12	79
07:45 AM	3	56	10	69	1	2	0	3	0	15	1	16	3	1	4	8	96
Total	5	147	19	171	1	8	2	11	3	50	2	55	11	15	11	37	274
08:00 AM	2	40	7	49	1	2	0	3	3	20	1	24	2	7	4	13	89
08:15 AM	0	48	7	55	0	0	1	1	1	13	0	14	1	1	3	5	75
08:30 AM	0	34	5	39	4	3	2	9	0	16	0	16	3	2	3	8	72
08:45 AM	1	41	3	45	0	4	1	5	3	14	1	18	1	3	4	8	76
Total	3	163	22	188	5	9	4	18	7	63	2	72	7	13	14	34	312
Grand Total	8	310	41	359	6	17	6	29	10	113	4	127	18	28	25	71	586
Apprch %	2.2	86.4	11.4		20.7	58.6	20.7		7.9	89	3.1		25.4	39.4	35.2		
Total %	1.4	52.9	7	61.3	1	2.9	1	4.9	1.7	19.3	0.7	21.7	3.1	4.8	4.3	12.1	

	South Palm Avenue Southbound				Orange Street Westbound				South Palm Avenue Northbound				Orange Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	48	5	53	0	1	1	2	1	11	0	12	1	9	2	12	79
07:45 AM	3	56	10	69	1	2	0	3	0	15	1	16	3	1	4	8	96
08:00 AM	2	40	7	49	1	2	0	3	3	20	1	24	2	7	4	13	89
08:15 AM	0	48	7	55	0	0	1	1	1	13	0	14	1	1	3	5	75
Total Volume	5	192	29	226	2	5	2	9	5	59	2	66	7	18	13	38	339
% App. Total	2.2	85	12.8		22.2	55.6	22.2		7.6	89.4	3		18.4	47.4	34.2		
PHF	.417	.857	.725	.819	.500	.625	.500	.750	.417	.738	.500	.688	.583	.500	.813	.731	.883

City of Alhambra
N/S: South Palm Avenue
E/W: Orange Street
Weather: Clear

File Name : 05_AHBPAOR AM
Site Code : 10817000
Start Date : 4/27/2017
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				08:00 AM				08:00 AM				07:15 AM			
+0 mins.	0	48	5	53	1	2	0	3	3	20	1	24	4	3	4	11
+15 mins.	3	56	10	69	0	0	1	1	1	13	0	14	1	9	2	12
+30 mins.	2	40	7	49	4	3	2	9	0	16	0	16	3	1	4	8
+45 mins.	0	48	7	55	0	4	1	5	3	14	1	18	2	7	4	13
Total Volume	5	192	29	226	5	9	4	18	7	63	2	72	10	20	14	44
% App. Total	2.2	85	12.8		27.8	50	22.2		9.7	87.5	2.8		22.7	45.5	31.8	
PHF	.417	.857	.725	.819	.313	.563	.500	.500	.583	.788	.500	.750	.625	.556	.875	.846

City of Alhambra
N/S: South Palm Avenue
E/W: Orange Street
Weather: Clear

File Name : 05_AHBPOR PM
Site Code : 10817000
Start Date : 4/27/2017
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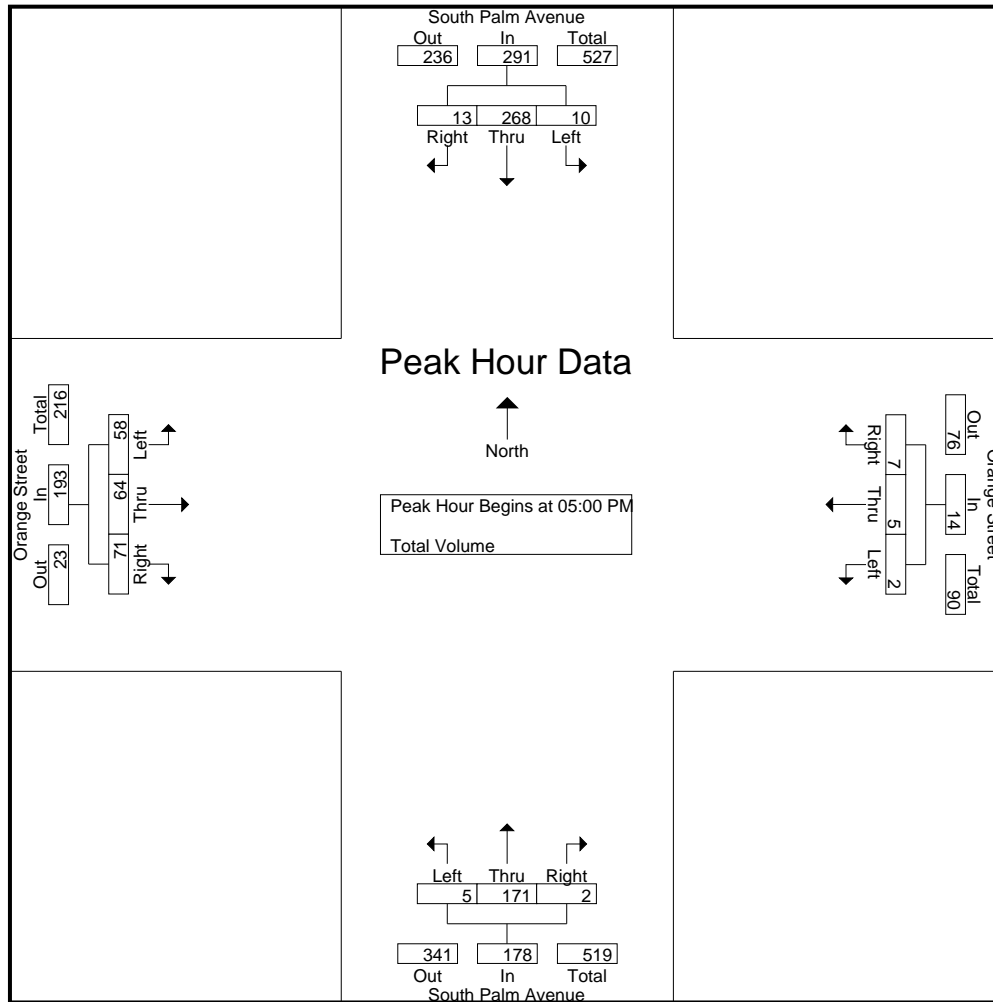
Groups Printed- Total Volume

	South Palm Avenue Southbound				Orange Street Westbound				South Palm Avenue Northbound				Orange Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	85	5	94	1	2	1	4	6	39	0	45	9	18	25	52	195
04:15 PM	2	70	4	76	2	2	1	5	2	39	1	42	4	5	18	27	150
04:30 PM	2	65	5	72	0	3	1	4	0	33	0	33	9	9	18	36	145
04:45 PM	4	54	6	64	0	1	1	2	2	38	0	40	7	9	12	28	134
Total	12	274	20	306	3	8	4	15	10	149	1	160	29	41	73	143	624
05:00 PM	2	48	2	52	2	2	4	8	1	34	1	36	18	19	19	56	152
05:15 PM	1	72	3	76	0	3	1	4	0	44	1	45	11	14	16	41	166
05:30 PM	2	71	1	74	0	0	1	1	2	53	0	55	15	17	30	62	192
05:45 PM	5	77	7	89	0	0	1	1	2	40	0	42	14	14	6	34	166
Total	10	268	13	291	2	5	7	14	5	171	2	178	58	64	71	193	676
Grand Total	22	542	33	597	5	13	11	29	15	320	3	338	87	105	144	336	1300
Apprch %	3.7	90.8	5.5		17.2	44.8	37.9		4.4	94.7	0.9		25.9	31.2	42.9		
Total %	1.7	41.7	2.5	45.9	0.4	1	0.8	2.2	1.2	24.6	0.2	26	6.7	8.1	11.1	25.8	

	South Palm Avenue Southbound				Orange Street Westbound				South Palm Avenue Northbound				Orange Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	2	48	2	52	2	2	4	8	1	34	1	36	18	19	19	56	152
05:15 PM	1	72	3	76	0	3	1	4	0	44	1	45	11	14	16	41	166
05:30 PM	2	71	1	74	0	0	1	1	2	53	0	55	15	17	30	62	192
05:45 PM	5	77	7	89	0	0	1	1	2	40	0	42	14	14	6	34	166
Total Volume	10	268	13	291	2	5	7	14	5	171	2	178	58	64	71	193	676
% App. Total	3.4	92.1	4.5		14.3	35.7	50		2.8	96.1	1.1		30.1	33.2	36.8		
PHF	.500	.870	.464	.817	.250	.417	.438	.438	.625	.807	.500	.809	.806	.842	.592	.778	.880

City of Alhambra
N/S: South Palm Avenue
E/W: Orange Street
Weather: Clear

File Name : 05_AHBPAOR PM
Site Code : 10817000
Start Date : 4/27/2017
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:15 PM				05:00 PM				05:00 PM			
+0 mins.	4	85	5	94	2	2	1	5	1	34	1	36	18	19	19	56
+15 mins.	2	70	4	76	0	3	1	4	0	44	1	45	11	14	16	41
+30 mins.	2	65	5	72	0	1	1	2	2	53	0	55	15	17	30	62
+45 mins.	4	54	6	64	2	2	4	8	2	40	0	42	14	14	6	34
Total Volume	12	274	20	306	4	8	7	19	5	171	2	178	58	64	71	193
% App. Total	3.9	89.5	6.5		21.1	42.1	36.8		2.8	96.1	1.1		30.1	33.2	36.8	
PHF	.750	.806	.833	.814	.500	.667	.438	.594	.625	.807	.500	.809	.806	.842	.592	.778

Location: Alhambra
N/S: South Palm Avenue
E/W: Orange Street



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

		North Leg South Palm Avenue	East Leg Orange Street	South Leg South Palm Avenue	West Leg Orange Street	TOTAL
	7:00 AM	0	0	0	1	1
	7:15 AM	0	1	0	0	1
	7:30 AM	0	1	0	0	1
	7:45 AM	0	0	0	0	0
	8:00 AM	1	2	0	1	4
	8:15 AM	0	5	0	0	5
	8:30 AM	0	5	1	1	7
	8:45 AM	0	5	0	0	5
TOTAL VOLUMES:		1	19	1	3	24

		North Leg South Palm Avenue	East Leg Orange Street	South Leg South Palm Avenue	West Leg Orange Street	TOTAL
	4:00 PM	0	1	1	0	2
	4:15 PM	0	0	0	0	0
	4:30 PM	0	2	2	0	4
	4:45 PM	0	1	0	0	1
	5:00 PM	0	0	1	0	1
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	1	0	1
TOTAL VOLUMES:		0	4	5	0	9

Location: Alhambra
N/S: South Palm Avenue
E/W: Orange Street



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg South Palm Avenue	East Leg Orange Street	South Leg South Palm Avenue	West Leg Orange Street	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0

		North Leg South Palm Avenue	East Leg Orange Street	South Leg South Palm Avenue	West Leg Orange Street	TOTAL
	4:00 PM	0	0	0	0	0
	4:15 PM	1	0	0	1	2
	4:30 PM	0	1	0	0	1
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	1	1
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
TOTAL VOLUMES:		1	1	0	2	4

City of Alhambra
N/S: South Palm Avenue
E/W: Chestnut Street
Weather: Clear

File Name : 06_AHBPACH AM
Site Code : 10817000
Start Date : 4/27/2017
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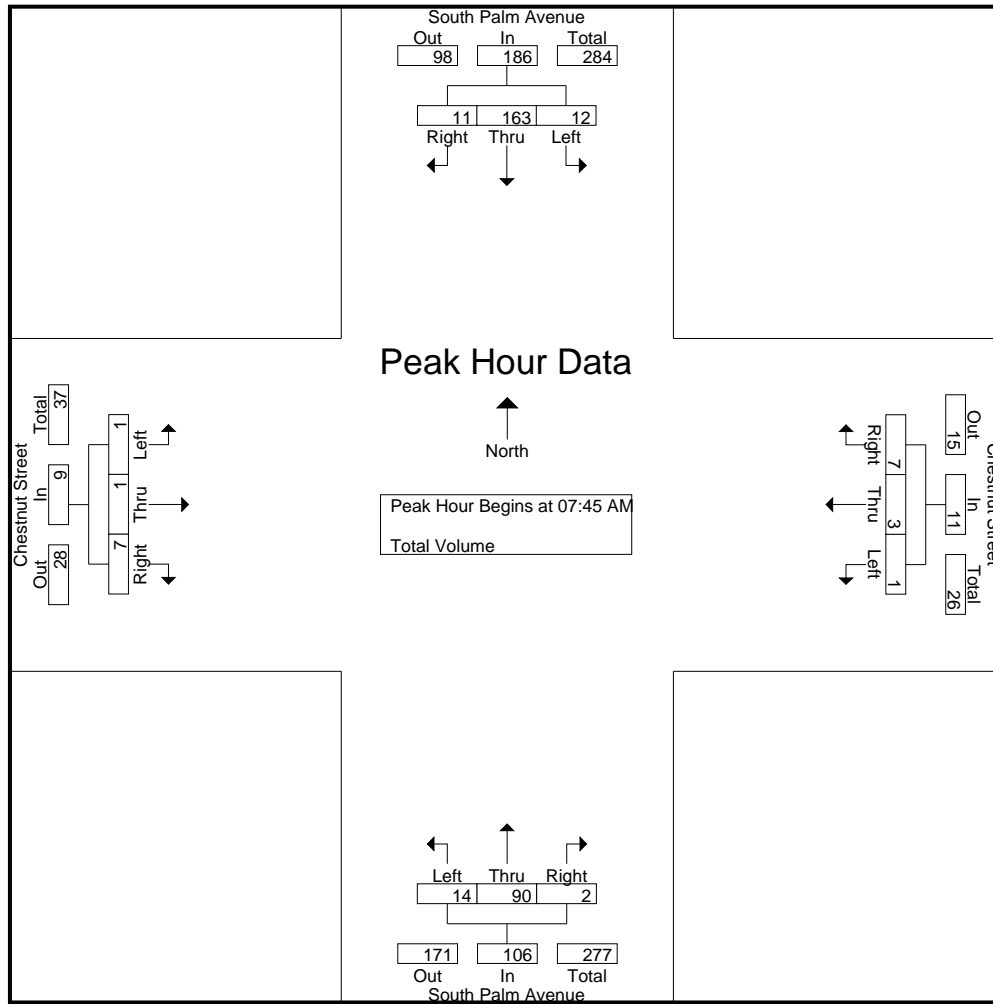
Groups Printed- Total Volume

	South Palm Avenue Southbound				Chestnut Street Westbound				South Palm Avenue Northbound				Chestnut Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	10	1	12	1	0	0	1	2	8	1	11	2	0	0	2	26
07:15 AM	1	33	2	36	1	1	0	2	0	21	2	23	3	1	2	6	67
07:30 AM	3	44	0	47	1	0	1	2	4	12	1	17	0	0	0	0	66
07:45 AM	2	49	2	53	1	2	3	6	5	23	1	29	1	0	2	3	91
Total	7	136	5	148	4	3	4	11	11	64	5	80	6	1	4	11	250
08:00 AM	2	39	3	44	0	0	0	0	4	26	0	30	0	0	1	1	75
08:15 AM	3	44	3	50	0	0	2	2	1	20	1	22	0	0	1	1	75
08:30 AM	5	31	3	39	0	1	2	3	4	21	0	25	0	1	3	4	71
08:45 AM	2	35	3	40	0	0	1	1	3	24	1	28	0	2	5	7	76
Total	12	149	12	173	0	1	5	6	12	91	2	105	0	3	10	13	297
Grand Total	19	285	17	321	4	4	9	17	23	155	7	185	6	4	14	24	547
Apprch %	5.9	88.8	5.3		23.5	23.5	52.9		12.4	83.8	3.8		25	16.7	58.3		
Total %	3.5	52.1	3.1	58.7	0.7	0.7	1.6	3.1	4.2	28.3	1.3	33.8	1.1	0.7	2.6	4.4	

	South Palm Avenue Southbound				Chestnut Street Westbound				South Palm Avenue Northbound				Chestnut Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	2	49	2	53	1	2	3	6	5	23	1	29	1	0	2	3	91
08:00 AM	2	39	3	44	0	0	0	0	4	26	0	30	0	0	1	1	75
08:15 AM	3	44	3	50	0	0	2	2	1	20	1	22	0	0	1	1	75
08:30 AM	5	31	3	39	0	1	2	3	4	21	0	25	0	1	3	4	71
Total Volume	12	163	11	186	1	3	7	11	14	90	2	106	1	1	7	9	312
% App. Total	6.5	87.6	5.9		9.1	27.3	63.6		13.2	84.9	1.9		11.1	11.1	77.8		
PHF	.600	.832	.917	.877	.250	.375	.583	.458	.700	.865	.500	.883	.250	.250	.583	.563	.857

City of Alhambra
N/S: South Palm Avenue
E/W: Chestnut Street
Weather: Clear

File Name : 06_AHBPACH AM
Site Code : 10817000
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:00 AM				07:45 AM				08:00 AM			
+0 mins.	3	44	0	47	1	0	0	1	5	23	1	29	0	0	1	1
+15 mins.	2	49	2	53	1	1	0	2	4	26	0	30	0	0	1	1
+30 mins.	2	39	3	44	1	0	1	2	1	20	1	22	0	1	3	4
+45 mins.	3	44	3	50	1	2	3	6	4	21	0	25	0	2	5	7
Total Volume	10	176	8	194	4	3	4	11	14	90	2	106	0	3	10	13
% App. Total	5.2	90.7	4.1		36.4	27.3	36.4		13.2	84.9	1.9		0	23.1	76.9	
PHF	.833	.898	.667	.915	1.000	.375	.333	.458	.700	.865	.500	.883	.000	.375	.500	.464

City of Alhambra
N/S: South Palm Avenue
E/W: Chestnut Street
Weather: Clear

File Name : 06_AHBPACH PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

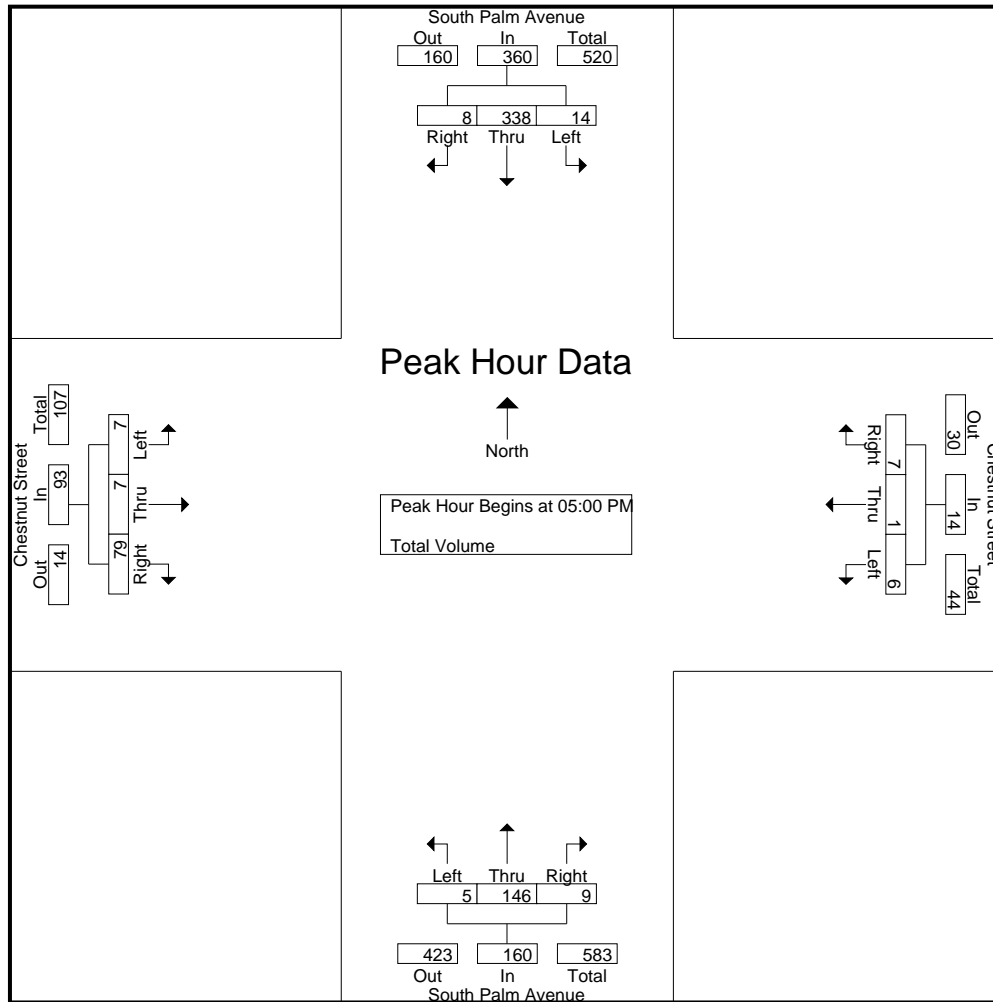
Groups Printed- Total Volume

	South Palm Avenue Southbound				Chestnut Street Westbound				South Palm Avenue Northbound				Chestnut Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	3	106	1	110	1	1	2	4	2	42	2	46	0	4	15	19	179
04:15 PM	1	91	2	94	1	1	0	2	3	38	6	47	2	1	3	6	149
04:30 PM	4	84	1	89	1	0	1	2	1	31	0	32	1	2	18	21	144
04:45 PM	2	70	1	73	4	0	1	5	2	36	1	39	1	1	10	12	129
Total	10	351	5	366	7	2	4	13	8	147	9	164	4	8	46	58	601
05:00 PM	3	72	2	77	3	1	3	7	0	26	2	28	1	1	13	15	127
05:15 PM	4	87	1	92	1	0	0	1	1	38	5	44	2	2	22	26	163
05:30 PM	5	93	5	103	2	0	4	6	2	47	1	50	1	1	25	27	186
05:45 PM	2	86	0	88	0	0	0	0	2	35	1	38	3	3	19	25	151
Total	14	338	8	360	6	1	7	14	5	146	9	160	7	7	79	93	627
Grand Total	24	689	13	726	13	3	11	27	13	293	18	324	11	15	125	151	1228
Apprch %	3.3	94.9	1.8		48.1	11.1	40.7		4	90.4	5.6		7.3	9.9	82.8		
Total %	2	56.1	1.1	59.1	1.1	0.2	0.9	2.2	1.1	23.9	1.5	26.4	0.9	1.2	10.2	12.3	

	South Palm Avenue Southbound				Chestnut Street Westbound				South Palm Avenue Northbound				Chestnut Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	3	72	2	77	3	1	3	7	0	26	2	28	1	1	13	15	127
05:15 PM	4	87	1	92	1	0	0	1	1	38	5	44	2	2	22	26	163
05:30 PM	5	93	5	103	2	0	4	6	2	47	1	50	1	1	25	27	186
05:45 PM	2	86	0	88	0	0	0	0	2	35	1	38	3	3	19	25	151
Total Volume	14	338	8	360	6	1	7	14	5	146	9	160	7	7	79	93	627
% App. Total	3.9	93.9	2.2		42.9	7.1	50		3.1	91.2	5.6		7.5	7.5	84.9		
PHF	.700	.909	.400	.874	.500	.250	.438	.500	.625	.777	.450	.800	.583	.583	.790	.861	.843

City of Alhambra
N/S: South Palm Avenue
E/W: Chestnut Street
Weather: Clear

File Name : 06_AHBPACH PM
Site Code : 10817000
Start Date : 4/27/2017
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:45 PM				05:00 PM				05:45 PM			
+0 mins.	3	106	1	110	4	0	1	5	2	42	2	46	1	1	13	15
+15 mins.	1	91	2	94	3	1	3	7	3	38	6	47	2	2	22	26
+30 mins.	4	84	1	89	1	0	0	1	1	31	0	32	1	1	25	27
+45 mins.	2	70	1	73	2	0	4	6	2	36	1	39	3	3	19	25
Total Volume	10	351	5	366	10	1	8	19	8	147	9	164	7	7	79	93
% App. Total	2.7	95.9	1.4		52.6	5.3	42.1		4.9	89.6	5.5		7.5	7.5	84.9	
PHF	.625	.828	.625	.832	.625	.250	.500	.679	.667	.875	.375	.872	.583	.583	.790	.861

Location: Alhambra
N/S: South Palm Avenue
E/W: Chestnut Street



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

		North Leg South Palm Avenue	East Leg Chestnut Street	South Leg South Palm Avenue	West Leg Chestnut Street	TOTAL
	7:00 AM	1	0	0	0	1
	7:15 AM	2	0	0	0	2
	7:30 AM	2	1	0	0	3
	7:45 AM	6	1	0	1	8
	8:00 AM	4	1	0	1	6
	8:15 AM	5	3	0	1	9
	8:30 AM	8	3	1	2	14
	8:45 AM	7	6	0	0	13
TOTAL VOLUMES:		35	15	1	5	56

		North Leg South Palm Avenue	East Leg Chestnut Street	South Leg South Palm Avenue	West Leg Chestnut Street	TOTAL
	4:00 PM	6	1	1	0	8
	4:15 PM	5	1	0	0	6
	4:30 PM	7	0	0	4	11
	4:45 PM	2	0	0	0	2
	5:00 PM	1	1	0	1	3
	5:15 PM	0	0	0	0	0
	5:30 PM	10	2	0	2	14
	5:45 PM	5	0	0	0	5
TOTAL VOLUMES:		36	5	1	7	49

Location: Alhambra
N/S: South Palm Avenue
E/W: Chestnut Street



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg South Palm Avenue	East Leg Chestnut Street	South Leg South Palm Avenue	West Leg Chestnut Street	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	1	0	0	1
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
TOTAL VOLUMES:		0	1	0	0	1

		North Leg South Palm Avenue	East Leg Chestnut Street	South Leg South Palm Avenue	West Leg Chestnut Street	TOTAL
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	1	1
	4:30 PM	0	0	0	1	1
	4:45 PM	0	2	0	0	2
	5:00 PM	0	2	0	0	2
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
TOTAL VOLUMES:		0	4	0	2	6

City of Alhambra
N/S: South Fremont Avenue
E/W: Poplar Boulevard
Weather: Clear

File Name : 07_AHBFRO AM
Site Code : 10817000
Start Date : 4/27/2017
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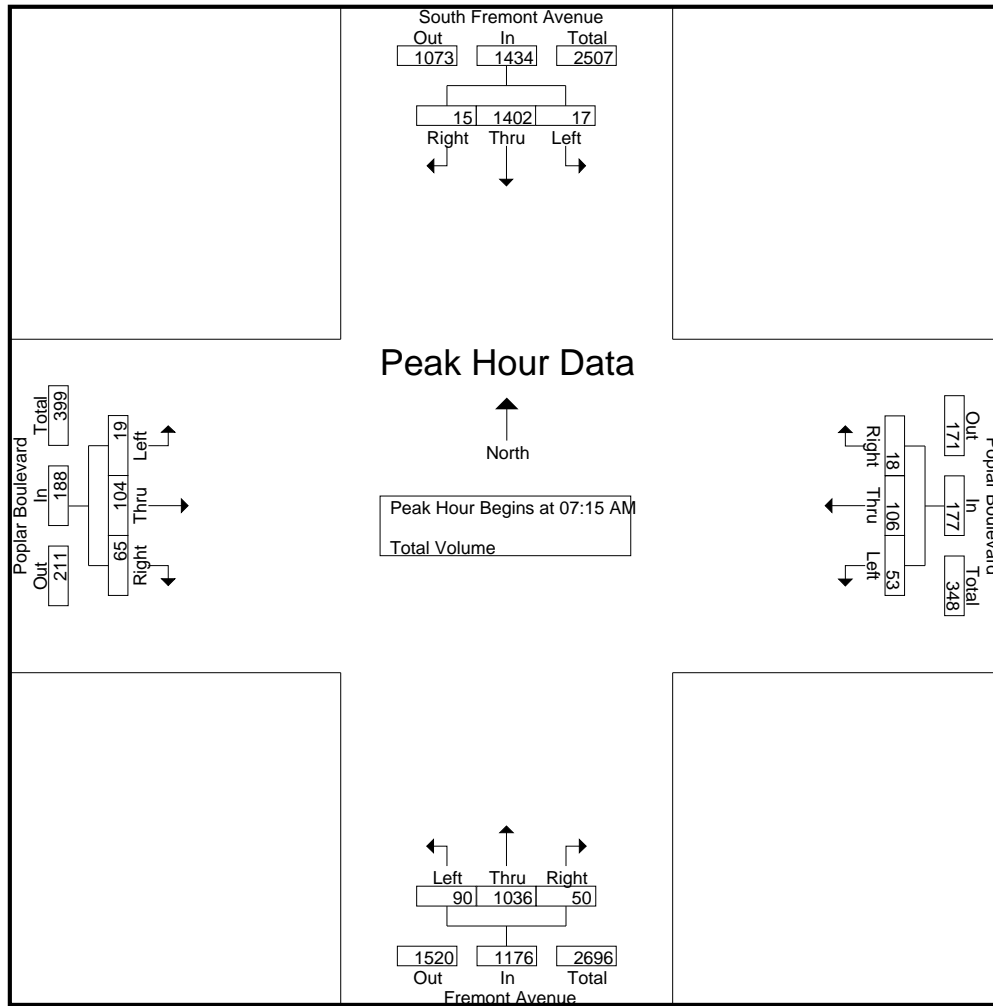
Groups Printed- Total Volume

	South Fremont Avenue Southbound				Poplar Boulevard Westbound				Fremont Avenue Northbound				Poplar Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	376	1	380	14	6	5	25	17	226	9	252	7	6	12	25	682
07:15 AM	4	390	3	397	15	18	3	36	21	280	11	312	5	18	17	40	785
07:30 AM	3	346	3	352	12	34	2	48	22	241	9	272	7	29	13	49	721
07:45 AM	2	345	5	352	12	31	7	50	28	259	17	304	4	28	19	51	757
Total	12	1457	12	1481	53	89	17	159	88	1006	46	1140	23	81	61	165	2945
08:00 AM	8	321	4	333	14	23	6	43	19	256	13	288	3	29	16	48	712
08:15 AM	7	342	5	354	12	25	5	42	19	258	13	290	5	20	18	43	729
08:30 AM	3	379	2	384	12	19	7	38	13	251	9	273	5	14	19	38	733
08:45 AM	5	318	6	329	12	19	8	39	25	247	10	282	8	12	25	45	695
Total	23	1360	17	1400	50	86	26	162	76	1012	45	1133	21	75	78	174	2869
Grand Total	35	2817	29	2881	103	175	43	321	164	2018	91	2273	44	156	139	339	5814
Apprch %	1.2	97.8	1		32.1	54.5	13.4		7.2	88.8	4		13	46	41		
Total %	0.6	48.5	0.5	49.6	1.8	3	0.7	5.5	2.8	34.7	1.6	39.1	0.8	2.7	2.4	5.8	

	South Fremont Avenue Southbound				Poplar Boulevard Westbound				Fremont Avenue Northbound				Poplar Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	4	390	3	397	15	18	3	36	21	280	11	312	5	18	17	40	785
07:30 AM	3	346	3	352	12	34	2	48	22	241	9	272	7	29	13	49	721
07:45 AM	2	345	5	352	12	31	7	50	28	259	17	304	4	28	19	51	757
08:00 AM	8	321	4	333	14	23	6	43	19	256	13	288	3	29	16	48	712
Total Volume	17	1402	15	1434	53	106	18	177	90	1036	50	1176	19	104	65	188	2975
% App. Total	1.2	97.8	1		29.9	59.9	10.2		7.7	88.1	4.3		10.1	55.3	34.6		
PHF	.531	.899	.750	.903	.883	.779	.643	.885	.804	.925	.735	.942	.679	.897	.855	.922	.947

City of Alhambra
N/S: South Fremont Avenue
E/W: Poplar Boulevard
Weather: Clear

File Name : 07_AHBFRO AM
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:30 AM				07:15 AM				07:30 AM			
+0 mins.	3	376	1	380	12	34	2	48	21	280	11	312	7	29	13	49
+15 mins.	4	390	3	397	12	31	7	50	22	241	9	272	4	28	19	51
+30 mins.	3	346	3	352	14	23	6	43	28	259	17	304	3	29	16	48
+45 mins.	2	345	5	352	12	25	5	42	19	256	13	288	5	20	18	43
Total Volume	12	1457	12	1481	50	113	20	183	90	1036	50	1176	19	106	66	191
% App. Total	0.8	98.4	0.8		27.3	61.7	10.9		7.7	88.1	4.3		9.9	55.5	34.6	
PHF	.750	.934	.600	.933	.893	.831	.714	.915	.804	.925	.735	.942	.679	.914	.868	.936

City of Alhambra
N/S: South Fremont Avenue
E/W: Poplar Boulevard
Weather: Clear

File Name : 07_AHBFRO PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

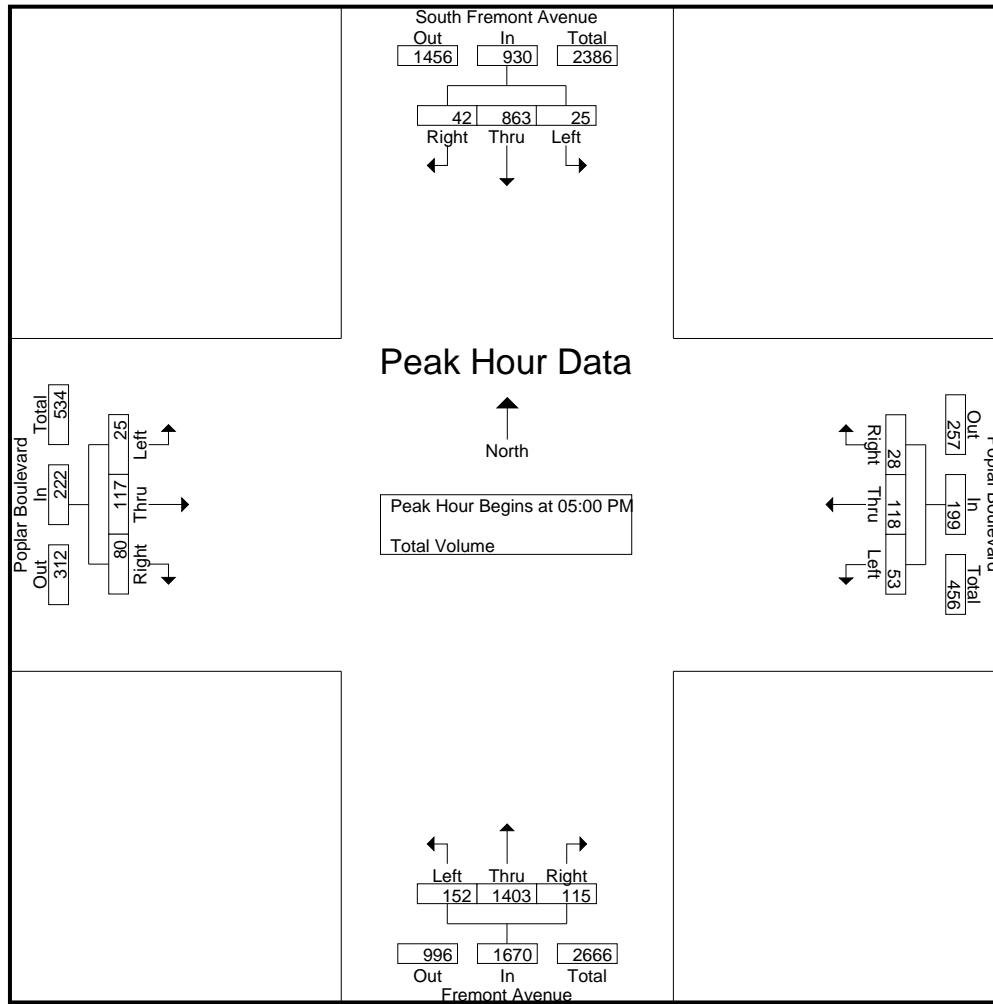
Groups Printed- Total Volume

	South Fremont Avenue Southbound				Poplar Boulevard Westbound				Fremont Avenue Northbound				Poplar Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	17	186	14	217	9	15	7	31	40	225	29	294	13	39	15	67	609
04:15 PM	5	178	12	195	11	31	7	49	27	354	23	404	10	28	18	56	704
04:30 PM	10	197	8	215	10	27	12	49	25	342	21	388	7	23	23	53	705
04:45 PM	5	242	9	256	9	25	5	39	28	313	28	369	5	24	25	54	718
Total	37	803	43	883	39	98	31	168	120	1234	101	1455	35	114	81	230	2736
05:00 PM	4	212	7	223	17	30	2	49	43	344	33	420	8	30	24	62	754
05:15 PM	8	226	15	249	11	27	6	44	35	392	26	453	3	27	13	43	789
05:30 PM	6	204	9	219	15	32	8	55	39	326	28	393	5	32	19	56	723
05:45 PM	7	221	11	239	10	29	12	51	35	341	28	404	9	28	24	61	755
Total	25	863	42	930	53	118	28	199	152	1403	115	1670	25	117	80	222	3021
Grand Total	62	1666	85	1813	92	216	59	367	272	2637	216	3125	60	231	161	452	5757
Apprch %	3.4	91.9	4.7		25.1	58.9	16.1		8.7	84.4	6.9		13.3	51.1	35.6		
Total %	1.1	28.9	1.5	31.5	1.6	3.8	1	6.4	4.7	45.8	3.8	54.3	1	4	2.8	7.9	

	South Fremont Avenue Southbound				Poplar Boulevard Westbound				Fremont Avenue Northbound				Poplar Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	4	212	7	223	17	30	2	49	43	344	33	420	8	30	24	62	754
05:15 PM	8	226	15	249	11	27	6	44	35	392	26	453	3	27	13	43	789
05:30 PM	6	204	9	219	15	32	8	55	39	326	28	393	5	32	19	56	723
05:45 PM	7	221	11	239	10	29	12	51	35	341	28	404	9	28	24	61	755
Total Volume	25	863	42	930	53	118	28	199	152	1403	115	1670	25	117	80	222	3021
% App. Total	2.7	92.8	4.5		26.6	59.3	14.1		9.1	84	6.9		11.3	52.7	36		
PHF	.781	.955	.700	.934	.779	.922	.583	.905	.884	.895	.871	.922	.694	.914	.833	.895	.957

City of Alhambra
N/S: South Fremont Avenue
E/W: Poplar Boulevard
Weather: Clear

File Name : 07_AHBFRO PM
Site Code : 10817000
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				05:00 PM				05:00 PM				04:00 PM			
+0 mins.	5	242	9	256	17	30	2	49	43	344	33	420	13	39	15	67
+15 mins.	4	212	7	223	11	27	6	44	35	392	26	453	10	28	18	56
+30 mins.	8	226	15	249	15	32	8	55	39	326	28	393	7	23	23	53
+45 mins.	6	204	9	219	10	29	12	51	35	341	28	404	5	24	25	54
Total Volume	23	884	40	947	53	118	28	199	152	1403	115	1670	35	114	81	230
% App. Total	2.4	93.3	4.2		26.6	59.3	14.1		9.1	84	6.9		15.2	49.6	35.2	
PHF	.719	.913	.667	.925	.779	.922	.583	.905	.884	.895	.871	.922	.673	.731	.810	.858

Location: Alhambra
 N/S: South Fremont Avenue
 E/W: Poplar Boulevard



Date: 4/27/2017
 Day: Thursday

PEDESTRIANS

	North Leg South Fremont Avenue	East Leg Poplar Boulevard	South Leg South Fremont Avenue	West Leg Poplar Boulevard	TOTAL
7:00 AM	1	0	0	0	1
7:15 AM	0	0	0	0	0
7:30 AM	5	0	3	0	8
7:45 AM	5	1	0	2	8
8:00 AM	2	1	2	2	7
8:15 AM	0	2	0	2	4
8:30 AM	1	1	1	0	3
8:45 AM	0	1	1	0	2
TOTAL VOLUMES:	14	6	7	6	33

	North Leg South Fremont Avenue	East Leg Poplar Boulevard	South Leg South Fremont Avenue	West Leg Poplar Boulevard	TOTAL
4:00 PM	1	2	0	0	3
4:15 PM	1	2	0	0	3
4:30 PM	1	1	0	1	3
4:45 PM	0	2	2	3	7
5:00 PM	3	2	0	0	5
5:15 PM	0	0	0	0	0
5:30 PM	0	2	0	0	2
5:45 PM	1	0	0	0	1
TOTAL VOLUMES:	7	11	2	4	24

Location: Alhambra
 N/S: South Fremont Avenue
 E/W: Poplar Boulevard



Date: 4/27/2017
 Day: Thursday

BICYCLES

	North Leg South Fremont Avenue	East Leg Poplar Boulevard	South Leg South Fremont Avenue	West Leg Poplar Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	1	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	1	0	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	1	1	0	2

	North Leg South Fremont Avenue	East Leg Poplar Boulevard	South Leg South Fremont Avenue	West Leg Poplar Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	1	0	0	1
4:45 PM	0	0	0	0	0
5:00 PM	1	0	3	0	4
5:15 PM	0	2	0	1	3
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	3	3	1	8

City of Alhambra
N/S: Date Avenue
E/W: West Mission Road
Weather: Clear

File Name : 08_AHBDAMI AM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

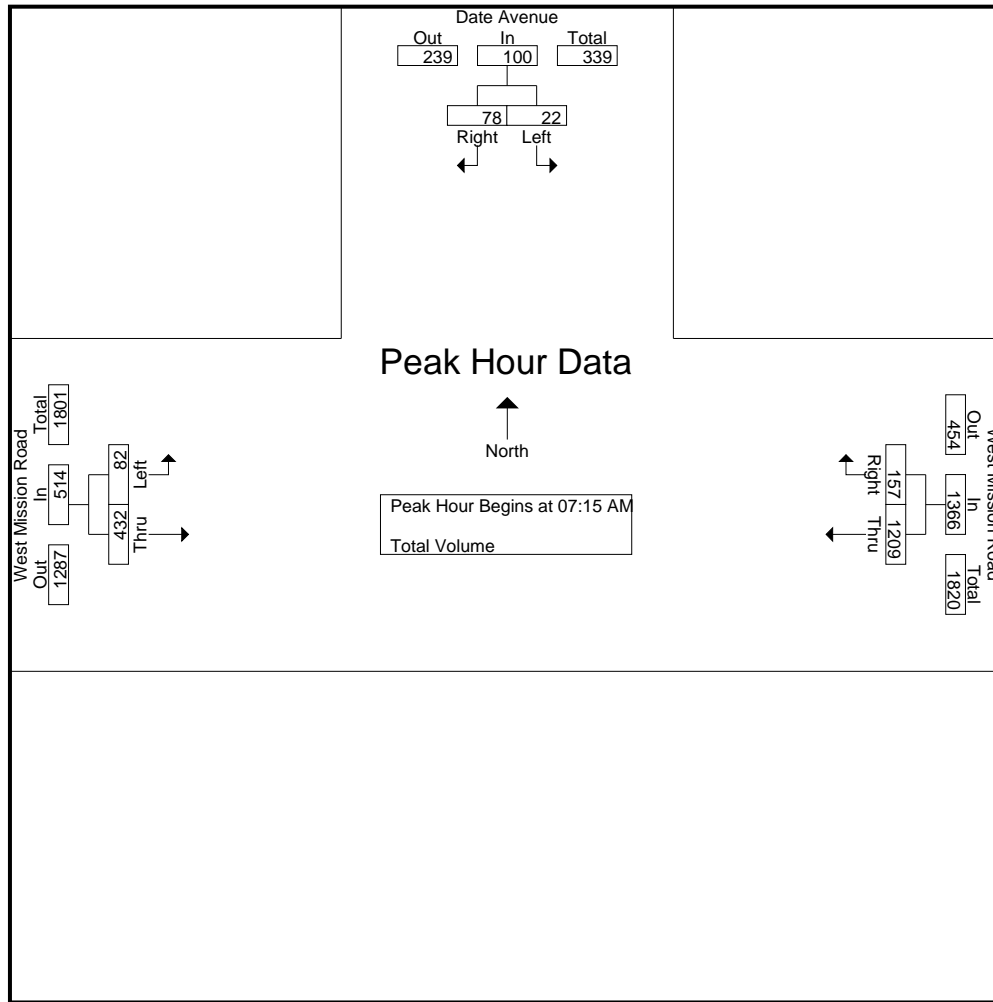
Groups Printed- Total Volume

	Date Avenue Southbound			West Mission Road Westbound			West Mission Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	5	12	17	229	57	286	24	53	77	380
07:15 AM	4	18	22	283	46	329	17	95	112	463
07:30 AM	4	13	17	320	37	357	15	106	121	495
07:45 AM	7	28	35	283	44	327	27	134	161	523
Total	20	71	91	1115	184	1299	83	388	471	1861
08:00 AM	7	19	26	323	30	353	23	97	120	499
08:15 AM	17	20	37	285	42	327	16	83	99	463
08:30 AM	12	27	39	255	39	294	18	87	105	438
08:45 AM	17	19	36	248	45	293	26	99	125	454
Total	53	85	138	1111	156	1267	83	366	449	1854
Grand Total	73	156	229	2226	340	2566	166	754	920	3715
Apprch %	31.9	68.1		86.7	13.3		18	82		
Total %	2	4.2	6.2	59.9	9.2	69.1	4.5	20.3	24.8	

	Date Avenue Southbound			West Mission Road Westbound			West Mission Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	4	18	22	283	46	329	17	95	112	463
07:30 AM	4	13	17	320	37	357	15	106	121	495
07:45 AM	7	28	35	283	44	327	27	134	161	523
08:00 AM	7	19	26	323	30	353	23	97	120	499
Total Volume	22	78	100	1209	157	1366	82	432	514	1980
% App. Total	22	78		88.5	11.5		16	84		
PHF	.786	.696	.714	.936	.853	.957	.759	.806	.798	.946

City of Alhambra
N/S: Date Avenue
E/W: West Mission Road
Weather: Clear

File Name : 08_AHBDAMI AM
Site Code : 10817000
Start Date : 4/27/2017
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM			07:15 AM			07:15 AM		
+0 mins.	7	19	26	283	46	329	17	95	112
+15 mins.	17	20	37	320	37	357	15	106	121
+30 mins.	12	27	39	283	44	327	27	134	161
+45 mins.	17	19	36	323	30	353	23	97	120
Total Volume	53	85	138	1209	157	1366	82	432	514
% App. Total	38.4	61.6		88.5	11.5		16	84	
PHF	.779	.787	.885	.936	.853	.957	.759	.806	.798

City of Alhambra
N/S: Date Avenue
E/W: West Mission Road
Weather: Clear

File Name : 08_AHBDAMI PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

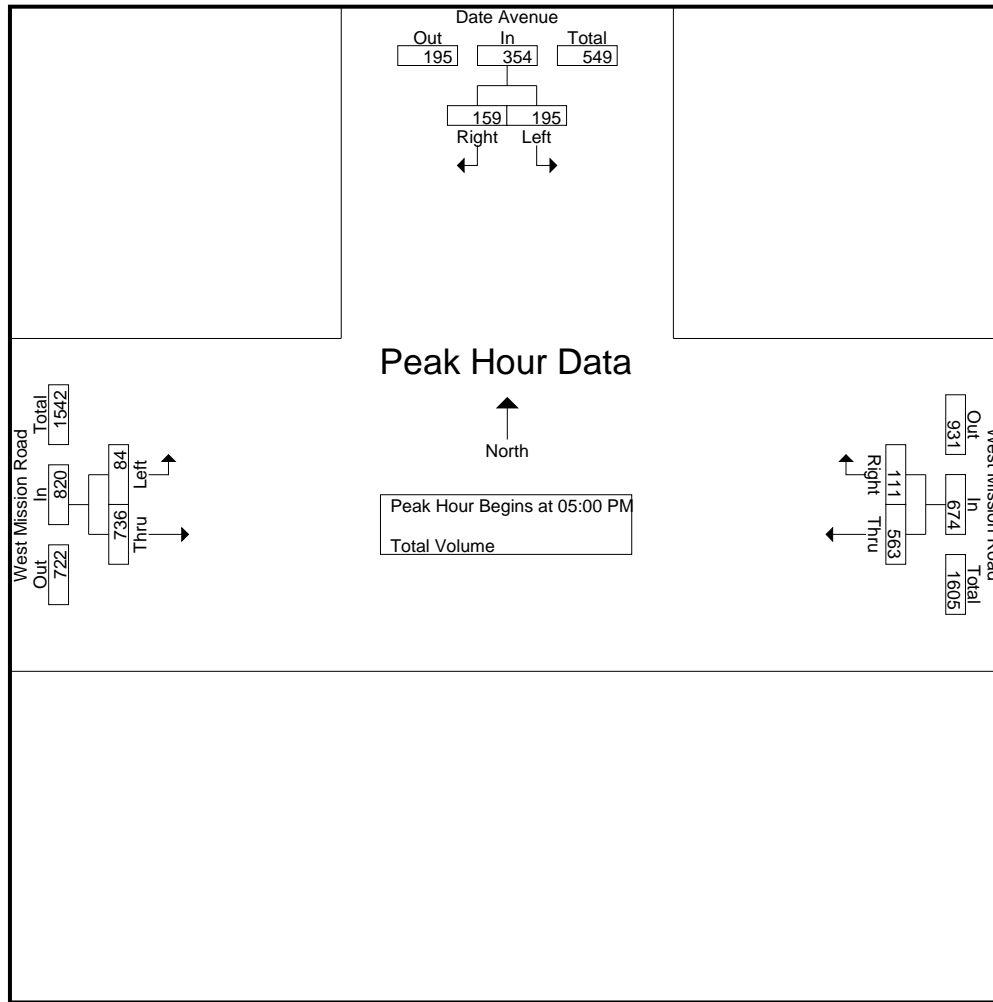
Groups Printed- Total Volume

	Date Avenue Southbound			West Mission Road Westbound			West Mission Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	74	64	138	114	41	155	21	117	138	431
04:15 PM	62	49	111	110	38	148	17	166	183	442
04:30 PM	39	25	64	126	30	156	17	174	191	411
04:45 PM	42	31	73	122	22	144	17	195	212	429
Total	217	169	386	472	131	603	72	652	724	1713
05:00 PM	46	37	83	146	29	175	19	196	215	473
05:15 PM	56	44	100	131	20	151	14	167	181	432
05:30 PM	43	47	90	148	32	180	25	194	219	489
05:45 PM	50	31	81	138	30	168	26	179	205	454
Total	195	159	354	563	111	674	84	736	820	1848
Grand Total	412	328	740	1035	242	1277	156	1388	1544	3561
Apprch %	55.7	44.3		81	19		10.1	89.9		
Total %	11.6	9.2	20.8	29.1	6.8	35.9	4.4	39	43.4	

	Date Avenue Southbound			West Mission Road Westbound			West Mission Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	46	37	83	146	29	175	19	196	215	473
05:15 PM	56	44	100	131	20	151	14	167	181	432
05:30 PM	43	47	90	148	32	180	25	194	219	489
05:45 PM	50	31	81	138	30	168	26	179	205	454
Total Volume	195	159	354	563	111	674	84	736	820	1848
% App. Total	55.1	44.9		83.5	16.5		10.2	89.8		
PHF	.871	.846	.885	.951	.867	.936	.808	.939	.936	.945

City of Alhambra
N/S: Date Avenue
E/W: West Mission Road
Weather: Clear

File Name : 08_AHBDAMI PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			05:00 PM			04:45 PM		
+0 mins.	74	64	138	146	29	175	17	195	212
+15 mins.	62	49	111	131	20	151	19	196	215
+30 mins.	39	25	64	148	32	180	14	167	181
+45 mins.	42	31	73	138	30	168	25	194	219
Total Volume	217	169	386	563	111	674	75	752	827
% App. Total	56.2	43.8		83.5	16.5		9.1	90.9	
PHF	.733	.660	.699	.951	.867	.936	.750	.959	.944

Location: Alhambra
N/S: Date Avenue
E/W: West Mission Road



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

		North Leg Date Avenue	East Leg West Mission Road	South Leg Date Avenue	West Leg West Mission Road	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	1	0	0	0	1
	7:45 AM	1	0	0	0	1
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	2	0	0	0	2
TOTAL VOLUMES:		4	0	0	0	4

		North Leg Date Avenue	East Leg West Mission Road	South Leg Date Avenue	West Leg West Mission Road	TOTAL
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	2	0	0	0	2
	4:45 PM	2	0	0	0	2
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	2	0	0	0	2
	5:45 PM	0	0	0	0	0
TOTAL VOLUMES:		6	0	0	0	6

Location: Alhambra
N/S: Date Avenue
E/W: West Mission Road



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg Date Avenue	East Leg West Mission Road	South Leg Date Avenue	West Leg West Mission Road	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	1	0	0	0	1
	7:30 AM	0	0	0	0	0
	7:45 AM	1	0	0	0	1
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	1	0	0	0	1
TOTAL VOLUMES:		3	0	0	0	3

		North Leg Date Avenue	East Leg West Mission Road	South Leg Date Avenue	West Leg West Mission Road	TOTAL
	4:00 PM	0	0	0	0	0
	4:15 PM	4	0	0	0	4
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	1	0	0	0	1
	5:45 PM	0	0	0	0	0
TOTAL VOLUMES:		5	0	0	0	5

City of Alhambra
N/S: Date Avenue
E/W: Chestnut Street
Weather: Clear

File Name : 09_AHBDACH AM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

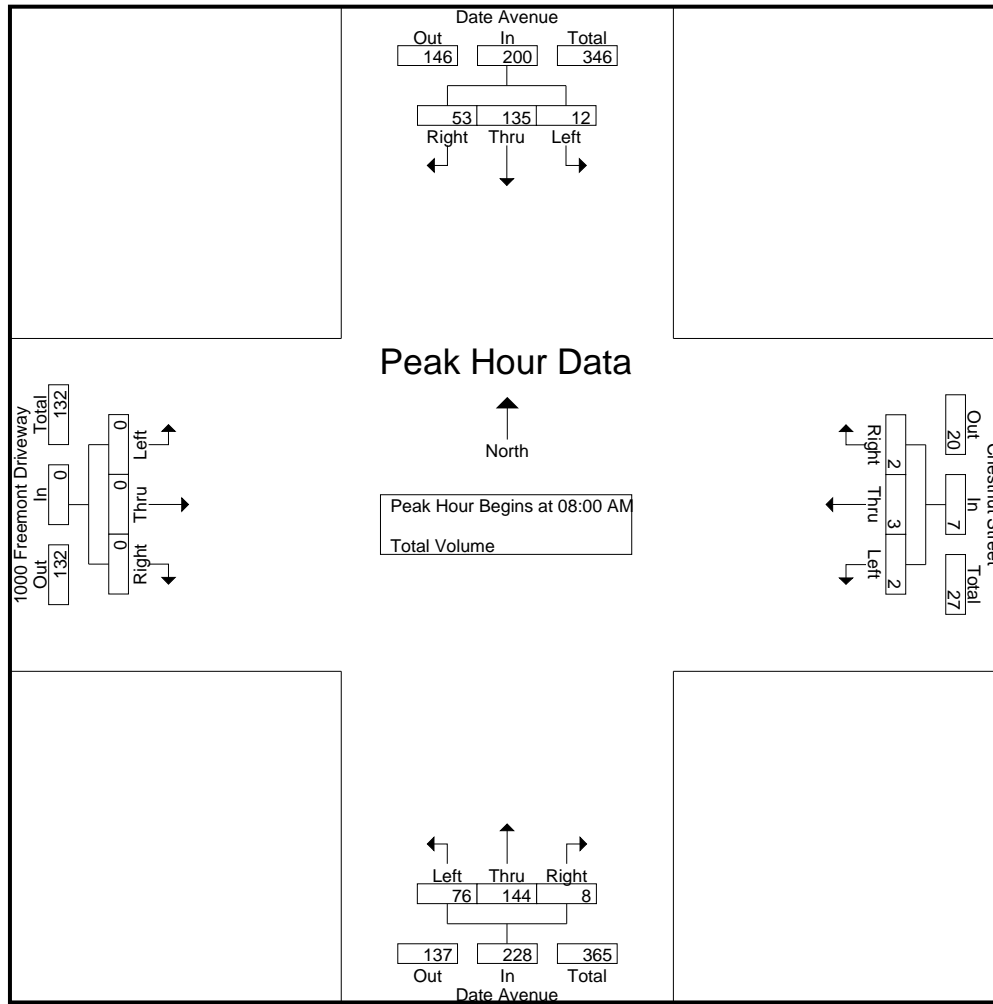
Groups Printed- Total Volume

	Date Avenue Southbound				Chestnut Street Westbound				Date Avenue Northbound				1000 Freemont Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	15	9	25	0	2	1	3	18	59	4	81	0	0	0	0	109
07:15 AM	6	22	11	39	0	1	0	1	24	37	2	63	0	0	0	0	103
07:30 AM	0	20	22	42	0	1	1	2	21	29	1	51	0	0	0	0	95
07:45 AM	5	32	11	48	1	1	0	2	27	40	0	67	0	0	0	0	117
Total	12	89	53	154	1	5	2	8	90	165	7	262	0	0	0	0	424
08:00 AM	3	28	18	49	1	1	0	2	13	36	1	50	0	0	0	0	101
08:15 AM	2	30	12	44	0	1	0	1	23	34	0	57	0	0	0	0	102
08:30 AM	2	38	14	54	1	0	1	2	16	32	3	51	0	0	0	0	107
08:45 AM	5	39	9	53	0	1	1	2	24	42	4	70	0	0	0	0	125
Total	12	135	53	200	2	3	2	7	76	144	8	228	0	0	0	0	435
Grand Total	24	224	106	354	3	8	4	15	166	309	15	490	0	0	0	0	859
Apprch %	6.8	63.3	29.9		20	53.3	26.7		33.9	63.1	3.1		0	0	0		
Total %	2.8	26.1	12.3	41.2	0.3	0.9	0.5	1.7	19.3	36	1.7	57	0	0	0	0	

	Date Avenue Southbound				Chestnut Street Westbound				Date Avenue Northbound				1000 Freemont Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	3	28	18	49	1	1	0	2	13	36	1	50	0	0	0	0	101
08:15 AM	2	30	12	44	0	1	0	1	23	34	0	57	0	0	0	0	102
08:30 AM	2	38	14	54	1	0	1	2	16	32	3	51	0	0	0	0	107
08:45 AM	5	39	9	53	0	1	1	2	24	42	4	70	0	0	0	0	125
Total Volume	12	135	53	200	2	3	2	7	76	144	8	228	0	0	0	0	435
% App. Total	6	67.5	26.5		28.6	42.9	28.6		33.3	63.2	3.5		0	0	0		
PHF	.600	.865	.736	.926	.500	.750	.500	.875	.792	.857	.500	.814	.000	.000	.000	.000	.870

City of Alhambra
N/S: Date Avenue
E/W: Chestnut Street
Weather: Clear

File Name : 09_AHBDACH AM
Site Code : 10817000
Start Date : 4/27/2017
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	3	28	18	49	0	2	1	3	18	59	4	81	0	0	0	0
+15 mins.	2	30	12	44	0	1	0	1	24	37	2	63	0	0	0	0
+30 mins.	2	38	14	54	0	1	1	2	21	29	1	51	0	0	0	0
+45 mins.	5	39	9	53	1	1	0	2	27	40	0	67	0	0	0	0
Total Volume	12	135	53	200	1	5	2	8	90	165	7	262	0	0	0	0
% App. Total	6	67.5	26.5		12.5	62.5	25		34.4	63	2.7		0	0	0	
PHF	.600	.865	.736	.926	.250	.625	.500	.667	.833	.699	.438	.809	.000	.000	.000	.000

City of Alhambra
N/S: Date Avenue
E/W: Chestnut Street
Weather: Clear

File Name : 09_AHBDACH PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

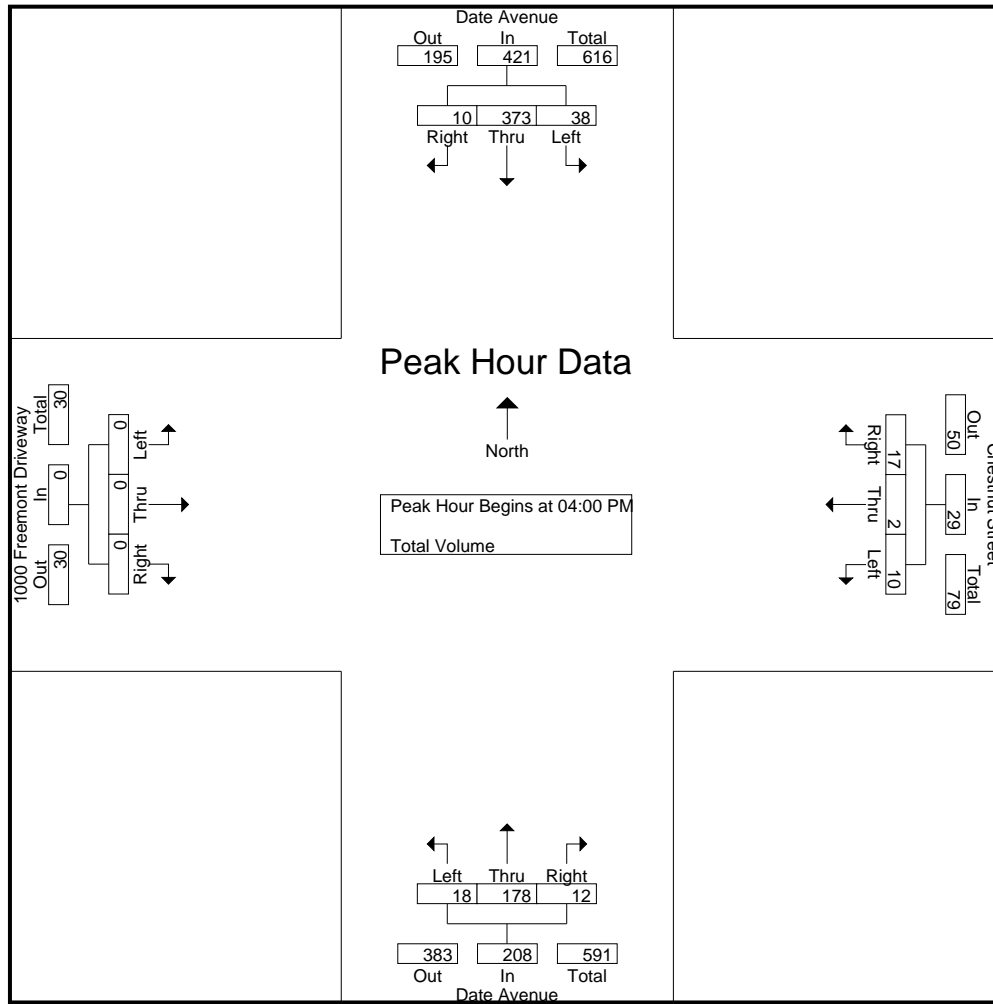
Groups Printed- Total Volume

	Date Avenue Southbound				Chestnut Street Westbound				Date Avenue Northbound				1000 Freemont Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	11	145	6	162	2	0	4	6	8	46	6	60	0	0	0	0	228
04:15 PM	4	93	2	99	5	1	5	11	4	52	3	59	0	0	0	0	169
04:30 PM	13	64	0	77	3	0	4	7	4	40	2	46	0	0	0	0	130
04:45 PM	10	71	2	83	0	1	4	5	2	40	1	43	0	0	0	0	131
Total	38	373	10	421	10	2	17	29	18	178	12	208	0	0	0	0	658
05:00 PM	11	80	4	95	0	1	1	2	2	45	1	48	0	0	0	0	145
05:15 PM	23	99	0	122	2	0	3	5	2	35	0	37	0	0	0	0	164
05:30 PM	22	97	3	122	3	2	4	9	2	50	1	53	0	0	0	0	184
05:45 PM	18	74	1	93	0	0	2	2	2	53	0	55	0	0	0	0	150
Total	74	350	8	432	5	3	10	18	8	183	2	193	0	0	0	0	643
Grand Total	112	723	18	853	15	5	27	47	26	361	14	401	0	0	0	0	1301
Apprch %	13.1	84.8	2.1		31.9	10.6	57.4		6.5	90	3.5		0	0	0		
Total %	8.6	55.6	1.4	65.6	1.2	0.4	2.1	3.6	2	27.7	1.1	30.8	0	0	0	0	

	Date Avenue Southbound				Chestnut Street Westbound				Date Avenue Northbound				1000 Freemont Driveway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	11	145	6	162	2	0	4	6	8	46	6	60	0	0	0	0	228
04:15 PM	4	93	2	99	5	1	5	11	4	52	3	59	0	0	0	0	169
04:30 PM	13	64	0	77	3	0	4	7	4	40	2	46	0	0	0	0	130
04:45 PM	10	71	2	83	0	1	4	5	2	40	1	43	0	0	0	0	131
Total Volume	38	373	10	421	10	2	17	29	18	178	12	208	0	0	0	0	658
% App. Total	9	88.6	2.4		34.5	6.9	58.6		8.7	85.6	5.8		0	0	0		
PHF	.731	.643	.417	.650	.500	.500	.850	.659	.563	.856	.500	.867	.000	.000	.000	.000	.721

City of Alhambra
N/S: Date Avenue
E/W: Chestnut Street
Weather: Clear

File Name : 09_AHBDACH PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	11	80	4	95	2	0	4	6	8	46	6	60	0	0	0	0
+15 mins.	23	99	0	122	5	1	5	11	4	52	3	59	0	0	0	0
+30 mins.	22	97	3	122	3	0	4	7	4	40	2	46	0	0	0	0
+45 mins.	18	74	1	93	0	1	4	5	2	40	1	43	0	0	0	0
Total Volume	74	350	8	432	10	2	17	29	18	178	12	208	0	0	0	0
% App. Total	17.1	81	1.9		34.5	6.9	58.6		8.7	85.6	5.8		0	0	0	
PHF	.804	.884	.500	.885	.500	.500	.850	.659	.563	.856	.500	.867	.000	.000	.000	.000

Location: Alhambra
N/S: Date Avenue
E/W: Chestnut Street



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

	North Leg Date Avenue	East Leg Chestnut Street	South Leg Date Avenue	West Leg Chestnut Street	TOTAL
7:00 AM	1	1	0	0	2
7:15 AM	2	0	0	2	4
7:30 AM	0	2	1	0	3
7:45 AM	1	0	0	1	2
8:00 AM	0	1	0	1	2
8:15 AM	1	1	0	0	2
8:30 AM	1	0	0	1	2
8:45 AM	10	0	0	3	13
TOTAL VOLUMES:	16	5	1	8	30

	North Leg Date Avenue	East Leg Chestnut Street	South Leg Date Avenue	West Leg Chestnut Street	TOTAL
4:00 PM	0	0	1	0	1
4:15 PM	1	1	1	1	4
4:30 PM	1	0	1	2	4
4:45 PM	0	0	1	1	2
5:00 PM	1	0	0	0	1
5:15 PM	1	0	0	0	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	1	1
TOTAL VOLUMES:	4	1	4	5	14

Location: Alhambra
N/S: Date Avenue
E/W: Chestnut Street



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg Date Avenue	East Leg Chestnut Street	South Leg Date Avenue	West Leg Chestnut Street	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0

		North Leg Date Avenue	East Leg Chestnut Street	South Leg Date Avenue	West Leg Chestnut Street	TOTAL
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0

City of Alhambra
N/S: South Fremont Avenue
E/W: Concord Avenue
Weather: Clear

File Name : 10_AHBFRCO AM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

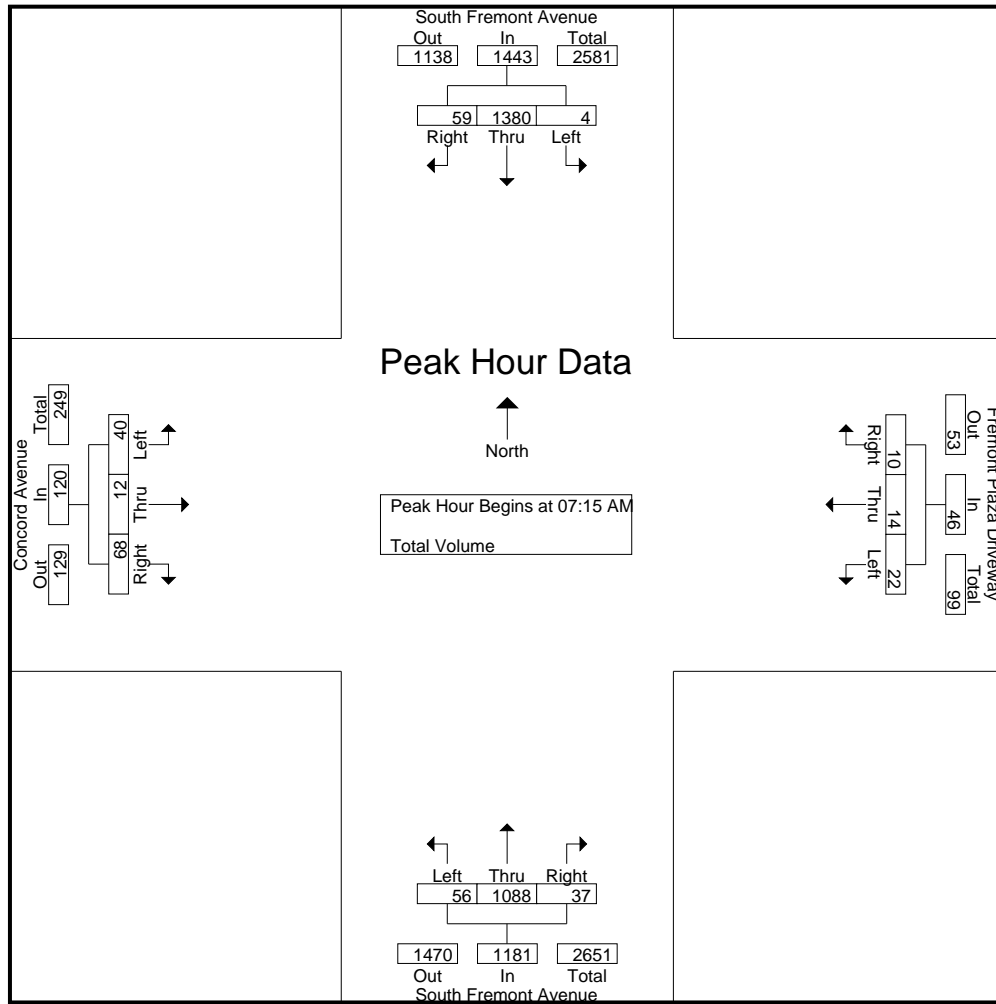
Groups Printed- Total Volume

	South Fremont Avenue Southbound				Fremont Plaza Driveway Westbound				South Fremont Avenue Northbound				Concord Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	393	4	398	2	0	2	4	6	243	9	258	4	1	4	9	669
07:15 AM	0	393	8	401	6	1	1	8	9	301	7	317	5	2	11	18	744
07:30 AM	1	351	12	364	8	3	0	11	15	263	11	289	10	3	19	32	696
07:45 AM	1	289	24	314	2	2	4	8	15	285	10	310	13	6	20	39	671
Total	3	1426	48	1477	18	6	7	31	45	1092	37	1174	32	12	54	98	2780
08:00 AM	2	347	15	364	6	8	5	19	17	239	9	265	12	1	18	31	679
08:15 AM	2	344	12	358	8	3	1	12	5	293	18	316	8	2	10	20	706
08:30 AM	3	311	18	332	7	2	7	16	10	252	10	272	8	2	7	17	637
08:45 AM	3	331	17	351	6	6	4	16	17	270	13	300	8	2	12	22	689
Total	10	1333	62	1405	27	19	17	63	49	1054	50	1153	36	7	47	90	2711
Grand Total	13	2759	110	2882	45	25	24	94	94	2146	87	2327	68	19	101	188	5491
Apprch %	0.5	95.7	3.8		47.9	26.6	25.5		4	92.2	3.7		36.2	10.1	53.7		
Total %	0.2	50.2	2	52.5	0.8	0.5	0.4	1.7	1.7	39.1	1.6	42.4	1.2	0.3	1.8	3.4	

	South Fremont Avenue Southbound				Fremont Plaza Driveway Westbound				South Fremont Avenue Northbound				Concord Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	393	8	401	6	1	1	8	9	301	7	317	5	2	11	18	744
07:30 AM	1	351	12	364	8	3	0	11	15	263	11	289	10	3	19	32	696
07:45 AM	1	289	24	314	2	2	4	8	15	285	10	310	13	6	20	39	671
08:00 AM	2	347	15	364	6	8	5	19	17	239	9	265	12	1	18	31	679
Total Volume	4	1380	59	1443	22	14	10	46	56	1088	37	1181	40	12	68	120	2790
% App. Total	0.3	95.6	4.1		47.8	30.4	21.7		4.7	92.1	3.1		33.3	10	56.7		
PHF	.500	.878	.615	.900	.688	.438	.500	.605	.824	.904	.841	.931	.769	.500	.850	.769	.938

City of Alhambra
N/S: South Fremont Avenue
E/W: Concord Avenue
Weather: Clear

File Name : 10_AHBFRCO AM
Site Code : 10817000
Start Date : 4/27/2017
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				08:00 AM				07:15 AM				07:30 AM			
+0 mins.	1	393	4	398	6	8	5	19	9	301	7	317	10	3	19	32
+15 mins.	0	393	8	401	8	3	1	12	15	263	11	289	13	6	20	39
+30 mins.	1	351	12	364	7	2	7	16	15	285	10	310	12	1	18	31
+45 mins.	1	289	24	314	6	6	4	16	17	239	9	265	8	2	10	20
Total Volume	3	1426	48	1477	27	19	17	63	56	1088	37	1181	43	12	67	122
% App. Total	0.2	96.5	3.2		42.9	30.2	27		4.7	92.1	3.1		35.2	9.8	54.9	
PHF	.750	.907	.500	.921	.844	.594	.607	.829	.824	.904	.841	.931	.827	.500	.838	.782

City of Alhambra
N/S: South Fremont Avenue
E/W: Concord Avenue
Weather: Clear

File Name : 10_AHBFRCO PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

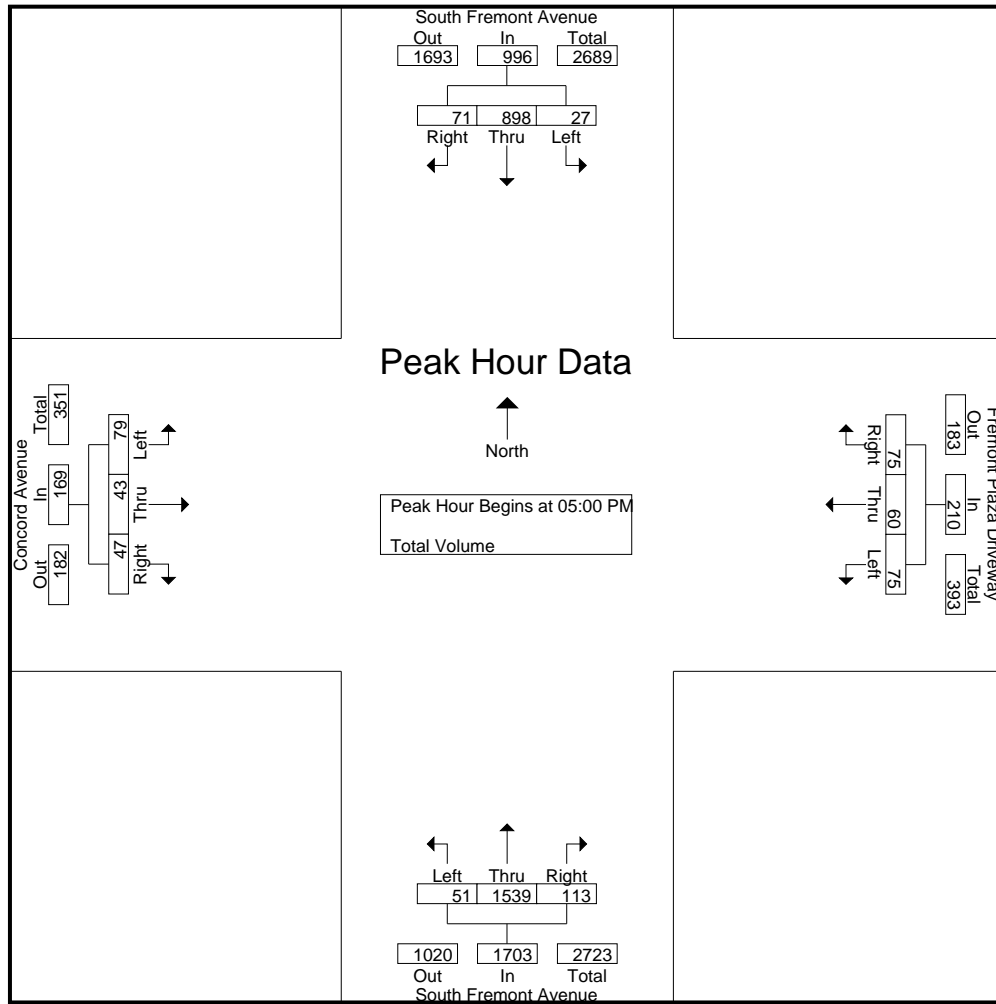
Groups Printed- Total Volume

	South Fremont Avenue Southbound				Fremont Plaza Driveway Westbound				South Fremont Avenue Northbound				Concord Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	10	105	11	126	12	16	20	48	52	282	31	365	29	14	8	51	590
04:15 PM	7	235	9	251	8	17	16	41	19	385	28	432	21	15	20	56	780
04:30 PM	6	233	9	248	23	19	16	58	11	376	36	423	17	9	9	35	764
04:45 PM	9	219	24	252	18	15	17	50	8	351	31	390	15	6	16	37	729
Total	32	792	53	877	61	67	69	197	90	1394	126	1610	82	44	53	179	2863
05:00 PM	9	227	21	257	12	16	18	46	16	406	31	453	19	9	12	40	796
05:15 PM	9	222	19	250	17	16	25	58	8	385	29	422	19	9	9	37	767
05:30 PM	4	220	20	244	25	15	17	57	13	375	20	408	16	14	13	43	752
05:45 PM	5	229	11	245	21	13	15	49	14	373	33	420	25	11	13	49	763
Total	27	898	71	996	75	60	75	210	51	1539	113	1703	79	43	47	169	3078
Grand Total	59	1690	124	1873	136	127	144	407	141	2933	239	3313	161	87	100	348	5941
Apprch %	3.2	90.2	6.6		33.4	31.2	35.4		4.3	88.5	7.2		46.3	25	28.7		
Total %	1	28.4	2.1	31.5	2.3	2.1	2.4	6.9	2.4	49.4	4	55.8	2.7	1.5	1.7	5.9	

	South Fremont Avenue Southbound				Fremont Plaza Driveway Westbound				South Fremont Avenue Northbound				Concord Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	9	227	21	257	12	16	18	46	16	406	31	453	19	9	12	40	796
05:15 PM	9	222	19	250	17	16	25	58	8	385	29	422	19	9	9	37	767
05:30 PM	4	220	20	244	25	15	17	57	13	375	20	408	16	14	13	43	752
05:45 PM	5	229	11	245	21	13	15	49	14	373	33	420	25	11	13	49	763
Total Volume	27	898	71	996	75	60	75	210	51	1539	113	1703	79	43	47	169	3078
% App. Total	2.7	90.2	7.1		35.7	28.6	35.7		3	90.4	6.6		46.7	25.4	27.8		
PHF	.750	.980	.845	.969	.750	.938	.750	.905	.797	.948	.856	.940	.790	.768	.904	.862	.967

City of Alhambra
N/S: South Fremont Avenue
E/W: Concord Avenue
Weather: Clear

File Name : 10_AHBFRCO PM
Site Code : 10817000
Start Date : 4/27/2017
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:30 PM				05:00 PM				04:00 PM			
+0 mins.	7	235	9	251	23	19	16	58	16	406	31	453	29	14	8	51
+15 mins.	6	233	9	248	18	15	17	50	8	385	29	422	21	15	20	56
+30 mins.	9	219	24	252	12	16	18	46	13	375	20	408	17	9	9	35
+45 mins.	9	227	21	257	17	16	25	58	14	373	33	420	15	6	16	37
Total Volume	31	914	63	1008	70	66	76	212	51	1539	113	1703	82	44	53	179
% App. Total	3.1	90.7	6.2		33	31.1	35.8		3	90.4	6.6		45.8	24.6	29.6	
PHF	.861	.972	.656	.981	.761	.868	.760	.914	.797	.948	.856	.940	.707	.733	.663	.799

Location: Alhambra
N/S: South Fremont Avenue
E/W: Concord Avenue



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

	North Leg South Fremont Avenue	East Leg Fremont Plaza DW	South Leg South Fremont Avenue	West Leg Concord Avenue	TOTAL
7:00 AM	0	0	0	1	1
7:15 AM	0	0	0	0	0
7:30 AM	1	0	0	3	4
7:45 AM	0	0	0	2	2
8:00 AM	2	2	1	2	7
8:15 AM	0	1	2	2	5
8:30 AM	0	1	1	1	3
8:45 AM	4	6	0	0	10
TOTAL VOLUMES:	7	10	4	11	32

	North Leg South Fremont Avenue	East Leg Fremont Plaza DW	South Leg South Fremont Avenue	West Leg Concord Avenue	TOTAL
4:00 PM	0	1	5	0	6
4:15 PM	1	1	1	0	3
4:30 PM	0	0	0	1	1
4:45 PM	3	2	0	2	7
5:00 PM	1	1	2	1	5
5:15 PM	1	3	0	0	4
5:30 PM	0	1	3	2	6
5:45 PM	2	3	1	3	9
TOTAL VOLUMES:	8	12	12	9	41

Location: Alhambra
N/S: South Fremont Avenue
E/W: Concord Avenue



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg South Fremont Avenue	East Leg Fremont Plaza DW	South Leg South Fremont Avenue	West Leg Concord Avenue	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	1	0	0	1
	8:15 AM	0	0	0	0	0
	8:30 AM	0	3	0	0	3
	8:45 AM	0	1	0	0	1
TOTAL VOLUMES:		0	5	0	0	5

		North Leg South Fremont Avenue	East Leg Fremont Plaza DW	South Leg South Fremont Avenue	West Leg Concord Avenue	TOTAL
	4:00 PM	0	0	0	1	1
	4:15 PM	0	1	0	0	1
	4:30 PM	0	1	0	0	1
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	1	2	3
	5:15 PM	0	1	0	0	1
	5:30 PM	0	0	0	1	1
	5:45 PM	0	0	0	0	0
TOTAL VOLUMES:		0	3	1	4	8

City of Alhambra
N/S: South Fremont Avenue
E/W: Montezuma Avenue
Weather: Clear

File Name : 11_AHBFMO AM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

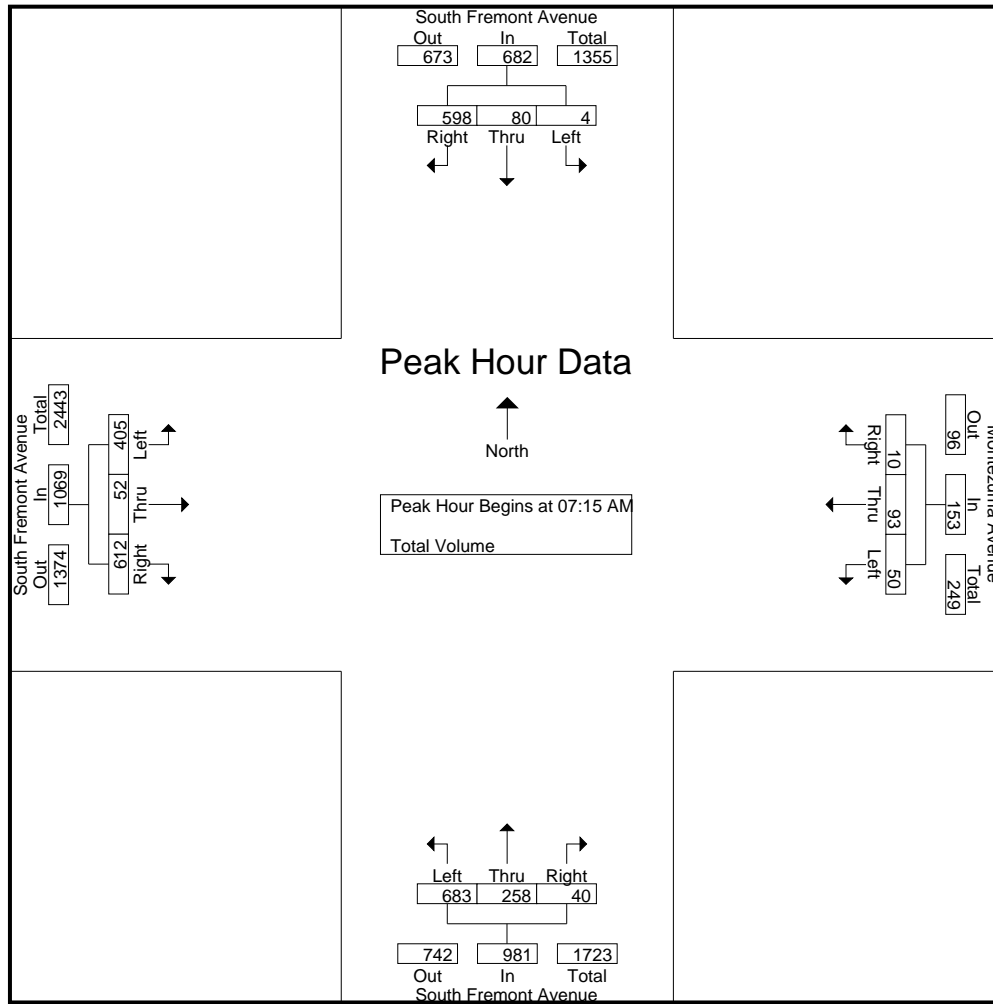
Groups Printed- Total Volume

	South Fremont Avenue Southbound				Montezuma Avenue Westbound				South Fremont Avenue Northbound				South Fremont Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	11	120	135	14	12	0	26	103	38	8	149	90	11	72	173	483
07:15 AM	2	12	146	160	13	20	0	33	152	68	9	229	89	12	119	220	642
07:30 AM	0	24	159	183	9	28	3	40	193	73	7	273	119	9	176	304	800
07:45 AM	2	26	164	192	10	26	4	40	189	66	13	268	109	14	185	308	808
Total	8	73	589	670	46	86	7	139	637	245	37	919	407	46	552	1005	2733
08:00 AM	0	18	129	147	18	19	3	40	149	51	11	211	88	17	132	237	635
08:15 AM	1	19	164	184	12	17	0	29	133	45	7	185	78	9	139	226	624
08:30 AM	3	7	129	139	15	25	1	41	102	40	6	148	96	8	130	234	562
08:45 AM	1	15	137	153	14	23	2	39	113	58	3	174	94	6	122	222	588
Total	5	59	559	623	59	84	6	149	497	194	27	718	356	40	523	919	2409
Grand Total	13	132	1148	1293	105	170	13	288	1134	439	64	1637	763	86	1075	1924	5142
Apprch %	1	10.2	88.8		36.5	59	4.5		69.3	26.8	3.9		39.7	4.5	55.9		
Total %	0.3	2.6	22.3	25.1	2	3.3	0.3	5.6	22.1	8.5	1.2	31.8	14.8	1.7	20.9	37.4	

	South Fremont Avenue Southbound				Montezuma Avenue Westbound				South Fremont Avenue Northbound				South Fremont Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	2	12	146	160	13	20	0	33	152	68	9	229	89	12	119	220	642
07:30 AM	0	24	159	183	9	28	3	40	193	73	7	273	119	9	176	304	800
07:45 AM	2	26	164	192	10	26	4	40	189	66	13	268	109	14	185	308	808
08:00 AM	0	18	129	147	18	19	3	40	149	51	11	211	88	17	132	237	635
Total Volume	4	80	598	682	50	93	10	153	683	258	40	981	405	52	612	1069	2885
% App. Total	0.6	11.7	87.7		32.7	60.8	6.5		69.6	26.3	4.1		37.9	4.9	57.2		
PHF	.500	.769	.912	.888	.694	.830	.625	.956	.885	.884	.769	.898	.851	.765	.827	.868	.893

City of Alhambra
N/S: South Fremont Avenue
E/W: Montezuma Avenue
Weather: Clear

File Name : 11_AHBFMO AM
Site Code : 10817000
Start Date : 4/27/2017
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:15 AM				07:15 AM				07:30 AM			
+0 mins.	0	24	159	183	13	20	0	33	152	68	9	229	119	9	176	304
+15 mins.	2	26	164	192	9	28	3	40	193	73	7	273	109	14	185	308
+30 mins.	0	18	129	147	10	26	4	40	189	66	13	268	88	17	132	237
+45 mins.	1	19	164	184	18	19	3	40	149	51	11	211	78	9	139	226
Total Volume	3	87	616	706	50	93	10	153	683	258	40	981	394	49	632	1075
% App. Total	0.4	12.3	87.3		32.7	60.8	6.5		69.6	26.3	4.1		36.7	4.6	58.8	
PHF	.375	.837	.939	.919	.694	.830	.625	.956	.885	.884	.769	.898	.828	.721	.854	.873

City of Alhambra
N/S: South Fremont Avenue
E/W: Montezuma Avenue
Weather: Clear

File Name : 11_AHBFMO PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

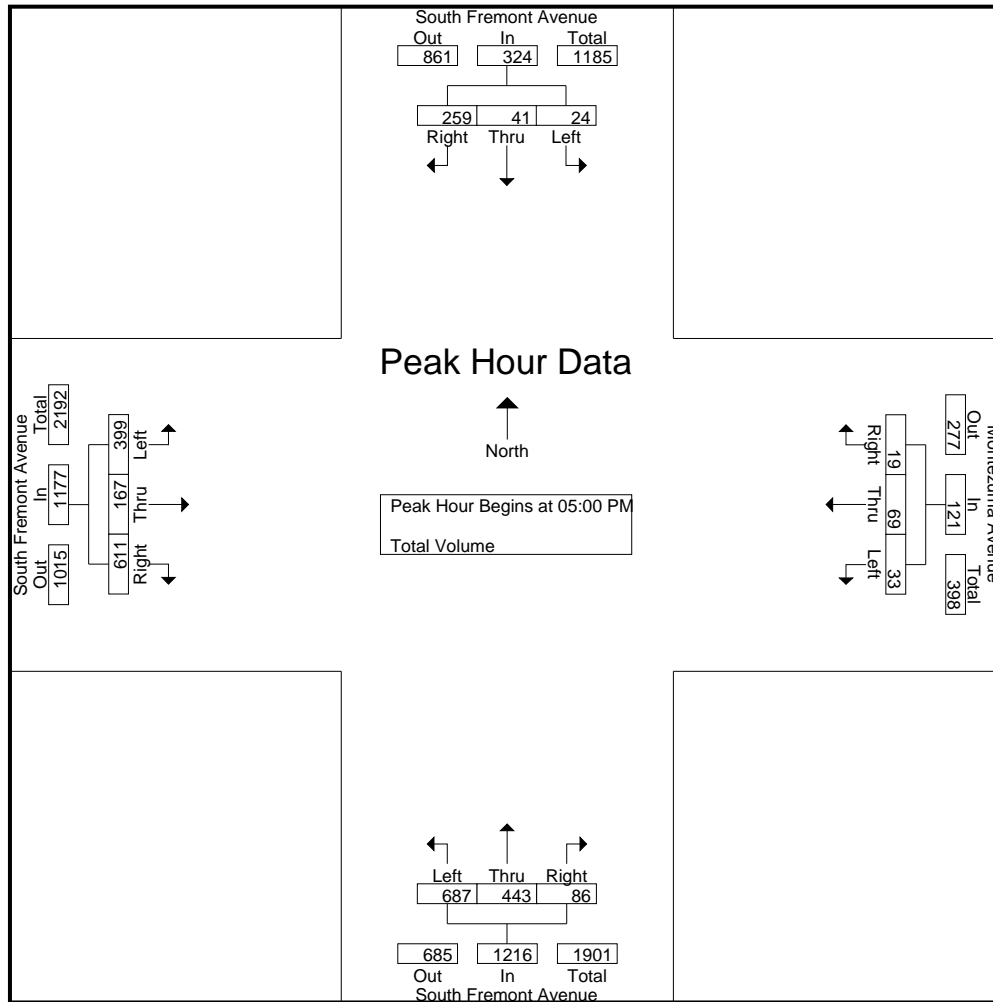
Groups Printed- Total Volume

	South Fremont Avenue Southbound				Montezuma Avenue Westbound				South Fremont Avenue Northbound				South Fremont Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	6	77	87	6	12	3	21	103	81	13	197	75	16	99	190	495
04:15 PM	4	9	68	81	7	11	1	19	116	78	9	203	96	16	149	261	564
04:30 PM	2	10	61	73	9	19	2	30	143	96	23	262	97	25	133	255	620
04:45 PM	6	8	71	85	11	12	1	24	129	106	14	249	110	41	154	305	663
Total	16	33	277	326	33	54	7	94	491	361	59	911	378	98	535	1011	2342
05:00 PM	5	15	50	70	8	15	6	29	173	108	20	301	91	44	154	289	689
05:15 PM	5	7	75	87	5	16	3	24	156	112	18	286	107	51	142	300	697
05:30 PM	6	4	66	76	12	22	6	40	170	108	30	308	95	37	148	280	704
05:45 PM	8	15	68	91	8	16	4	28	188	115	18	321	106	35	167	308	748
Total	24	41	259	324	33	69	19	121	687	443	86	1216	399	167	611	1177	2838
Grand Total	40	74	536	650	66	123	26	215	1178	804	145	2127	777	265	1146	2188	5180
Apprch %	6.2	11.4	82.5		30.7	57.2	12.1		55.4	37.8	6.8		35.5	12.1	52.4		
Total %	0.8	1.4	10.3	12.5	1.3	2.4	0.5	4.2	22.7	15.5	2.8	41.1	15	5.1	22.1	42.2	

	South Fremont Avenue Southbound				Montezuma Avenue Westbound				South Fremont Avenue Northbound				South Fremont Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	5	15	50	70	8	15	6	29	173	108	20	301	91	44	154	289	689
05:15 PM	5	7	75	87	5	16	3	24	156	112	18	286	107	51	142	300	697
05:30 PM	6	4	66	76	12	22	6	40	170	108	30	308	95	37	148	280	704
05:45 PM	8	15	68	91	8	16	4	28	188	115	18	321	106	35	167	308	748
Total Volume	24	41	259	324	33	69	19	121	687	443	86	1216	399	167	611	1177	2838
% App. Total	7.4	12.7	79.9		27.3	57	15.7		56.5	36.4	7.1		33.9	14.2	51.9		
PHF	.750	.683	.863	.890	.688	.784	.792	.756	.914	.963	.717	.947	.932	.819	.915	.955	.949

City of Alhambra
N/S: South Fremont Avenue
E/W: Montezuma Avenue
Weather: Clear

File Name : 11_AHBFMO PM
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	4	6	77	87	8	15	6	29	173	108	20	301	91	44	154	289
+15 mins.	4	9	68	81	5	16	3	24	156	112	18	286	107	51	142	300
+30 mins.	2	10	61	73	12	22	6	40	170	108	30	308	95	37	148	280
+45 mins.	6	8	71	85	8	16	4	28	188	115	18	321	106	35	167	308
Total Volume	16	33	277	326	33	69	19	121	687	443	86	1216	399	167	611	1177
% App. Total	4.9	10.1	85		27.3	57	15.7		56.5	36.4	7.1		33.9	14.2	51.9	
PHF	.667	.825	.899	.937	.688	.784	.792	.756	.914	.963	.717	.947	.932	.819	.915	.955

Location: Alhambra
N/S: South Fremont Avenue
E/W: Montezuma Avenue



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

		North Leg South Fremont Avenue	East Leg Montezuma Avenue	South Leg South Fremont Avenue	West Leg South Fremont Avenue	TOTAL
	7:00 AM	0	1	2	0	3
	7:15 AM	1	0	2	0	3
	7:30 AM	0	0	4	0	4
	7:45 AM	1	2	5	0	8
	8:00 AM	0	0	4	0	4
	8:15 AM	0	0	1	0	1
	8:30 AM	0	0	4	0	4
	8:45 AM	0	2	5	0	7
TOTAL VOLUMES:		2	5	27	0	34

		North Leg South Fremont Avenue	East Leg Montezuma Avenue	South Leg South Fremont Avenue	West Leg South Fremont Avenue	TOTAL
	4:00 PM	0	5	8	0	13
	4:15 PM	0	1	0	0	1
	4:30 PM	0	3	6	0	9
	4:45 PM	0	0	1	0	1
	5:00 PM	0	2	5	0	7
	5:15 PM	0	2	3	0	5
	5:30 PM	0	0	3	0	3
	5:45 PM	0	0	0	0	0
TOTAL VOLUMES:		0	13	26	0	39

Location: Alhambra
N/S: South Fremont Avenue
E/W: Montezuma Avenue



Date: 4/27/2017
Day: Thursday

BICYCLES

	North Leg South Fremont Avenue	East Leg Montezuma Avenue	South Leg South Fremont Avenue	West Leg South Fremont Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	2	0	0	0	2
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	2	0	0	0	2

	North Leg South Fremont Avenue	East Leg Montezuma Avenue	South Leg South Fremont Avenue	West Leg South Fremont Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	1	0	1
4:30 PM	0	1	1	0	2
4:45 PM	0	0	0	0	0
5:00 PM	0	0	1	0	1
5:15 PM	0	0	1	0	1
5:30 PM	0	0	1	0	1
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	1	5	0	6

City of Alhambra
N/S: South Palm Avenue
E/W: West Commonwealth Avenue
Weather: Clear

File Name : 12_AHBPACO AM
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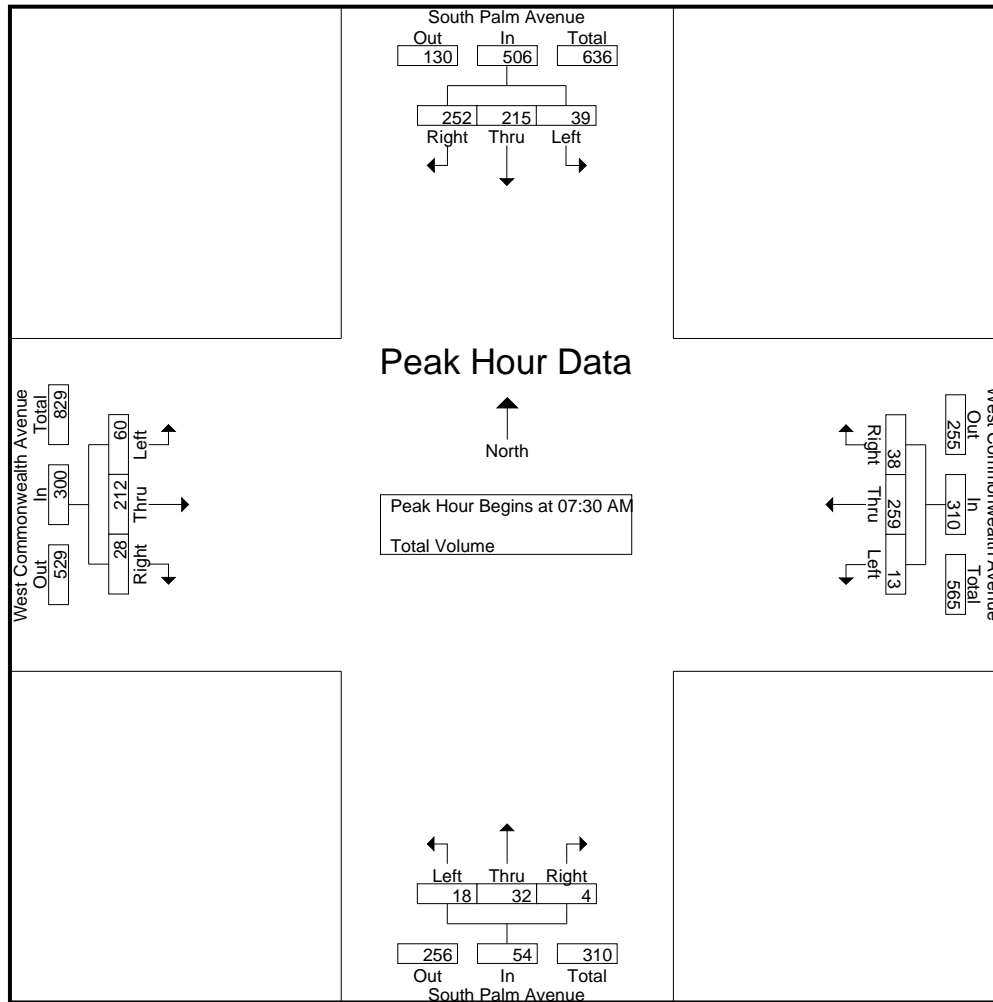
Groups Printed- Total Volume

	South Palm Avenue Southbound				West Commonwealth Avenue Westbound				South Palm Avenue Northbound				West Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	6	21	45	72	0	27	2	29	1	6	3	10	8	34	0	42	153
07:15 AM	11	36	54	101	0	40	4	44	3	11	1	15	15	46	2	63	223
07:30 AM	7	49	70	126	3	52	2	57	4	5	1	10	8	55	5	68	261
07:45 AM	14	62	56	132	4	71	10	85	9	5	1	15	14	56	9	79	311
Total	38	168	225	431	7	190	18	215	17	27	6	50	45	191	16	252	948
08:00 AM	8	44	70	122	4	79	15	98	3	14	2	19	18	52	8	78	317
08:15 AM	10	60	56	126	2	57	11	70	2	8	0	10	20	49	6	75	281
08:30 AM	13	39	46	98	1	57	8	66	1	14	2	17	12	51	5	68	249
08:45 AM	9	38	48	95	3	51	12	66	2	9	1	12	19	60	3	82	255
Total	40	181	220	441	10	244	46	300	8	45	5	58	69	212	22	303	1102
Grand Total	78	349	445	872	17	434	64	515	25	72	11	108	114	403	38	555	2050
Apprch %	8.9	40	51		3.3	84.3	12.4		23.1	66.7	10.2		20.5	72.6	6.8		
Total %	3.8	17	21.7	42.5	0.8	21.2	3.1	25.1	1.2	3.5	0.5	5.3	5.6	19.7	1.9	27.1	

	South Palm Avenue Southbound				West Commonwealth Avenue Westbound				South Palm Avenue Northbound				West Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	7	49	70	126	3	52	2	57	4	5	1	10	8	55	5	68	261
07:45 AM	14	62	56	132	4	71	10	85	9	5	1	15	14	56	9	79	311
08:00 AM	8	44	70	122	4	79	15	98	3	14	2	19	18	52	8	78	317
08:15 AM	10	60	56	126	2	57	11	70	2	8	0	10	20	49	6	75	281
Total Volume	39	215	252	506	13	259	38	310	18	32	4	54	60	212	28	300	1170
% App. Total	7.7	42.5	49.8		4.2	83.5	12.3		33.3	59.3	7.4		20	70.7	9.3		
PHF	.696	.867	.900	.958	.813	.820	.633	.791	.500	.571	.500	.711	.750	.946	.778	.949	.923

City of Alhambra
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:45 AM				07:45 AM				08:00 AM			
+0 mins.	7	49	70	126	4	71	10	85	9	5	1	15	18	52	8	78
+15 mins.	14	62	56	132	4	79	15	98	3	14	2	19	20	49	6	75
+30 mins.	8	44	70	122	2	57	11	70	2	8	0	10	12	51	5	68
+45 mins.	10	60	56	126	1	57	8	66	1	14	2	17	19	60	3	82
Total Volume	39	215	252	506	11	264	44	319	15	41	5	61	69	212	22	303
% App. Total	7.7	42.5	49.8		3.4	82.8	13.8		24.6	67.2	8.2		22.8	70	7.3	
PHF	.696	.867	.900	.958	.688	.835	.733	.814	.417	.732	.625	.803	.863	.883	.688	.924

City of Alhambra
N/S: South Palm Avenue
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Weather: Clear

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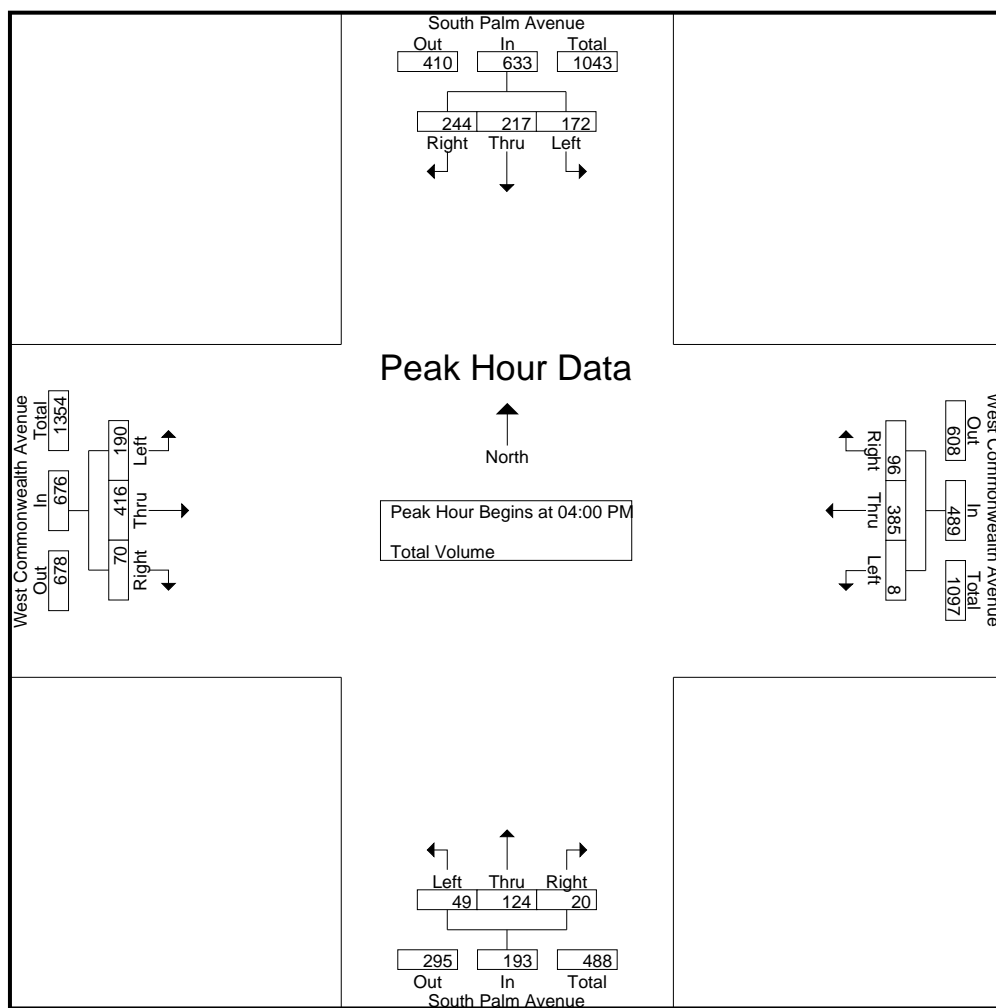
Groups Printed- Total Volume

	South Palm Avenue Southbound				West Commonwealth Avenue Westbound				South Palm Avenue Northbound				West Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	45	62	65	172	2	110	30	142	12	35	4	51	41	140	28	209	574
04:15 PM	41	46	61	148	3	94	32	129	15	26	6	47	49	103	20	172	496
04:30 PM	46	55	59	160	2	85	19	106	11	28	4	43	52	83	15	150	459
04:45 PM	40	54	59	153	1	96	15	112	11	35	6	52	48	90	7	145	462
Total	172	217	244	633	8	385	96	489	49	124	20	193	190	416	70	676	1991
05:00 PM	51	48	47	146	0	85	25	110	13	48	7	68	42	93	5	140	464
05:15 PM	29	61	64	154	2	72	21	95	13	41	4	58	48	89	11	148	455
05:30 PM	41	67	66	174	1	85	20	106	17	56	7	80	58	107	10	175	535
05:45 PM	29	70	64	163	0	72	15	87	15	38	11	64	62	100	12	174	488
Total	150	246	241	637	3	314	81	398	58	183	29	270	210	389	38	637	1942
Grand Total	322	463	485	1270	11	699	177	887	107	307	49	463	400	805	108	1313	3933
Apprch %	25.4	36.5	38.2		1.2	78.8	20		23.1	66.3	10.6		30.5	61.3	8.2		
Total %	8.2	11.8	12.3	32.3	0.3	17.8	4.5	22.6	2.7	7.8	1.2	11.8	10.2	20.5	2.7	33.4	

	South Palm Avenue Southbound				West Commonwealth Avenue Westbound				South Palm Avenue Northbound				West Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	45	62	65	172	2	110	30	142	12	35	4	51	41	140	28	209	574
04:15 PM	41	46	61	148	3	94	32	129	15	26	6	47	49	103	20	172	496
04:30 PM	46	55	59	160	2	85	19	106	11	28	4	43	52	83	15	150	459
04:45 PM	40	54	59	153	1	96	15	112	11	35	6	52	48	90	7	145	462
Total Volume	172	217	244	633	8	385	96	489	49	124	20	193	190	416	70	676	1991
% App. Total	27.2	34.3	38.5		1.6	78.7	19.6		25.4	64.2	10.4		28.1	61.5	10.4		
PHF	.935	.875	.938	.920	.667	.875	.750	.861	.817	.886	.833	.928	.913	.743	.625	.809	.867

City of Alhambra
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Weather: Clear

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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				05:00 PM				04:00 PM			
+0 mins.	51	48	47	146	2	110	30	142	13	48	7	68	41	140	28	209
+15 mins.	29	61	64	154	3	94	32	129	13	41	4	58	49	103	20	172
+30 mins.	41	67	66	174	2	85	19	106	17	56	7	80	52	83	15	150
+45 mins.	29	70	64	163	1	96	15	112	15	38	11	64	48	90	7	145
Total Volume	150	246	241	637	8	385	96	489	58	183	29	270	190	416	70	676
% App. Total	23.5	38.6	37.8		1.6	78.7	19.6		21.5	67.8	10.7		28.1	61.5	10.4	
PHF	.735	.879	.913	.915	.667	.875	.750	.861	.853	.817	.659	.844	.913	.743	.625	.809

Location: Alhambra
N/S: South Palm Avenue
E/W: W Commonwealth Avenue



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

		North Leg South Palm Avenue	East Leg W Commonwealth Avenue	South Leg South Palm Avenue	West Leg W Commonwealth Avenue	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	0	2	0	0	2
	7:30 AM	0	1	1	0	2
	7:45 AM	6	2	0	1	9
	8:00 AM	2	4	2	1	9
	8:15 AM	4	3	1	1	9
	8:30 AM	1	1	4	1	7
	8:45 AM	3	2	0	0	5
TOTAL VOLUMES:		16	15	8	4	43

		North Leg South Palm Avenue	East Leg W Commonwealth Avenue	South Leg South Palm Avenue	West Leg W Commonwealth Avenue	TOTAL
	4:00 PM	4	1	1	2	8
	4:15 PM	6	0	0	0	6
	4:30 PM	2	1	4	4	11
	4:45 PM	1	0	3	4	8
	5:00 PM	4	5	1	2	12
	5:15 PM	2	0	1	3	6
	5:30 PM	7	1	0	0	8
	5:45 PM	2	0	0	2	4
TOTAL VOLUMES:		28	8	10	17	63

Location: Alhambra
N/S: South Palm Avenue
E/W: W Commonwealth Avenue



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg South Palm Avenue	East Leg W Commonwealth Avenue	South Leg South Palm Avenue	West Leg W Commonwealth Avenue	TOTAL
	7:00 AM	1	0	0	1	2
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	1	1	0	0	2
	8:00 AM	0	0	1	0	1
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	1	0	0	0	1
TOTAL VOLUMES:		3	1	1	1	6

		North Leg South Palm Avenue	East Leg W Commonwealth Avenue	South Leg South Palm Avenue	West Leg W Commonwealth Avenue	TOTAL
	4:00 PM	0	1	1	0	2
	4:15 PM	0	0	0	1	1
	4:30 PM	2	0	0	0	2
	4:45 PM	0	0	0	0	0
	5:00 PM	1	1	0	0	2
	5:15 PM	1	0	0	0	1
	5:30 PM	0	2	0	0	2
	5:45 PM	0	0	2	0	2
TOTAL VOLUMES:		4	4	3	1	12

City of Alhambra
N/S: Date Avenue
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Weather: Clear

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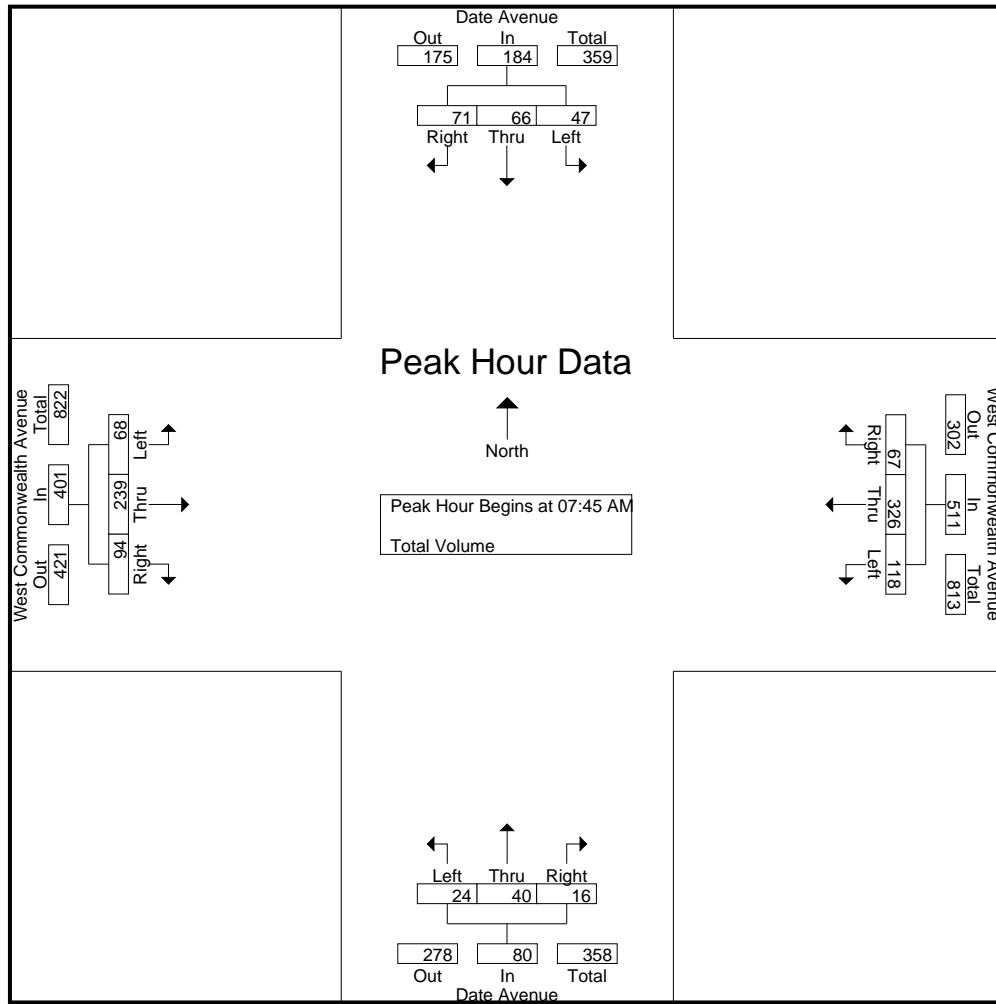
Groups Printed- Total Volume

	Date Avenue Southbound				West Commonwealth Avenue Westbound				Date Avenue Northbound				West Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	8	14	19	41	35	27	10	72	7	12	5	24	20	30	28	78	215
07:15 AM	16	20	23	59	44	43	12	99	2	9	3	14	19	45	23	87	259
07:30 AM	11	12	16	39	35	74	8	117	4	9	1	14	14	54	26	94	264
07:45 AM	9	14	19	42	32	92	15	139	10	6	4	20	7	65	37	109	310
Total	44	60	77	181	146	236	45	427	23	36	13	72	60	194	114	368	1048
08:00 AM	16	16	17	49	37	94	24	155	4	14	6	24	20	60	19	99	327
08:15 AM	11	14	17	42	26	74	15	115	4	5	5	14	19	58	20	97	268
08:30 AM	11	22	18	51	23	66	13	102	6	15	1	22	22	56	18	96	271
08:45 AM	11	17	18	46	27	62	9	98	8	11	9	28	20	57	20	97	269
Total	49	69	70	188	113	296	61	470	22	45	21	88	81	231	77	389	1135
Grand Total	93	129	147	369	259	532	106	897	45	81	34	160	141	425	191	757	2183
Apprch %	25.2	35	39.8		28.9	59.3	11.8		28.1	50.6	21.2		18.6	56.1	25.2		
Total %	4.3	5.9	6.7	16.9	11.9	24.4	4.9	41.1	2.1	3.7	1.6	7.3	6.5	19.5	8.7	34.7	

	Date Avenue Southbound				West Commonwealth Avenue Westbound				Date Avenue Northbound				West Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	9	14	19	42	32	92	15	139	10	6	4	20	7	65	37	109	310
08:00 AM	16	16	17	49	37	94	24	155	4	14	6	24	20	60	19	99	327
08:15 AM	11	14	17	42	26	74	15	115	4	5	5	14	19	58	20	97	268
08:30 AM	11	22	18	51	23	66	13	102	6	15	1	22	22	56	18	96	271
Total Volume	47	66	71	184	118	326	67	511	24	40	16	80	68	239	94	401	1176
% App. Total	25.5	35.9	38.6		23.1	63.8	13.1		30	50	20		17	59.6	23.4		
PHF	.734	.750	.934	.902	.797	.867	.698	.824	.600	.667	.667	.833	.773	.919	.635	.920	.899

City of Alhambra
N/S: Date Avenue
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Weather: Clear

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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:30 AM				08:00 AM				07:45 AM			
+0 mins.	16	20	23	59	35	74	8	117	4	14	6	24	7	65	37	109
+15 mins.	11	12	16	39	32	92	15	139	4	5	5	14	20	60	19	99
+30 mins.	9	14	19	42	37	94	24	155	6	15	1	22	19	58	20	97
+45 mins.	16	16	17	49	26	74	15	115	8	11	9	28	22	56	18	96
Total Volume	52	62	75	189	130	334	62	526	22	45	21	88	68	239	94	401
% App. Total	27.5	32.8	39.7		24.7	63.5	11.8		25	51.1	23.9		17	59.6	23.4	
PHF	.813	.775	.815	.801	.878	.888	.646	.848	.688	.750	.583	.786	.773	.919	.635	.920

City of Alhambra
N/S: Date Avenue
E/W: West Commonwealth Avenue
Weather: Clear

File Name : 13_AHBDACO PM
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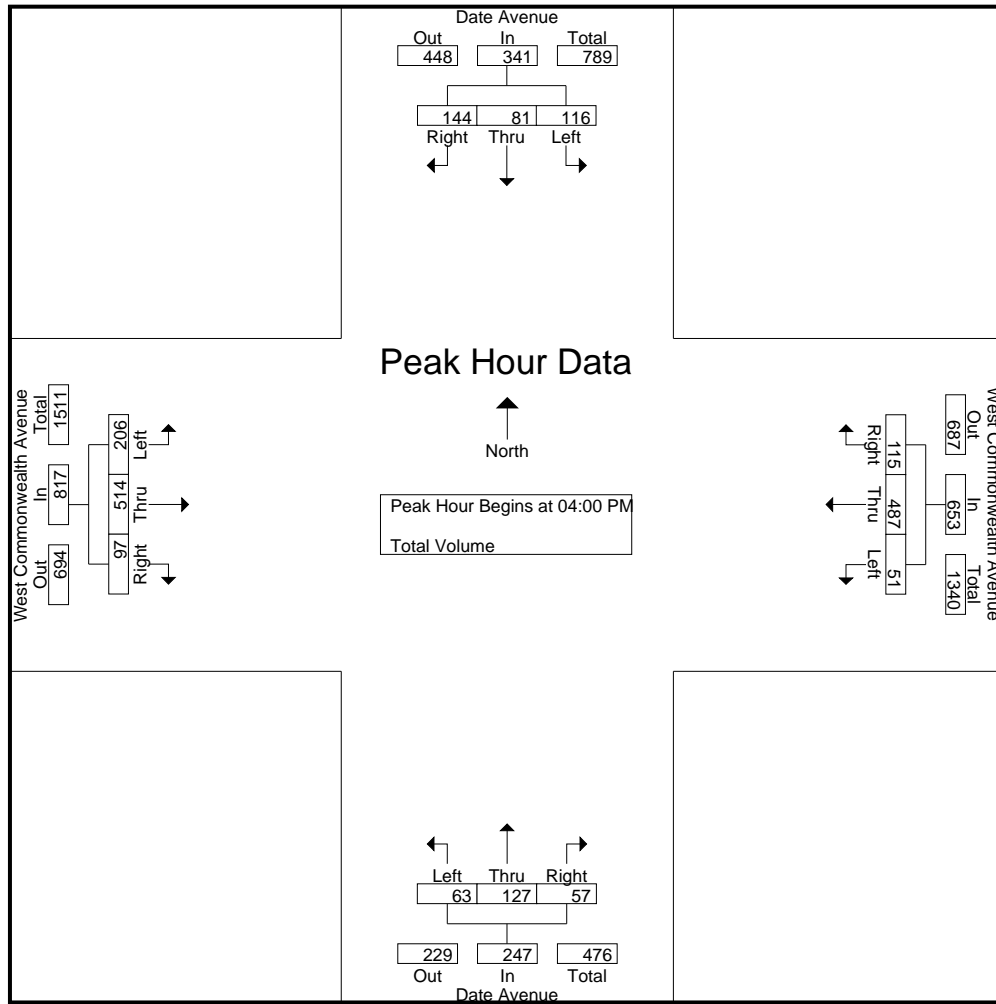
Groups Printed- Total Volume

	Date Avenue Southbound				West Commonwealth Avenue Westbound				Date Avenue Northbound				West Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	29	20	37	86	11	135	28	174	21	29	15	65	52	170	48	270	595
04:15 PM	24	18	34	76	21	109	29	159	12	36	13	61	51	138	30	219	515
04:30 PM	30	24	27	81	8	121	30	159	17	31	16	64	47	109	7	163	467
04:45 PM	33	19	46	98	11	122	28	161	13	31	13	57	56	97	12	165	481
Total	116	81	144	341	51	487	115	653	63	127	57	247	206	514	97	817	2058
05:00 PM	22	26	28	76	12	107	36	155	17	39	31	87	48	91	16	155	473
05:15 PM	26	24	33	83	12	119	29	160	26	25	29	80	47	94	9	150	473
05:30 PM	47	28	38	113	13	117	20	150	38	41	31	110	48	102	15	165	538
05:45 PM	24	12	22	58	13	123	21	157	22	41	35	98	57	114	13	184	497
Total	119	90	121	330	50	466	106	622	103	146	126	375	200	401	53	654	1981
Grand Total	235	171	265	671	101	953	221	1275	166	273	183	622	406	915	150	1471	4039
Apprch %	35	25.5	39.5		7.9	74.7	17.3		26.7	43.9	29.4		27.6	62.2	10.2		
Total %	5.8	4.2	6.6	16.6	2.5	23.6	5.5	31.6	4.1	6.8	4.5	15.4	10.1	22.7	3.7	36.4	

	Date Avenue Southbound				West Commonwealth Avenue Westbound				Date Avenue Northbound				West Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	29	20	37	86	11	135	28	174	21	29	15	65	52	170	48	270	595
04:15 PM	24	18	34	76	21	109	29	159	12	36	13	61	51	138	30	219	515
04:30 PM	30	24	27	81	8	121	30	159	17	31	16	64	47	109	7	163	467
04:45 PM	33	19	46	98	11	122	28	161	13	31	13	57	56	97	12	165	481
Total Volume	116	81	144	341	51	487	115	653	63	127	57	247	206	514	97	817	2058
% App. Total	34	23.8	42.2		7.8	74.6	17.6		25.5	51.4	23.1		25.2	62.9	11.9		
PHF	.879	.844	.783	.870	.607	.902	.958	.938	.750	.882	.891	.950	.920	.756	.505	.756	.865

City of Alhambra
N/S: Date Avenue
E/W: West Commonwealth Avenue
Weather: Clear

File Name : 13_AHBDACO PM
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:00 PM				05:00 PM				04:00 PM			
+0 mins.	33	19	46	98	11	135	28	174	17	39	31	87	52	170	48	270
+15 mins.	22	26	28	76	21	109	29	159	26	25	29	80	51	138	30	219
+30 mins.	26	24	33	83	8	121	30	159	38	41	31	110	47	109	7	163
+45 mins.	47	28	38	113	11	122	28	161	22	41	35	98	56	97	12	165
Total Volume	128	97	145	370	51	487	115	653	103	146	126	375	206	514	97	817
% App. Total	34.6	26.2	39.2		7.8	74.6	17.6		27.5	38.9	33.6		25.2	62.9	11.9	
PHF	.681	.866	.788	.819	.607	.902	.958	.938	.678	.890	.900	.852	.920	.756	.505	.756

Location: Alhambra
N/S: Date Street
E/W: W Commonwealth Avenue



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

		North Leg Date Street	East Leg W Commonwealth Avenue	South Leg Date Street	West Leg W Commonwealth Avenue	TOTAL
	7:00 AM	0	0	0	1	1
	7:15 AM	0	0	0	1	1
	7:30 AM	2	3	1	0	6
	7:45 AM	3	0	0	0	3
	8:00 AM	0	1	4	0	5
	8:15 AM	0	0	2	0	2
	8:30 AM	0	0	4	1	5
	8:45 AM	0	0	0	0	0
TOTAL VOLUMES:		5	4	11	3	23

		North Leg Date Street	East Leg W Commonwealth Avenue	South Leg Date Street	West Leg W Commonwealth Avenue	TOTAL
	4:00 PM	1	1	1	2	5
	4:15 PM	6	0	0	1	7
	4:30 PM	4	2	3	2	11
	4:45 PM	2	0	1	0	3
	5:00 PM	6	1	2	0	9
	5:15 PM	4	3	3	2	12
	5:30 PM	8	0	1	2	11
	5:45 PM	3	2	3	3	11
TOTAL VOLUMES:		34	9	14	12	69

Location: Alhambra
N/S: Date Street
E/W: W Commonwealth Avenue



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg Date Street	East Leg W Commonwealth Avenue	South Leg Date Street	West Leg W Commonwealth Avenue	TOTAL
	7:00 AM	1	1	0	0	2
	7:15 AM	0	0	0	1	1
	7:30 AM	0	0	0	0	0
	7:45 AM	1	0	0	0	1
	8:00 AM	0	0	1	0	1
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	1	0	0	1	2
TOTAL VOLUMES:		3	1	1	2	7

		North Leg Date Street	East Leg W Commonwealth Avenue	South Leg Date Street	West Leg W Commonwealth Avenue	TOTAL
	4:00 PM	0	1	2	0	3
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	2	1	0	3
	5:00 PM	1	0	0	1	2
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	2	0	2
TOTAL VOLUMES:		1	3	5	1	10

City of Alhambra
N/S: South Fremont Avenue
E/W: West Commonwealth Avenue
Weather: Clear

File Name : 14_AHBFRCO AM
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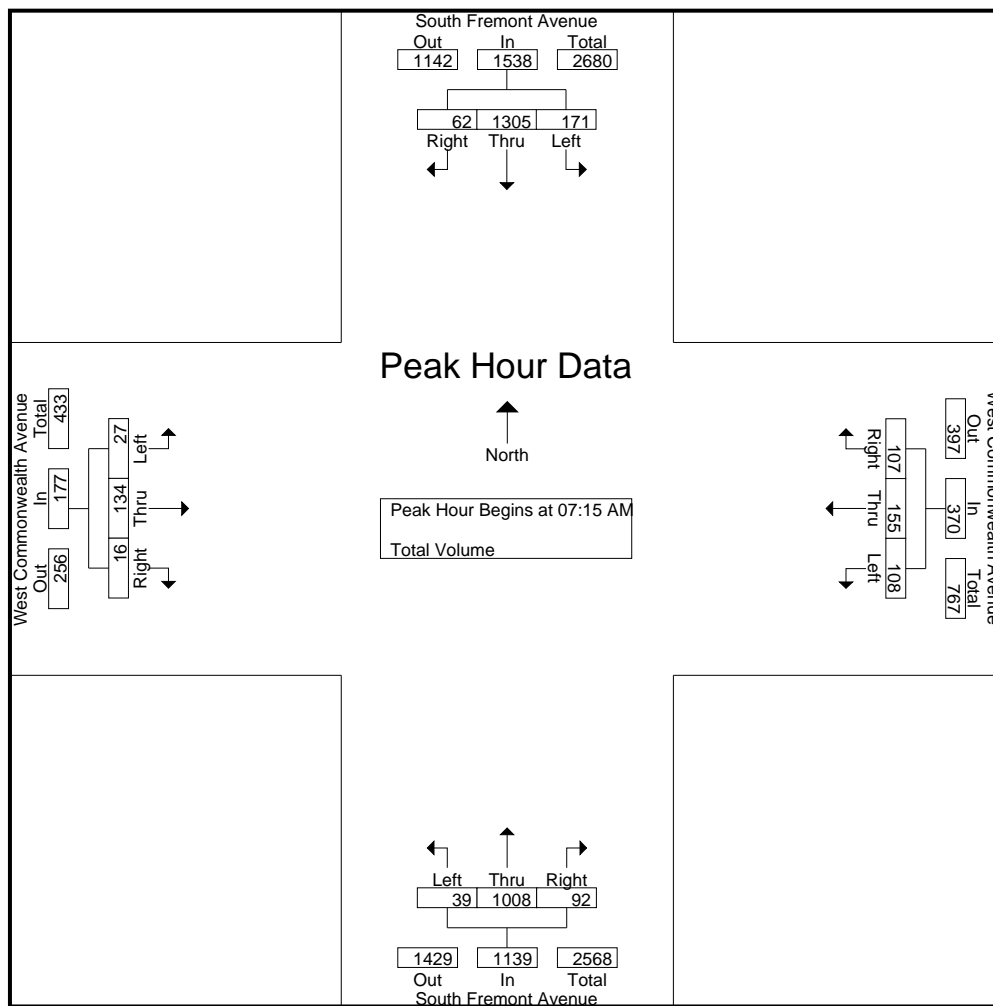
Groups Printed- Total Volume

	South Fremont Avenue Southbound				West Commonwealth Avenue Westbound				South Fremont Avenue Northbound				West Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	44	358	8	410	32	9	11	52	4	226	26	256	7	15	1	23	741
07:15 AM	26	361	7	394	26	19	28	73	3	276	23	302	5	33	4	42	811
07:30 AM	47	331	13	391	25	38	20	83	10	248	18	276	9	35	2	46	796
07:45 AM	52	271	29	352	28	53	38	119	20	231	23	274	7	36	6	49	794
Total	169	1321	57	1547	111	119	97	327	37	981	90	1108	28	119	13	160	3142
08:00 AM	46	342	13	401	29	45	21	95	6	253	28	287	6	30	4	40	823
08:15 AM	37	303	20	360	28	38	25	91	9	241	30	280	5	28	8	41	772
08:30 AM	49	311	19	379	37	24	27	88	2	260	34	296	2	14	3	19	782
08:45 AM	43	295	12	350	39	18	19	76	7	242	25	274	8	17	3	28	728
Total	175	1251	64	1490	133	125	92	350	24	996	117	1137	21	89	18	128	3105
Grand Total	344	2572	121	3037	244	244	189	677	61	1977	207	2245	49	208	31	288	6247
Apprch %	11.3	84.7	4		36	36	27.9		2.7	88.1	9.2		17	72.2	10.8		
Total %	5.5	41.2	1.9	48.6	3.9	3.9	3	10.8	1	31.6	3.3	35.9	0.8	3.3	0.5	4.6	

	South Fremont Avenue Southbound				West Commonwealth Avenue Westbound				South Fremont Avenue Northbound				West Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	26	361	7	394	26	19	28	73	3	276	23	302	5	33	4	42	811
07:30 AM	47	331	13	391	25	38	20	83	10	248	18	276	9	35	2	46	796
07:45 AM	52	271	29	352	28	53	38	119	20	231	23	274	7	36	6	49	794
08:00 AM	46	342	13	401	29	45	21	95	6	253	28	287	6	30	4	40	823
Total Volume	171	1305	62	1538	108	155	107	370	39	1008	92	1139	27	134	16	177	3224
% App. Total	11.1	84.9	4		29.2	41.9	28.9		3.4	88.5	8.1		15.3	75.7	9		
PHF	.822	.904	.534	.959	.931	.731	.704	.777	.488	.913	.821	.943	.750	.931	.667	.903	.979

City of Alhambra
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Weather: Clear

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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:45 AM				07:15 AM				07:15 AM			
+0 mins.	44	358	8	410	28	53	38	119	3	276	23	302	5	33	4	42
+15 mins.	26	361	7	394	29	45	21	95	10	248	18	276	9	35	2	46
+30 mins.	47	331	13	391	28	38	25	91	20	231	23	274	7	36	6	49
+45 mins.	52	271	29	352	37	24	27	88	6	253	28	287	6	30	4	40
Total Volume	169	1321	57	1547	122	160	111	393	39	1008	92	1139	27	134	16	177
% App. Total	10.9	85.4	3.7		31	40.7	28.2		3.4	88.5	8.1		15.3	75.7	9	
PHF	.813	.915	.491	.943	.824	.755	.730	.826	.488	.913	.821	.943	.750	.931	.667	.903

City of Alhambra
N/S: South Fremont Avenue
E/W: West Commonwealth Avenue
Weather: Clear

File Name : 14_AHBFRCO PM
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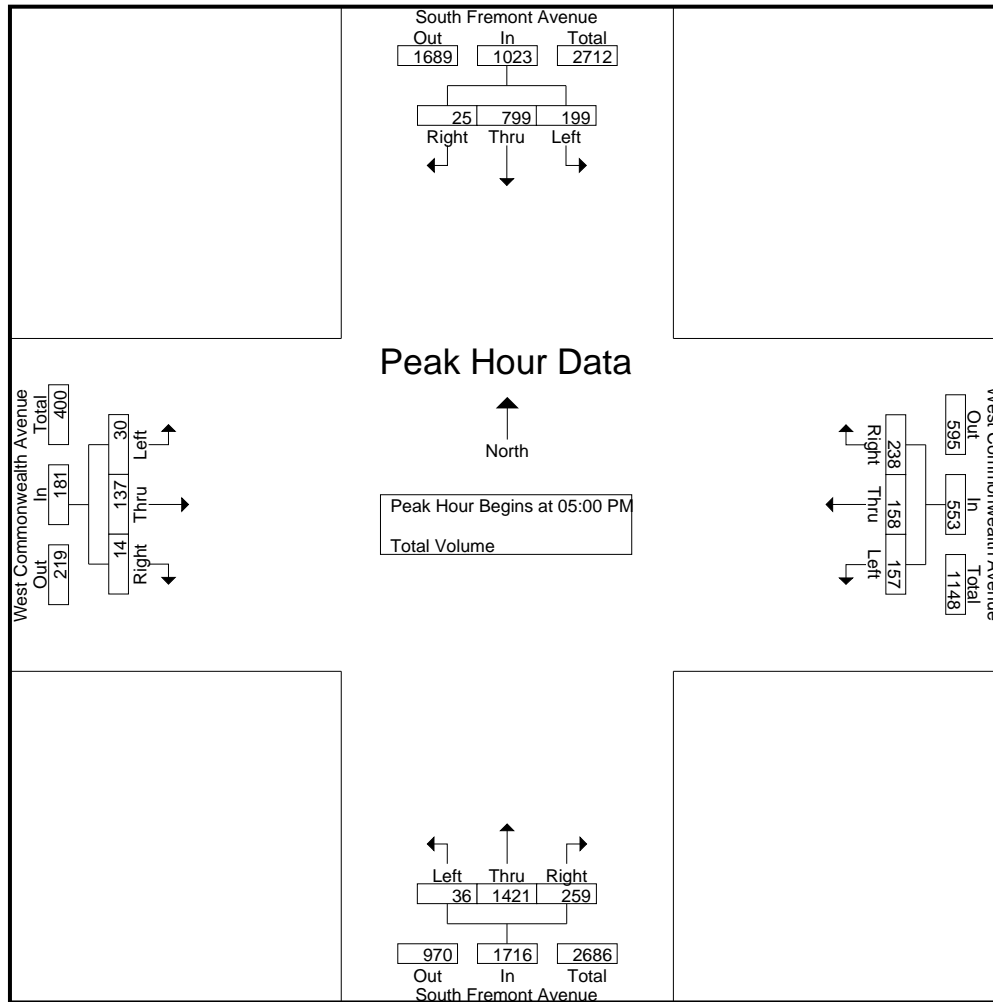
Groups Printed- Total Volume

	South Fremont Avenue Southbound				West Commonwealth Avenue Westbound				South Fremont Avenue Northbound				West Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	71	111	25	207	20	62	66	148	6	224	122	352	5	35	1	41	748
04:15 PM	56	201	9	266	36	54	62	152	11	329	79	419	8	44	6	58	895
04:30 PM	39	198	1	238	39	35	45	119	5	339	63	407	4	30	7	41	805
04:45 PM	58	200	15	273	47	52	61	160	14	307	62	383	4	29	3	36	852
Total	224	710	50	984	142	203	234	579	36	1199	326	1561	21	138	17	176	3300
05:00 PM	52	206	8	266	37	26	53	116	13	385	59	457	7	30	4	41	880
05:15 PM	48	193	5	246	38	44	61	143	9	356	59	424	10	25	3	38	851
05:30 PM	48	206	7	261	36	42	66	144	4	348	63	415	6	42	3	51	871
05:45 PM	51	194	5	250	46	46	58	150	10	332	78	420	7	40	4	51	871
Total	199	799	25	1023	157	158	238	553	36	1421	259	1716	30	137	14	181	3473
Grand Total	423	1509	75	2007	299	361	472	1132	72	2620	585	3277	51	275	31	357	6773
Apprch %	21.1	75.2	3.7		26.4	31.9	41.7		2.2	80	17.9		14.3	77	8.7		
Total %	6.2	22.3	1.1	29.6	4.4	5.3	7	16.7	1.1	38.7	8.6	48.4	0.8	4.1	0.5	5.3	

	South Fremont Avenue Southbound				West Commonwealth Avenue Westbound				South Fremont Avenue Northbound				West Commonwealth Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	52	206	8	266	37	26	53	116	13	385	59	457	7	30	4	41	880
05:15 PM	48	193	5	246	38	44	61	143	9	356	59	424	10	25	3	38	851
05:30 PM	48	206	7	261	36	42	66	144	4	348	63	415	6	42	3	51	871
05:45 PM	51	194	5	250	46	46	58	150	10	332	78	420	7	40	4	51	871
Total Volume	199	799	25	1023	157	158	238	553	36	1421	259	1716	30	137	14	181	3473
% App. Total	19.5	78.1	2.4		28.4	28.6	43		2.1	82.8	15.1		16.6	75.7	7.7		
PHF	.957	.970	.781	.961	.853	.859	.902	.922	.692	.923	.830	.939	.750	.815	.875	.887	.987

City of Alhambra
N/S: South Fremont Avenue
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Weather: Clear

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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:00 PM				05:00 PM				05:00 PM			
+0 mins.	58	200	15	273	20	62	66	148	13	385	59	457	7	30	4	41
+15 mins.	52	206	8	266	36	54	62	152	9	356	59	424	10	25	3	38
+30 mins.	48	193	5	246	39	35	45	119	4	348	63	415	6	42	3	51
+45 mins.	48	206	7	261	47	52	61	160	10	332	78	420	7	40	4	51
Total Volume	206	805	35	1046	142	203	234	579	36	1421	259	1716	30	137	14	181
% App. Total	19.7	77	3.3		24.5	35.1	40.4		2.1	82.8	15.1		16.6	75.7	7.7	
PHF	.888	.977	.583	.958	.755	.819	.886	.905	.692	.923	.830	.939	.750	.815	.875	.887

Location: Alhambra
N/S: South Fremont Avenue
E/W: W Commonwealth Avenue



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

		North Leg South Fremont Avenue	East Leg W Commonwealth Avenue	South Leg South Fremont Avenue	West Leg W Commonwealth Avenue	TOTAL
	7:00 AM	3	1	4	3	11
	7:15 AM	3	3	9	2	17
	7:30 AM	3	1	0	2	6
	7:45 AM	5	1	3	2	11
	8:00 AM	4	5	4	4	17
	8:15 AM	2	2	3	4	11
	8:30 AM	0	4	2	0	6
	8:45 AM	1	2	3	0	6
TOTAL VOLUMES:		21	19	28	17	85

		North Leg South Fremont Avenue	East Leg W Commonwealth Avenue	South Leg South Fremont Avenue	West Leg W Commonwealth Avenue	TOTAL
	4:00 PM	1	6	2	1	10
	4:15 PM	12	4	2	3	21
	4:30 PM	3	1	0	1	5
	4:45 PM	3	2	0	4	9
	5:00 PM	2	3	3	3	11
	5:15 PM	0	1	6	0	7
	5:30 PM	2	1	5	1	9
	5:45 PM	6	3	3	1	13
TOTAL VOLUMES:		29	21	21	14	85

Location: Alhambra
N/S: South Fremont Avenue
E/W: W Commonwealth Avenue



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg South Fremont Avenue	East Leg W Commonwealth Avenue	South Leg South Fremont Avenue	West Leg W Commonwealth Avenue	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	1	0	1
	7:30 AM	0	0	0	0	0
	7:45 AM	1	1	0	0	2
	8:00 AM	1	0	0	1	2
	8:15 AM	0	3	0	0	3
	8:30 AM	0	2	1	0	3
	8:45 AM	0	0	0	0	0
TOTAL VOLUMES:		2	6	2	1	11

		North Leg South Fremont Avenue	East Leg W Commonwealth Avenue	South Leg South Fremont Avenue	West Leg W Commonwealth Avenue	TOTAL
	4:00 PM	0	0	0	1	1
	4:15 PM	0	0	1	0	1
	4:30 PM	0	1	0	0	1
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	1	0	0	1
	5:30 PM	0	0	0	1	1
	5:45 PM	0	0	3	0	3
TOTAL VOLUMES:		0	2	4	2	8

City of Alhambra
N/S: South Fremont Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : 15_AHBFRA AM
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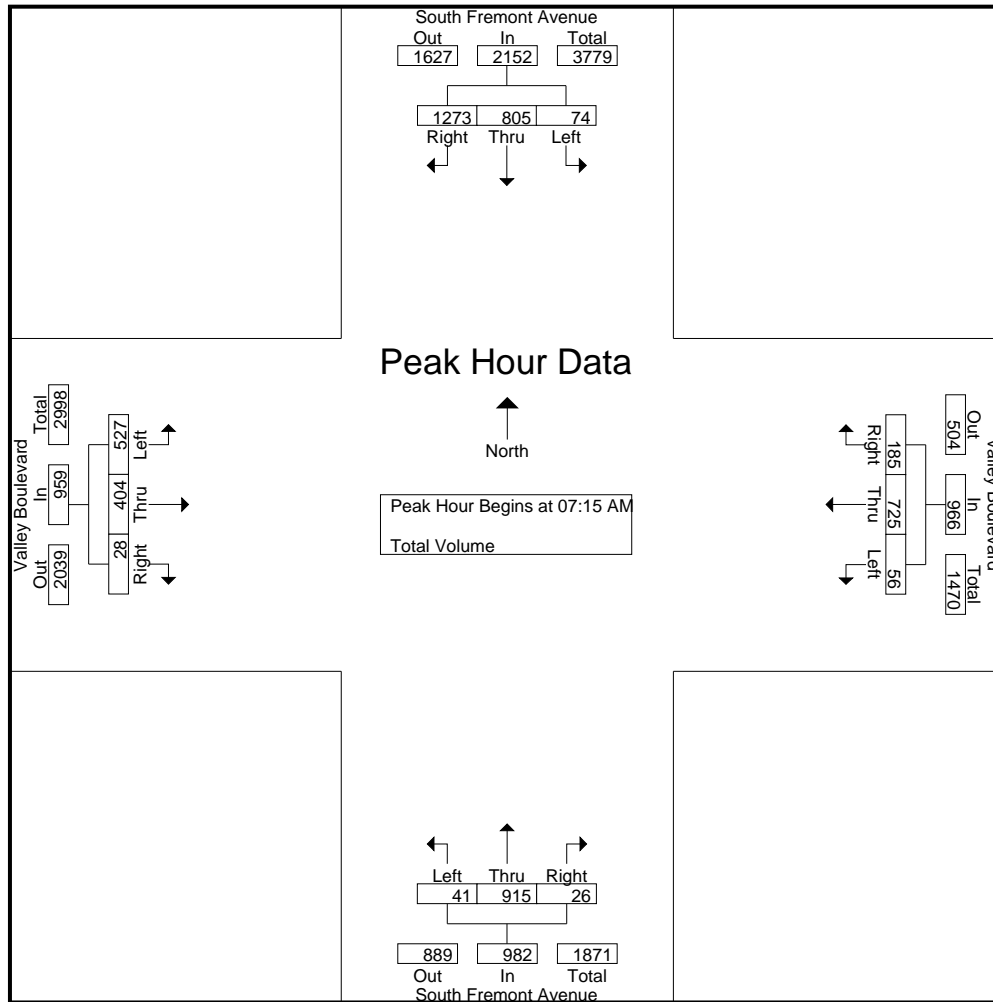
Groups Printed- Total Volume

	South Fremont Avenue Southbound				Valley Boulevard Westbound				South Fremont Avenue Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	18	146	317	481	9	170	40	219	9	242	1	252	146	109	5	260	1212
07:15 AM	21	180	318	519	14	152	36	202	6	221	4	231	148	145	5	298	1250
07:30 AM	15	239	291	545	14	174	62	250	10	248	5	263	123	84	12	219	1277
07:45 AM	17	186	298	501	15	228	56	299	12	208	5	225	136	102	8	246	1271
Total	71	751	1224	2046	52	724	194	970	37	919	15	971	553	440	30	1023	5010
08:00 AM	21	200	366	587	13	171	31	215	13	238	12	263	120	73	3	196	1261
08:15 AM	16	169	293	478	12	169	51	232	7	203	4	214	135	155	8	298	1222
08:30 AM	30	237	290	557	14	158	39	211	7	237	5	249	114	91	4	209	1226
08:45 AM	22	195	295	512	19	203	57	279	9	191	5	205	138	100	7	245	1241
Total	89	801	1244	2134	58	701	178	937	36	869	26	931	507	419	22	948	4950
Grand Total	160	1552	2468	4180	110	1425	372	1907	73	1788	41	1902	1060	859	52	1971	9960
Apprch %	3.8	37.1	59		5.8	74.7	19.5		3.8	94	2.2		53.8	43.6	2.6		
Total %	1.6	15.6	24.8	42	1.1	14.3	3.7	19.1	0.7	18	0.4	19.1	10.6	8.6	0.5	19.8	

	South Fremont Avenue Southbound				Valley Boulevard Westbound				South Fremont Avenue Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	21	180	318	519	14	152	36	202	6	221	4	231	148	145	5	298	1250
07:30 AM	15	239	291	545	14	174	62	250	10	248	5	263	123	84	12	219	1277
07:45 AM	17	186	298	501	15	228	56	299	12	208	5	225	136	102	8	246	1271
08:00 AM	21	200	366	587	13	171	31	215	13	238	12	263	120	73	3	196	1261
Total Volume	74	805	1273	2152	56	725	185	966	41	915	26	982	527	404	28	959	5059
% App. Total	3.4	37.4	59.2		5.8	75.1	19.2		4.2	93.2	2.6		55	42.1	2.9		
PHF	.881	.842	.870	.917	.933	.795	.746	.808	.788	.922	.542	.933	.890	.697	.583	.805	.990

City of Alhambra
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Weather: Clear

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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:30 AM				07:45 AM				08:00 AM			
+0 mins.	21	180	318	519	14	174	62	250	6	221	4	231	146	109	5	260
+15 mins.	15	239	291	545	15	228	56	299	10	248	5	263	148	145	5	298
+30 mins.	17	186	298	501	13	171	31	215	12	208	5	225	123	84	12	219
+45 mins.	21	200	366	587	12	169	51	232	13	238	12	263	136	102	8	246
Total Volume	74	805	1273	2152	54	742	200	996	41	915	26	982	553	440	30	1023
% App. Total	3.4	37.4	59.2		5.4	74.5	20.1		4.2	93.2	2.6		54.1	43	2.9	
PHF	.881	.842	.870	.917	.900	.814	.806	.833	.788	.922	.542	.933	.934	.759	.625	.858

City of Alhambra
N/S: South Fremont Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : 15_AHBFRA PM
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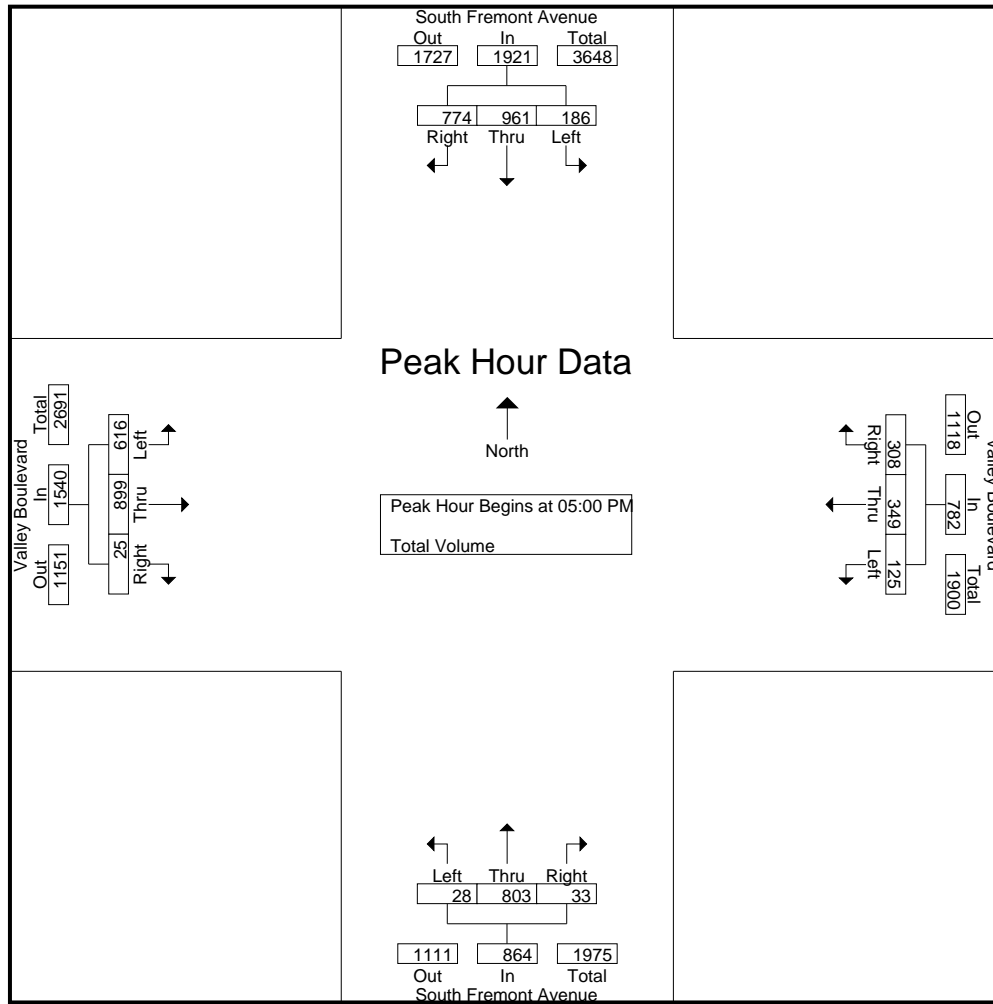
Groups Printed- Total Volume

	South Fremont Avenue Southbound				Valley Boulevard Westbound				South Fremont Avenue Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	36	101	107	244	24	103	54	181	7	125	7	139	90	178	11	279	843
04:15 PM	37	182	197	416	42	150	89	281	6	152	1	159	140	252	11	403	1259
04:30 PM	37	211	173	421	27	74	72	173	6	219	16	241	117	163	5	285	1120
04:45 PM	28	236	163	427	30	91	82	203	8	158	13	179	159	239	10	408	1217
Total	138	730	640	1508	123	418	297	838	27	654	37	718	506	832	37	1375	4439
05:00 PM	36	251	227	514	28	75	79	182	3	197	7	207	143	217	13	373	1276
05:15 PM	51	227	177	455	34	100	81	215	6	184	4	194	170	229	4	403	1267
05:30 PM	55	257	190	502	32	84	67	183	9	222	8	239	144	200	5	349	1273
05:45 PM	44	226	180	450	31	90	81	202	10	200	14	224	159	253	3	415	1291
Total	186	961	774	1921	125	349	308	782	28	803	33	864	616	899	25	1540	5107
Grand Total	324	1691	1414	3429	248	767	605	1620	55	1457	70	1582	1122	1731	62	2915	9546
Apprch %	9.4	49.3	41.2		15.3	47.3	37.3		3.5	92.1	4.4		38.5	59.4	2.1		
Total %	3.4	17.7	14.8	35.9	2.6	8	6.3	17	0.6	15.3	0.7	16.6	11.8	18.1	0.6	30.5	

	South Fremont Avenue Southbound				Valley Boulevard Westbound				South Fremont Avenue Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	36	251	227	514	28	75	79	182	3	197	7	207	143	217	13	373	1276
05:15 PM	51	227	177	455	34	100	81	215	6	184	4	194	170	229	4	403	1267
05:30 PM	55	257	190	502	32	84	67	183	9	222	8	239	144	200	5	349	1273
05:45 PM	44	226	180	450	31	90	81	202	10	200	14	224	159	253	3	415	1291
Total Volume	186	961	774	1921	125	349	308	782	28	803	33	864	616	899	25	1540	5107
% App. Total	9.7	50	40.3		16	44.6	39.4		3.2	92.9	3.8		40	58.4	1.6		
PHF	.845	.935	.852	.934	.919	.873	.951	.909	.700	.904	.589	.904	.906	.888	.481	.928	.989

City of Alhambra
N/S: South Fremont Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : 15_AHBFRA PM
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:15 PM				05:00 PM				05:00 PM			
+0 mins.	36	251	227	514	42	150	89	281	3	197	7	207	143	217	13	373
+15 mins.	51	227	177	455	27	74	72	173	6	184	4	194	170	229	4	403
+30 mins.	55	257	190	502	30	91	82	203	9	222	8	239	144	200	5	349
+45 mins.	44	226	180	450	28	75	79	182	10	200	14	224	159	253	3	415
Total Volume	186	961	774	1921	127	390	322	839	28	803	33	864	616	899	25	1540
% App. Total	9.7	50	40.3		15.1	46.5	38.4		3.2	92.9	3.8		40	58.4	1.6	
PHF	.845	.935	.852	.934	.756	.650	.904	.746	.700	.904	.589	.904	.906	.888	.481	.928

Location: Alhambra
N/S: South Fremont Avenue
E/W: Valley Boulevard



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

		North Leg South Fremont Avenue	East Leg Valley Boulevard	South Leg South Fremont Avenue	West Leg Valley Boulevard	TOTAL
	7:00 AM	3	4	5	0	12
	7:15 AM	5	5	6	6	22
	7:30 AM	4	10	3	2	19
	7:45 AM	1	4	5	3	13
	8:00 AM	2	5	8	2	17
	8:15 AM	5	4	5	2	16
	8:30 AM	6	4	3	4	17
	8:45 AM	1	3	4	1	9
TOTAL VOLUMES:		27	39	39	20	125

		North Leg South Fremont Avenue	East Leg Valley Boulevard	South Leg South Fremont Avenue	West Leg Valley Boulevard	TOTAL
	4:00 PM	7	6	4	5	22
	4:15 PM	2	2	3	2	9
	4:30 PM	5	5	4	2	16
	4:45 PM	2	1	1	1	5
	5:00 PM	0	5	3	4	12
	5:15 PM	2	5	2	1	10
	5:30 PM	1	3	2	12	18
	5:45 PM	2	1	1	2	6
TOTAL VOLUMES:		21	28	20	29	98

Location: Alhambra
N/S: South Fremont Avenue
E/W: Valley Boulevard



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg South Fremont Avenue	East Leg Valley Boulevard	South Leg South Fremont Avenue	West Leg Valley Boulevard	TOTAL
	7:00 AM	1	0	0	0	1
	7:15 AM	0	0	1	0	1
	7:30 AM	0	0	0	0	0
	7:45 AM	0	1	0	0	1
	8:00 AM	0	1	0	0	1
	8:15 AM	0	0	0	0	0
	8:30 AM	0	2	0	0	2
	8:45 AM	2	0	1	0	3
TOTAL VOLUMES:		3	4	2	0	9

		North Leg South Fremont Avenue	East Leg Valley Boulevard	South Leg South Fremont Avenue	West Leg Valley Boulevard	TOTAL
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	1	2	0	3
	4:45 PM	0	0	0	0	0
	5:00 PM	0	1	0	1	2
	5:15 PM	0	1	0	0	1
	5:30 PM	1	1	0	0	2
	5:45 PM	0	0	0	0	0
TOTAL VOLUMES:		1	4	2	1	8

City of Alhambra
N/S: South Palm Avenue
E/W: West Mission Road
Weather: Clear

File Name : 16_AHBPAMI AM
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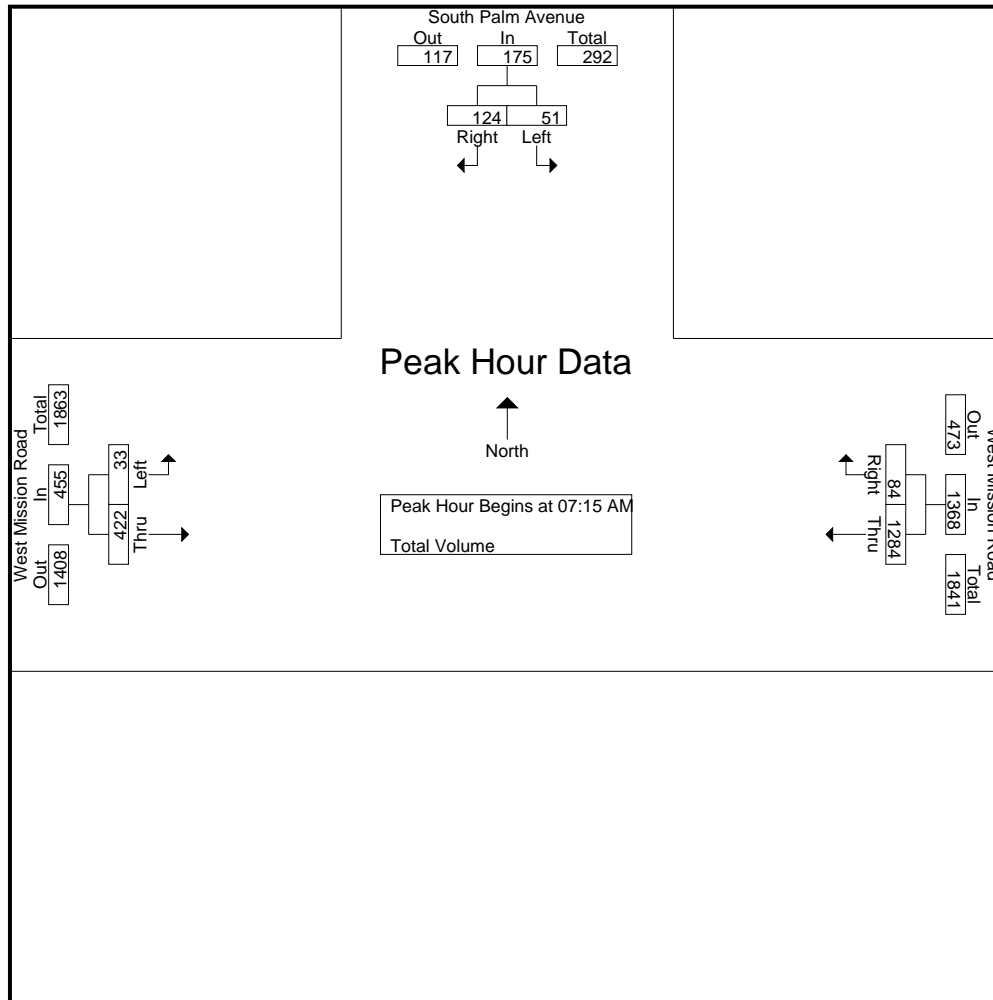
Groups Printed- Total Volume

	South Palm Avenue Southbound			West Mission Road Westbound			West Mission Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	4	9	13	261	4	265	4	55	59	337
07:15 AM	9	28	37	317	19	336	7	92	99	472
07:30 AM	13	33	46	341	14	355	5	102	107	508
07:45 AM	17	36	53	317	26	343	14	126	140	536
Total	43	106	149	1236	63	1299	30	375	405	1853
08:00 AM	12	27	39	309	25	334	7	102	109	482
08:15 AM	16	30	46	302	12	314	12	87	99	459
08:30 AM	8	24	32	262	19	281	13	84	97	410
08:45 AM	12	27	39	284	20	304	9	106	115	458
Total	48	108	156	1157	76	1233	41	379	420	1809
Grand Total	91	214	305	2393	139	2532	71	754	825	3662
Apprch %	29.8	70.2		94.5	5.5		8.6	91.4		
Total %	2.5	5.8	8.3	65.3	3.8	69.1	1.9	20.6	22.5	

	South Palm Avenue Southbound			West Mission Road Westbound			West Mission Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	9	28	37	317	19	336	7	92	99	472
07:30 AM	13	33	46	341	14	355	5	102	107	508
07:45 AM	17	36	53	317	26	343	14	126	140	536
08:00 AM	12	27	39	309	25	334	7	102	109	482
Total Volume	51	124	175	1284	84	1368	33	422	455	1998
% App. Total	29.1	70.9		93.9	6.1		7.3	92.7		
PHF	.750	.861	.825	.941	.808	.963	.589	.837	.813	.932

City of Alhambra
N/S: South Palm Avenue
E/W: West Mission Road
Weather: Clear

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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:15 AM			07:15 AM		
+0 mins.	13	33	46	317	19	336	7	92	99
+15 mins.	17	36	53	341	14	355	5	102	107
+30 mins.	12	27	39	317	26	343	14	126	140
+45 mins.	16	30	46	309	25	334	7	102	109
Total Volume	58	126	184	1284	84	1368	33	422	455
% App. Total	31.5	68.5		93.9	6.1		7.3	92.7	
PHF	.853	.875	.868	.941	.808	.963	.589	.837	.813

City of Alhambra
N/S: South Palm Avenue
E/W: West Mission Road
Weather: Clear

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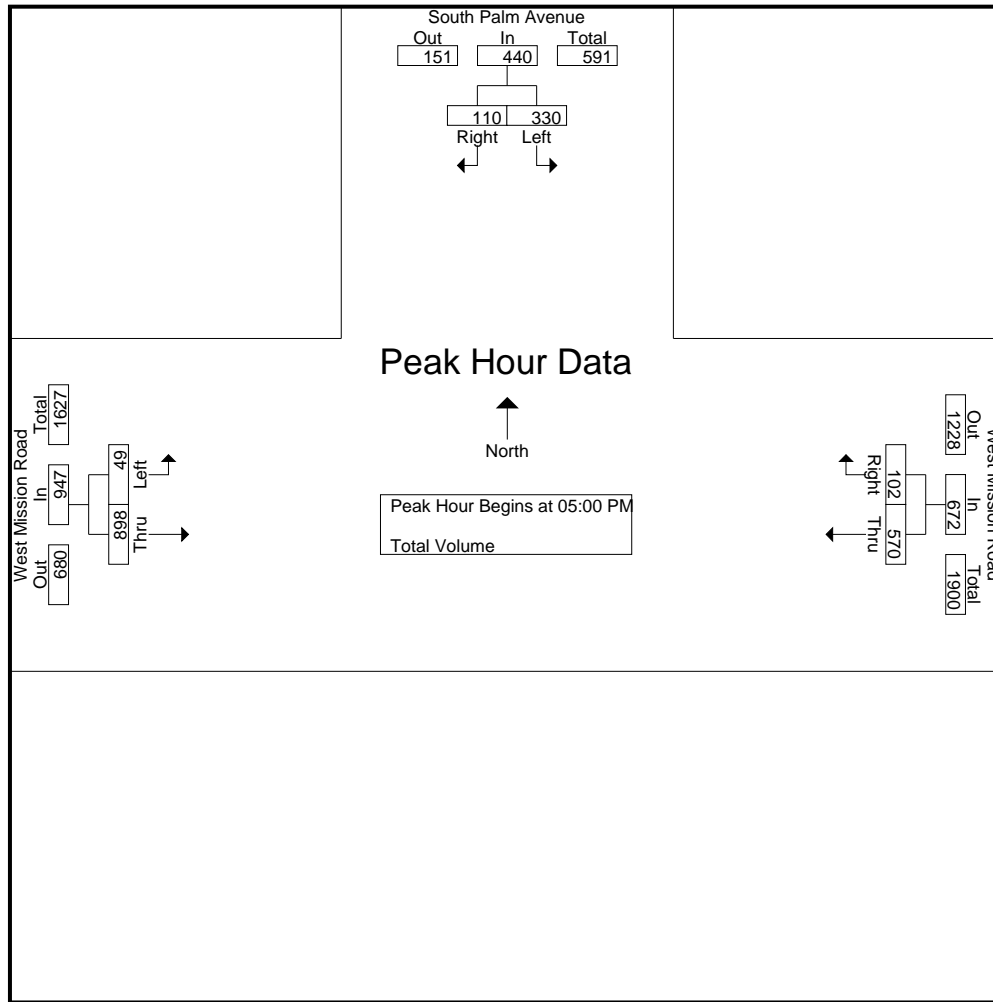
Groups Printed- Total Volume

	South Palm Avenue Southbound			West Mission Road Westbound			West Mission Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	81	38	119	129	30	159	13	198	211	489
04:15 PM	87	18	105	134	32	166	14	224	238	509
04:30 PM	81	26	107	126	18	144	9	206	215	466
04:45 PM	67	18	85	130	21	151	18	227	245	481
Total	316	100	416	519	101	620	54	855	909	1945
05:00 PM	63	23	86	145	22	167	5	243	248	501
05:15 PM	88	31	119	132	25	157	18	210	228	504
05:30 PM	89	21	110	150	36	186	10	234	244	540
05:45 PM	90	35	125	143	19	162	16	211	227	514
Total	330	110	440	570	102	672	49	898	947	2059
Grand Total	646	210	856	1089	203	1292	103	1753	1856	4004
Apprch %	75.5	24.5		84.3	15.7		5.5	94.5		
Total %	16.1	5.2	21.4	27.2	5.1	32.3	2.6	43.8	46.4	

	South Palm Avenue Southbound			West Mission Road Westbound			West Mission Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	63	23	86	145	22	167	5	243	248	501
05:15 PM	88	31	119	132	25	157	18	210	228	504
05:30 PM	89	21	110	150	36	186	10	234	244	540
05:45 PM	90	35	125	143	19	162	16	211	227	514
Total Volume	330	110	440	570	102	672	49	898	947	2059
% App. Total	75	25		84.8	15.2		5.2	94.8		
PHF	.917	.786	.880	.950	.708	.903	.681	.924	.955	.953

City of Alhambra
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			04:45 PM		
+0 mins.	63	23	86	145	22	167	18	227	245
+15 mins.	88	31	119	132	25	157	5	243	248
+30 mins.	89	21	110	150	36	186	18	210	228
+45 mins.	90	35	125	143	19	162	10	234	244
Total Volume	330	110	440	570	102	672	51	914	965
% App. Total	75	25		84.8	15.2		5.3	94.7	
PHF	.917	.786	.880	.950	.708	.903	.708	.940	.973

Location: Alhambra
N/S: South Palm Avenue
E/W: West Mission Road



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

		North Leg South Palm Avenue	East Leg West Mission Road	South Leg South Palm Avenue	West Leg West Mission Road	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	2	0	0	0	2
	7:30 AM	0	0	0	0	0
	7:45 AM	2	0	0	0	2
	8:00 AM	1	0	0	0	1
	8:15 AM	0	0	0	0	0
	8:30 AM	1	0	0	0	1
	8:45 AM	1	0	0	0	1
	TOTAL VOLUMES:	7	0	0	0	7

		North Leg South Palm Avenue	East Leg West Mission Road	South Leg South Palm Avenue	West Leg West Mission Road	TOTAL
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	3	0	0	0	3
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	2	0	0	0	2
	5:45 PM	0	0	0	0	0
	TOTAL VOLUMES:	5	0	0	0	5

Location: Alhambra
N/S: South Palm Avenue
E/W: West Mission Road



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg South Palm Avenue	East Leg West Mission Road	South Leg South Palm Avenue	West Leg West Mission Road	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	1	0	0	0	1
	7:30 AM	0	0	0	0	0
	7:45 AM	1	0	0	0	1
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	1	0	0	0	1
TOTAL VOLUMES:		3	0	0	0	3

		North Leg South Palm Avenue	East Leg West Mission Road	South Leg South Palm Avenue	West Leg West Mission Road	TOTAL
	4:00 PM	0	0	0	0	0
	4:15 PM	2	0	0	0	2
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	1	0	0	0	1
	5:15 PM	0	0	0	0	0
	5:30 PM	1	0	0	0	1
	5:45 PM	0	0	0	0	0
TOTAL VOLUMES:		4	0	0	0	4

City of Alhambra
N/S: South Marengo Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : 17_AHBMVA AM
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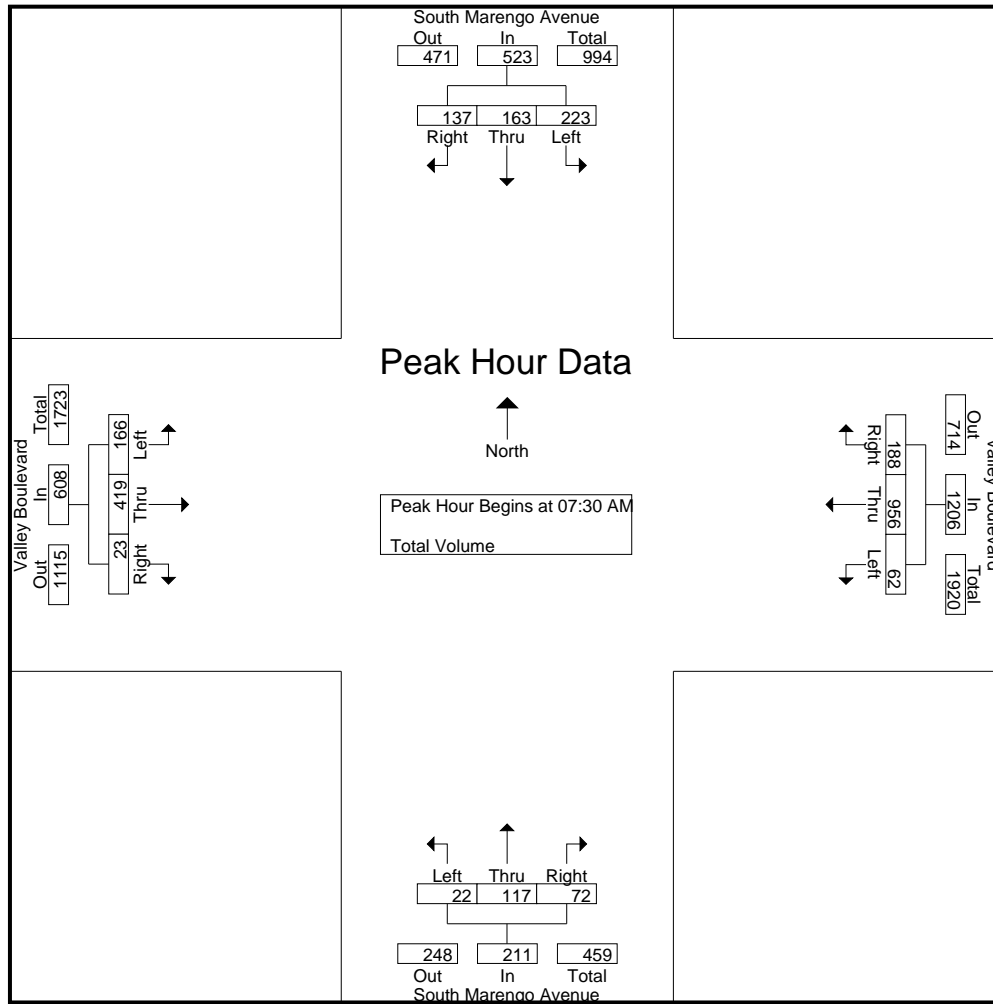
Groups Printed- Total Volume

	South Marengo Avenue Southbound				Valley Boulevard Westbound				South Marengo Avenue Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	27	19	26	72	9	186	31	226	2	11	4	17	31	82	3	116	431
07:15 AM	39	44	18	101	10	183	40	233	2	15	9	26	54	73	4	131	491
07:30 AM	63	43	29	135	15	226	40	281	6	36	21	63	56	105	7	168	647
07:45 AM	58	46	29	133	17	296	53	366	10	26	17	53	31	104	8	143	695
Total	187	152	102	441	51	891	164	1106	20	88	51	159	172	364	22	558	2264
08:00 AM	58	40	42	140	15	222	48	285	4	38	26	68	33	96	7	136	629
08:15 AM	44	34	37	115	15	212	47	274	2	17	8	27	46	114	1	161	577
08:30 AM	46	35	33	114	12	211	43	266	2	11	8	21	40	103	2	145	546
08:45 AM	61	29	27	117	16	218	42	276	1	19	13	33	43	92	1	136	562
Total	209	138	139	486	58	863	180	1101	9	85	55	149	162	405	11	578	2314
Grand Total	396	290	241	927	109	1754	344	2207	29	173	106	308	334	769	33	1136	4578
Apprch %	42.7	31.3	26		4.9	79.5	15.6		9.4	56.2	34.4		29.4	67.7	2.9		
Total %	8.7	6.3	5.3	20.2	2.4	38.3	7.5	48.2	0.6	3.8	2.3	6.7	7.3	16.8	0.7	24.8	

	South Marengo Avenue Southbound				Valley Boulevard Westbound				South Marengo Avenue Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	63	43	29	135	15	226	40	281	6	36	21	63	56	105	7	168	647
07:45 AM	58	46	29	133	17	296	53	366	10	26	17	53	31	104	8	143	695
08:00 AM	58	40	42	140	15	222	48	285	4	38	26	68	33	96	7	136	629
08:15 AM	44	34	37	115	15	212	47	274	2	17	8	27	46	114	1	161	577
Total Volume	223	163	137	523	62	956	188	1206	22	117	72	211	166	419	23	608	2548
% App. Total	42.6	31.2	26.2		5.1	79.3	15.6		10.4	55.5	34.1		27.3	68.9	3.8		
PHF	.885	.886	.815	.934	.912	.807	.887	.824	.550	.770	.692	.776	.741	.919	.719	.905	.917

City of Alhambra
N/S: South Marengo Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : 17_AHBMVA AM
Site Code : 10817000
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	63	43	29	135	15	226	40	281	6	36	21	63	56	105	7	168
+15 mins.	58	46	29	133	17	296	53	366	10	26	17	53	31	104	8	143
+30 mins.	58	40	42	140	15	222	48	285	4	38	26	68	33	96	7	136
+45 mins.	44	34	37	115	15	212	47	274	2	17	8	27	46	114	1	161
Total Volume	223	163	137	523	62	956	188	1206	22	117	72	211	166	419	23	608
% App. Total	42.6	31.2	26.2		5.1	79.3	15.6		10.4	55.5	34.1		27.3	68.9	3.8	
PHF	.885	.886	.815	.934	.912	.807	.887	.824	.550	.770	.692	.776	.741	.919	.719	.905

City of Alhambra
N/S: South Marengo Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : 17_AHBMVA PM
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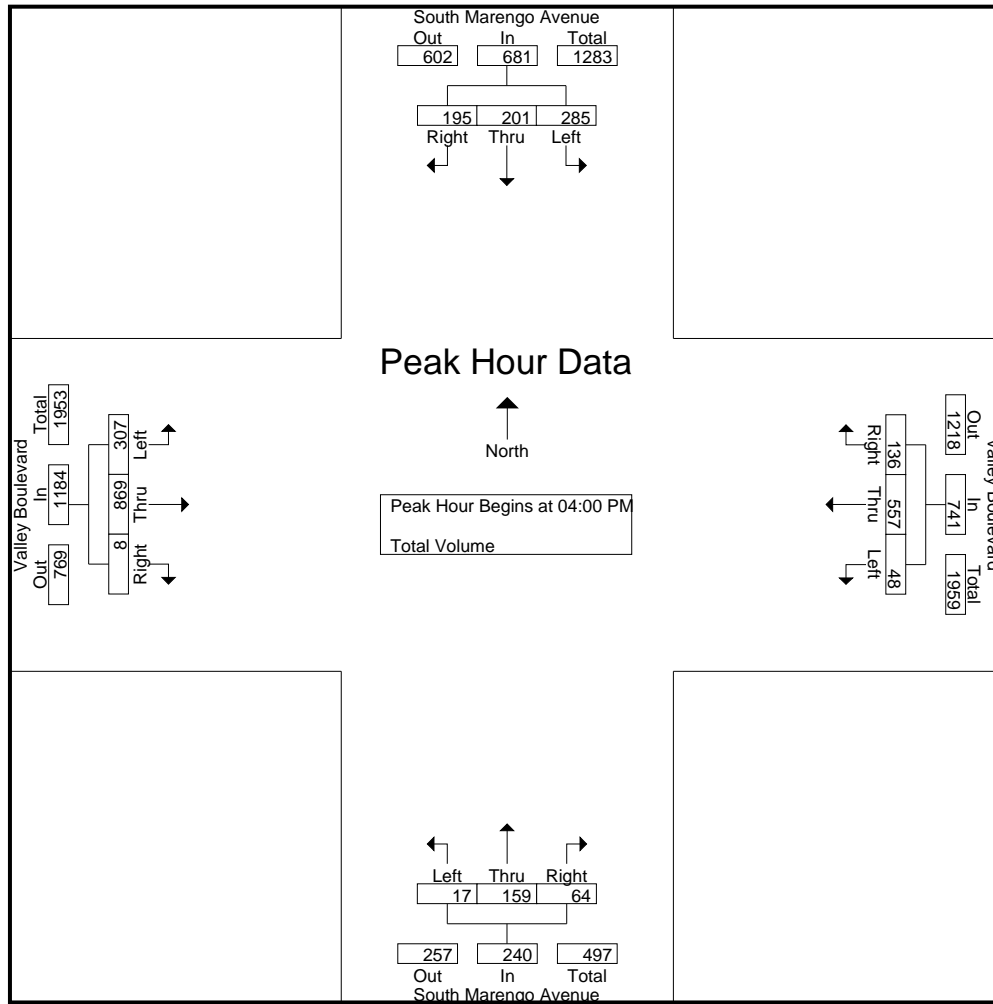
Groups Printed- Total Volume

	South Marengo Avenue Southbound				Valley Boulevard Westbound				South Marengo Avenue Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	74	58	79	211	11	125	28	164	4	45	21	70	71	225	1	297	742
04:15 PM	64	62	55	181	12	154	29	195	4	41	14	59	94	233	2	329	764
04:30 PM	74	44	33	151	6	133	34	173	5	43	17	65	83	177	3	263	652
04:45 PM	73	37	28	138	19	145	45	209	4	30	12	46	59	234	2	295	688
Total	285	201	195	681	48	557	136	741	17	159	64	240	307	869	8	1184	2846
05:00 PM	84	41	34	159	16	122	46	184	6	54	23	83	82	221	5	308	734
05:15 PM	66	43	24	133	6	112	34	152	7	55	20	82	58	155	4	217	584
05:30 PM	82	29	24	135	10	139	26	175	3	49	28	80	88	227	2	317	707
05:45 PM	78	42	28	148	11	145	29	185	10	55	17	82	77	230	2	309	724
Total	310	155	110	575	43	518	135	696	26	213	88	327	305	833	13	1151	2749
Grand Total	595	356	305	1256	91	1075	271	1437	43	372	152	567	612	1702	21	2335	5595
Apprch %	47.4	28.3	24.3		6.3	74.8	18.9		7.6	65.6	26.8		26.2	72.9	0.9		
Total %	10.6	6.4	5.5	22.4	1.6	19.2	4.8	25.7	0.8	6.6	2.7	10.1	10.9	30.4	0.4	41.7	

	South Marengo Avenue Southbound				Valley Boulevard Westbound				South Marengo Avenue Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	74	58	79	211	11	125	28	164	4	45	21	70	71	225	1	297	742
04:15 PM	64	62	55	181	12	154	29	195	4	41	14	59	94	233	2	329	764
04:30 PM	74	44	33	151	6	133	34	173	5	43	17	65	83	177	3	263	652
04:45 PM	73	37	28	138	19	145	45	209	4	30	12	46	59	234	2	295	688
Total Volume	285	201	195	681	48	557	136	741	17	159	64	240	307	869	8	1184	2846
% App. Total	41.9	29.5	28.6		6.5	75.2	18.4		7.1	66.2	26.7		25.9	73.4	0.7		
PHF	.963	.810	.617	.807	.632	.904	.756	.886	.850	.883	.762	.857	.816	.928	.667	.900	.931

City of Alhambra
N/S: South Marengo Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : 17_AHBMVA PM
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:15 PM				05:00 PM				04:15 PM			
+0 mins.	74	58	79	211	12	154	29	195	6	54	23	83	94	233	2	329
+15 mins.	64	62	55	181	6	133	34	173	7	55	20	82	83	177	3	263
+30 mins.	74	44	33	151	19	145	45	209	3	49	28	80	59	234	2	295
+45 mins.	73	37	28	138	16	122	46	184	10	55	17	82	82	221	5	308
Total Volume	285	201	195	681	53	554	154	761	26	213	88	327	318	865	12	1195
% App. Total	41.9	29.5	28.6		7	72.8	20.2		8	65.1	26.9		26.6	72.4	1	
PHF	.963	.810	.617	.807	.697	.899	.837	.910	.650	.968	.786	.985	.846	.924	.600	.908

Location: Alhambra
N/S: South Marengo Avenue
E/W: Valley Boulevard



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

		North Leg South Marengo Avenue	East Leg Valley Boulevard	South Leg South Marengo Avenue	West Leg Valley Boulevard	TOTAL
	7:00 AM	3	4	7	10	24
	7:15 AM	7	2	2	3	14
	7:30 AM	7	3	8	6	24
	7:45 AM	5	3	7	4	19
	8:00 AM	1	5	6	2	14
	8:15 AM	3	2	1	1	7
	8:30 AM	1	1	2	0	4
	8:45 AM	4	1	4	3	12
TOTAL VOLUMES:		31	21	37	29	118

		North Leg South Marengo Avenue	East Leg Valley Boulevard	South Leg South Marengo Avenue	West Leg Valley Boulevard	TOTAL
	4:00 PM	3	0	9	4	16
	4:15 PM	2	1	3	9	15
	4:30 PM	4	6	8	5	23
	4:45 PM	3	1	4	11	19
	5:00 PM	3	3	3	5	14
	5:15 PM	3	1	2	4	10
	5:30 PM	1	1	1	2	5
	5:45 PM	1	1	3	0	5
TOTAL VOLUMES:		20	14	33	40	107

Location: Alhambra
N/S: South Marengo Avenue
E/W: Valley Boulevard



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg South Marengo Avenue	East Leg Valley Boulevard	South Leg South Marengo Avenue	West Leg Valley Boulevard	TOTAL
	7:00 AM	1	0	0	0	1
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	1	0	0	0	1
	8:00 AM	1	0	0	0	1
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	1	0	0	0	1
TOTAL VOLUMES:		4	0	0	0	4

		North Leg South Marengo Avenue	East Leg Valley Boulevard	South Leg South Marengo Avenue	West Leg Valley Boulevard	TOTAL
	4:00 PM	0	0	0	0	0
	4:15 PM	2	0	0	0	2
	4:30 PM	0	0	1	0	1
	4:45 PM	0	0	0	0	0
	5:00 PM	0	1	0	0	1
	5:15 PM	0	0	1	1	2
	5:30 PM	1	0	0	1	2
	5:45 PM	0	1	2	0	3
TOTAL VOLUMES:		3	2	4	2	11

City of Alhambra
N/S: South Atlantic Boulevard
E/W: West Mission Road
Weather: Clear

File Name : 18_AHBATMI AM
Site Code : 10817000
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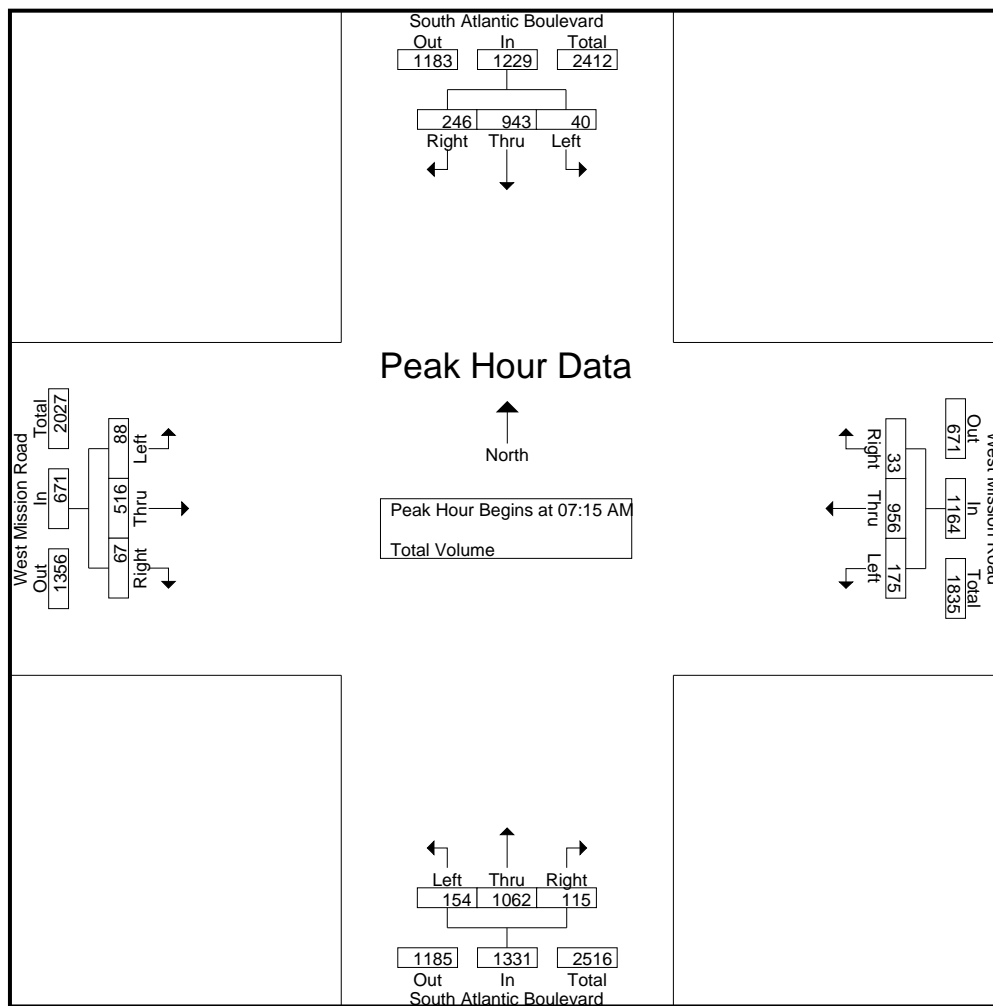
Groups Printed- Total Volume

	South Atlantic Boulevard Southbound				West Mission Road Westbound				South Atlantic Boulevard Northbound				West Mission Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	5	240	40	285	42	178	3	223	32	229	17	278	12	48	5	65	851
07:15 AM	4	221	48	273	49	266	12	327	29	244	34	307	32	114	12	158	1065
07:30 AM	10	264	73	347	45	236	4	285	44	291	48	383	29	151	13	193	1208
07:45 AM	16	204	57	277	44	242	7	293	40	227	14	281	13	143	19	175	1026
Total	35	929	218	1182	180	922	26	1128	145	991	113	1249	86	456	49	591	4150
08:00 AM	10	254	68	332	37	212	10	259	41	300	19	360	14	108	23	145	1096
08:15 AM	7	247	55	309	38	254	14	306	27	249	29	305	15	93	20	128	1048
08:30 AM	13	265	65	343	43	200	5	248	32	260	27	319	14	83	22	119	1029
08:45 AM	4	246	61	311	51	223	9	283	39	229	38	306	22	81	20	123	1023
Total	34	1012	249	1295	169	889	38	1096	139	1038	113	1290	65	365	85	515	4196
Grand Total	69	1941	467	2477	349	1811	64	2224	284	2029	226	2539	151	821	134	1106	8346
Apprch %	2.8	78.4	18.9		15.7	81.4	2.9		11.2	79.9	8.9		13.7	74.2	12.1		
Total %	0.8	23.3	5.6	29.7	4.2	21.7	0.8	26.6	3.4	24.3	2.7	30.4	1.8	9.8	1.6	13.3	

	South Atlantic Boulevard Southbound				West Mission Road Westbound				South Atlantic Boulevard Northbound				West Mission Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	4	221	48	273	49	266	12	327	29	244	34	307	32	114	12	158	1065
07:30 AM	10	264	73	347	45	236	4	285	44	291	48	383	29	151	13	193	1208
07:45 AM	16	204	57	277	44	242	7	293	40	227	14	281	13	143	19	175	1026
08:00 AM	10	254	68	332	37	212	10	259	41	300	19	360	14	108	23	145	1096
Total Volume	40	943	246	1229	175	956	33	1164	154	1062	115	1331	88	516	67	671	4395
% App. Total	3.3	76.7	20		15	82.1	2.8		11.6	79.8	8.6		13.1	76.9	10		
PHF	.625	.893	.842	.885	.893	.898	.688	.890	.875	.885	.599	.869	.688	.854	.728	.869	.910

City of Alhambra
N/S: South Atlantic Boulevard
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Weather: Clear

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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	10	254	68	332	49	266	12	327	29	244	34	307	32	114	12	158
+15 mins.	7	247	55	309	45	236	4	285	44	291	48	383	29	151	13	193
+30 mins.	13	265	65	343	44	242	7	293	40	227	14	281	13	143	19	175
+45 mins.	4	246	61	311	37	212	10	259	41	300	19	360	14	108	23	145
Total Volume	34	1012	249	1295	175	956	33	1164	154	1062	115	1331	88	516	67	671
% App. Total	2.6	78.1	19.2		15	82.1	2.8		11.6	79.8	8.6		13.1	76.9	10	
PHF	.654	.955	.915	.944	.893	.898	.688	.890	.875	.885	.599	.869	.688	.854	.728	.869

City of Alhambra
N/S: South Atlantic Boulevard
E/W: West Mission Road
Weather: Clear

File Name : 18_AHBATMI PM
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Start Date : 4/27/2017
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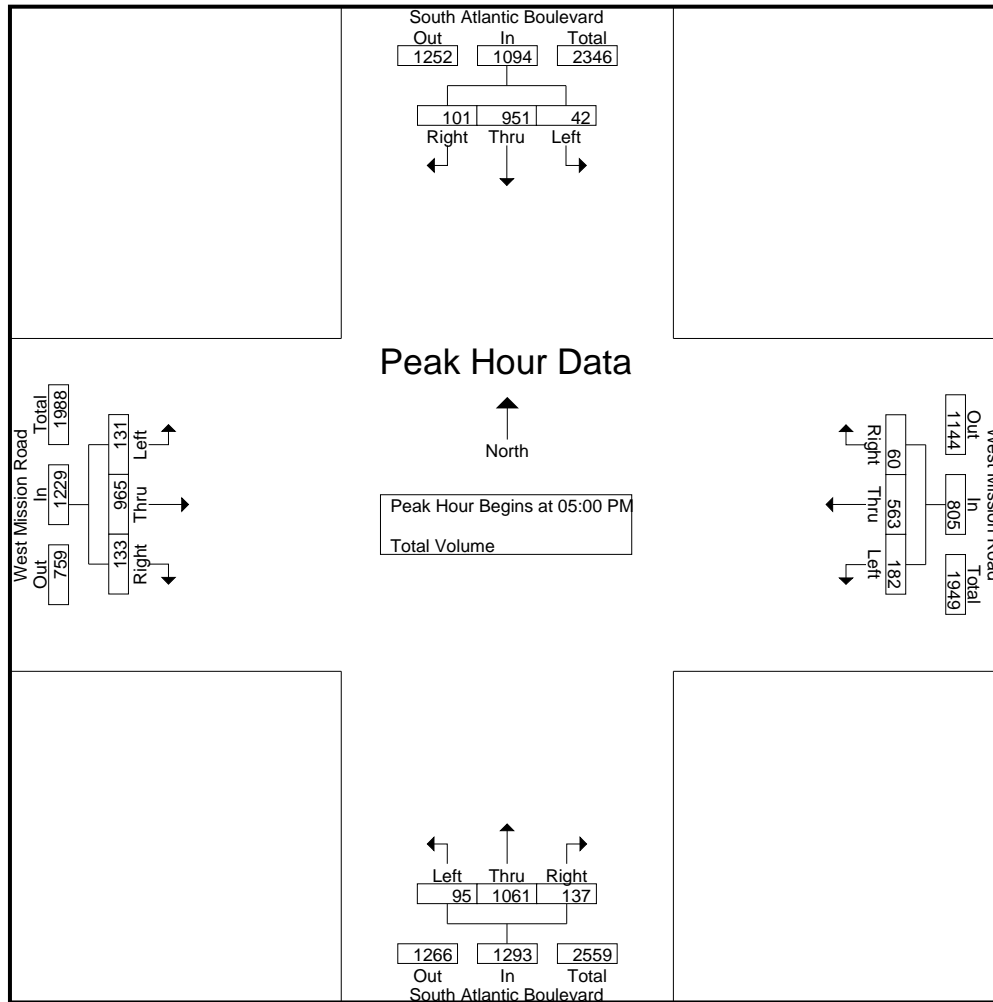
Groups Printed- Total Volume

	South Atlantic Boulevard Southbound				West Mission Road Westbound				South Atlantic Boulevard Northbound				West Mission Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	13	268	25	306	34	114	12	160	39	256	25	320	22	162	46	230	1016
04:15 PM	10	228	23	261	38	121	17	176	23	242	34	299	32	225	51	308	1044
04:30 PM	13	237	37	287	32	103	18	153	33	255	32	320	30	225	37	292	1052
04:45 PM	7	222	16	245	40	134	15	189	20	288	33	341	24	227	39	290	1065
Total	43	955	101	1099	144	472	62	678	115	1041	124	1280	108	839	173	1120	4177
05:00 PM	13	257	15	285	47	136	8	191	25	278	38	341	30	237	39	306	1123
05:15 PM	5	240	22	267	48	141	19	208	16	279	38	333	33	240	36	309	1117
05:30 PM	12	239	30	281	34	137	16	187	35	260	30	325	21	213	23	257	1050
05:45 PM	12	215	34	261	53	149	17	219	19	244	31	294	47	275	35	357	1131
Total	42	951	101	1094	182	563	60	805	95	1061	137	1293	131	965	133	1229	4421
Grand Total	85	1906	202	2193	326	1035	122	1483	210	2102	261	2573	239	1804	306	2349	8598
Apprch %	3.9	86.9	9.2		22	69.8	8.2		8.2	81.7	10.1		10.2	76.8	13		
Total %	1	22.2	2.3	25.5	3.8	12	1.4	17.2	2.4	24.4	3	29.9	2.8	21	3.6	27.3	

	South Atlantic Boulevard Southbound				West Mission Road Westbound				South Atlantic Boulevard Northbound				West Mission Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	13	257	15	285	47	136	8	191	25	278	38	341	30	237	39	306	1123
05:15 PM	5	240	22	267	48	141	19	208	16	279	38	333	33	240	36	309	1117
05:30 PM	12	239	30	281	34	137	16	187	35	260	30	325	21	213	23	257	1050
05:45 PM	12	215	34	261	53	149	17	219	19	244	31	294	47	275	35	357	1131
Total Volume	42	951	101	1094	182	563	60	805	95	1061	137	1293	131	965	133	1229	4421
% App. Total	3.8	86.9	9.2		22.6	69.9	7.5		7.3	82.1	10.6		10.7	78.5	10.8		
PHF	.808	.925	.743	.960	.858	.945	.789	.919	.679	.951	.901	.948	.697	.877	.853	.861	.977

City of Alhambra
N/S: South Atlantic Boulevard
E/W: West Mission Road
Weather: Clear

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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:45 PM				05:00 PM			
+0 mins.	13	268	25	306	47	136	8	191	20	288	33	341	30	237	39	306
+15 mins.	10	228	23	261	48	141	19	208	25	278	38	341	33	240	36	309
+30 mins.	13	237	37	287	34	137	16	187	16	279	38	333	21	213	23	257
+45 mins.	7	222	16	245	53	149	17	219	35	260	30	325	47	275	35	357
Total Volume	43	955	101	1099	182	563	60	805	96	1105	139	1340	131	965	133	1229
% App. Total	3.9	86.9	9.2		22.6	69.9	7.5		7.2	82.5	10.4		10.7	78.5	10.8	
PHF	.827	.891	.682	.898	.858	.945	.789	.919	.686	.959	.914	.982	.697	.877	.853	.861

Location: Alhambra
N/S: South Atlantic Boulevard
E/W: West Mission Road



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

	North Leg South Atlantic Boulevard	East Leg West Mission Road	South Leg South Atlantic Boulevard	West Leg West Mission Road	TOTAL
7:00 AM	4	0	0	11	15
7:15 AM	1	0	0	15	16
7:30 AM	2	0	0	14	16
7:45 AM	13	0	0	46	59
8:00 AM	3	0	0	9	12
8:15 AM	5	1	0	5	11
8:30 AM	1	0	0	4	5
8:45 AM	2	0	0	0	2
TOTAL VOLUMES:	31	1	0	104	136

	North Leg South Atlantic Boulevard	East Leg West Mission Road	South Leg South Atlantic Boulevard	West Leg West Mission Road	TOTAL
4:00 PM	0	1	0	1	2
4:15 PM	1	0	0	2	3
4:30 PM	1	0	0	7	8
4:45 PM	1	0	0	2	3
5:00 PM	1	0	0	6	7
5:15 PM	1	3	0	9	13
5:30 PM	1	0	0	7	8
5:45 PM	3	1	0	16	20
TOTAL VOLUMES:	9	5	0	50	64

Location: Alhambra
N/S: South Atlantic Boulevard
E/W: West Mission Road



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg South Atlantic Boulevard	East Leg West Mission Road	South Leg South Atlantic Boulevard	West Leg West Mission Road	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	0	2	0	0	2
	7:30 AM	0	1	0	1	2
	7:45 AM	0	1	0	0	1
	8:00 AM	0	0	0	0	0
	8:15 AM	1	0	0	0	1
	8:30 AM	0	0	0	1	1
	8:45 AM	0	0	0	0	0
TOTAL VOLUMES:		1	4	0	2	7

		North Leg South Atlantic Boulevard	East Leg West Mission Road	South Leg South Atlantic Boulevard	West Leg West Mission Road	TOTAL
	4:00 PM	1	0	0	0	1
	4:15 PM	3	0	0	0	3
	4:30 PM	0	1	1	2	4
	4:45 PM	0	1	0	1	2
	5:00 PM	0	0	0	0	0
	5:15 PM	1	0	0	1	2
	5:30 PM	1	1	0	0	2
	5:45 PM	1	1	0	0	2
TOTAL VOLUMES:		7	4	1	4	16

City of Alhambra
N/S: South Marengo Avenue
E/W: West Mission Road
Weather: Clear

File Name : 19_AHBMAMI AM
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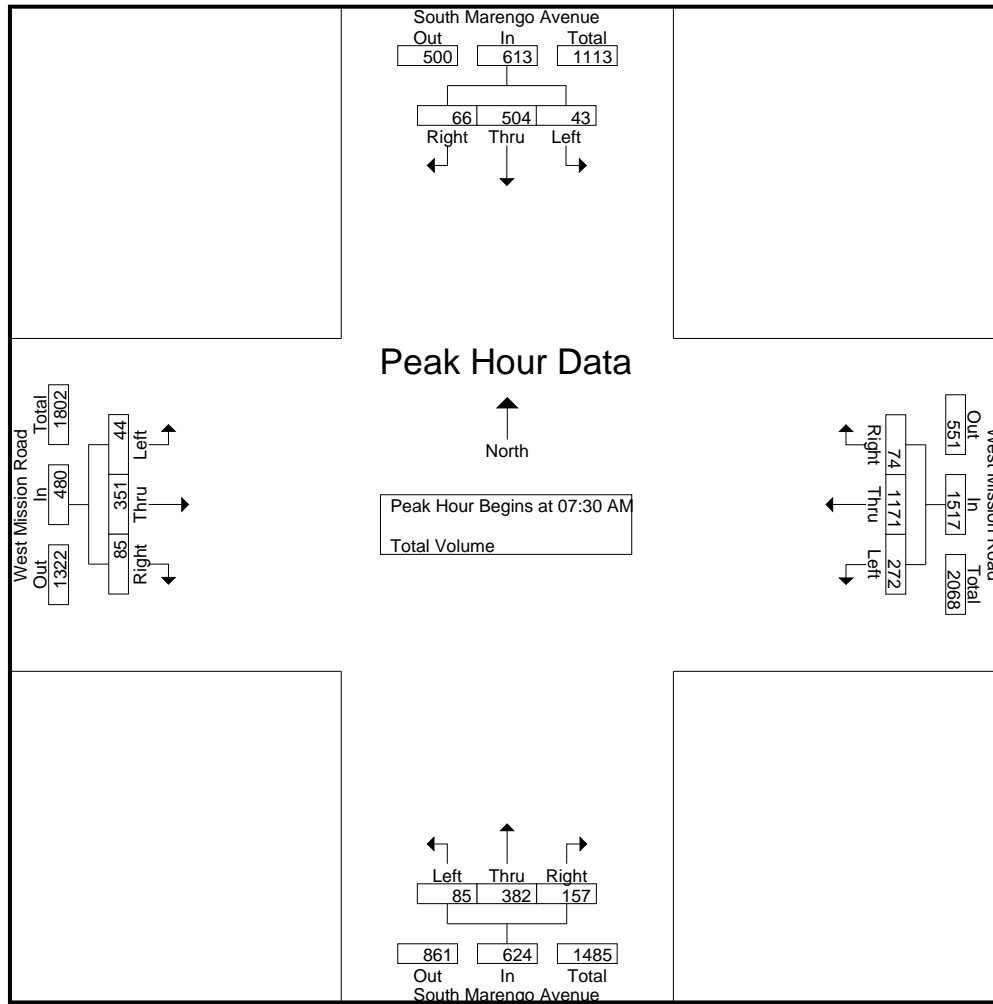
Groups Printed- Total Volume

	South Marengo Avenue Southbound				West Mission Road Westbound				South Marengo Avenue Northbound				West Mission Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	81	6	90	35	223	8	266	24	53	19	96	7	37	10	54	506
07:15 AM	10	97	6	113	57	271	11	339	28	67	42	137	12	84	15	111	700
07:30 AM	13	135	15	163	67	298	16	381	23	98	59	180	13	82	12	107	831
07:45 AM	10	125	12	147	60	303	23	386	22	90	34	146	14	110	27	151	830
Total	36	438	39	513	219	1095	58	1372	97	308	154	559	46	313	64	423	2867
08:00 AM	11	134	32	177	73	284	15	372	16	107	41	164	10	72	23	105	818
08:15 AM	9	110	7	126	72	286	20	378	24	87	23	134	7	87	23	117	755
08:30 AM	9	132	19	160	73	236	8	317	28	88	22	138	16	51	20	87	702
08:45 AM	10	105	12	127	61	270	22	353	25	77	18	120	16	72	33	121	721
Total	39	481	70	590	279	1076	65	1420	93	359	104	556	49	282	99	430	2996
Grand Total	75	919	109	1103	498	2171	123	2792	190	667	258	1115	95	595	163	853	5863
Apprch %	6.8	83.3	9.9		17.8	77.8	4.4		17	59.8	23.1		11.1	69.8	19.1		
Total %	1.3	15.7	1.9	18.8	8.5	37	2.1	47.6	3.2	11.4	4.4	19	1.6	10.1	2.8	14.5	

	South Marengo Avenue Southbound				West Mission Road Westbound				South Marengo Avenue Northbound				West Mission Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	13	135	15	163	67	298	16	381	23	98	59	180	13	82	12	107	831
07:45 AM	10	125	12	147	60	303	23	386	22	90	34	146	14	110	27	151	830
08:00 AM	11	134	32	177	73	284	15	372	16	107	41	164	10	72	23	105	818
08:15 AM	9	110	7	126	72	286	20	378	24	87	23	134	7	87	23	117	755
Total Volume	43	504	66	613	272	1171	74	1517	85	382	157	624	44	351	85	480	3234
% App. Total	7	82.2	10.8		17.9	77.2	4.9		13.6	61.2	25.2		9.2	73.1	17.7		
PHF	.827	.933	.516	.866	.932	.966	.804	.983	.885	.893	.665	.867	.786	.798	.787	.795	.973

City of Alhambra
N/S: South Marengo Avenue
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Weather: Clear

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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:15 AM				07:30 AM			
+0 mins.	13	135	15	163	67	298	16	381	28	67	42	137	13	82	12	107
+15 mins.	10	125	12	147	60	303	23	386	23	98	59	180	14	110	27	151
+30 mins.	11	134	32	177	73	284	15	372	22	90	34	146	10	72	23	105
+45 mins.	9	110	7	126	72	286	20	378	16	107	41	164	7	87	23	117
Total Volume	43	504	66	613	272	1171	74	1517	89	362	176	627	44	351	85	480
% App. Total	7	82.2	10.8		17.9	77.2	4.9		14.2	57.7	28.1		9.2	73.1	17.7	
PHF	.827	.933	.516	.866	.932	.966	.804	.983	.795	.846	.746	.871	.786	.798	.787	.795

City of Alhambra
N/S: South Marengo Avenue
E/W: West Mission Road
Weather: Clear

File Name : 19_AHBMAMI PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

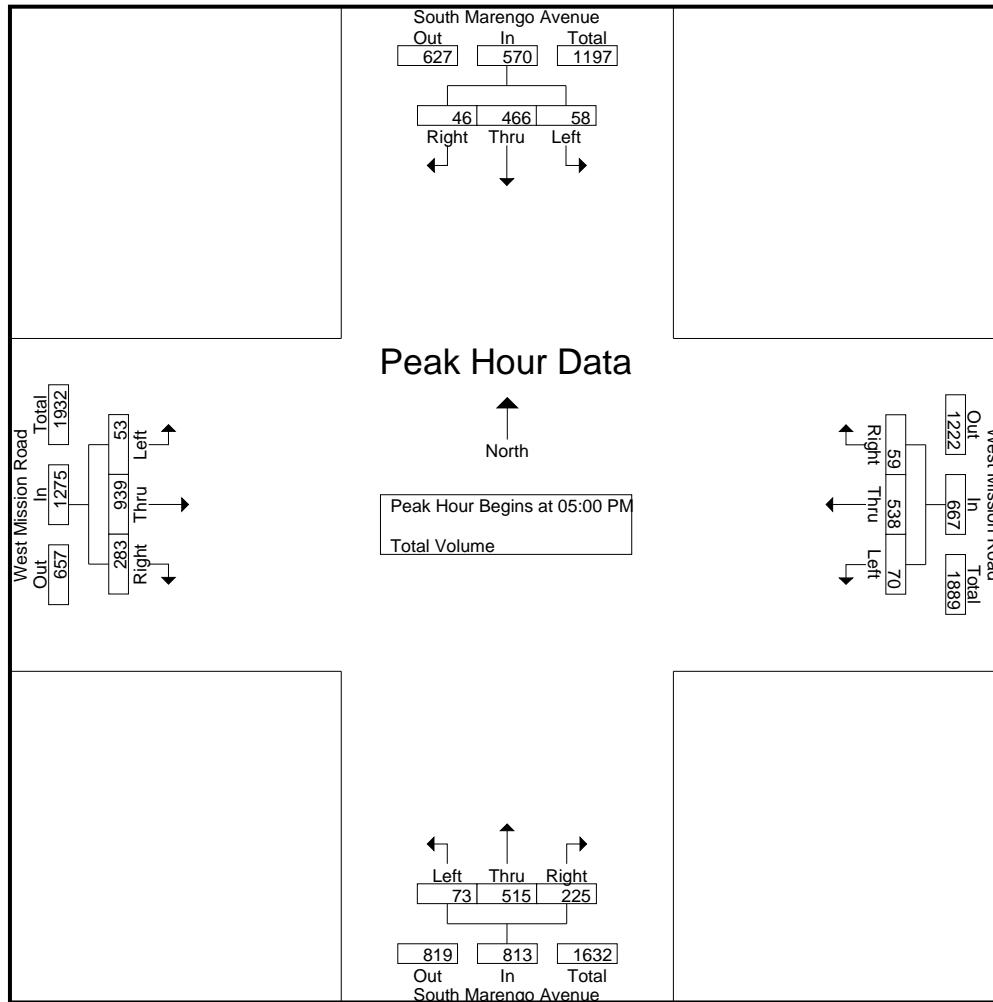
Groups Printed- Total Volume

	South Marengo Avenue Southbound				West Mission Road Westbound				South Marengo Avenue Northbound				West Mission Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	13	132	14	159	17	134	24	175	19	148	36	203	12	200	105	317	854
04:15 PM	20	133	7	160	14	123	18	155	30	152	52	234	5	208	97	310	859
04:30 PM	20	118	9	147	22	121	17	160	12	135	56	203	11	229	62	302	812
04:45 PM	14	102	8	124	10	127	16	153	18	107	35	160	12	208	70	290	727
Total	67	485	38	590	63	505	75	643	79	542	179	800	40	845	334	1219	3252
05:00 PM	16	118	11	145	21	120	13	154	21	128	46	195	17	260	61	338	832
05:15 PM	19	117	14	150	15	123	10	148	15	137	59	211	12	224	67	303	812
05:30 PM	10	128	8	146	18	162	13	193	17	117	61	195	14	225	85	324	858
05:45 PM	13	103	13	129	16	133	23	172	20	133	59	212	10	230	70	310	823
Total	58	466	46	570	70	538	59	667	73	515	225	813	53	939	283	1275	3325
Grand Total	125	951	84	1160	133	1043	134	1310	152	1057	404	1613	93	1784	617	2494	6577
Apprch %	10.8	82	7.2		10.2	79.6	10.2		9.4	65.5	25		3.7	71.5	24.7		
Total %	1.9	14.5	1.3	17.6	2	15.9	2	19.9	2.3	16.1	6.1	24.5	1.4	27.1	9.4	37.9	

	South Marengo Avenue Southbound				West Mission Road Westbound				South Marengo Avenue Northbound				West Mission Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	16	118	11	145	21	120	13	154	21	128	46	195	17	260	61	338	832
05:15 PM	19	117	14	150	15	123	10	148	15	137	59	211	12	224	67	303	812
05:30 PM	10	128	8	146	18	162	13	193	17	117	61	195	14	225	85	324	858
05:45 PM	13	103	13	129	16	133	23	172	20	133	59	212	10	230	70	310	823
Total Volume	58	466	46	570	70	538	59	667	73	515	225	813	53	939	283	1275	3325
% App. Total	10.2	81.8	8.1		10.5	80.7	8.8		9	63.3	27.7		4.2	73.6	22.2		
PHF	.763	.910	.821	.950	.833	.830	.641	.864	.869	.940	.922	.959	.779	.903	.832	.943	.969

City of Alhambra
N/S: South Marengo Avenue
E/W: West Mission Road
Weather: Clear

File Name : 19_AHBMAMI PM
Site Code : 10817000
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	13	132	14	159	21	120	13	154	21	128	46	195	17	260	61	338
+15 mins.	20	133	7	160	15	123	10	148	15	137	59	211	12	224	67	303
+30 mins.	20	118	9	147	18	162	13	193	17	117	61	195	14	225	85	324
+45 mins.	14	102	8	124	16	133	23	172	20	133	59	212	10	230	70	310
Total Volume	67	485	38	590	70	538	59	667	73	515	225	813	53	939	283	1275
% App. Total	11.4	82.2	6.4		10.5	80.7	8.8		9	63.3	27.7		4.2	73.6	22.2	
PHF	.838	.912	.679	.922	.833	.830	.641	.864	.869	.940	.922	.959	.779	.903	.832	.943

Location: Alhambra
N/S: South Marengo Avenue
E/W: West Mission Road



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

		North Leg South Marengo Avenue	East Leg West Mission Road	South Leg South Marengo Avenue	West Leg West Mission Road	TOTAL
	7:00 AM	0	1	0	3	4
	7:15 AM	2	3	0	0	5
	7:30 AM	2	4	0	1	7
	7:45 AM	1	3	0	1	5
	8:00 AM	2	1	0	5	8
	8:15 AM	1	0	0	3	4
	8:30 AM	0	4	0	2	6
	8:45 AM	0	1	0	1	2
TOTAL VOLUMES:		8	17	0	16	41

		North Leg South Marengo Avenue	East Leg West Mission Road	South Leg South Marengo Avenue	West Leg West Mission Road	TOTAL
	4:00 PM	1	1	0	0	2
	4:15 PM	0	1	0	0	1
	4:30 PM	3	2	0	0	5
	4:45 PM	0	0	0	4	4
	5:00 PM	0	2	0	3	5
	5:15 PM	0	3	0	0	3
	5:30 PM	3	2	0	1	6
	5:45 PM	0	0	0	0	0
TOTAL VOLUMES:		7	11	0	8	26

Location: Alhambra
N/S: South Marengo Avenue
E/W: West Mission Road



Date: 4/27/2017
Day: Thursday

BICYCLES

	North Leg South Marengo Avenue	East Leg West Mission Road	South Leg South Marengo Avenue	West Leg West Mission Road	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	2	0	1	1	4
7:30 AM	0	1	0	0	1
7:45 AM	3	1	0	0	4
8:00 AM	0	0	0	0	0
8:15 AM	0	1	0	0	1
8:30 AM	1	0	0	0	1
8:45 AM	1	0	0	2	3
TOTAL VOLUMES:	7	3	1	3	14

	North Leg South Marengo Avenue	East Leg West Mission Road	South Leg South Marengo Avenue	West Leg West Mission Road	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	1	0	0	0	1
4:30 PM	0	1	0	1	2
4:45 PM	1	1	0	0	2
5:00 PM	0	1	0	3	4
5:15 PM	1	1	0	0	2
5:30 PM	3	2	0	0	5
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	6	6	0	4	16

City of Alhambra
N/S: South Marengo Avenue
E/W: Front Street
Weather: Clear

File Name : 20_AHBMFR AM
Site Code : 10817000
Start Date : 4/27/2017
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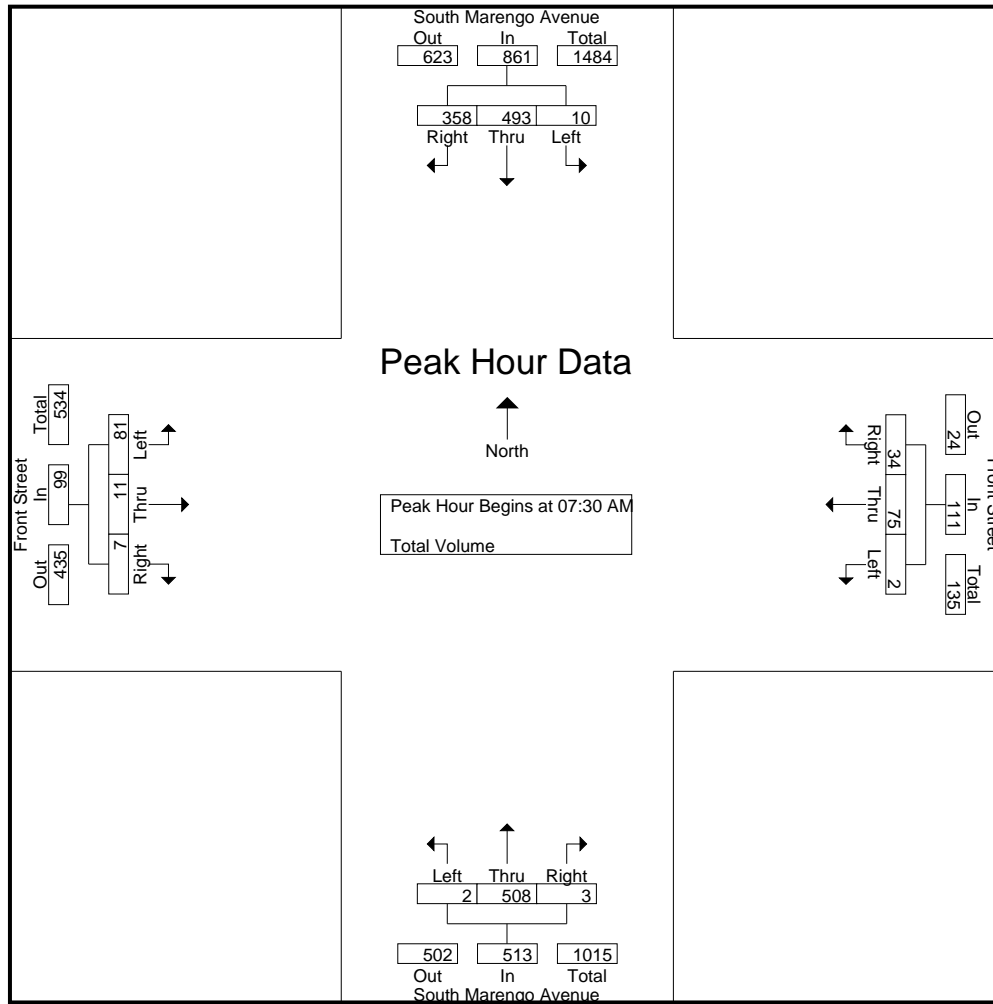
Groups Printed- Total Volume

	South Marengo Avenue Southbound				Front Street Westbound				South Marengo Avenue Northbound				Front Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	67	53	120	0	2	3	5	0	75	0	75	12	2	0	14	214
07:15 AM	0	97	72	169	0	5	9	14	1	110	0	111	19	0	2	21	315
07:30 AM	2	116	89	207	1	18	8	27	1	140	1	142	25	5	2	32	408
07:45 AM	3	136	83	222	0	17	10	27	0	124	1	125	19	2	2	23	397
Total	5	416	297	718	1	42	30	73	2	449	2	453	75	9	6	90	1334
08:00 AM	2	121	98	221	1	30	10	41	1	121	0	122	27	2	3	32	416
08:15 AM	3	120	88	211	0	10	6	16	0	123	1	124	10	2	0	12	363
08:30 AM	1	119	95	215	1	19	9	29	0	108	0	108	18	2	4	24	376
08:45 AM	1	122	77	200	1	6	9	16	1	100	0	101	15	4	3	22	339
Total	7	482	358	847	3	65	34	102	2	452	1	455	70	10	10	90	1494
Grand Total	12	898	655	1565	4	107	64	175	4	901	3	908	145	19	16	180	2828
Apprch %	0.8	57.4	41.9		2.3	61.1	36.6		0.4	99.2	0.3		80.6	10.6	8.9		
Total %	0.4	31.8	23.2	55.3	0.1	3.8	2.3	6.2	0.1	31.9	0.1	32.1	5.1	0.7	0.6	6.4	

	South Marengo Avenue Southbound				Front Street Westbound				South Marengo Avenue Northbound				Front Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	2	116	89	207	1	18	8	27	1	140	1	142	25	5	2	32	408
07:45 AM	3	136	83	222	0	17	10	27	0	124	1	125	19	2	2	23	397
08:00 AM	2	121	98	221	1	30	10	41	1	121	0	122	27	2	3	32	416
08:15 AM	3	120	88	211	0	10	6	16	0	123	1	124	10	2	0	12	363
Total Volume	10	493	358	861	2	75	34	111	2	508	3	513	81	11	7	99	1584
% App. Total	1.2	57.3	41.6		1.8	67.6	30.6		0.4	99	0.6		81.8	11.1	7.1		
PHF	.833	.906	.913	.970	.500	.625	.850	.677	.500	.907	.750	.903	.750	.550	.583	.773	.952

City of Alhambra
N/S: South Marengo Avenue
E/W: Front Street
Weather: Clear

File Name : 20_AHBMAMFR AM
Site Code : 10817000
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:30 AM				07:15 AM			
+0 mins.	3	136	83	222	0	17	10	27	1	140	1	142	19	0	2	21
+15 mins.	2	121	98	221	1	30	10	41	0	124	1	125	25	5	2	32
+30 mins.	3	120	88	211	0	10	6	16	1	121	0	122	19	2	2	23
+45 mins.	1	119	95	215	1	19	9	29	0	123	1	124	27	2	3	32
Total Volume	9	496	364	869	2	76	35	113	2	508	3	513	90	9	9	108
% App. Total	1	57.1	41.9		1.8	67.3	31		0.4	99	0.6		83.3	8.3	8.3	
PHF	.750	.912	.929	.979	.500	.633	.875	.689	.500	.907	.750	.903	.833	.450	.750	.844

City of Alhambra
N/S: South Marengo Avenue
E/W: Front Street
Weather: Clear

File Name : 20_AHBMAFR PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

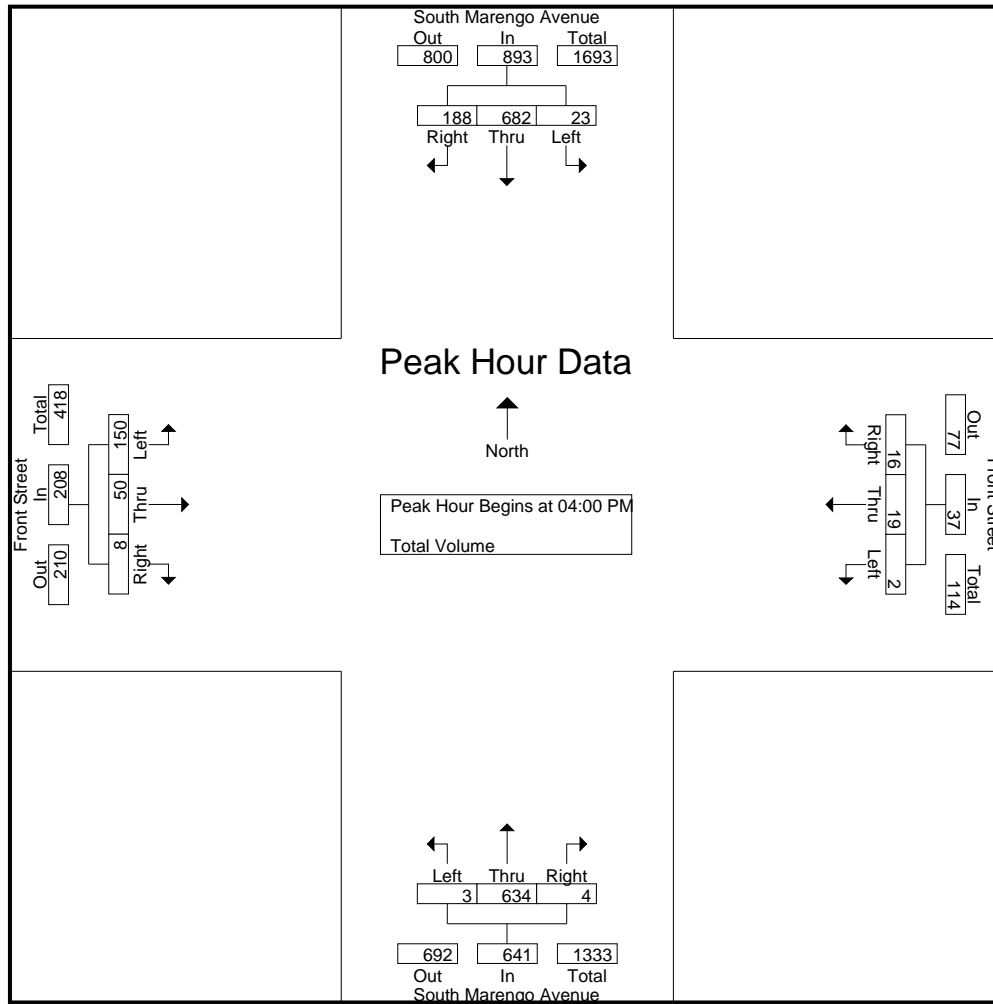
Groups Printed- Total Volume

	South Marengo Avenue Southbound				Front Street Westbound				South Marengo Avenue Northbound				Front Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	197	62	263	0	8	6	14	2	151	2	155	44	6	0	50	482
04:15 PM	5	190	52	247	1	6	5	12	0	179	0	179	45	11	4	60	498
04:30 PM	5	150	39	194	0	3	2	5	0	163	0	163	40	15	3	58	420
04:45 PM	9	145	35	189	1	2	3	6	1	141	2	144	21	18	1	40	379
Total	23	682	188	893	2	19	16	37	3	634	4	641	150	50	8	208	1779
05:00 PM	2	168	33	203	0	8	6	14	1	164	1	166	24	7	0	31	414
05:15 PM	7	159	33	199	1	4	5	10	0	167	1	168	30	10	0	40	417
05:30 PM	11	162	54	227	0	12	5	17	1	152	2	155	35	11	3	49	448
05:45 PM	8	143	37	188	1	5	4	10	0	167	1	168	37	9	4	50	416
Total	28	632	157	817	2	29	20	51	2	650	5	657	126	37	7	170	1695
Grand Total	51	1314	345	1710	4	48	36	88	5	1284	9	1298	276	87	15	378	3474
Apprch %	3	76.8	20.2		4.5	54.5	40.9		0.4	98.9	0.7		73	23	4		
Total %	1.5	37.8	9.9	49.2	0.1	1.4	1	2.5	0.1	37	0.3	37.4	7.9	2.5	0.4	10.9	

	South Marengo Avenue Southbound				Front Street Westbound				South Marengo Avenue Northbound				Front Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	4	197	62	263	0	8	6	14	2	151	2	155	44	6	0	50	482
04:15 PM	5	190	52	247	1	6	5	12	0	179	0	179	45	11	4	60	498
04:30 PM	5	150	39	194	0	3	2	5	0	163	0	163	40	15	3	58	420
04:45 PM	9	145	35	189	1	2	3	6	1	141	2	144	21	18	1	40	379
Total Volume	23	682	188	893	2	19	16	37	3	634	4	641	150	50	8	208	1779
% App. Total	2.6	76.4	21.1		5.4	51.4	43.2		0.5	98.9	0.6		72.1	24	3.8		
PHF	.639	.865	.758	.849	.500	.594	.667	.661	.375	.885	.500	.895	.833	.694	.500	.867	.893

City of Alhambra
N/S: South Marengo Avenue
E/W: Front Street
Weather: Clear

File Name : 20_AHBMFR PM
Site Code : 10817000
Start Date : 4/27/2017
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				05:00 PM				04:00 PM			
+0 mins.	4	197	62	263	0	8	6	14	1	164	1	166	44	6	0	50
+15 mins.	5	190	52	247	1	4	5	10	0	167	1	168	45	11	4	60
+30 mins.	5	150	39	194	0	12	5	17	1	152	2	155	40	15	3	58
+45 mins.	9	145	35	189	1	5	4	10	0	167	1	168	21	18	1	40
Total Volume	23	682	188	893	2	29	20	51	2	650	5	657	150	50	8	208
% App. Total	2.6	76.4	21.1		3.9	56.9	39.2		0.3	98.9	0.8		72.1	24	3.8	
PHF	.639	.865	.758	.849	.500	.604	.833	.750	.500	.973	.625	.978	.833	.694	.500	.867

Location: Alhambra
N/S: South Marengo Avenue
E/W: Front Street



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

	North Leg South Marengo Avenue	East Leg Front Street	South Leg South Marengo Avenue	West Leg Front Street	TOTAL
7:00 AM	0	1	0	2	3
7:15 AM	0	2	0	0	2
7:30 AM	0	2	1	0	3
7:45 AM	0	1	1	1	3
8:00 AM	0	0	2	3	5
8:15 AM	1	0	0	3	4
8:30 AM	0	4	2	0	6
8:45 AM	0	1	0	3	4
TOTAL VOLUMES:	1	11	6	12	30

	North Leg South Marengo Avenue	East Leg Front Street	South Leg South Marengo Avenue	West Leg Front Street	TOTAL
4:00 PM	0	1	0	0	1
4:15 PM	0	1	0	0	1
4:30 PM	0	2	1	0	3
4:45 PM	0	0	0	4	4
5:00 PM	0	1	1	2	4
5:15 PM	0	2	1	0	3
5:30 PM	0	2	0	0	2
5:45 PM	0	0	1	0	1
TOTAL VOLUMES:	0	9	4	6	19

Location: Alhambra
N/S: South Marengo Avenue
E/W: Front Street



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg South Marengo Avenue	East Leg Front Street	South Leg South Marengo Avenue	West Leg Front Street	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	1	1
	7:30 AM	0	1	0	0	1
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	1	1
	8:15 AM	0	1	0	0	1
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	2	2
TOTAL VOLUMES:		0	2	0	4	6

		North Leg South Marengo Avenue	East Leg Front Street	South Leg South Marengo Avenue	West Leg Front Street	TOTAL
	4:00 PM	0	0	1	0	1
	4:15 PM	0	0	0	0	0
	4:30 PM	0	1	0	1	2
	4:45 PM	0	1	0	0	1
	5:00 PM	0	2	0	3	5
	5:15 PM	0	0	0	0	0
	5:30 PM	0	1	0	0	1
	5:45 PM	0	0	0	0	0
TOTAL VOLUMES:		0	5	1	4	10

City of Alhambra
N/S: I-710 Northbound Off Ramp
E/W: Valley Boulevard
Weather: Clear

File Name : 21_AHB710NVA AM
Site Code : 10817000
Start Date : 4/27/2017
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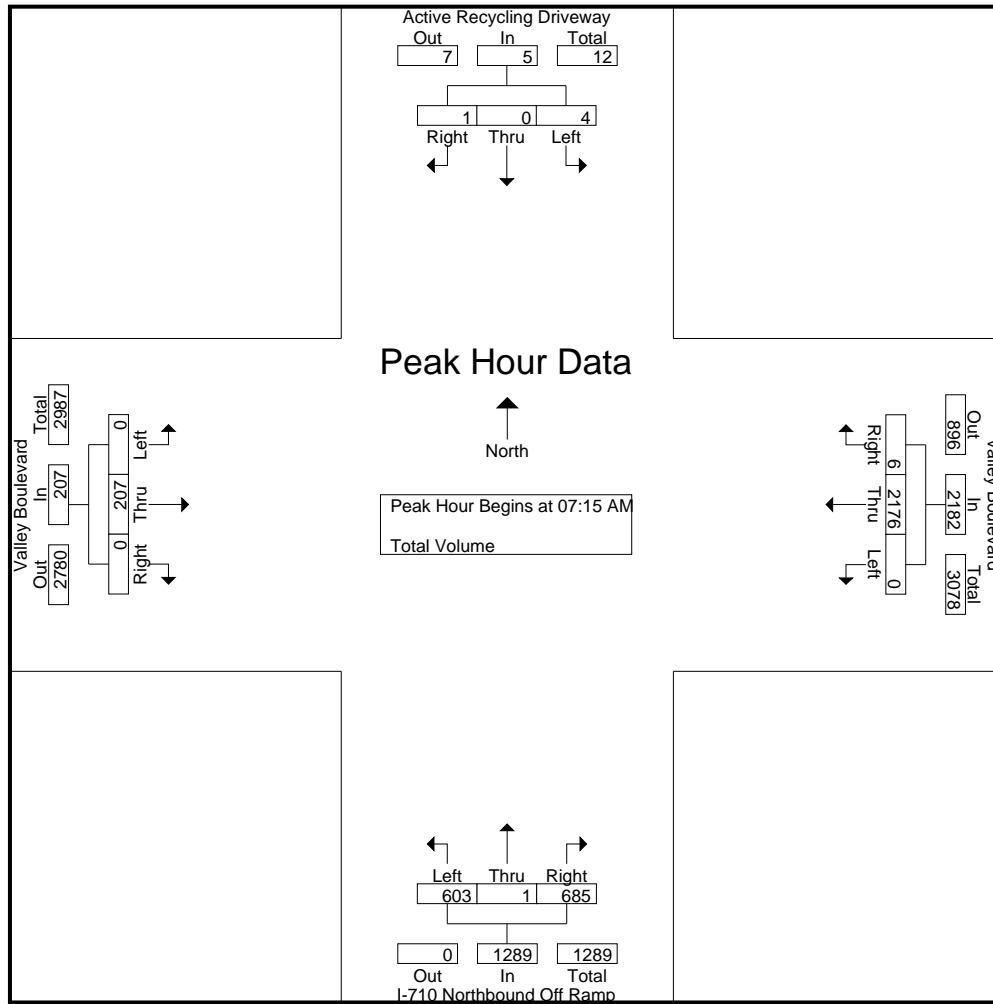
Groups Printed- Total Volume

	Active Recycling Driveway Southbound				Valley Boulevard Westbound				I-710 Northbound Off Ramp Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	427	0	427	168	1	244	413	0	45	0	45	885
07:15 AM	2	0	1	3	0	513	0	513	141	0	209	350	0	38	0	38	904
07:30 AM	0	0	0	0	0	587	2	589	158	0	146	304	0	46	0	46	939
07:45 AM	1	0	0	1	0	534	3	537	150	0	165	315	0	64	0	64	917
Total	3	0	1	4	0	2061	5	2066	617	1	764	1382	0	193	0	193	3645
08:00 AM	1	0	0	1	0	542	1	543	154	1	165	320	0	59	0	59	923
08:15 AM	2	0	1	3	0	477	3	480	132	1	219	352	0	44	0	44	879
08:30 AM	1	0	0	1	0	519	3	522	140	0	182	322	0	41	0	41	886
08:45 AM	4	0	0	4	0	467	1	468	136	0	184	320	0	61	0	61	853
Total	8	0	1	9	0	2005	8	2013	562	2	750	1314	0	205	0	205	3541
Grand Total	11	0	2	13	0	4066	13	4079	1179	3	1514	2696	0	398	0	398	7186
Apprch %	84.6	0	15.4		0	99.7	0.3		43.7	0.1	56.2		0	100	0		
Total %	0.2	0	0	0.2	0	56.6	0.2	56.8	16.4	0	21.1	37.5	0	5.5	0	5.5	

	Active Recycling Driveway Southbound				Valley Boulevard Westbound				I-710 Northbound Off Ramp Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	2	0	1	3	0	513	0	513	141	0	209	350	0	38	0	38	904
07:30 AM	0	0	0	0	0	587	2	589	158	0	146	304	0	46	0	46	939
07:45 AM	1	0	0	1	0	534	3	537	150	0	165	315	0	64	0	64	917
08:00 AM	1	0	0	1	0	542	1	543	154	1	165	320	0	59	0	59	923
Total Volume	4	0	1	5	0	2176	6	2182	603	1	685	1289	0	207	0	207	3683
% App. Total	80	0	20		0	99.7	0.3		46.8	0.1	53.1		0	100	0		
PHF	.500	.000	.250	.417	.000	.927	.500	.926	.954	.250	.819	.921	.000	.809	.000	.809	.981

City of Alhambra
N/S: I-710 Northbound Off Ramp
E/W: Valley Boulevard
Weather: Clear

File Name : 21_AHB710NVA AM
Site Code : 10817000
Start Date : 4/27/2017
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:15 AM				07:00 AM				07:30 AM			
+0 mins.	1	0	0	1	0	513	0	513	168	1	244	413	0	46	0	46
+15 mins.	2	0	1	3	0	587	2	589	141	0	209	350	0	64	0	64
+30 mins.	1	0	0	1	0	534	3	537	158	0	146	304	0	59	0	59
+45 mins.	4	0	0	4	0	542	1	543	150	0	165	315	0	44	0	44
Total Volume	8	0	1	9	0	2176	6	2182	617	1	764	1382	0	213	0	213
% App. Total	88.9	0	11.1		0	99.7	0.3		44.6	0.1	55.3		0	100	0	
PHF	.500	.000	.250	.563	.000	.927	.500	.926	.918	.250	.783	.837	.000	.832	.000	.832

City of Alhambra
N/S: I-710 Northbound Off Ramp
E/W: Valley Boulevard
Weather: Clear

File Name : 21_AHB710NVA PM
Site Code : 10817000
Start Date : 4/27/2017
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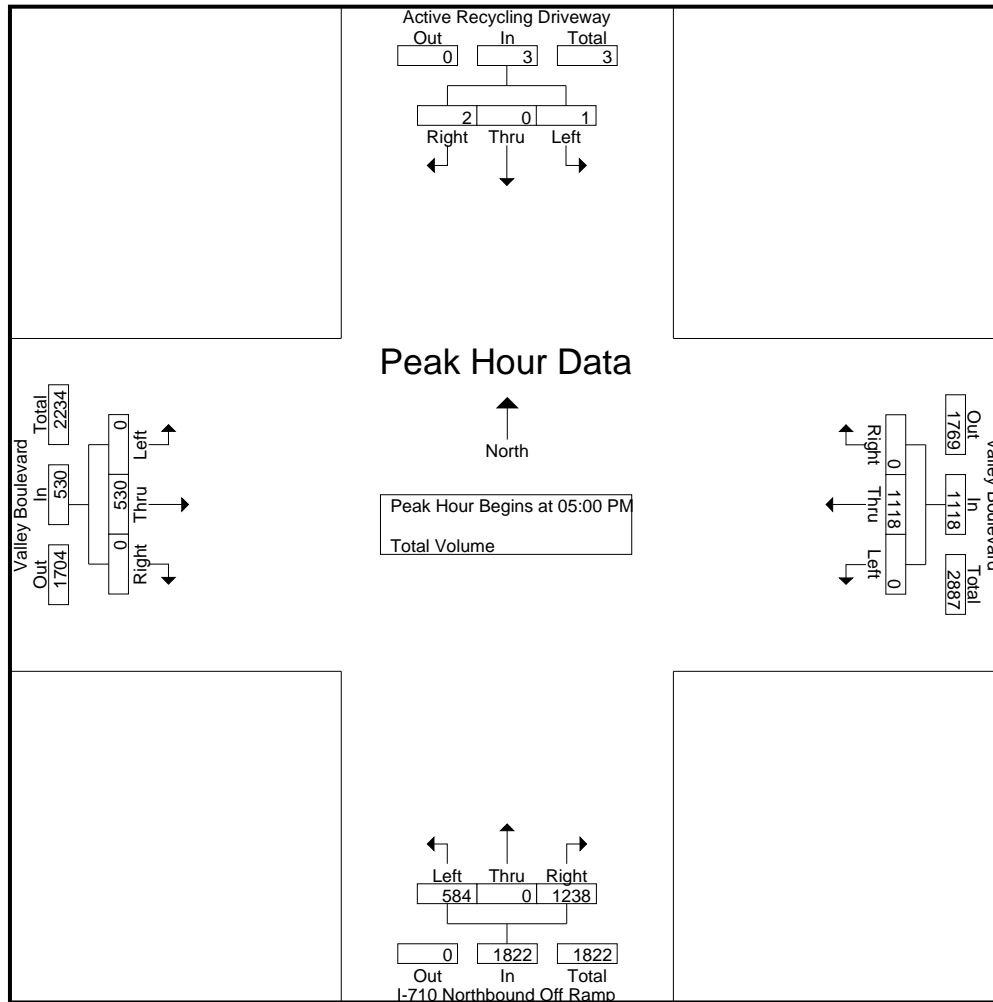
Groups Printed- Total Volume

	Active Recycling Driveway Southbound				Valley Boulevard Westbound				I-710 Northbound Off Ramp Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	0	1	5	0	245	3	248	160	0	248	408	0	122	0	122	783
04:15 PM	0	0	4	4	0	285	3	288	151	2	283	436	0	134	0	134	862
04:30 PM	4	0	1	5	0	301	1	302	142	0	280	422	0	118	0	118	847
04:45 PM	0	0	1	1	0	225	0	225	134	0	302	436	0	126	0	126	788
Total	8	0	7	15	0	1056	7	1063	587	2	1113	1702	0	500	0	500	3280
05:00 PM	1	0	2	3	0	279	0	279	141	0	300	441	0	126	0	126	849
05:15 PM	0	0	0	0	0	279	0	279	136	0	312	448	0	132	0	132	859
05:30 PM	0	0	0	0	0	286	0	286	169	0	327	496	0	114	0	114	896
05:45 PM	0	0	0	0	0	274	0	274	138	0	299	437	0	158	0	158	869
Total	1	0	2	3	0	1118	0	1118	584	0	1238	1822	0	530	0	530	3473
Grand Total	9	0	9	18	0	2174	7	2181	1171	2	2351	3524	0	1030	0	1030	6753
Apprch %	50	0	50		0	99.7	0.3		33.2	0.1	66.7		0	100	0		
Total %	0.1	0	0.1	0.3	0	32.2	0.1	32.3	17.3	0	34.8	52.2	0	15.3	0	15.3	

	Active Recycling Driveway Southbound				Valley Boulevard Westbound				I-710 Northbound Off Ramp Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	0	2	3	0	279	0	279	141	0	300	441	0	126	0	126	849
05:15 PM	0	0	0	0	0	279	0	279	136	0	312	448	0	132	0	132	859
05:30 PM	0	0	0	0	0	286	0	286	169	0	327	496	0	114	0	114	896
05:45 PM	0	0	0	0	0	274	0	274	138	0	299	437	0	158	0	158	869
Total Volume	1	0	2	3	0	1118	0	1118	584	0	1238	1822	0	530	0	530	3473
% App. Total	33.3	0	66.7		0	100	0		32.1	0	67.9		0	100	0		
PHF	.250	.000	.250	.250	.000	.977	.000	.977	.864	.000	.946	.918	.000	.839	.000	.839	.969

City of Alhambra
N/S: I-710 Northbound Off Ramp
E/W: Valley Boulevard
Weather: Clear

File Name : 21_AHB710NVA PM
Site Code : 10817000
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	4	0	1	5	0	279	0	279	141	0	300	441	0	126	0	126
+15 mins.	0	0	4	4	0	279	0	279	136	0	312	448	0	132	0	132
+30 mins.	4	0	1	5	0	286	0	286	169	0	327	496	0	114	0	114
+45 mins.	0	0	1	1	0	274	0	274	138	0	299	437	0	158	0	158
Total Volume	8	0	7	15	0	1118	0	1118	584	0	1238	1822	0	530	0	530
% App. Total	53.3	0	46.7		0	100	0		32.1	0	67.9		0	100	0	
PHF	.500	.000	.438	.750	.000	.977	.000	.977	.864	.000	.946	.918	.000	.839	.000	.839

Location: Alhambra
N/S: I-710 Northbound Off Ramp
E/W: Valley Boulevard



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

	North Leg Active Recycling Driveway	East Leg Valley Boulevard	South Leg I-710 Northbound Off Ramp	West Leg Valley Boulevard	TOTAL
7:00 AM	0	0	1	0	1
7:15 AM	1	0	1	0	2
7:30 AM	1	0	0	0	1
7:45 AM	0	0	1	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	1	0	1
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	2	0	4	0	6

	North Leg Active Recycling Driveway	East Leg Valley Boulevard	South Leg I-710 Northbound Off Ramp	West Leg Valley Boulevard	TOTAL
4:00 PM	2	0	0	0	2
4:15 PM	5	0	0	0	5
4:30 PM	0	0	1	0	1
4:45 PM	0	0	1	0	1
5:00 PM	1	0	0	0	1
5:15 PM	0	0	1	0	1
5:30 PM	1	0	1	0	2
5:45 PM	0	0	1	0	1
TOTAL VOLUMES:	9	0	5	0	14

Location: Alhambra
N/S: I-710 Northbound Off Ramp
E/W: Valley Boulevard



Date: 4/27/2017
Day: Thursday

BICYCLES

	North Leg Active Recycling Driveway	East Leg Valley Boulevard	South Leg I-710 Northbound Off Ramp	West Leg Valley Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	1	0	0	0	1
7:30 AM	0	0	0	0	0
7:45 AM	1	0	0	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	1	0	1
TOTAL VOLUMES:	2	0	1	0	3

	North Leg Active Recycling Driveway	East Leg Valley Boulevard	South Leg I-710 Northbound Off Ramp	West Leg Valley Boulevard	TOTAL
4:00 PM	1	0	0	0	1
4:15 PM	2	0	2	0	4
4:30 PM	1	0	2	0	3
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	2	0	0	0	2
TOTAL VOLUMES:	6	0	4	0	10

City of Alhambra
N/S: I-710 Southbound On Ramp
E/W: Valley Boulevard
Weather: Clear

File Name : 22_AHB710SVA AM
Site Code : 10817000
Start Date : 4/27/2017
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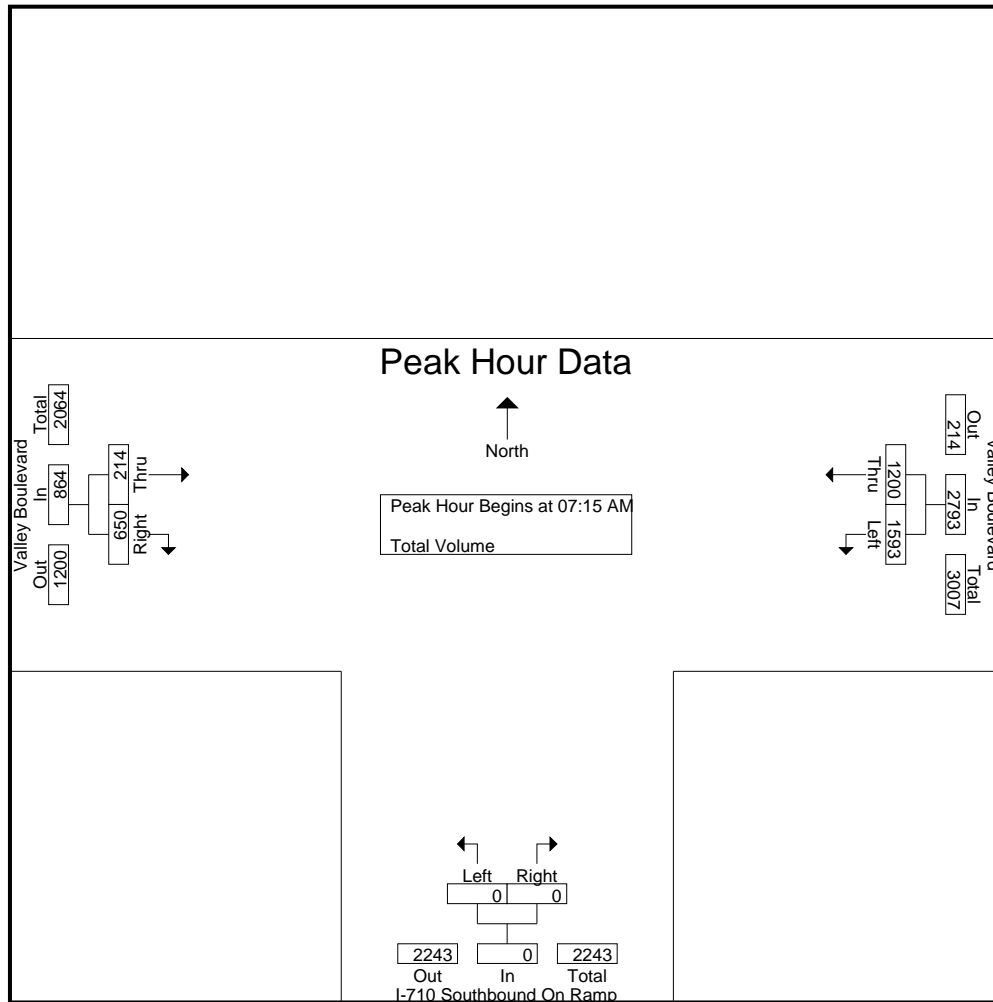
Groups Printed- Total Volume

	Valley Boulevard Westbound			I-710 Southbound On Ramp Northbound			Valley Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	322	283	605	0	0	0	46	127	173	778
07:15 AM	394	267	661	0	0	0	38	142	180	841
07:30 AM	412	337	749	0	0	0	48	181	229	978
07:45 AM	367	325	692	0	0	0	67	167	234	926
Total	1495	1212	2707	0	0	0	199	617	816	3523
08:00 AM	420	271	691	0	0	0	61	160	221	912
08:15 AM	355	258	613	0	0	0	43	138	181	794
08:30 AM	375	278	653	0	0	0	41	122	163	816
08:45 AM	330	270	600	0	0	0	62	132	194	794
Total	1480	1077	2557	0	0	0	207	552	759	3316
Grand Total	2975	2289	5264	0	0	0	406	1169	1575	6839
Apprch %	56.5	43.5		0	0		25.8	74.2		
Total %	43.5	33.5	77	0	0	0	5.9	17.1	23	

	Valley Boulevard Westbound			I-710 Southbound On Ramp Northbound			Valley Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	394	267	661	0	0	0	38	142	180	841
07:30 AM	412	337	749	0	0	0	48	181	229	978
07:45 AM	367	325	692	0	0	0	67	167	234	926
08:00 AM	420	271	691	0	0	0	61	160	221	912
Total Volume	1593	1200	2793	0	0	0	214	650	864	3657
% App. Total	57	43		0	0		24.8	75.2		
PHF	.948	.890	.932	.000	.000	.000	.799	.898	.923	.935

City of Alhambra
N/S: I-710 Southbound On Ramp
E/W: Valley Boulevard
Weather: Clear

File Name : 22_AHB710SVA AM
Site Code : 10817000
Start Date : 4/27/2017
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:00 AM			07:30 AM		
+0 mins.	394	267	661	0	0	0	48	181	229
+15 mins.	412	337	749	0	0	0	67	167	234
+30 mins.	367	325	692	0	0	0	61	160	221
+45 mins.	420	271	691	0	0	0	43	138	181
Total Volume	1593	1200	2793	0	0	0	219	646	865
% App. Total	57	43		0	0		25.3	74.7	
PHF	.948	.890	.932	.000	.000	.000	.817	.892	.924

City of Alhambra
N/S: I-710 Southbound On Ramp
E/W: Valley Boulevard
Weather: Clear

File Name : 22_AHB710SVA PM
Site Code : 10817000
Start Date : 4/27/2017
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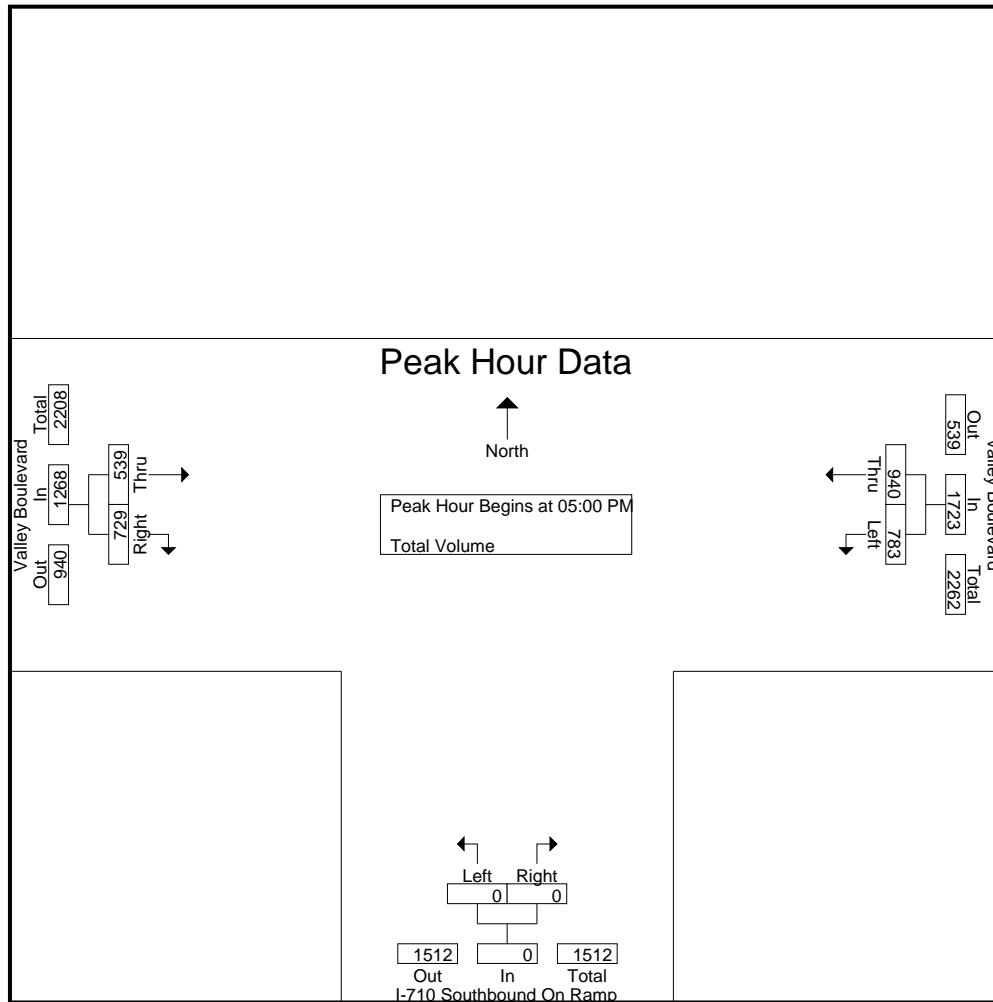
Groups Printed- Total Volume

	Valley Boulevard Westbound			I-710 Southbound On Ramp Northbound			Valley Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	143	263	406	0	0	0	130	187	317	723
04:15 PM	185	267	452	0	0	0	126	190	316	768
04:30 PM	210	229	439	0	0	0	118	150	268	707
04:45 PM	148	220	368	0	0	0	125	161	286	654
Total	686	979	1665	0	0	0	499	688	1187	2852
05:00 PM	211	214	425	0	0	0	130	193	323	748
05:15 PM	196	222	418	0	0	0	127	169	296	714
05:30 PM	188	268	456	0	0	0	114	163	277	733
05:45 PM	188	236	424	0	0	0	168	204	372	796
Total	783	940	1723	0	0	0	539	729	1268	2991
Grand Total	1469	1919	3388	0	0	0	1038	1417	2455	5843
Apprch %	43.4	56.6		0	0		42.3	57.7		
Total %	25.1	32.8	58	0	0	0	17.8	24.3	42	

	Valley Boulevard Westbound			I-710 Southbound On Ramp Northbound			Valley Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	211	214	425	0	0	0	130	193	323	748
05:15 PM	196	222	418	0	0	0	127	169	296	714
05:30 PM	188	268	456	0	0	0	114	163	277	733
05:45 PM	188	236	424	0	0	0	168	204	372	796
Total Volume	783	940	1723	0	0	0	539	729	1268	2991
% App. Total	45.4	54.6		0	0		42.5	57.5		
PHF	.928	.877	.945	.000	.000	.000	.802	.893	.852	.939

City of Alhambra
N/S: I-710 Southbound On Ramp
E/W: Valley Boulevard
Weather: Clear

File Name : 22_AHB710SVA PM
Site Code : 10817000
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:00 PM			05:00 PM		
+0 mins.	211	214	425	0	0	0	130	193	323
+15 mins.	196	222	418	0	0	0	127	169	296
+30 mins.	188	268	456	0	0	0	114	163	277
+45 mins.	188	236	424	0	0	0	168	204	372
Total Volume	783	940	1723	0	0	0	539	729	1268
% App. Total	45.4	54.6		0	0		42.5	57.5	
PHF	.928	.877	.945	.000	.000	.000	.802	.893	.852

Location: Alhambra
N/S: I-710 Southbound On Ramp
E/W: Valley Boulevard



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

	North Leg Dead End	East Leg Valley Boulevard	South Leg I-710 Southbound On Ramp	West Leg Valley Boulevard	TOTAL
7:00 AM	0	0	1	0	1
7:15 AM	0	0	1	0	1
7:30 AM	0	0	0	0	0
7:45 AM	0	0	1	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	1	0	1
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	4	0	4

	North Leg Dead End	East Leg Valley Boulevard	South Leg I-710 Southbound On Ramp	West Leg Valley Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	1	0	1
4:45 PM	0	0	1	0	1
5:00 PM	0	0	0	0	0
5:15 PM	0	0	1	0	1
5:30 PM	0	0	1	0	1
5:45 PM	0	0	1	0	1
TOTAL VOLUMES:	0	0	5	0	5

Location: Alhambra
N/S: I-710 Southbound On Ramp
E/W: Valley Boulevard



Date: 4/27/2017
Day: Thursday

BICYCLES

	North Leg Dead End	East Leg Valley Boulevard	South Leg I-710 Southbound On Ramp	West Leg Valley Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	1	0	0	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	1	0	1
TOTAL VOLUMES:	1	0	1	0	2

	North Leg Dead End	East Leg Valley Boulevard	South Leg I-710 Southbound On Ramp	West Leg Valley Boulevard	TOTAL
4:00 PM	0	0	0	1	1
4:15 PM	0	2	0	2	4
4:30 PM	0	2	0	1	3
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	2	2
TOTAL VOLUMES:	0	4	0	6	10

City of Alhambra
N/S: South Fremont Avenue
E/W: West Hellman Avenue
Weather: Clear

File Name : 23_AHBFRE AM
Site Code : 10817000
Start Date : 4/27/2017
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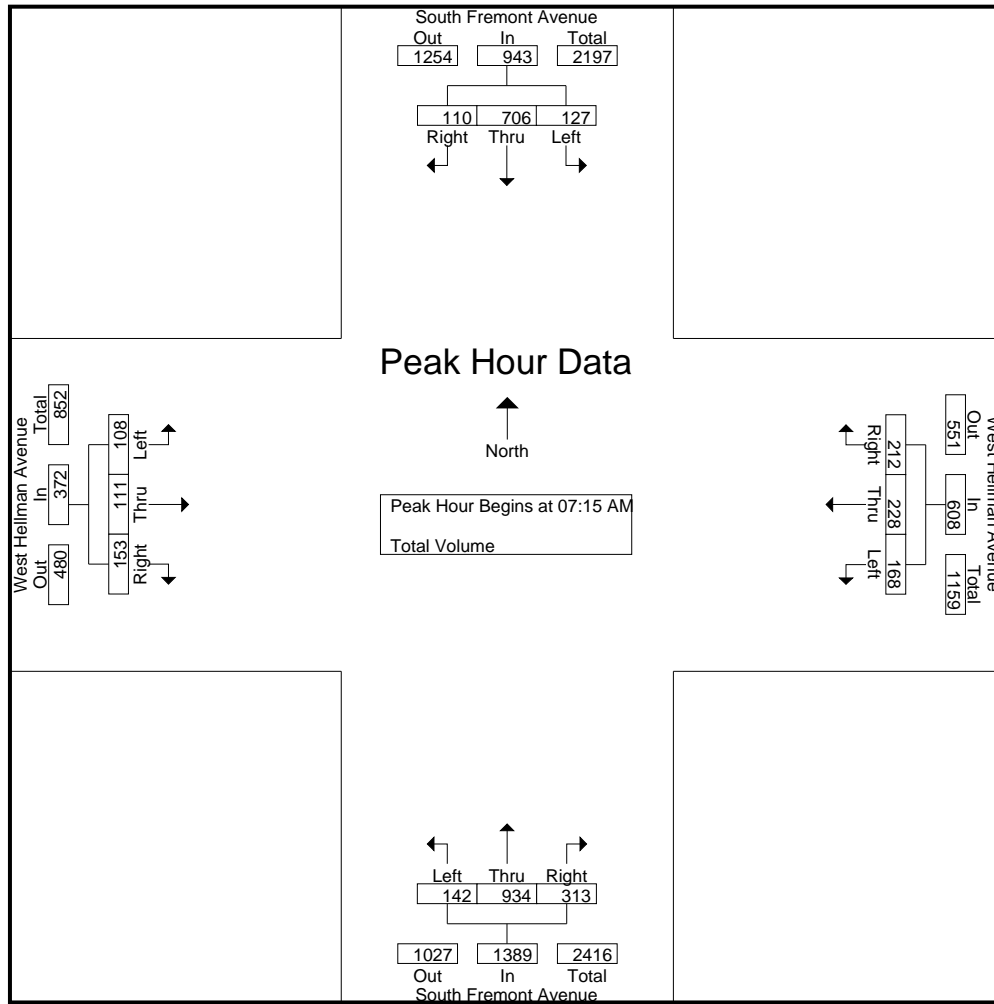
Groups Printed- Total Volume

	South Fremont Avenue Southbound				West Hellman Avenue Westbound				South Fremont Avenue Northbound				West Hellman Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	17	122	7	146	22	22	63	107	10	151	67	228	13	7	26	46	527
07:15 AM	28	161	23	212	30	35	51	116	30	219	81	330	19	20	22	61	719
07:30 AM	32	187	31	250	45	63	65	173	38	237	82	357	35	39	63	137	917
07:45 AM	29	193	32	254	52	80	48	180	55	250	95	400	20	29	46	95	929
Total	106	663	93	862	149	200	227	576	133	857	325	1315	87	95	157	339	3092
08:00 AM	38	165	24	227	41	50	48	139	19	228	55	302	34	23	22	79	747
08:15 AM	32	174	18	224	28	32	37	97	25	259	58	342	13	12	30	55	718
08:30 AM	35	182	32	249	35	26	40	101	20	188	40	248	11	18	29	58	656
08:45 AM	18	169	27	214	34	47	39	120	22	212	57	291	15	7	21	43	668
Total	123	690	101	914	138	155	164	457	86	887	210	1183	73	60	102	235	2789
Grand Total	229	1353	194	1776	287	355	391	1033	219	1744	535	2498	160	155	259	574	5881
Apprch %	12.9	76.2	10.9		27.8	34.4	37.9		8.8	69.8	21.4		27.9	27	45.1		
Total %	3.9	23	3.3	30.2	4.9	6	6.6	17.6	3.7	29.7	9.1	42.5	2.7	2.6	4.4	9.8	

	South Fremont Avenue Southbound				West Hellman Avenue Westbound				South Fremont Avenue Northbound				West Hellman Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	28	161	23	212	30	35	51	116	30	219	81	330	19	20	22	61	719
07:30 AM	32	187	31	250	45	63	65	173	38	237	82	357	35	39	63	137	917
07:45 AM	29	193	32	254	52	80	48	180	55	250	95	400	20	29	46	95	929
08:00 AM	38	165	24	227	41	50	48	139	19	228	55	302	34	23	22	79	747
Total Volume	127	706	110	943	168	228	212	608	142	934	313	1389	108	111	153	372	3312
% App. Total	13.5	74.9	11.7		27.6	37.5	34.9		10.2	67.2	22.5		29	29.8	41.1		
PHF	.836	.915	.859	.928	.808	.713	.815	.844	.645	.934	.824	.868	.771	.712	.607	.679	.891

City of Alhambra
N/S: South Fremont Avenue
E/W: West Hellman Avenue
Weather: Clear

File Name : 23_AHBFRE AM
Site Code : 10817000
Start Date : 4/27/2017
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:15 AM				07:30 AM				07:15 AM			
+0 mins.	32	187	31	250	30	35	51	116	38	237	82	357	19	20	22	61
+15 mins.	29	193	32	254	45	63	65	173	55	250	95	400	35	39	63	137
+30 mins.	38	165	24	227	52	80	48	180	19	228	55	302	20	29	46	95
+45 mins.	32	174	18	224	41	50	48	139	25	259	58	342	34	23	22	79
Total Volume	131	719	105	955	168	228	212	608	137	974	290	1401	108	111	153	372
% App. Total	13.7	75.3	11		27.6	37.5	34.9		9.8	69.5	20.7		29	29.8	41.1	
PHF	.862	.931	.820	.940	.808	.713	.815	.844	.623	.940	.763	.876	.771	.712	.607	.679

City of Alhambra
N/S: South Fremont Avenue
E/W: West Hellman Avenue
Weather: Clear

File Name : 23_AHBFRE PM
Site Code : 10817000
Start Date : 4/27/2017
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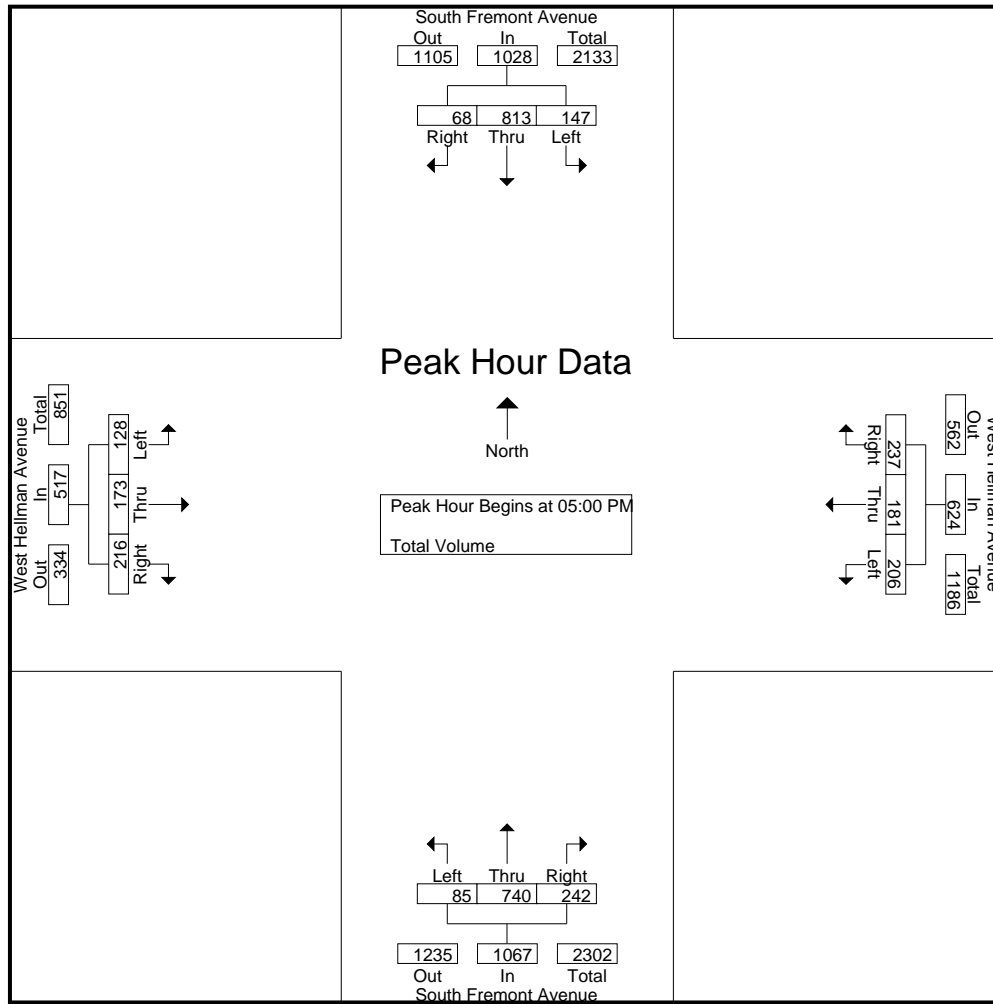
Groups Printed- Total Volume

	South Fremont Avenue Southbound				West Hellman Avenue Westbound				South Fremont Avenue Northbound				West Hellman Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	16	97	15	128	62	57	57	176	24	133	40	197	31	36	41	108	609
04:15 PM	24	187	25	236	38	54	45	137	25	146	48	219	20	21	47	88	680
04:30 PM	33	174	19	226	49	37	51	137	16	148	55	219	36	43	45	124	706
04:45 PM	35	238	21	294	42	21	50	113	16	176	40	232	21	26	49	96	735
Total	108	696	80	884	191	169	203	563	81	603	183	867	108	126	182	416	2730
05:00 PM	36	190	21	247	57	36	67	160	15	157	64	236	29	42	49	120	763
05:15 PM	38	206	13	257	43	35	54	132	25	178	61	264	28	42	45	115	768
05:30 PM	37	195	20	252	51	62	51	164	18	188	53	259	31	46	59	136	811
05:45 PM	36	222	14	272	55	48	65	168	27	217	64	308	40	43	63	146	894
Total	147	813	68	1028	206	181	237	624	85	740	242	1067	128	173	216	517	3236
Grand Total	255	1509	148	1912	397	350	440	1187	166	1343	425	1934	236	299	398	933	5966
Apprch %	13.3	78.9	7.7		33.4	29.5	37.1		8.6	69.4	22		25.3	32	42.7		
Total %	4.3	25.3	2.5	32	6.7	5.9	7.4	19.9	2.8	22.5	7.1	32.4	4	5	6.7	15.6	

	South Fremont Avenue Southbound				West Hellman Avenue Westbound				South Fremont Avenue Northbound				West Hellman Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	36	190	21	247	57	36	67	160	15	157	64	236	29	42	49	120	763
05:15 PM	38	206	13	257	43	35	54	132	25	178	61	264	28	42	45	115	768
05:30 PM	37	195	20	252	51	62	51	164	18	188	53	259	31	46	59	136	811
05:45 PM	36	222	14	272	55	48	65	168	27	217	64	308	40	43	63	146	894
Total Volume	147	813	68	1028	206	181	237	624	85	740	242	1067	128	173	216	517	3236
% App. Total	14.3	79.1	6.6		33	29	38		8	69.4	22.7		24.8	33.5	41.8		
PHF	.967	.916	.810	.945	.904	.730	.884	.929	.787	.853	.945	.866	.800	.940	.857	.885	.905

City of Alhambra
N/S: South Fremont Avenue
E/W: West Hellman Avenue
Weather: Clear

File Name : 23_AHBFRRHE PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	35	238	21	294	57	36	67	160	15	157	64	236	29	42	49	120
+15 mins.	36	190	21	247	43	35	54	132	25	178	61	264	28	42	45	115
+30 mins.	38	206	13	257	51	62	51	164	18	188	53	259	31	46	59	136
+45 mins.	37	195	20	252	55	48	65	168	27	217	64	308	40	43	63	146
Total Volume	146	829	75	1050	206	181	237	624	85	740	242	1067	128	173	216	517
% App. Total	13.9	79	7.1		33	29	38		8	69.4	22.7		24.8	33.5	41.8	
PHF	.961	.871	.893	.893	.904	.730	.884	.929	.787	.853	.945	.866	.800	.940	.857	.885

Location: Alhambra
N/S: South Fremont Avenue
E/W: West Hellman Boulevard



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

		North Leg South Fremont Avenue	East Leg West Hellman Boulevard	South Leg South Fremont Avenue	West Leg West Hellman Boulevard	TOTAL
	7:00 AM	0	3	0	1	4
	7:15 AM	9	3	0	5	17
	7:30 AM	17	2	0	16	35
	7:45 AM	27	1	0	15	43
	8:00 AM	5	1	0	2	8
	8:15 AM	1	0	0	1	2
	8:30 AM	0	0	0	0	0
	8:45 AM	2	1	0	1	4
TOTAL VOLUMES:		61	11	0	41	113

		North Leg South Fremont Avenue	East Leg West Hellman Boulevard	South Leg South Fremont Avenue	West Leg West Hellman Boulevard	TOTAL
	4:00 PM	3	0	0	3	6
	4:15 PM	0	0	0	1	1
	4:30 PM	0	0	0	5	5
	4:45 PM	0	0	0	0	0
	5:00 PM	1	0	0	1	2
	5:15 PM	4	3	0	3	10
	5:30 PM	0	0	0	2	2
	5:45 PM	0	0	0	0	0
TOTAL VOLUMES:		8	3	0	15	26

Location: Alhambra
N/S: South Fremont Avenue
E/W: West Hellman Boulevard



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg South Fremont Avenue	East Leg West Hellman Boulevard	South Leg South Fremont Avenue	West Leg West Hellman Boulevard	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	1	1
	7:45 AM	1	0	0	1	2
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	1	2	0	1	4
	8:45 AM	0	0	0	0	0
TOTAL VOLUMES:		2	2	0	3	7

		North Leg South Fremont Avenue	East Leg West Hellman Boulevard	South Leg South Fremont Avenue	West Leg West Hellman Boulevard	TOTAL
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	2	0	0	2
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	1	1
	5:45 PM	0	0	0	0	0
TOTAL VOLUMES:		0	2	0	1	3

City of Alhambra
N/S: Elm Street/I-10 Westbound Ramps
E/W: West Hellman Avenue
Weather: Clear

File Name : 24_AHB10WHE AM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

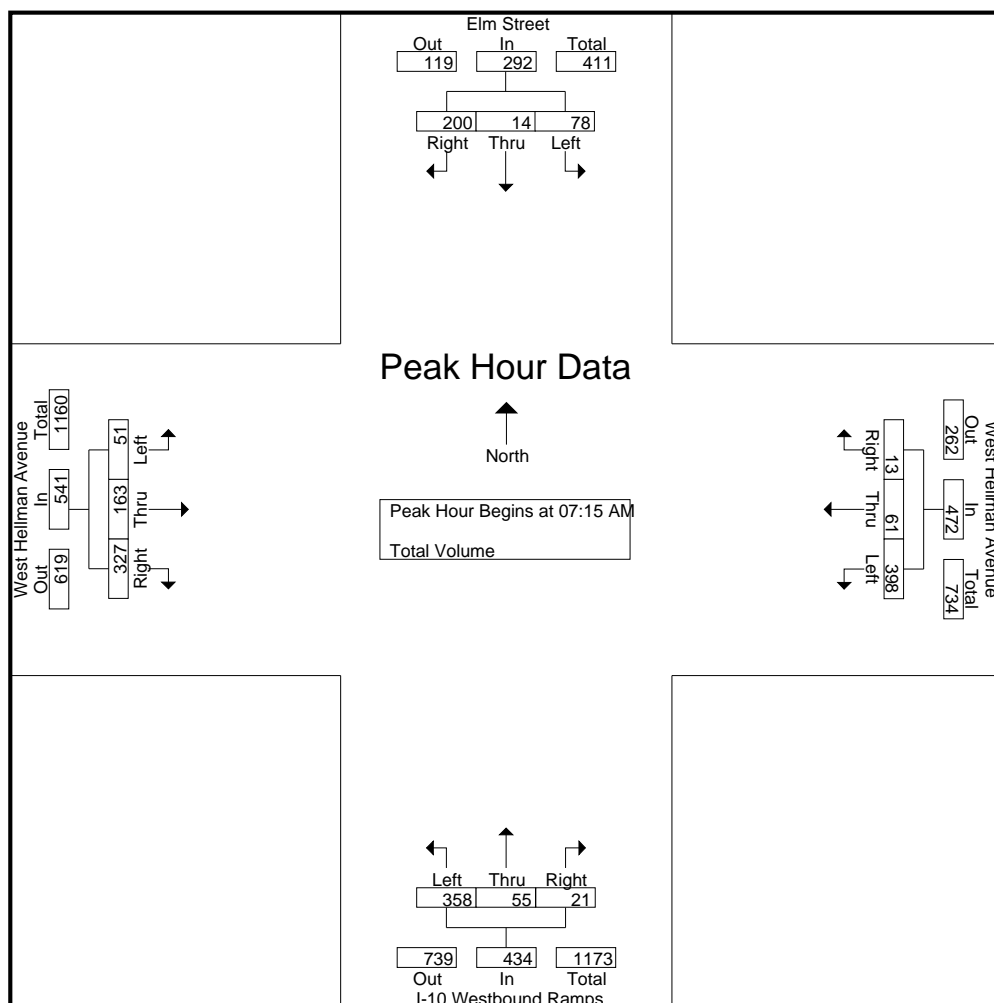
Groups Printed- Total Volume

	Elm Street Southbound				West Hellman Avenue Westbound				I-10 Westbound Ramps Northbound				West Hellman Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	5	5	102	8	2	112	89	23	3	115	1	17	73	91	323
07:15 AM	3	3	16	22	103	15	2	120	100	14	5	119	2	34	92	128	389
07:30 AM	22	5	65	92	97	13	3	113	98	10	4	112	18	42	87	147	464
07:45 AM	37	3	89	129	87	14	6	107	92	14	7	113	27	46	75	148	497
Total	62	11	175	248	389	50	13	452	379	61	19	459	48	139	327	514	1673
08:00 AM	16	3	30	49	111	19	2	132	68	17	5	90	4	41	73	118	389
08:15 AM	0	4	9	13	117	19	0	136	71	3	5	79	2	21	73	96	324
08:30 AM	0	2	10	12	124	20	0	144	64	7	8	79	4	21	68	93	328
08:45 AM	5	4	9	18	101	24	2	127	101	18	4	123	3	24	55	82	350
Total	21	13	58	92	453	82	4	539	304	45	22	371	13	107	269	389	1391
Grand Total	83	24	233	340	842	132	17	991	683	106	41	830	61	246	596	903	3064
Apprch %	24.4	7.1	68.5		85	13.3	1.7		82.3	12.8	4.9		6.8	27.2	66		
Total %	2.7	0.8	7.6	11.1	27.5	4.3	0.6	32.3	22.3	3.5	1.3	27.1	2	8	19.5	29.5	

	Elm Street Southbound				West Hellman Avenue Westbound				I-10 Westbound Ramps Northbound				West Hellman Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	3	3	16	22	103	15	2	120	100	14	5	119	2	34	92	128	389
07:30 AM	22	5	65	92	97	13	3	113	98	10	4	112	18	42	87	147	464
07:45 AM	37	3	89	129	87	14	6	107	92	14	7	113	27	46	75	148	497
08:00 AM	16	3	30	49	111	19	2	132	68	17	5	90	4	41	73	118	389
Total Volume	78	14	200	292	398	61	13	472	358	55	21	434	51	163	327	541	1739
% App. Total	26.7	4.8	68.5		84.3	12.9	2.8		82.5	12.7	4.8		9.4	30.1	60.4		
PHF	.527	.700	.562	.566	.896	.803	.542	.894	.895	.809	.750	.912	.472	.886	.889	.914	.875

City of Alhambra
N/S: Elm Street/I-10 Westbound Ramps
E/W: West Hellman Avenue
Weather: Clear

File Name : 24_AHB10WHE AM
Site Code : 10817000
Start Date : 4/27/2017
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				08:00 AM				07:00 AM				07:15 AM			
+0 mins.	3	3	16	22	111	19	2	132	89	23	3	115	2	34	92	128
+15 mins.	22	5	65	92	117	19	0	136	100	14	5	119	18	42	87	147
+30 mins.	37	3	89	129	124	20	0	144	98	10	4	112	27	46	75	148
+45 mins.	16	3	30	49	101	24	2	127	92	14	7	113	4	41	73	118
Total Volume	78	14	200	292	453	82	4	539	379	61	19	459	51	163	327	541
% App. Total	26.7	4.8	68.5		84	15.2	0.7		82.6	13.3	4.1		9.4	30.1	60.4	
PHF	.527	.700	.562	.566	.913	.854	.500	.936	.948	.663	.679	.964	.472	.886	.889	.914

City of Alhambra
N/S: Elm Street/I-10 Westbound Ramps
E/W: West Hellman Avenue
Weather: Clear

File Name : 24_AHB10WHE PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

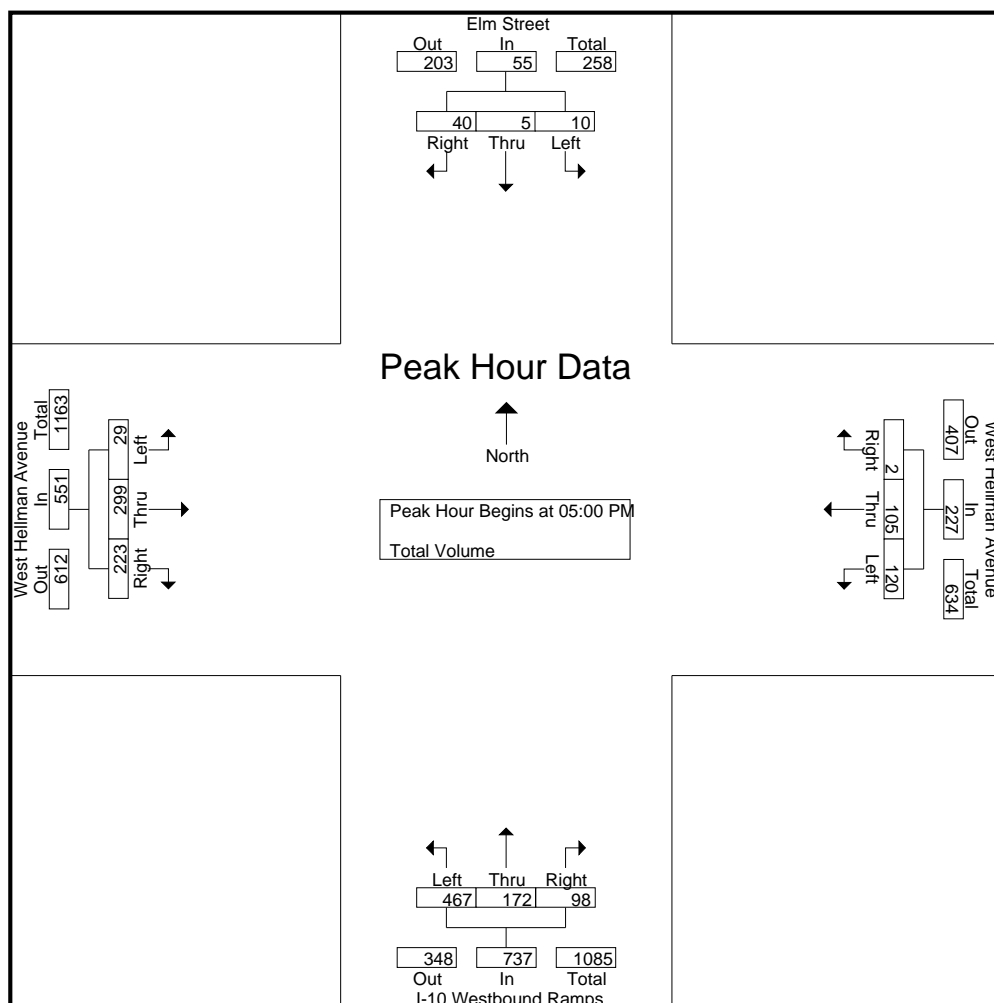
Groups Printed- Total Volume

	Elm Street Southbound				West Hellman Avenue Westbound				I-10 Westbound Ramps Northbound				West Hellman Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	1	12	17	42	41	1	84	115	33	16	164	5	50	39	94	359
04:15 PM	2	2	12	16	48	22	0	70	108	48	19	175	4	48	42	94	355
04:30 PM	0	2	7	9	37	29	0	66	96	36	17	149	6	68	55	129	353
04:45 PM	0	2	5	7	25	19	0	44	103	44	19	166	4	47	46	97	314
Total	6	7	36	49	152	111	1	264	422	161	71	654	19	213	182	414	1381
05:00 PM	3	1	5	9	30	24	0	54	120	42	15	177	2	68	63	133	373
05:15 PM	0	0	4	4	30	27	0	57	109	32	36	177	4	82	58	144	382
05:30 PM	3	1	8	12	31	31	0	62	117	46	26	189	12	68	50	130	393
05:45 PM	4	3	23	30	29	23	2	54	121	52	21	194	11	81	52	144	422
Total	10	5	40	55	120	105	2	227	467	172	98	737	29	299	223	551	1570
Grand Total	16	12	76	104	272	216	3	491	889	333	169	1391	48	512	405	965	2951
Apprch %	15.4	11.5	73.1		55.4	44	0.6		63.9	23.9	12.1		5	53.1	42		
Total %	0.5	0.4	2.6	3.5	9.2	7.3	0.1	16.6	30.1	11.3	5.7	47.1	1.6	17.4	13.7	32.7	

	Elm Street Southbound				West Hellman Avenue Westbound				I-10 Westbound Ramps Northbound				West Hellman Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	3	1	5	9	30	24	0	54	120	42	15	177	2	68	63	133	373
05:15 PM	0	0	4	4	30	27	0	57	109	32	36	177	4	82	58	144	382
05:30 PM	3	1	8	12	31	31	0	62	117	46	26	189	12	68	50	130	393
05:45 PM	4	3	23	30	29	23	2	54	121	52	21	194	11	81	52	144	422
Total Volume	10	5	40	55	120	105	2	227	467	172	98	737	29	299	223	551	1570
% App. Total	18.2	9.1	72.7		52.9	46.3	0.9		63.4	23.3	13.3		5.3	54.3	40.5		
PHF	.625	.417	.435	.458	.968	.847	.250	.915	.965	.827	.681	.950	.604	.912	.885	.957	.930

City of Alhambra
N/S: Elm Street/I-10 Westbound Ramps
E/W: West Hellman Avenue
Weather: Clear

File Name : 24_AHB10WHE PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				05:00 PM				05:00 PM			
+0 mins.	3	1	5	9	42	41	1	84	120	42	15	177	2	68	63	133
+15 mins.	0	0	4	4	48	22	0	70	109	32	36	177	4	82	58	144
+30 mins.	3	1	8	12	37	29	0	66	117	46	26	189	12	68	50	130
+45 mins.	4	3	23	30	25	19	0	44	121	52	21	194	11	81	52	144
Total Volume	10	5	40	55	152	111	1	264	467	172	98	737	29	299	223	551
% App. Total	18.2	9.1	72.7		57.6	42	0.4		63.4	23.3	13.3		5.3	54.3	40.5	
PHF	.625	.417	.435	.458	.792	.677	.250	.786	.965	.827	.681	.950	.604	.912	.885	.957

Location: Alhambra
 N/S: Elm Street/I-10 WB Ramps
 E/W: West Hellman Boulevard



Date: 4/27/2017
 Day: Thursday

PEDESTRIANS

	North Leg Elm Street	East Leg West Hellman Boulevard	South Leg I-10 Westbound Ramps	West Leg West Hellman Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	5	0	0	1	6
7:30 AM	3	0	0	0	3
7:45 AM	13	0	0	0	13
8:00 AM	2	0	0	0	2
8:15 AM	0	0	0	0	0
8:30 AM	6	0	0	0	6
8:45 AM	15	0	0	0	15
TOTAL VOLUMES:	44	0	0	1	45

	North Leg Elm Street	East Leg West Hellman Boulevard	South Leg I-10 Westbound Ramps	West Leg West Hellman Boulevard	TOTAL
4:00 PM	1	0	0	0	1
4:15 PM	2	0	0	0	2
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	1	0	0	0	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	4	0	0	0	4

Location: Alhambra
 N/S: Elm Street/I-10 WB Ramps
 E/W: West Hellman Boulevard



Date: 4/27/2017
 Day: Thursday

BICYCLES

	North Leg Elm Street	East Leg West Hellman Boulevard	South Leg I-10 Westbound Ramps	West Leg West Hellman Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	1	0	0	1	2
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	1	2

	North Leg Elm Street	East Leg West Hellman Boulevard	South Leg I-10 Westbound Ramps	West Leg West Hellman Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	1	0	0	0	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	0	1

City of Alhambra
N/S: S Fremont Avenue/I-10 EB On Ramp
E/W: I-10 EB Off Ramp/W Ramona Road
Weather: Clear

File Name : 25_AHBFR10E AM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

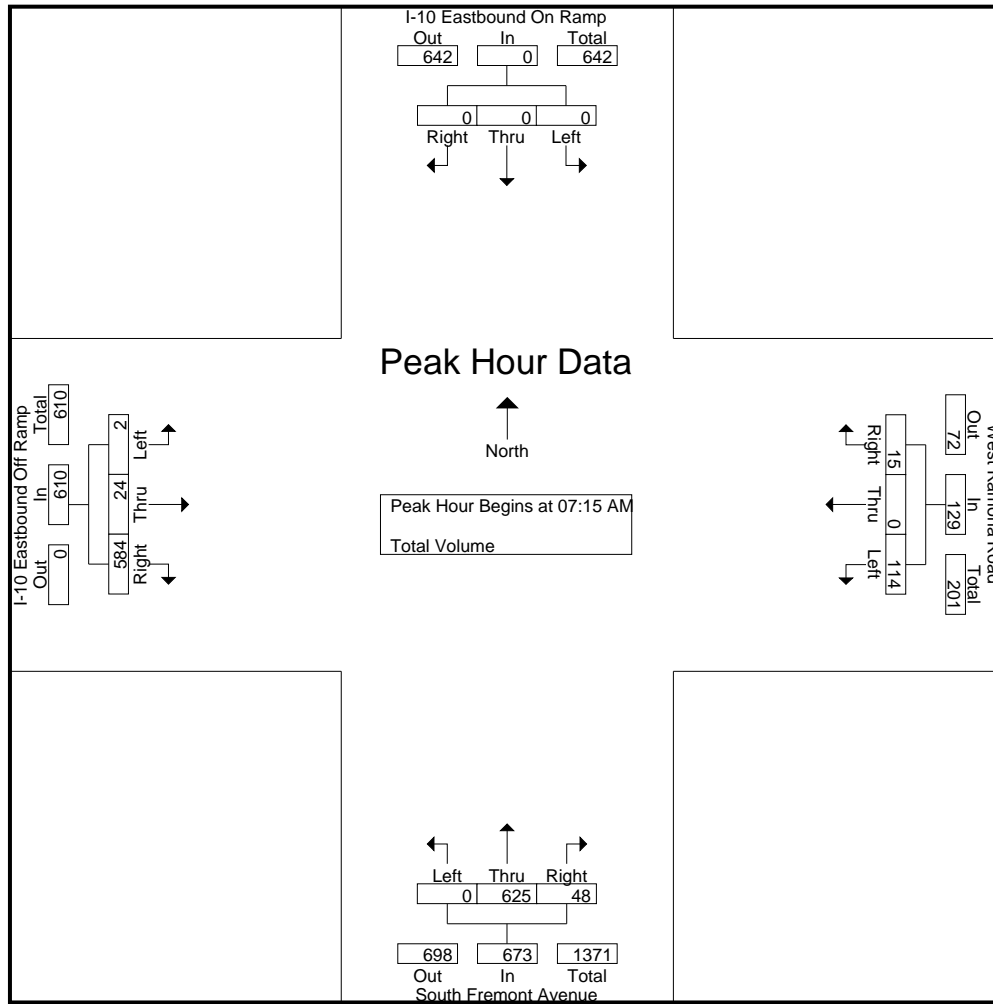
Groups Printed- Total Volume

	I-10 Eastbound On Ramp Southbound				West Ramona Road Westbound				South Fremont Avenue Northbound				I-10 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	28	0	3	31	0	119	8	127	0	7	116	123	281
07:15 AM	0	0	0	0	25	0	5	30	0	144	13	157	0	8	136	144	331
07:30 AM	0	0	0	0	36	0	3	39	0	179	11	190	1	6	152	159	388
07:45 AM	0	0	0	0	34	0	4	38	0	163	12	175	1	3	160	164	377
Total	0	0	0	0	123	0	15	138	0	605	44	649	2	24	564	590	1377
08:00 AM	0	0	0	0	19	0	3	22	0	139	12	151	0	7	136	143	316
08:15 AM	0	0	0	0	22	0	4	26	0	114	3	117	0	6	169	175	318
08:30 AM	0	0	0	0	24	0	2	26	0	129	9	138	0	7	123	130	294
08:45 AM	0	0	0	0	33	0	2	35	0	142	11	153	1	8	122	131	319
Total	0	0	0	0	98	0	11	109	0	524	35	559	1	28	550	579	1247
Grand Total	0	0	0	0	221	0	26	247	0	1129	79	1208	3	52	1114	1169	2624
Apprch %	0	0	0		89.5	0	10.5		0	93.5	6.5		0.3	4.4	95.3		
Total %	0	0	0	0	8.4	0	1	9.4	0	43	3	46	0.1	2	42.5	44.6	

	I-10 Eastbound On Ramp Southbound				West Ramona Road Westbound				South Fremont Avenue Northbound				I-10 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	25	0	5	30	0	144	13	157	0	8	136	144	331
07:30 AM	0	0	0	0	36	0	3	39	0	179	11	190	1	6	152	159	388
07:45 AM	0	0	0	0	34	0	4	38	0	163	12	175	1	3	160	164	377
08:00 AM	0	0	0	0	19	0	3	22	0	139	12	151	0	7	136	143	316
Total Volume	0	0	0	0	114	0	15	129	0	625	48	673	2	24	584	610	1412
% App. Total	0	0	0		88.4	0	11.6		0	92.9	7.1		0.3	3.9	95.7		
PHF	.000	.000	.000	.000	.792	.000	.750	.827	.000	.873	.923	.886	.500	.750	.913	.930	.910

City of Alhambra
N/S: S Fremont Avenue/I-10 EB On Ramp
E/W: I-10 EB Off Ramp/W Ramona Road
Weather: Clear

File Name : 25_AHBFR10E AM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:15 AM				07:30 AM			
+0 mins.	0	0	0	0	28	0	3	31	0	144	13	157	1	6	152	159
+15 mins.	0	0	0	0	25	0	5	30	0	179	11	190	1	3	160	164
+30 mins.	0	0	0	0	36	0	3	39	0	163	12	175	0	7	136	143
+45 mins.	0	0	0	0	34	0	4	38	0	139	12	151	0	6	169	175
Total Volume	0	0	0	0	123	0	15	138	0	625	48	673	2	22	617	641
% App. Total	0	0	0	0	89.1	0	10.9		0	92.9	7.1		0.3	3.4	96.3	
PHF	.000	.000	.000	.000	.854	.000	.750	.885	.000	.873	.923	.886	.500	.786	.913	.916

City of Alhambra
N/S: S Fremont Avenue/I-10 EB On Ramp
E/W: I-10 EB Off Ramp/W Ramona Road
Weather: Clear

File Name : 25_AHBFR10E PM
Site Code : 10817000
Start Date : 4/27/2017
Page No : 1

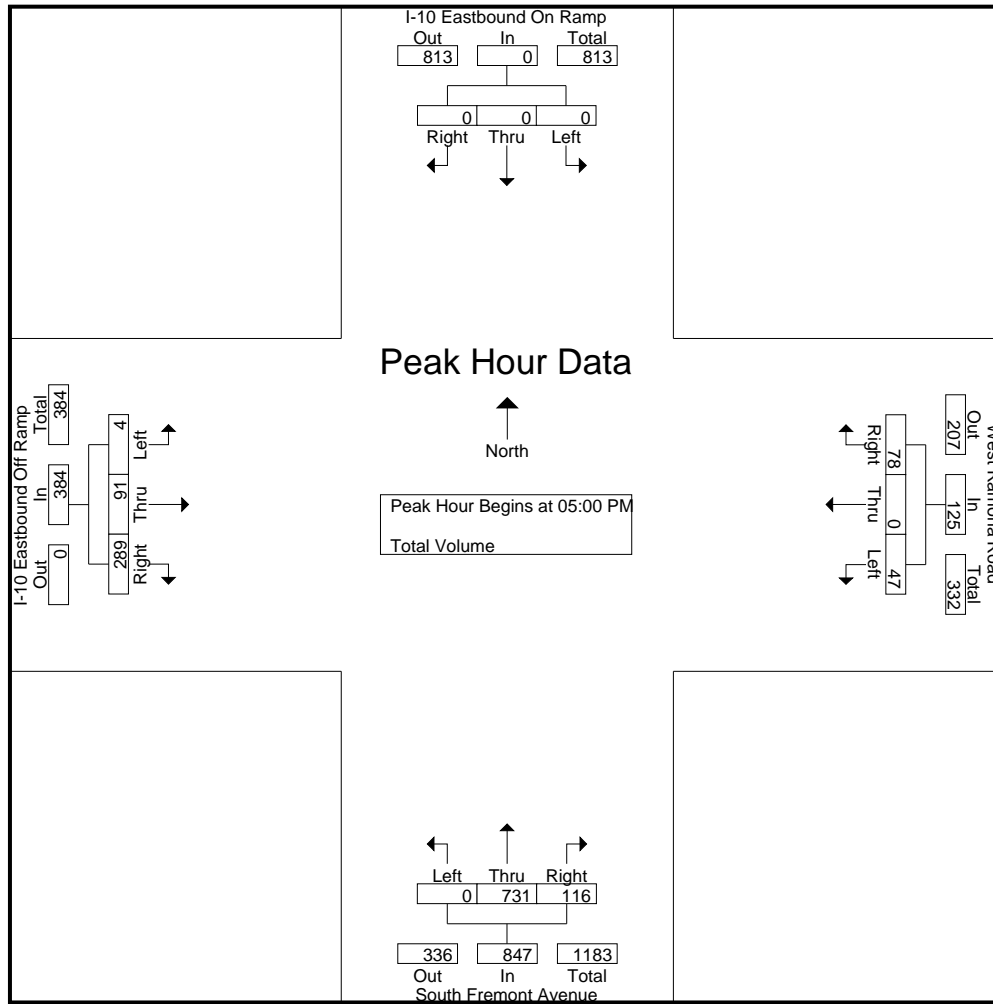
Groups Printed- Total Volume

	I-10 Eastbound On Ramp Southbound				West Ramona Road Westbound				South Fremont Avenue Northbound				I-10 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	18	0	1	19	0	139	19	158	0	25	90	115	292
04:15 PM	0	0	0	0	9	0	5	14	0	147	20	167	2	24	77	103	284
04:30 PM	0	0	0	0	9	0	7	16	0	174	24	198	3	34	73	110	324
04:45 PM	0	0	0	0	10	0	12	22	0	177	38	215	1	28	79	108	345
Total	0	0	0	0	46	0	25	71	0	637	101	738	6	111	319	436	1245
05:00 PM	0	0	0	0	9	0	26	35	0	186	22	208	1	22	70	93	336
05:15 PM	0	0	0	0	9	0	22	31	0	183	32	215	2	19	72	93	339
05:30 PM	0	0	0	0	16	0	16	32	0	180	26	206	1	20	74	95	333
05:45 PM	0	0	0	0	13	0	14	27	0	182	36	218	0	30	73	103	348
Total	0	0	0	0	47	0	78	125	0	731	116	847	4	91	289	384	1356
Grand Total	0	0	0	0	93	0	103	196	0	1368	217	1585	10	202	608	820	2601
Apprch %	0	0	0		47.4	0	52.6		0	86.3	13.7		1.2	24.6	74.1		
Total %	0	0	0	0	3.6	0	4	7.5	0	52.6	8.3	60.9	0.4	7.8	23.4	31.5	

	I-10 Eastbound On Ramp Southbound				West Ramona Road Westbound				South Fremont Avenue Northbound				I-10 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	9	0	26	35	0	186	22	208	1	22	70	93	336
05:15 PM	0	0	0	0	9	0	22	31	0	183	32	215	2	19	72	93	339
05:30 PM	0	0	0	0	16	0	16	32	0	180	26	206	1	20	74	95	333
05:45 PM	0	0	0	0	13	0	14	27	0	182	36	218	0	30	73	103	348
Total Volume	0	0	0	0	47	0	78	125	0	731	116	847	4	91	289	384	1356
% App. Total	0	0	0		37.6	0	62.4		0	86.3	13.7		1	23.7	75.3		
PHF	.000	.000	.000	.000	.734	.000	.750	.893	.000	.983	.806	.971	.500	.758	.976	.932	.974

City of Alhambra
N/S: S Fremont Avenue/I-10 EB On Ramp
E/W: I-10 EB Off Ramp/W Ramona Road
Weather: Clear

File Name : 25_AHBFR10E PM
Site Code : 10817000
Start Date : 4/27/2017
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				05:00 PM				04:00 PM			
+0 mins.	0	0	0	0	9	0	26	35	0	186	22	208	0	25	90	115
+15 mins.	0	0	0	0	9	0	22	31	0	183	32	215	2	24	77	103
+30 mins.	0	0	0	0	16	0	16	32	0	180	26	206	3	34	73	110
+45 mins.	0	0	0	0	13	0	14	27	0	182	36	218	1	28	79	108
Total Volume	0	0	0	0	47	0	78	125	0	731	116	847	6	111	319	436
% App. Total	0	0	0	0	37.6	0	62.4		0	86.3	13.7		1.4	25.5	73.2	
PHF	.000	.000	.000	.000	.734	.000	.750	.893	.000	.983	.806	.971	.500	.816	.886	.948

Location: Alhambra
N/S: S Fremont Avenue/I-10 EB On Ramp
E/W: I-10 EB Off Ramp/W Ramona Road



Date: 4/27/2017
Day: Thursday

PEDESTRIANS

		North Leg I-10 Eastbound On Ramp	East Leg West Ramona Road	South Leg South Fremont Avenue	West Leg I-10 Eastbound Off Ramp	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0

		North Leg I-10 Eastbound On Ramp	East Leg West Ramona Road	South Leg South Fremont Avenue	West Leg I-10 Eastbound Off Ramp	TOTAL
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0

Location: Alhambra
N/S: S Fremont Avenue/I-10 EB On Ramp
E/W: I-10 EB Off Ramp/W Ramona Road



Date: 4/27/2017
Day: Thursday

BICYCLES

		North Leg I-10 Eastbound On Ramp	East Leg West Ramona Road	South Leg South Fremont Avenue	West Leg I-10 Eastbound Off Ramp	TOTAL
	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0

		North Leg I-10 Eastbound On Ramp	East Leg West Ramona Road	South Leg South Fremont Avenue	West Leg I-10 Eastbound Off Ramp	TOTAL
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0

City of Alhambra
N/S: Fremont Avenue
E/W: Ross Avenue
Weather: Clear

File Name : 01_AHB_FRRO AM
Site Code : 10817789
Start Date : 11/14/2017
Page No : 1

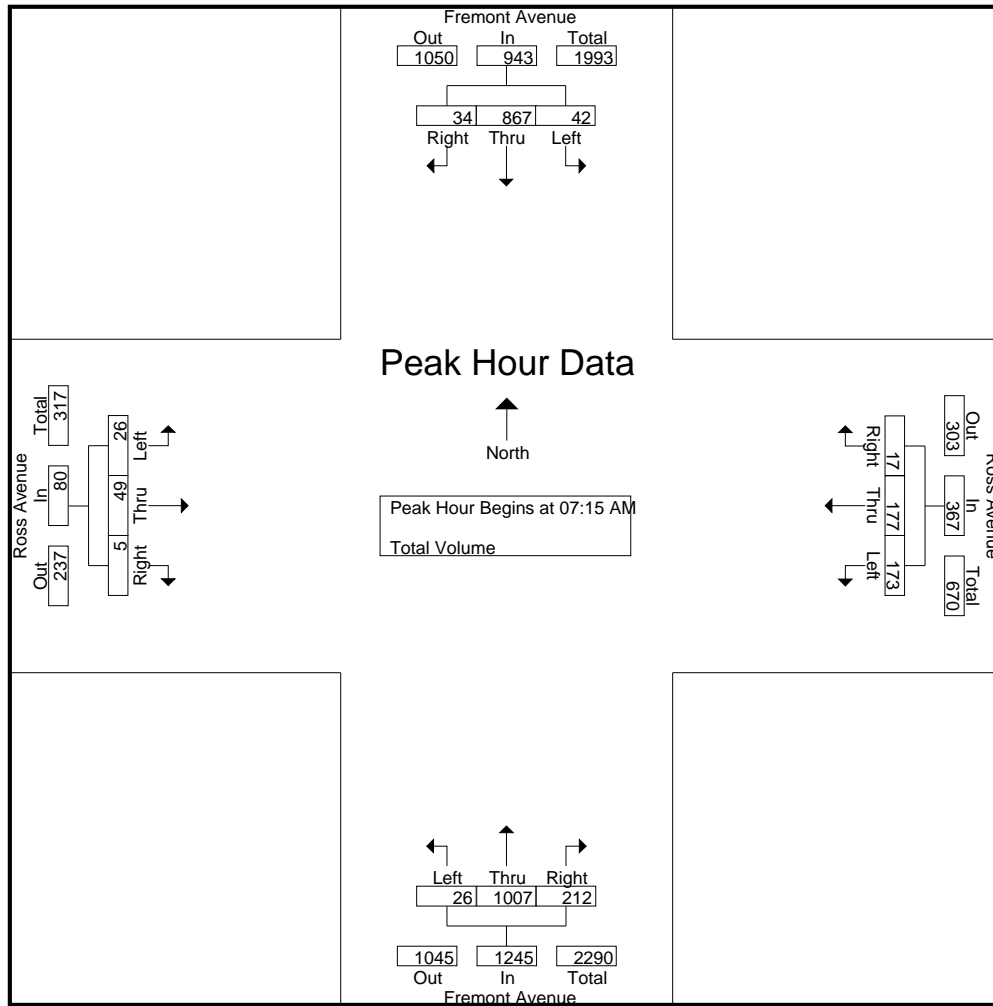
Groups Printed- Total Volume

	Fremont Avenue Southbound				Ross Avenue Westbound				Fremont Avenue Northbound				Ross Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	162	2	166	12	7	7	26	4	220	13	237	8	3	1	12	441
07:15 AM	11	204	9	224	23	27	2	52	2	288	31	321	6	9	1	16	613
07:30 AM	13	218	9	240	39	43	6	88	8	244	67	319	8	17	2	27	674
07:45 AM	13	248	9	270	54	64	4	122	8	242	72	322	8	17	0	25	739
Total	39	832	29	900	128	141	19	288	22	994	183	1199	30	46	4	80	2467
08:00 AM	5	197	7	209	57	43	5	105	8	233	42	283	4	6	2	12	609
08:15 AM	2	214	4	220	32	19	4	55	5	251	25	281	2	3	3	8	564
08:30 AM	1	181	9	191	19	23	4	46	6	259	15	280	4	2	2	8	525
08:45 AM	5	212	8	225	11	19	5	35	5	246	43	294	1	2	0	3	557
Total	13	804	28	845	119	104	18	241	24	989	125	1138	11	13	7	31	2255
Grand Total	52	1636	57	1745	247	245	37	529	46	1983	308	2337	41	59	11	111	4722
Apprch %	3	93.8	3.3		46.7	46.3	7		2	84.9	13.2		36.9	53.2	9.9		
Total %	1.1	34.6	1.2	37	5.2	5.2	0.8	11.2	1	42	6.5	49.5	0.9	1.2	0.2	2.4	

	Fremont Avenue Southbound				Ross Avenue Westbound				Fremont Avenue Northbound				Ross Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	11	204	9	224	23	27	2	52	2	288	31	321	6	9	1	16	613
07:30 AM	13	218	9	240	39	43	6	88	8	244	67	319	8	17	2	27	674
07:45 AM	13	248	9	270	54	64	4	122	8	242	72	322	8	17	0	25	739
08:00 AM	5	197	7	209	57	43	5	105	8	233	42	283	4	6	2	12	609
Total Volume	42	867	34	943	173	177	17	367	26	1007	212	1245	26	49	5	80	2635
% App. Total	4.5	91.9	3.6		47.1	48.2	4.6		2.1	80.9	17		32.5	61.2	6.2		
PHF	.808	.874	.944	.873	.759	.691	.708	.752	.813	.874	.736	.967	.813	.721	.625	.741	.891

City of Alhambra
N/S: Fremont Avenue
E/W: Ross Avenue
Weather: Clear

File Name : 01_AHB_FRRO AM
Site Code : 10817789
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:30 AM				07:15 AM				07:00 AM			
+0 mins.	11	204	9	224	39	43	6	88	2	288	31	321	8	3	1	12
+15 mins.	13	218	9	240	54	64	4	122	8	244	67	319	6	9	1	16
+30 mins.	13	248	9	270	57	43	5	105	8	242	72	322	8	17	2	27
+45 mins.	5	197	7	209	32	19	4	55	8	233	42	283	8	17	0	25
Total Volume	42	867	34	943	182	169	19	370	26	1007	212	1245	30	46	4	80
% App. Total	4.5	91.9	3.6		49.2	45.7	5.1		2.1	80.9	17		37.5	57.5	5	
PHF	.808	.874	.944	.873	.798	.660	.792	.758	.813	.874	.736	.967	.938	.676	.500	.741

City of Alhambra
N/S: Fremont Avenue
E/W: Ross Avenue
Weather: Clear

File Name : 01_AHB_FRRO PM
Site Code : 10817789
Start Date : 11/14/2017
Page No : 1

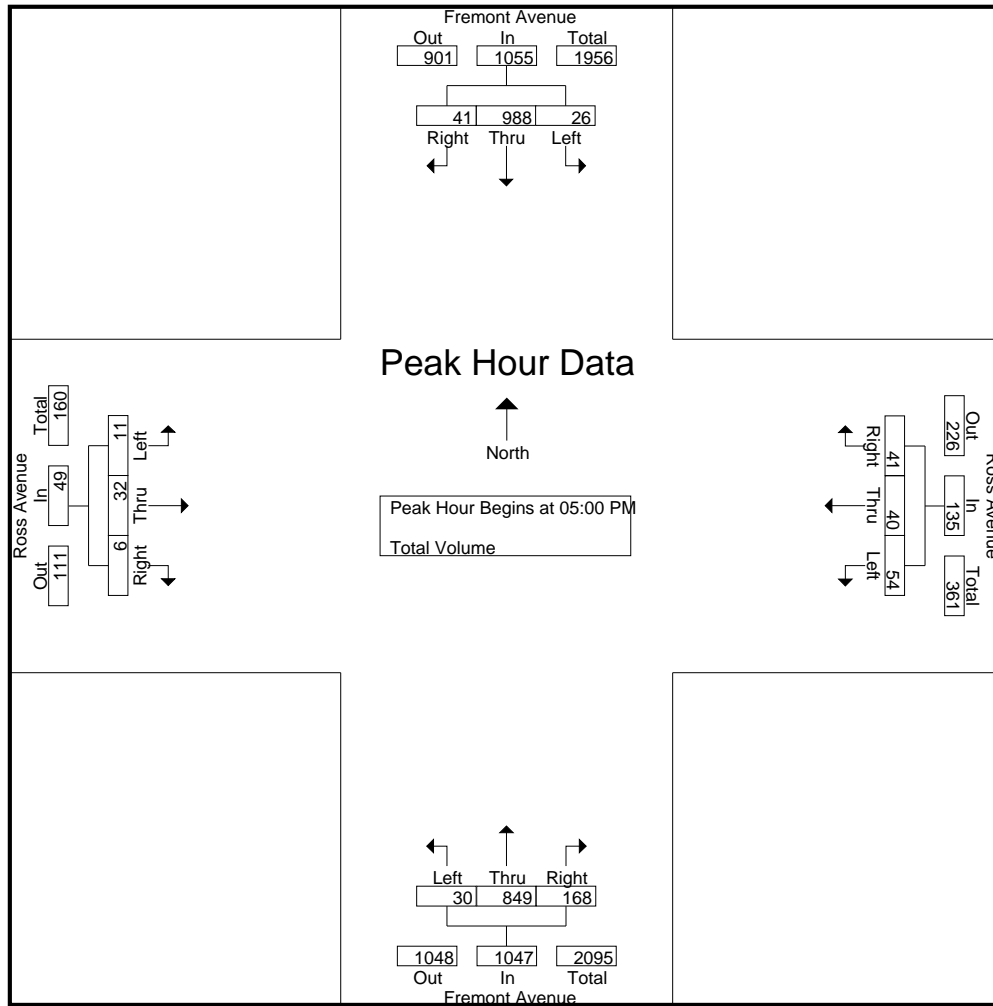
Groups Printed- Total Volume

	Fremont Avenue Southbound				Ross Avenue Westbound				Fremont Avenue Northbound				Ross Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	3	211	8	222	10	6	11	27	4	217	12	233	4	5	1	10	492
04:15 PM	8	241	2	251	10	9	13	32	5	211	21	237	3	6	2	11	531
04:30 PM	5	242	3	250	11	14	9	34	8	221	23	252	6	5	0	11	547
04:45 PM	9	268	5	282	13	0	7	20	4	215	31	250	1	10	3	14	566
Total	25	962	18	1005	44	29	40	113	21	864	87	972	14	26	6	46	2136
05:00 PM	9	234	6	249	11	9	10	30	4	199	40	243	1	10	3	14	536
05:15 PM	5	260	9	274	12	14	7	33	6	202	41	249	5	7	0	12	568
05:30 PM	3	239	11	253	17	10	9	36	9	230	38	277	4	5	3	12	578
05:45 PM	9	255	15	279	14	7	15	36	11	218	49	278	1	10	0	11	604
Total	26	988	41	1055	54	40	41	135	30	849	168	1047	11	32	6	49	2286
Grand Total	51	1950	59	2060	98	69	81	248	51	1713	255	2019	25	58	12	95	4422
Apprch %	2.5	94.7	2.9		39.5	27.8	32.7		2.5	84.8	12.6		26.3	61.1	12.6		
Total %	1.2	44.1	1.3	46.6	2.2	1.6	1.8	5.6	1.2	38.7	5.8	45.7	0.6	1.3	0.3	2.1	

	Fremont Avenue Southbound				Ross Avenue Westbound				Fremont Avenue Northbound				Ross Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	9	234	6	249	11	9	10	30	4	199	40	243	1	10	3	14	536
05:15 PM	5	260	9	274	12	14	7	33	6	202	41	249	5	7	0	12	568
05:30 PM	3	239	11	253	17	10	9	36	9	230	38	277	4	5	3	12	578
05:45 PM	9	255	15	279	14	7	15	36	11	218	49	278	1	10	0	11	604
Total Volume	26	988	41	1055	54	40	41	135	30	849	168	1047	11	32	6	49	2286
% App. Total	2.5	93.6	3.9		40	29.6	30.4		2.9	81.1	16		22.4	65.3	12.2		
PHF	.722	.950	.683	.945	.794	.714	.683	.938	.682	.923	.857	.942	.550	.800	.500	.875	.946

City of Alhambra
N/S: Fremont Avenue
E/W: Ross Avenue
Weather: Clear

File Name : 01_AHB_FRRO PM
Site Code : 10817789
Start Date : 11/14/2017
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM				05:00 PM				05:00 PM				04:45 PM			
+0 mins.	9	268	5	282	11	9	10	30	4	199	40	243	1	10	3	14
+15 mins.	9	234	6	249	12	14	7	33	6	202	41	249	1	10	3	14
+30 mins.	5	260	9	274	17	10	9	36	9	230	38	277	5	7	0	12
+45 mins.	3	239	11	253	14	7	15	36	11	218	49	278	4	5	3	12
Total Volume	26	1001	31	1058	54	40	41	135	30	849	168	1047	11	32	9	52
% App. Total	2.5	94.6	2.9		40	29.6	30.4		2.9	81.1	16		21.2	61.5	17.3	
PHF	.722	.934	.705	.938	.794	.714	.683	.938	.682	.923	.857	.942	.550	.800	.750	.929

Location: Alhambra
 N/S: Fremont Avenue
 E/W: Ross Avenue



Date: 11/14/2017
 Day: Tuesday

PEDESTRIANS

	North Leg Fremont Avenue	East Leg Ross Avenue	South Leg Fremont Avenue	West Leg Ross Avenue	TOTAL
7:00 AM	0	1	2	0	3
7:15 AM	0	1	4	5	10
7:30 AM	0	0	8	0	8
7:45 AM	0	0	5	2	7
8:00 AM	0	1	6	0	7
8:15 AM	0	0	0	3	3
8:30 AM	0	0	1	0	1
8:45 AM	0	0	0	1	1
TOTAL VOLUMES:	0	3	26	11	40

	North Leg Fremont Avenue	East Leg Ross Avenue	South Leg Fremont Avenue	West Leg Ross Avenue	TOTAL
4:00 PM	0	1	0	0	1
4:15 PM	0	0	3	3	6
4:30 PM	0	0	2	0	2
4:45 PM	0	1	2	0	3
5:00 PM	0	1	0	4	5
5:15 PM	0	0	1	1	2
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	1	1
TOTAL VOLUMES:	0	3	8	9	20

Location: Alhambra
 N/S: Fremont Avenue
 E/W: Ross Avenue



Date: 11/14/2017
 Day: Tuesday

BICYCLES

	North Leg Fremont Avenue	East Leg Ross Avenue	South Leg Fremont Avenue	West Leg Ross Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	1	2	3
7:30 AM	0	0	0	2	2
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	1	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	5	6

	North Leg Fremont Avenue	East Leg Ross Avenue	South Leg Fremont Avenue	West Leg Ross Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	1	0	0	1
4:30 PM	0	0	0	0	0
4:45 PM	1	0	1	0	2
5:00 PM	0	0	0	0	0
5:15 PM	1	0	0	1	2
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	2	1	1	1	5

City of Alhambra
N/S: Westmont Drive
E/W: Valley Boulevard
Weather: Clear

File Name : 02_AHB_WEVA AM
Site Code : 10817789
Start Date : 11/14/2017
Page No : 1

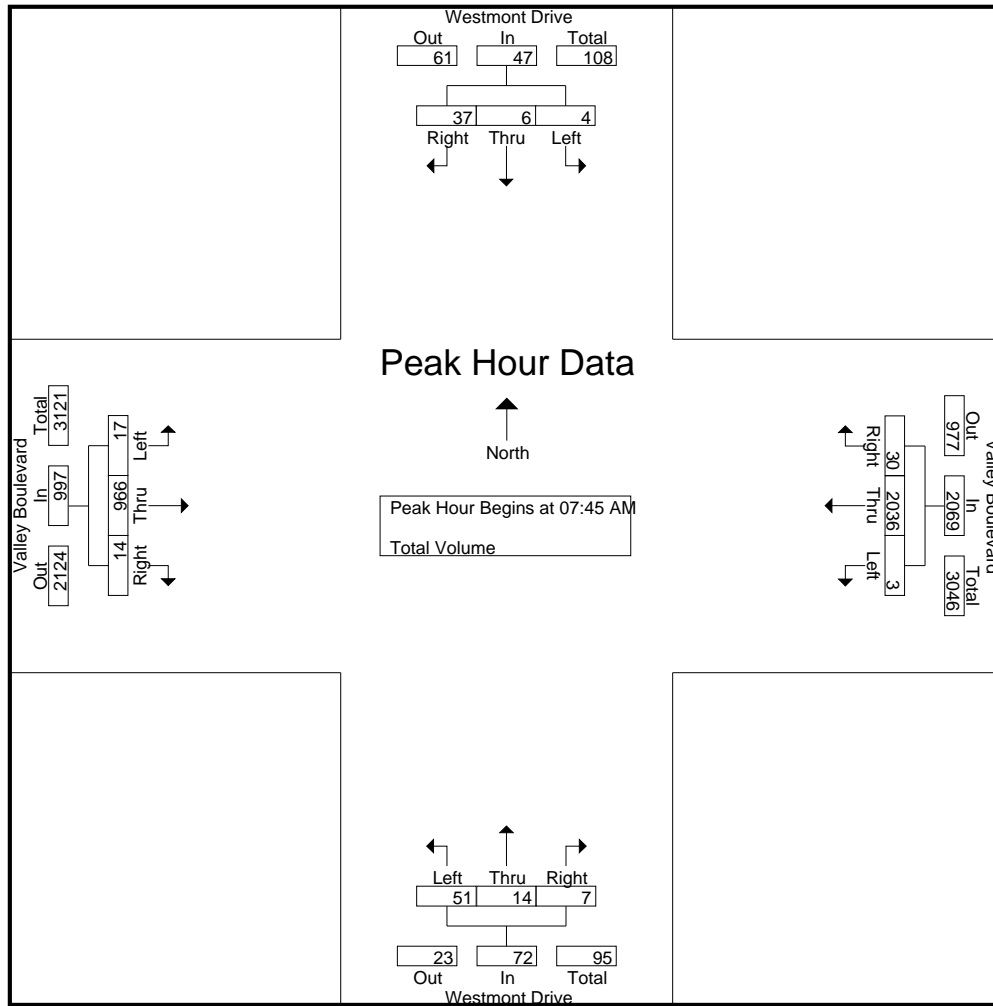
Groups Printed- Total Volume

	Westmont Drive Southbound				Valley Boulevard Westbound				Westmont Drive Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	6	2	6	14	0	532	5	537	14	2	2	18	5	197	3	205	774
07:15 AM	5	1	12	18	1	525	8	534	10	1	3	14	5	222	3	230	796
07:30 AM	3	1	10	14	1	511	4	516	16	2	4	22	3	200	6	209	761
07:45 AM	2	4	14	20	1	507	2	510	17	4	2	23	6	218	3	227	780
Total	16	8	42	66	3	2075	19	2097	57	9	11	77	19	837	15	871	3111
08:00 AM	0	1	7	8	0	528	11	539	19	4	1	24	3	211	6	220	791
08:15 AM	0	1	13	14	0	520	8	528	10	4	1	15	5	249	2	256	813
08:30 AM	2	0	3	5	2	481	9	492	5	2	3	10	3	288	3	294	801
08:45 AM	4	1	1	6	6	424	5	435	12	1	0	13	5	228	11	244	698
Total	6	3	24	33	8	1953	33	1994	46	11	5	62	16	976	22	1014	3103
Grand Total	22	11	66	99	11	4028	52	4091	103	20	16	139	35	1813	37	1885	6214
Apprch %	22.2	11.1	66.7		0.3	98.5	1.3		74.1	14.4	11.5		1.9	96.2	2		
Total %	0.4	0.2	1.1	1.6	0.2	64.8	0.8	65.8	1.7	0.3	0.3	2.2	0.6	29.2	0.6	30.3	

	Westmont Drive Southbound				Valley Boulevard Westbound				Westmont Drive Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	2	4	14	20	1	507	2	510	17	4	2	23	6	218	3	227	780
08:00 AM	0	1	7	8	0	528	11	539	19	4	1	24	3	211	6	220	791
08:15 AM	0	1	13	14	0	520	8	528	10	4	1	15	5	249	2	256	813
08:30 AM	2	0	3	5	2	481	9	492	5	2	3	10	3	288	3	294	801
Total Volume	4	6	37	47	3	2036	30	2069	51	14	7	72	17	966	14	997	3185
% App. Total	8.5	12.8	78.7		0.1	98.4	1.4		70.8	19.4	9.7		1.7	96.9	1.4		
PHF	.500	.375	.661	.588	.375	.964	.682	.960	.671	.875	.583	.750	.708	.839	.583	.848	.979

City of Alhambra
N/S: Westmont Drive
E/W: Valley Boulevard
Weather: Clear

File Name : 02_AHB_WEVA AM
Site Code : 10817789
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:30 AM				08:00 AM			
+0 mins.	6	2	6	14	1	525	8	534	16	2	4	22	3	211	6	220
+15 mins.	5	1	12	18	1	511	4	516	17	4	2	23	5	249	2	256
+30 mins.	3	1	10	14	1	507	2	510	19	4	1	24	3	288	3	294
+45 mins.	2	4	14	20	0	528	11	539	10	4	1	15	5	228	11	244
Total Volume	16	8	42	66	3	2071	25	2099	62	14	8	84	16	976	22	1014
% App. Total	24.2	12.1	63.6		0.1	98.7	1.2		73.8	16.7	9.5		1.6	96.3	2.2	
PHF	.667	.500	.750	.825	.750	.981	.568	.974	.816	.875	.500	.875	.800	.847	.500	.862

City of Alhambra
N/S: Westmont Drive
E/W: Valley Boulevard
Weather: Clear

File Name : 02_AHB_WEVA PM
Site Code : 10817789
Start Date : 11/14/2017
Page No : 1

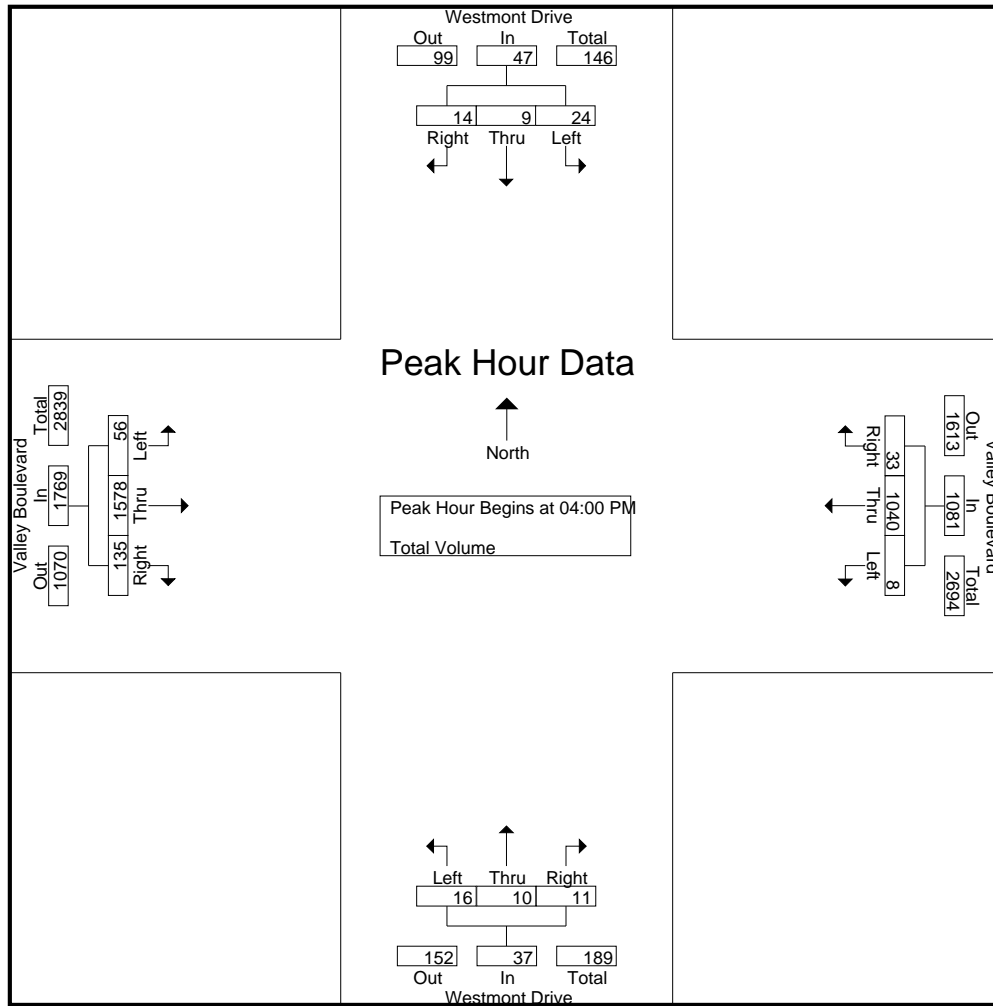
Groups Printed- Total Volume

	Westmont Drive Southbound				Valley Boulevard Westbound				Westmont Drive Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	5	1	5	11	2	256	8	266	4	1	2	7	6	394	29	429	713
04:15 PM	10	1	5	16	1	252	8	261	5	3	3	11	16	383	32	431	719
04:30 PM	3	4	1	8	3	282	9	294	3	3	3	9	15	398	33	446	757
04:45 PM	6	3	3	12	2	250	8	260	4	3	3	10	19	403	41	463	745
Total	24	9	14	47	8	1040	33	1081	16	10	11	37	56	1578	135	1769	2934
05:00 PM	2	3	4	9	3	261	12	276	2	2	0	4	9	362	33	404	693
05:15 PM	10	1	2	13	1	255	6	262	6	0	3	9	9	343	33	385	669
05:30 PM	4	1	2	7	2	286	8	296	4	2	3	9	9	370	40	419	731
05:45 PM	4	0	5	9	1	269	12	282	6	0	3	9	15	416	29	460	760
Total	20	5	13	38	7	1071	38	1116	18	4	9	31	42	1491	135	1668	2853
Grand Total	44	14	27	85	15	2111	71	2197	34	14	20	68	98	3069	270	3437	5787
Apprch %	51.8	16.5	31.8		0.7	96.1	3.2		50	20.6	29.4		2.9	89.3	7.9		
Total %	0.8	0.2	0.5	1.5	0.3	36.5	1.2	38	0.6	0.2	0.3	1.2	1.7	53	4.7	59.4	

	Westmont Drive Southbound				Valley Boulevard Westbound				Westmont Drive Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	5	1	5	11	2	256	8	266	4	1	2	7	6	394	29	429	713
04:15 PM	10	1	5	16	1	252	8	261	5	3	3	11	16	383	32	431	719
04:30 PM	3	4	1	8	3	282	9	294	3	3	3	9	15	398	33	446	757
04:45 PM	6	3	3	12	2	250	8	260	4	3	3	10	19	403	41	463	745
Total Volume	24	9	14	47	8	1040	33	1081	16	10	11	37	56	1578	135	1769	2934
% App. Total	51.1	19.1	29.8		0.7	96.2	3.1		43.2	27	29.7		3.2	89.2	7.6		
PHF	.600	.563	.700	.734	.667	.922	.917	.919	.800	.833	.917	.841	.737	.979	.823	.955	.969

City of Alhambra
N/S: Westmont Drive
E/W: Valley Boulevard
Weather: Clear

File Name : 02_AHB_WEVA PM
Site Code : 10817789
Start Date : 11/14/2017
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:00 PM				04:00 PM			
+0 mins.	5	1	5	11	3	261	12	276	4	1	2	7	6	394	29	429
+15 mins.	10	1	5	16	1	255	6	262	5	3	3	11	16	383	32	431
+30 mins.	3	4	1	8	2	286	8	296	3	3	3	9	15	398	33	446
+45 mins.	6	3	3	12	1	269	12	282	4	3	3	10	19	403	41	463
Total Volume	24	9	14	47	7	1071	38	1116	16	10	11	37	56	1578	135	1769
% App. Total	51.1	19.1	29.8		0.6	96	3.4		43.2	27	29.7		3.2	89.2	7.6	
PHF	.600	.563	.700	.734	.583	.936	.792	.943	.800	.833	.917	.841	.737	.979	.823	.955

Location: Alhambra
 N/S: Westmont Drive
 E/W: Valley Boulevard



Date: 11/14/2017
 Day: Tuesday

PEDESTRIANS

	North Leg Westmont Drive	East Leg Valley Boulevard	South Leg Westmont Drive	West Leg Valley Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	1	0	2	3
7:30 AM	1	1	0	0	2
7:45 AM	0	3	0	3	6
8:00 AM	0	1	1	0	2
8:15 AM	1	0	0	0	1
8:30 AM	0	0	1	0	1
8:45 AM	1	0	2	0	3
TOTAL VOLUMES:	3	6	4	5	18

	North Leg Westmont Drive	East Leg Valley Boulevard	South Leg Westmont Drive	West Leg Valley Boulevard	TOTAL
4:00 PM	1	0	0	0	1
4:15 PM	0	1	1	1	3
4:30 PM	1	2	2	1	6
4:45 PM	1	2	0	1	4
5:00 PM	2	0	0	3	5
5:15 PM	1	2	1	0	4
5:30 PM	0	2	2	6	10
5:45 PM	1	0	0	0	1
TOTAL VOLUMES:	7	9	6	12	34

Location: Alhambra
 N/S: Westmont Drive
 E/W: Valley Boulevard



Date: 11/14/2017
 Day: Tuesday

BICYCLES

	North Leg Westmont Drive	East Leg Valley Boulevard	South Leg Westmont Drive	West Leg Valley Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	1	0	0	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	1	0	0	0	1
8:45 AM	0	0	1	0	1
TOTAL VOLUMES:	2	0	1	0	3

	North Leg Westmont Drive	East Leg Valley Boulevard	South Leg Westmont Drive	West Leg Valley Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	2	0	2
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	1	0	0	0	1
5:30 PM	1	0	1	1	3
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	2	0	3	1	6

Appendix B – Intersection Analysis Worksheets – Existing Conditions

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Scenario Report

Scenario:	2018 Existing AM
Command:	2018 Existing AM
Volume:	2018 Existing AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	None
Trip Distribution:	None
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Turning Movement Report
None

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Fremont Ave and Mission Rd													
Base	221	1349	202	12	1303	44	62	335	475	356	781	43	5183
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	221	1349	202	12	1303	44	62	335	475	356	781	43	5183
#2 Fremont Ave and 1000 Fremont Ave													
Base	48	1296	117	4	1291	36	23	5	54	4	1	6	2885
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	48	1296	117	4	1291	36	23	5	54	4	1	6	2885
#3 Fremont Ave and Orange St													
Base	2	1124	222	140	1320	2	1	1	0	54	0	53	2919
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	1124	222	140	1320	2	1	1	0	54	0	53	2919
#4 Date Ave and Orange St													
Base	48	89	5	6	167	66	18	32	42	7	24	3	507
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	48	89	5	6	167	66	18	32	42	7	24	3	507
#5 Palm Ave and Orange St													
Base	5	59	2	5	192	29	7	18	13	2	5	2	339
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	59	2	5	192	29	7	18	13	2	5	2	339
#6 Chestnut St and Palm Ave													
Base	14	90	2	12	163	11	1	1	7	1	3	7	312
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	14	90	2	12	163	11	1	1	7	1	3	7	312
#7 Fremont Ave and Poplar Blvd													
Base	90	1036	50	17	1402	15	19	104	65	53	106	18	2975
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	90	1036	50	17	1402	15	19	104	65	53	106	18	2975
#8 Date Ave and Mission Rd													
Base	0	0	0	22	0	78	82	432	0	0	1209	157	1980
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	22	0	78	82	432	0	0	1209	157	1980
#9 Chestnut St and Date Ave													
Base	76	144	8	12	135	53	0	0	0	2	3	2	435
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	76	144	8	12	135	53	0	0	0	2	3	2	435

 Alhambra Campus Residential Development TIA
 Existing Conditions
 AM Peak Hour

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#10 Fremont Ave and Concord Ave													
Base	56	1088	37	4	1380	59	40	12	68	22	14	10	2790
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	56	1088	37	4	1380	59	40	12	68	22	14	10	2790
#11 Fremont Ave and Montezuma Ave													
Base	683	258	40	4	80	598	405	52	612	50	93	10	2885
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	683	258	40	4	80	598	405	52	612	50	93	10	2885
#12 Palm Ave and Commonwealth Ave													
Base	18	32	4	39	215	252	60	212	28	13	259	38	1170
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	18	32	4	39	215	252	60	212	28	13	259	38	1170
#13 Date Ave and Commonwealth Ave													
Base	24	40	16	47	66	71	68	239	94	118	326	67	1176
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	24	40	16	47	66	71	68	239	94	118	326	67	1176
#14 Fremont Ave and Commonwealth Ave													
Base	39	1008	92	171	1305	62	27	134	16	108	155	107	3224
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	39	1008	92	171	1305	62	27	134	16	108	155	107	3224
#15 Fremont Ave and Valley Blvd													
Base	41	915	26	74	805	1273	527	404	28	56	725	185	5059
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	41	915	26	74	805	1273	527	404	28	56	725	185	5059
#16 Palm Ave and Mission Rd													
Base	0	0	0	51	0	124	33	422	0	0	1284	84	1998
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	51	0	124	33	422	0	0	1284	84	1998
#17 Marengo Ave and Valley Blvd													
Base	22	117	72	223	163	137	166	419	23	62	956	188	2548
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	22	117	72	223	163	137	166	419	23	62	956	188	2548
#18 Atlantic Blvd and Mission Road													
Base	154	1062	115	40	943	246	88	516	67	175	956	33	4395
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	154	1062	115	40	943	246	88	516	67	175	956	33	4395

 Alhambra Campus Residential Development TIA
 Existing Conditions
 AM Peak Hour

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#19 Marengo Ave and Mission Road													
Base	85	382	157	43	504	66	44	351	85	272	1171	74	3234
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	85	382	157	43	504	66	44	351	85	272	1171	74	3234
#20 Marengo Ave and Front St													
Base	2	508	3	10	493	358	81	11	7	2	75	34	1584
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	508	3	10	493	358	81	11	7	2	75	34	1584
#21 I-710 NB Ramp and Valley Blvd													
Base	603	1	685	4	0	1	0	207	0	0	2176	6	3683
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	603	1	685	4	0	1	0	207	0	0	2176	6	3683
#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	214	650	1593	1200	0	3657
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	214	650	1593	1200	0	3657
#23 Fremont Ave and Hellman Ave													
Base	142	934	313	127	706	110	108	111	153	168	228	212	3312
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	142	934	313	127	706	110	108	111	153	168	228	212	3312
#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	358	55	21	78	14	200	51	163	327	398	61	13	1739
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	358	55	21	78	14	200	51	163	327	398	61	13	1739
#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	625	48	0	0	0	2	24	584	114	0	15	1412
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	625	48	0	0	0	2	24	584	114	0	15	1412
#26 Ross Ave and Fremont Ave													
Base	26	1007	212	42	867	34	26	49	5	173	177	17	2635
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	26	1007	212	42	867	34	26	49	5	173	177	17	2635
#27 Westmont Dr and Valley Blvd													
Base	51	14	7	4	6	37	17	966	14	3	2036	30	3185
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	51	14	7	4	6	37	17	966	14	3	2036	30	3185

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Intersection Volume Report
Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	221		1349 202	12		1303 44	62		335 475	356		781 43
2 Fremont Ave a	48		1296 117	4		1291 36	23		5 54	4		1 6
3 Fremont Ave a	2		1124 222	140		1320 2	1		1 0	54		0 53
4 Date Ave and	48		89 5	6		167 66	18		32 42	7		24 3
5 Palm Ave and	5		59 2	5		192 29	7		18 13	2		5 2
6 Chestnut St a	14		90 2	12		163 11	1		1 7	1		3 7
7 Fremont Ave a	90		1036 50	17		1402 15	19		104 65	53		106 18
8 Date Ave and	0		0 0	22		0 78	82		432 0	0		1209 157
9 Chestnut St a	76		144 8	12		135 53	0		0 0	2		3 2
10 Fremont Ave a	56		1088 37	4		1380 59	40		12 68	22		14 10
11 Fremont Ave a	683		258 40	4		80 598	405		52 612	50		93 10
12 Palm Ave and	18		32 4	39		215 252	60		212 28	13		259 38
13 Date Ave and	24		40 16	47		66 71	68		239 94	118		326 67
14 Fremont Ave a	39		1008 92	171		1305 62	27		134 16	108		155 107
15 Fremont Ave a	41		915 26	74		805 1273	527		404 28	56		725 185
16 Palm Ave and	0		0 0	51		0 124	33		422 0	0		1284 84
17 Marengo Ave a	22		117 72	223		163 137	166		419 23	62		956 188
18 Atlantic Blvd	154		1062 115	40		943 246	88		516 67	175		956 33
19 Marengo Ave a	85		382 157	43		504 66	44		351 85	272		1171 74
20 Marengo Ave a	2		508 3	10		493 358	81		11 7	2		75 34
21 I-710 NB Ramp	603		1 685	4		0 1	0		207 0	0		2176 6
22 I-710 SB Ramp	0		0 0	0		0 0	0		214 650	1593		1200 0
23 Fremont Ave a	142		934 313	127		706 110	108		111 153	168		228 212
24 Elm St and He	358		55 21	78		14 200	51		163 327	398		61 13
25 Fremont Ave a	0		625 48	0		0 0	2		24 584	114		0 15
26 Ross Ave and	26		1007 212	42		867 34	26		49 5	173		177 17
27 Westmont Dr a	51		14 7	4		6 37	17		966 14	3		2036 30

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Intersection Volume Report
Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	221	1349	202	12	1303	44	62	335	475	356	781	43
2 Fremont Ave a	48	1296	117	4	1291	36	23	5	54	4	1	6
3 Fremont Ave a	2	1124	222	140	1320	2	1	1	0	54	0	53
4 Date Ave and	48	89	5	6	167	66	18	32	42	7	24	3
5 Palm Ave and	5	59	2	5	192	29	7	18	13	2	5	2
6 Chestnut St a	14	90	2	12	163	11	1	1	7	1	3	7
7 Fremont Ave a	90	1036	50	17	1402	15	19	104	65	53	106	18
8 Date Ave and	0	0	0	22	0	78	82	432	0	0	1209	157
9 Chestnut St a	76	144	8	12	135	53	0	0	0	2	3	2
10 Fremont Ave a	56	1088	37	4	1380	59	40	12	68	22	14	10
11 Fremont Ave a	683	258	40	4	80	598	405	52	612	50	93	10
12 Palm Ave and	18	32	4	39	215	252	60	212	28	13	259	38
13 Date Ave and	24	40	16	47	66	71	68	239	94	118	326	67
14 Fremont Ave a	39	1008	92	171	1305	62	27	134	16	108	155	107
15 Fremont Ave a	41	915	26	74	805	1273	527	404	28	56	725	185
16 Palm Ave and	0	0	0	51	0	124	33	422	0	0	1284	84
17 Marengo Ave a	22	117	72	223	163	137	166	419	23	62	956	188
18 Atlantic Blvd	154	1062	115	40	943	246	88	516	67	175	956	33
19 Marengo Ave a	85	382	157	43	504	66	44	351	85	272	1171	74
20 Marengo Ave a	2	508	3	10	493	358	81	11	7	2	75	34
21 I-710 NB Ramp	603	1	685	4	0	1	0	207	0	0	2176	6
22 I-710 SB Ramp	0	0	0	0	0	0	0	214	650	1593	1200	0
23 Fremont Ave a	142	934	313	127	706	110	108	111	153	168	228	212
24 Elm St and He	358	55	21	78	14	200	51	163	327	398	61	13
25 Fremont Ave a	0	625	48	0	0	0	2	24	584	114	0	15
26 Ross Ave and	26	1007	212	42	867	34	26	49	5	173	177	17
27 Westmont Dr a	51	14	7	4	6	37	17	966	14	3	2036	30

 Alhambra Campus Residential Development TIA
 Existing Conditions
 AM Peak Hour

Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	LOS	Del/ Veh C	LOS	Del/ Veh C	
# 1 Fremont Ave and Mission Rd	F	xxxxxx 1.165	F	xxxxxx 1.165	+ 0.000 V/C
# 2 Fremont Ave and 1000 Fremont A	A	xxxxxx 0.573	A	xxxxxx 0.573	+ 0.000 V/C
# 3 Fremont Ave and Orange St	A	xxxxxx 0.573	A	xxxxxx 0.573	+ 0.000 V/C
# 4 Date Ave and Orange St	B	11.2 0.051	B	11.2 0.051	+ 0.000 D/V
# 5 Palm Ave and Orange St	A	8.4 0.258	A	8.4 0.258	+ 0.000 V/C
# 6 Chestnut St and Palm Ave	A	8.4 0.227	A	8.4 0.227	+ 0.000 V/C
# 7 Fremont Ave and Poplar Blvd	B	xxxxxx 0.697	B	xxxxxx 0.697	+ 0.000 V/C
# 8 Date Ave and Mission Rd	C	17.7 0.197	C	17.7 0.197	+ 0.000 D/V
# 9 Chestnut St and Date Ave	B	10.6 0.054	B	10.6 0.054	+ 0.000 D/V
# 10 Fremont Ave and Concord Ave	B	xxxxxx 0.641	B	xxxxxx 0.641	+ 0.000 V/C
# 11 Fremont Ave and Montezuma Ave	A	xxxxxx 0.600	A	xxxxxx 0.600	+ 0.000 V/C
# 12 Palm Ave and Commonwealth Ave	A	xxxxxx 0.387	A	xxxxxx 0.387	+ 0.000 V/C
# 13 Date Ave and Commonwealth Ave	A	xxxxxx 0.378	A	xxxxxx 0.378	+ 0.000 V/C
# 14 Fremont Ave and Commonwealth A	C	xxxxxx 0.713	C	xxxxxx 0.713	+ 0.000 V/C
# 15 Fremont Ave and Valley Blvd	E	xxxxxx 0.933	E	xxxxxx 0.933	+ 0.000 V/C
# 16 Palm Ave and Mission Rd	B	xxxxxx 0.626	B	xxxxxx 0.626	+ 0.000 V/C
# 17 Marengo Ave and Valley Blvd	C	xxxxxx 0.715	C	xxxxxx 0.715	+ 0.000 V/C
# 18 Atlantic Blvd and Mission Road	D	xxxxxx 0.855	D	xxxxxx 0.855	+ 0.000 V/C
# 19 Marengo Ave and Mission Road	E	xxxxxx 0.926	E	xxxxxx 0.926	+ 0.000 V/C
# 20 Marengo Ave and Front St	C	xxxxxx 0.732	C	xxxxxx 0.732	+ 0.000 V/C
# 21 I-710 NB Ramp and Valley Blvd	B	xxxxxx 0.696	B	xxxxxx 0.696	+ 0.000 V/C
# 22 I-710 SB Ramp and Valley Blvd	F	xxxxxx 1.059	F	xxxxxx 1.059	+ 0.000 V/C
# 23 Fremont Ave and Hellman Ave	C	xxxxxx 0.779	C	xxxxxx 0.779	+ 0.000 V/C

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 24 Elm St and Hellman Ave/Ramona	E	40.0	1.077	E	40.0	1.077	+ 0.000 V/C
# 25 Fremont Ave and Ramona Road/10	F	71.1	1.139	F	71.1	1.139	+ 0.000 V/C
# 26 Ross Ave and Fremont Ave	B	xxxxx	0.649	B	xxxxx	0.649	+ 0.000 V/C
# 27 Westmont Dr and Valley Blvd	D	xxxxx	0.808	D	xxxxx	0.808	+ 0.000 V/C

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Fremont Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.165
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Street Name:	Fremont Ave						Mission Rd						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1	0

Volume Module:

Base Vol:	221	1349	202	12	1303	44	62	335	475	356	781	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	221	1349	202	12	1303	44	62	335	475	356	781	43
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	221	1349	202	12	1303	44	62	335	475	356	781	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	221	1349	202	12	1303	44	62	335	475	356	781	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	221	1349	202	12	1303	44	62	335	475	356	781	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	221	1349	202	12	1303	44	62	335	475	356	781	43

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.74	0.26	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.90	0.10
Final Sat.:	1600	2783	417	1600	3200	1600	1600	3200	1600	1600	3033	167

Capacity Analysis Module:

Vol/Sat:	0.14	0.48	0.48	0.01	0.41	0.03	0.04	0.10	0.30	0.22	0.26	0.26
Crit Moves:	****			****			****		****	****		

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.573
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	A

Street Name:	Fremont Ave						1000 Fremont Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	0	1	0

Volume Module:

Base Vol:	48	1296	117	4	1291	36	23	5	54	4	1	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	48	1296	117	4	1291	36	23	5	54	4	1	6
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	48	1296	117	4	1291	36	23	5	54	4	1	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	48	1296	117	4	1291	36	23	5	54	4	1	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	1296	117	4	1291	36	23	5	54	4	1	6
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	48	1296	117	4	1291	36	23	5	54	4	1	6

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.08	0.92	1.00	0.14	0.86
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	136	1464	1600	229	1371

Capacity Analysis Module:

Vol/Sat:	0.03	0.41	0.07	0.00	0.40	0.02	0.01	0.04	0.04	0.00	0.00	0.00
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.573

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 38 Level Of Service: A

Street Name: Fremont Ave

Orange St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Split Phase Split Phase

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 1 1 0 1 1 0 1 1 0 0

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Volume Module:

Base Vol: 2 1124 222 140 1320 2 1 1 0 54 0 53

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 2 1124 222 140 1320 2 1 1 0 54 0 53

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 2 1124 222 140 1320 2 1 1 0 54 0 53

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 2 1124 222 140 1320 2 1 1 0 54 0 53

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 2 1124 222 140 1320 2 1 1 0 54 0 53

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 2 1124 222 140 1320 2 1 1 0 54 0 53

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 1.99 0.01 0.50 0.50 1.00 1.01 0.00 0.99

Final Sat.: 1600 3200 1600 1600 3195 5 800 800 1600 1615 0 1585

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Capacity Analysis Module:

Vol/Sat: 0.00 0.35 0.14 0.09 0.41 0.41 0.00 0.00 0.00 0.03 0.00 0.03

Crit Moves: **** **** **** ****

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Date Ave and Orange St

Average Delay (sec/veh): 3.4 Worst Case Level Of Service: B[11.2]

Street Name:	Date Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	1	0	1	0	0	0	1	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	AM Peak
Base Vol:	48	89	5	6	167	66
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	48	89	5	6	167	66
Added Vol:	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	48	89	5	6	167	66
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	48	89	5	6	167	66
Reduct Vol:	0	0	0	0	0	0
FinalVolume:	48	89	5	6	167	66

Critical Gap Module:	Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3	

Capacity Module:	Cnflct Vol:	233	xxxx	xxxxx	94	xxxx	xxxxx	380	369	167	434	430	89
Potent Cap.:	1346	xxxx	xxxxx	1513	xxxx	xxxxx	581	563	882	536	521	975	
Move Cap.:	1346	xxxx	xxxxx	1513	xxxx	xxxxx	542	541	882	473	500	975	
Total Cap:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	661	634	xxxxx	584	590	xxxxx	
Volume/Cap:	0.04	xxxx	xxxx	0.00	xxxx	xxxx	0.03	0.05	0.05	0.01	0.04	0.00	

Level Of Service Module:	2Way95thQ:	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	0.1	xxxx	xxxx	0.0
Control Del:	7.8	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	9.3	xxxxx	xxxx	8.7	
LOS by Move:	A	*	*	A	*	*	*	*	A	*	*	A	
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	643	xxxx	xxxxx	589	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	0.2	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.1	xxxx	xxxxx	11.5	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	B	*	*	B	*	*	
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	10.3	11.2								
ApproachLOS:	*	*	*	B	B								

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Palm Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.258

Loss Time (sec): 0 Average Delay (sec/veh): 8.4

Optimal Cycle: 0 Level Of Service: A

Street Name: Palm Ave Orange St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1

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Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol: 5 59 2 5 192 29 7 18 13 2 5 2

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 5 59 2 5 192 29 7 18 13 2 5 2

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 5 59 2 5 192 29 7 18 13 2 5 2

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 5 59 2 5 192 29 7 18 13 2 5 2

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 5 59 2 5 192 29 7 18 13 2 5 2

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Volume: 5 59 2 5 192 29 7 18 13 2 5 2

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.08 0.92 1.00 0.03 0.97 1.00 0.28 0.72 1.00 0.29 0.71 1.00

Final Sat.: 58 680 869 19 744 897 181 466 760 183 458 753

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Capacity Analysis Module:

Vol/Sat: 0.09 0.09 0.00 0.26 0.26 0.03 0.04 0.04 0.02 0.01 0.01 0.00

Crit Moves: **** **** **** ****

Delay/Veh: 8.0 8.0 6.8 9.0 9.0 6.8 8.2 8.2 7.2 8.1 8.1 7.2

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 8.0 8.0 6.8 9.0 9.0 6.8 8.2 8.2 7.2 8.1 8.1 7.2

LOS by Move: A A A A A A A A A A A A

ApproachDel: 7.9 8.7 7.9 7.9

Delay Adj: 1.00 1.00 1.00 1.00

ApprAdjDel: 7.9 8.7 7.9 7.9

LOS by Appr: A A A A

AllWayAvgQ: 0.1 0.1 0.0 0.3 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Note: Queue reported is the number of cars per lane.

Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to K-H, PHOENIX, AZ

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.697
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	B

Street Name:	Fremont Ave						Poplar Blvd											
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
Control:	Permitted						Permitted						Permitted					
Rights:	Include						Include						Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	1	0	1			

Volume Module:

Base Vol:	90	1036	50	17	1402	15	19	104	65	53	106	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	1036	50	17	1402	15	19	104	65	53	106	18
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	90	1036	50	17	1402	15	19	104	65	53	106	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	1036	50	17	1402	15	19	104	65	53	106	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	1036	50	17	1402	15	19	104	65	53	106	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	90	1036	50	17	1402	15	19	104	65	53	106	18

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.91	0.09	1.00	1.98	0.02	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	3053	147	1600	3166	34	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.06	0.34	0.34	0.01	0.44	0.44	0.01	0.07	0.04	0.03	0.07	0.01
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Date Ave and Mission Rd

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: C[17.7]

Street Name:	Date Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	AM Peak
Base Vol:	0	0	0	22	0	78
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	22	0	78
Added Vol:	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	0	0	0	22	0	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	22	0	78
Reduct Vol:	0	0	0	0	0	0
FinalVolume:	0	0	0	22	0	78

Critical Gap Module:	Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	

Capacity Module:	Cnflct Vol:	xxxxx	xxxx	xxxxx	1668	xxxx	683	1366	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxxx	xxxx <td>xxxxx</td> <td>89</td> <td>xxxx</td> <td>396</td> <td>509</td> <td>xxxx</td> <td>xxxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> </td>	xxxxx	89	xxxx	396	509	xxxx	xxxxx	xxxx	xxxx <td>xxxxx</td>	xxxxx	
Move Cap.:	xxxxx	xxxx <td>xxxxx</td> <td>78</td> <td>xxxx</td> <td>396</td> <td>509</td> <td>xxxx</td> <td>xxxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> </td>	xxxxx	78	xxxx	396	509	xxxx	xxxxx	xxxx	xxxx <td>xxxxx</td>	xxxxx	
Total Cap:	276	133	xxxxx	223	232	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx <td>xxxxx</td>	xxxxx	
Volume/Cap:	xxxxx	xxxx <td>xxxx</td> <td>0.10</td> <td>xxxx</td> <td>0.20</td> <td>0.16</td> <td>xxxx</td> <td>xxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> </td>	xxxx	0.10	xxxx	0.20	0.16	xxxx	xxxx	xxxx	xxxx <td>xxxxx</td>	xxxxx	

Level Of Service Module:	2Way95thQ:	xxxxx	xxxx	xxxxx	0.3	xxxx	0.7	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx <td>xxxxx</td> <td>22.9</td> <td>xxxx</td> <td>16.3</td> <td>13.4</td> <td>xxxx</td> <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> </td>	xxxxx	22.9	xxxx	16.3	13.4	xxxx	xxxxx	xxxxx	xxxx <td>xxxxx</td>	xxxxx	
LOS by Move:	*	*	*	C	*	C	B	*	*	*	*	*	
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	
Shared Cap.:	xxxxx	xxxx <td>xxxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> </td></td></td>	xxxxx	xxxx	xxxx <td>xxxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> </td></td>	xxxxx	xxxx	xxxx <td>xxxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> </td>	xxxxx	xxxx	xxxx <td>xxxxx</td>	xxxxx	
SharedQueue:	xxxxx	xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> </td></td></td>	xxxxx	xxxxx	xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> </td></td>	xxxxx	xxxxx	xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> </td>	xxxxx	xxxxx	xxxx <td>xxxxx</td>	xxxxx	
Shrd ConDel:	xxxxx	xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> </td></td></td>	xxxxx	xxxxx	xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> </td></td>	xxxxx	xxxxx	xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> </td>	xxxxx	xxxxx	xxxx <td>xxxxx</td>	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx			17.7			xxxxxx			xxxxxx			
ApproachLOS:	*			C			*			*			

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: B[10.6]

Street Name:	Chestnut St						Date Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	1	0	1	0	0	1	0	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	AM Peak
Base Vol:	76	144	8	12	135	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	76	144	8	12	135	53
Added Vol:	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	76	144	8	12	135	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	76	144	8	12	135	53
Reduct Vol:	0	0	0	0	0	0
FinalVolume:	76	144	8	12	135	53

Critical Gap Module:	Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3	

Capacity Module:	Cnflict Vol:	188	xxxx	xxxxx	152	xxxx	xxxxx	462	463	135	482	508	144
Potent Cap.:	1398	xxxx	xxxxx	1441	xxxx	xxxxx	514	499	919	547	471	909	
Move Cap.:	1398	xxxx	xxxxx	1441	xxxx	xxxxx	486	468	919	521	441	909	
Total Cap:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	601	566	xxxxx	633	546	xxxxx	
Volume/Cap:	0.05	xxxx	xxxx	0.01	xxxx	xxxx	0.00	0.00	0.00	0.00	0.01	0.00	

Level Of Service Module:	2Way95thQ:	0.2	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0
Control Del:	7.7	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxxx	xxxx	9.0
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*	A
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	577	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.3	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	B	*	*	
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.6	xxxxxx	xxxxxx	
ApproachLOS:	*	*	*	*	*	*	*	*	*	B	*	*	

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Fremont Ave and Concord Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.641
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	B

Street Name:	Fremont Ave						Concord Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	2	1	0	1	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	56	1088	37	4	1380	59	40	12	68	22	14	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	56	1088	37	4	1380	59	40	12	68	22	14	10
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	56	1088	37	4	1380	59	40	12	68	22	14	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	56	1088	37	4	1380	59	40	12	68	22	14	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	1088	37	4	1380	59	40	12	68	22	14	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	56	1088	37	4	1380	59	40	12	68	22	14	10

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.90	0.10	1.00	1.92	0.08	1.00	1.00	1.00	1.00	0.58	0.42
Final Sat.:	1600	4642	158	1600	3069	131	1600	1600	1600	1600	933	667

Capacity Analysis Module:

Vol/Sat:	0.04	0.23	0.23	0.00	0.45	0.45	0.03	0.01	0.04	0.01	0.02	0.01
Crit Moves:	****			****			****		****	****		

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.600

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 40 Level Of Service: A

Street Name:	Fremont Ave						Montezuma Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	1	0	0	0	1	0	1	0	0

Volume Module:

Base Vol:	683	258	40	4	80	598	405	52	612	50	93	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	683	258	40	4	80	598	405	52	612	50	93	10
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	683	258	40	4	80	598	405	52	612	50	93	10
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	683	258	40	4	80	0	405	52	612	50	93	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	683	258	40	4	80	0	405	52	612	50	93	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	683	258	40	4	80	0	405	52	612	50	93	10

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.87	0.13	0.10	1.90	1.00	2.00	0.16	1.84	0.33	0.61	0.06
Final Sat.:	2880	1385	215	152	3048	1600	2880	251	2949	523	973	105

Capacity Analysis Module:

Vol/Sat:	0.24	0.19	0.19	0.00	0.03	0.00	0.14	0.21	0.21	0.03	0.10	0.10
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.387
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 28 Level Of Service: A

Street Name:	Palm Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	1	0	1	0	2

Volume Module:

Base Vol:	18	32	4	39	215	252	60	212	28	13	259	38
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	32	4	39	215	252	60	212	28	13	259	38
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	32	4	39	215	252	60	212	28	13	259	38
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	32	4	39	215	252	60	212	28	13	259	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	32	4	39	215	252	60	212	28	13	259	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	32	4	39	215	252	60	212	28	13	259	38

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.77	0.23	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2827	373	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.01	0.02	0.00	0.02	0.13	0.16	0.04	0.07	0.08	0.01	0.08	0.02
Crit Moves:	****					****	****				****	

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.378
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	28	Level Of Service:	A

Street Name:	Date Ave	Commonwealth Ave	
Approach:	North Bound	South Bound	East Bound West Bound
Movement:	L - T - R	L - T - R	L - T - R L - T - R
	-----	-----	----- -----
Control:	Permitted	Permitted	Permitted Permitted
Rights:	Include	Include	Include Include
Min. Green:	0 0 0	0 0 0	0 0 0 0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0
Lanes:	1 0 1 0 1	1 0 0 1 0	1 0 1 1 0 1 0 1 1 0
	-----	-----	----- -----

Volume Module:

Base Vol:	24 40 16	47 66 71	68 239 94	118 326 67
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	24 40 16	47 66 71	68 239 94	118 326 67
Added Vol:	0 0 0	0 0 0	0 0 0	0 0 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	24 40 16	47 66 71	68 239 94	118 326 67
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	24 40 16	47 66 71	68 239 94	118 326 67
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	24 40 16	47 66 71	68 239 94	118 326 67
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
FinalVolume:	24 40 16	47 66 71	68 239 94	118 326 67

Saturation Flow Module:

Sat/Lane:	1600 1600 1600	1600 1600 1600	1600 1600 1600	1600 1600 1600
Adjustment:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Lanes:	1.00 1.00 1.00	1.00 0.48 0.52	1.00 1.44 0.56	1.00 1.66 0.34
Final Sat.:	1600 1600 1600	1600 771 829	1600 2297 903	1600 2654 546

Capacity Analysis Module:

Vol/Sat:	0.02 0.03 0.01	0.03 0.09 0.09	0.04 0.10 0.10	0.07 0.12 0.12
Crit Moves:	****	****	****	****

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.713

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 52 Level Of Service: C

Street Name:	Fremont Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	39	1008	92	171	1305	62	27	134	16	108	155	107
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	39	1008	92	171	1305	62	27	134	16	108	155	107
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	39	1008	92	171	1305	62	27	134	16	108	155	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	39	1008	92	171	1305	62	27	134	16	108	155	107
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	1008	92	171	1305	62	27	134	16	108	155	107
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	39	1008	92	171	1305	62	27	134	16	108	155	107

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.91	0.09	1.00	0.89	0.11	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3055	145	1600	1429	171	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.32	0.06	0.11	0.43	0.43	0.02	0.09	0.09	0.07	0.10	0.07
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Fremont Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.933

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 120 Level Of Service: E

Street Name: Fremont Ave

Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 2 2 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 41 915 26 74 805 1273 527 404 28 56 725 185

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 41 915 26 74 805 1273 527 404 28 56 725 185

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 41 915 26 74 805 1273 527 404 28 56 725 185

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 41 915 26 74 805 1273 527 404 28 56 725 185

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 41 915 26 74 805 1273 527 404 28 56 725 185

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 41 915 26 74 805 1273 527 404 28 56 725 185

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.94 0.06 1.00 2.00 2.00 2.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 3112 88 1600 3200 3200 2880 3200 1600 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.03 0.29 0.29 0.05 0.25 0.40 0.18 0.13 0.02 0.04 0.23 0.12

Crit Moves: **** **** **** ****

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.626

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 42 Level Of Service: B

Street Name:	Palm Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	AM Peak
Base Vol:	0	0	0	51	0	124
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	51	0	124
Added Vol:	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	0	0	0	51	0	124
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	51	0	124
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	0	0	0	51	0	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	51	0	124

Saturation Flow Module:	Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.88	0.12
Final Sat.:	0	0	0	1600	0	1600	1600	3200	0	0	3004	196

Capacity Analysis Module:	Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.08	0.02	0.13	0.00	0.00	0.43	0.43
Crit Moves:					****		****					****	

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.715
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Marengo Ave	Valley Blvd	
Approach:	North Bound	South Bound	East Bound
Movement:	L - T - R	L - T - R	L - T - R
	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected
Rights:	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 0 1 0 1	1 0 0 1 0	1 0 2 0 1

Volume Module:												
Base Vol:	22	117	72	223	163	137	166	419	23	62	956	188
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	117	72	223	163	137	166	419	23	62	956	188
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	117	72	223	163	137	166	419	23	62	956	188
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	22	117	72	223	163	137	166	419	23	62	956	188
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	117	72	223	163	137	166	419	23	62	956	188
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	22	117	72	223	163	137	166	419	23	62	956	188

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.54	0.46	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	869	731	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:												
Vol/Sat:	0.01	0.07	0.05	0.14	0.19	0.19	0.10	0.13	0.01	0.04	0.30	0.12
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.855
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	82	Level Of Service:	D

Street Name:	Atlantic Blvd						Mission Road								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	1	0	1	0	2	0	1	1	0	1	1	0

Volume Module:

Base Vol:	154	1062	115	40	943	246	88	516	67	175	956	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	154	1062	115	40	943	246	88	516	67	175	956	33
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	154	1062	115	40	943	246	88	516	67	175	956	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	154	1062	115	40	943	246	88	516	67	175	956	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	154	1062	115	40	943	246	88	516	67	175	956	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	154	1062	115	40	943	246	88	516	67	175	956	33

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.80	0.20	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	1600	2887	313	1600	3200	1600	1600	3200	1600	1600	3093	107

Capacity Analysis Module:

Vol/Sat:	0.10	0.37	0.37	0.03	0.29	0.15	0.06	0.16	0.04	0.11	0.31	0.31
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.926

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 115 Level Of Service: E

Street Name: Marengo Ave

Mission Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 0 1 1 0 1 0 1 1 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 85 382 157 43 504 66 44 351 85 272 1171 74

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 85 382 157 43 504 66 44 351 85 272 1171 74

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 85 382 157 43 504 66 44 351 85 272 1171 74

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 85 382 157 43 504 66 44 351 85 272 1171 74

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 85 382 157 43 504 66 44 351 85 272 1171 74

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 85 382 157 43 504 66 44 351 85 272 1171 74

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.88 0.12 1.00 1.61 0.39 1.00 1.88 0.12

Final Sat.: 1600 1600 1600 1600 1415 185 1600 2576 624 1600 3010 190

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.05 0.24 0.10 0.03 0.36 0.36 0.03 0.14 0.14 0.17 0.39 0.39

Crit Moves: **** **** **** ****

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #20 Marengo Ave and Front St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.732

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 54 Level Of Service: C

Street Name: Marengo Ave

Front St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 2 508 3 10 493 358 81 11 7 2 75 34

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 2 508 3 10 493 358 81 11 7 2 75 34

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 2 508 3 10 493 358 81 11 7 2 75 34

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 2 508 3 10 493 358 81 11 7 2 75 34

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 2 508 3 10 493 358 81 11 7 2 75 34

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 2 508 3 10 493 358 81 11 7 2 75 34

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 0.99 0.01 1.00 0.58 0.42 0.88 0.12 1.00 0.03 0.97 1.00

Final Sat.: 1600 1591 9 1600 927 673 1409 191 1600 42 1558 1600

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Capacity Analysis Module:

Vol/Sat: 0.00 0.32 0.32 0.01 0.53 0.53 0.05 0.06 0.00 0.00 0.05 0.02

Crit Moves: **** **** **** ****

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #21 I-710 NB Ramp and Valley Blvd

Cycle (sec):	120	Critical Vol./Cap.(X):	0.696
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	B

Street Name:	I-710 NB Ramp	Valley Blvd
Approach:	North Bound	South Bound
Movement:	L - T - R	L - T - R
Control:	Split Phase	Split Phase
Rights:	Include	Include
Min. Green:	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 0 1! 0 1	0 0 1! 0 0

Volume Module:		
Base Vol:	603 1 685	4 0 1
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	603 1 685	4 0 1
Added Vol:	0 0 0	0 0 0
PasserByVol:	0 0 0	0 0 0
Initial Fut:	603 1 685	4 0 1
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	603 1 685	4 0 1
Reduct Vol:	0 0 0	0 0 0
Reduced Vol:	603 1 685	4 0 1
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00
FinalVolume:	603 1 685	4 0 1

Saturation Flow Module:		
Sat/Lane:	1600 1600 1600	1600 1600 1600
Adjustment:	1.00 1.00 1.00	1.00 1.00 1.00
Lanes:	1.40 0.01 1.59	0.80 0.00 0.20
Final Sat.:	2245 4 2551	1280 0 320

Capacity Analysis Module:		
Vol/Sat:	0.27 0.27 0.27	0.00 0.00 0.00
Crit Moves:	****	****

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.059
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	I-710 SB Ramp						Valley Blvd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	0	0	0	0	0	0	0	0	2	0	1	2	0	2	0

Volume Module:												
Base Vol:	0	0	0	0	0	0	0	214	650	1593	1200	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	214	650	1593	1200	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	214	650	1593	1200	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	214	650	1593	1200	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	214	650	1593	1200	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	0	0	214	650	1593	1200	0

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	0	0	0	0	0	0	0	3200	1600	2880	3200	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.41	0.55	0.38	0.00
Crit Moves:	****											

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.779
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 62 Level Of Service: C

Street Name:	Fremont Ave						Hellman Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	142	934	313	127	706	110	108	111	153	168	228	212
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	142	934	313	127	706	110	108	111	153	168	228	212
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	142	934	313	127	706	110	108	111	153	168	228	212
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	142	934	313	127	706	110	108	111	153	168	228	212
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	142	934	313	127	706	110	108	111	153	168	228	212
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	142	934	313	127	706	110	108	111	153	168	228	212

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.50	0.50	1.00	1.73	0.27	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2397	803	1600	2769	431	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.09	0.39	0.39	0.08	0.26	0.25	0.07	0.07	0.10	0.11	0.14	0.13
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.077

Loss Time (sec): 0 Average Delay (sec/veh): 40.0

Optimal Cycle: 0 Level Of Service: E

Street Name: Elm St Hellman Ave/Ramona Rd/ 10 WB ramp

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 1 0 0 0 1 0 1 0 0 1

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Volume Module:AM Peak

Base Vol: 358 55 21 78 14 200 51 163 327 398 61 13

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 358 55 21 78 14 200 51 163 327 398 61 13

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 358 55 21 78 14 200 51 163 327 398 61 13

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 358 55 21 78 14 200 51 163 327 398 61 13

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 358 55 21 78 14 200 51 163 327 398 61 13

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 358 55 21 78 14 200 51 163 327 398 61 13

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.65 0.25 0.10 0.85 0.15 1.00 0.24 0.76 1.00 0.87 0.13 1.00

Final Sat.: 1055 -294 38 329 59 442 104 331 482 369 57 480

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Capacity Analysis Module:

Vol/Sat: 0.34-0.19 0.55 0.24 0.24 0.45 0.49 0.49 0.68 1.08 1.08 0.03

Crit Moves: **** **** **** ****

Delay/Veh: 21.6 22.0 22.0 14.5 14.5 16.8 18.5 18.5 23.9 94.9 94.9 10.2

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 21.6 22.0 22.0 14.5 14.5 16.8 18.5 18.5 23.9 94.9 94.9 10.2

LOS by Move: C C C B B C C C C F F B

ApproachDel: 21.5 16.1 21.7 92.6

Delay Adj: 1.00 1.00 1.00

ApprAdjDel: 21.5 16.1 21.7 92.6

LOS by Appr: C C C F

AllWayAvgQ: 1.1 1.1 1.1 0.3 0.3 0.8 0.9 0.9 1.8 9.9 9.9 0.0

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 1.139
Loss Time (sec): 0 Average Delay (sec/veh): 71.1
Optimal Cycle: 0 Level of Service: F

Street Name:	Fremont Ave						Ramona Road/10 EB ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	0	0	1	0	0	0	0	1	0

Volume Module:AM Peak

Base Vol:	0	625	48	0	0	0	2	24	584	114	0	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	625	48	0	0	0	2	24	584	114	0	15
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	625	48	0	0	0	2	24	584	114	0	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	625	48	0	0	0	2	24	584	114	0	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	625	48	0	0	0	2	24	584	114	0	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	625	48	0	0	0	2	24	584	114	0	15

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	0.00	0.00	0.08	0.92	1.00	0.88	0.00	0.12
Final Sat.:	0	549	608	0	0	0	41	494	601	421	0	55

Capacity Analysis Module:

Vol/Sat:	xxxx	1.14	0.08	xxxx	xxxx	xxxx	0.05	0.05	0.97	0.27	xxxx	0.27
Crit Moves:	****						****			****		
Delay/Veh:	0.0	106	9.1	0.0	0.0	0.0	9.8	9.8	53.8	13.3	0.0	13.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	106	9.1	0.0	0.0	0.0	9.8	9.8	53.8	13.3	0.0	13.3
LOS by Move:	*	F	A	*	*	*	A	A	F	B	*	B
ApproachDel:	99.5			xxxxxx			51.9			13.3		
Delay Adj:	1.00			xxxxxx			1.00			1.00		
ApprAdjDel:	99.5			xxxxxx			51.9			13.3		
LOS by Appr:	F			*			F			B		
AllWayAvgQ:	0.0	14.8	0.1	0.0	0.0	0.0	0.1	0.1	7.5	0.4	0.4	0.4

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.649

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 44 Level Of Service: B

Street Name: Fremont Ave

Ross Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Permitted Permitted Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1

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Volume Module:

Base Vol: 26 1007 212 42 867 34 26 49 5 173 177 17

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 26 1007 212 42 867 34 26 49 5 173 177 17

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 26 1007 212 42 867 34 26 49 5 173 177 17

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 26 1007 212 42 867 34 26 49 5 173 177 17

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 26 1007 212 42 867 34 26 49 5 173 177 17

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 26 1007 212 42 867 34 26 49 5 173 177 17

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.65 0.35 1.00 1.92 0.08 1.00 0.91 0.09 1.00 1.00 1.00

Final Sat.: 1600 2643 557 1600 3079 121 1600 1452 148 1600 1600 1600

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Capacity Analysis Module:

Vol/Sat: 0.02 0.38 0.38 0.03 0.28 0.28 0.02 0.03 0.03 0.11 0.11 0.01

Crit Moves: **** **** **** ****

Alhambra Campus Residential Development TIA
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Westmont Dr and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.808

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 69 Level Of Service: D

Street Name:	Westmont Dr						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0 0	0	0	1! 0 0	1	0	2 0 1	1	0	2 0 1

Volume Module:

Base Vol:	51	14	7	4	6	37	17	966	14	3	2036	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	51	14	7	4	6	37	17	966	14	3	2036	30
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	51	14	7	4	6	37	17	966	14	3	2036	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	51	14	7	4	6	37	17	966	14	3	2036	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	14	7	4	6	37	17	966	14	3	2036	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	51	14	7	4	6	37	17	966	14	3	2036	30

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.71	0.19	0.10	0.08	0.13	0.79	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1133	311	156	136	204	1260	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.05	0.04	0.00	0.03	0.03	0.01	0.30	0.01	0.00	0.64	0.02
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Scenario Report

Scenario:	2018 Existing PM
Command:	2018 Existing PM
Volume:	2018 Existing PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	None
Trip Distribution:	None
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Turning Movement Report
None

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Fremont Ave and Mission Rd													
Base	193	1390	192	50	1099	54	117	503	431	308	422	45	4804
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	193	1390	192	50	1099	54	117	503	431	308	422	45	4804
#2 Fremont Ave and 1000 Fremont Ave													
Base	54	1457	43	7	1113	60	81	3	69	39	4	25	2955
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	54	1457	43	7	1113	60	81	3	69	39	4	25	2955
#3 Fremont Ave and Orange St													
Base	2	1400	175	102	951	2	9	5	5	243	2	289	3185
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	1400	175	102	951	2	9	5	5	243	2	289	3185
#4 Date Ave and Orange St													
Base	31	170	3	25	267	41	67	154	155	1	20	6	940
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	31	170	3	25	267	41	67	154	155	1	20	6	940
#5 Palm Ave and Orange St													
Base	5	171	2	10	268	13	58	64	71	2	5	7	676
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	171	2	10	268	13	58	64	71	2	5	7	676
#6 Chestnut St and Palm Ave													
Base	5	146	9	14	338	8	7	7	79	6	1	7	627
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	146	9	14	338	8	7	7	79	6	1	7	627
#7 Fremont Ave and Poplar Blvd													
Base	152	1403	115	25	863	42	25	117	80	53	118	28	3021
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	152	1403	115	25	863	42	25	117	80	53	118	28	3021
#8 Date Ave and Mission Rd													
Base	0	0	0	195	0	159	84	736	0	0	563	111	1848
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	195	0	159	84	736	0	0	563	111	1848
#9 Chestnut St and Date Ave													
Base	18	178	12	38	373	10	0	0	0	10	2	17	658
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	18	178	12	38	373	10	0	0	0	10	2	17	658

 Alhambra Campus Residential Development TIA
 Existing Conditions
 PM Peak Hour

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#10 Fremont Ave and Concord Ave													
Base	51	1539	113	27	898	71	79	43	47	75	60	75	3078
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	51	1539	113	27	898	71	79	43	47	75	60	75	3078
#11 Fremont Ave and Montezuma Ave													
Base	687	443	86	24	41	259	399	167	611	33	69	19	2838
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	687	443	86	24	41	259	399	167	611	33	69	19	2838
#12 Palm Ave and Commonwealth Ave													
Base	49	124	20	172	217	244	190	416	70	8	385	96	1991
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	49	124	20	172	217	244	190	416	70	8	385	96	1991
#13 Date Ave and Commonwealth Ave													
Base	63	127	57	116	81	144	206	514	97	51	487	115	2058
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	63	127	57	116	81	144	206	514	97	51	487	115	2058
#14 Fremont Ave and Commonwealth Ave													
Base	36	1421	259	199	799	25	30	137	14	157	158	238	3473
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	36	1421	259	199	799	25	30	137	14	157	158	238	3473
#15 Fremont Ave and Valley Blvd													
Base	28	803	33	186	961	774	616	899	25	125	349	308	5107
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	28	803	33	186	961	774	616	899	25	125	349	308	5107
#16 Palm Ave and Mission Rd													
Base	0	0	0	330	0	110	49	898	0	0	570	102	2059
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	330	0	110	49	898	0	0	570	102	2059
#17 Marengo Ave and Valley Blvd													
Base	17	159	64	285	201	195	307	869	8	48	557	136	2846
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	17	159	64	285	201	195	307	869	8	48	557	136	2846
#18 Atlantic Blvd and Mission Road													
Base	95	1061	137	42	951	101	131	965	133	182	563	60	4421
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	95	1061	137	42	951	101	131	965	133	182	563	60	4421

 Alhambra Campus Residential Development TIA
 Existing Conditions
 PM Peak Hour

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#19 Marengo Ave and Mission Road													
Base	73	515	225	58	466	46	53	939	283	70	538	59	3325
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	73	515	225	58	466	46	53	939	283	70	538	59	3325
#20 Marengo Ave and Front St													
Base	3	634	4	23	682	188	150	50	8	2	19	16	1779
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	634	4	23	682	188	150	50	8	2	19	16	1779
#21 I-710 NB Ramp and Valley Blvd													
Base	584	0	1238	1	0	2	0	530	0	0	1118	0	3473
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	584	0	1238	1	0	2	0	530	0	0	1118	0	3473
#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	539	729	783	940	0	2991
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	539	729	783	940	0	2991
#23 Fremont Ave and Hellman Ave													
Base	85	740	242	147	813	68	128	173	216	206	181	237	3236
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	85	740	242	147	813	68	128	173	216	206	181	237	3236
#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	467	172	98	10	5	40	29	299	223	120	105	2	1570
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	467	172	98	10	5	40	29	299	223	120	105	2	1570
#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	731	116	0	0	0	4	91	289	47	0	78	1356
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	731	116	0	0	0	4	91	289	47	0	78	1356
#26 Ross Ave and Fremont Ave													
Base	30	849	168	26	988	41	11	32	6	54	40	41	2286
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	30	849	168	26	988	41	11	32	6	54	40	41	2286
#27 Westmont Dr and Valley Blvd													
Base	16	10	11	24	9	14	56	1578	135	8	1040	33	2934
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	16	10	11	24	9	14	56	1578	135	8	1040	33	2934

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#135													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Intersection Volume Report
Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	193	1390	192	50	1099	54	117	503	431	308	422	45
2 Fremont Ave a	54	1457	43	7	1113	60	81	3	69	39	4	25
3 Fremont Ave a	2	1400	175	102	951	2	9	5	5	243	2	289
4 Date Ave and	31	170	3	25	267	41	67	154	155	1	20	6
5 Palm Ave and	5	171	2	10	268	13	58	64	71	2	5	7
6 Chestnut St a	5	146	9	14	338	8	7	7	79	6	1	7
7 Fremont Ave a	152	1403	115	25	863	42	25	117	80	53	118	28
8 Date Ave and	0	0	0	195	0	159	84	736	0	0	563	111
9 Chestnut St a	18	178	12	38	373	10	0	0	0	10	2	17
10 Fremont Ave a	51	1539	113	27	898	71	79	43	47	75	60	75
11 Fremont Ave a	687	443	86	24	41	259	399	167	611	33	69	19
12 Palm Ave and	49	124	20	172	217	244	190	416	70	8	385	96
13 Date Ave and	63	127	57	116	81	144	206	514	97	51	487	115
14 Fremont Ave a	36	1421	259	199	799	25	30	137	14	157	158	238
15 Fremont Ave a	28	803	33	186	961	774	616	899	25	125	349	308
16 Palm Ave and	0	0	0	330	0	110	49	898	0	0	570	102
17 Marengo Ave a	17	159	64	285	201	195	307	869	8	48	557	136
18 Atlantic Blvd	95	1061	137	42	951	101	131	965	133	182	563	60
19 Marengo Ave a	73	515	225	58	466	46	53	939	283	70	538	59
20 Marengo Ave a	3	634	4	23	682	188	150	50	8	2	19	16
21 I-710 NB Ramp	584	0	1238	1	0	2	0	530	0	0	1118	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	539	729	783	940	0
23 Fremont Ave a	85	740	242	147	813	68	128	173	216	206	181	237
24 Elm St and He	467	172	98	10	5	40	29	299	223	120	105	2
25 Fremont Ave a	0	731	116	0	0	0	4	91	289	47	0	78
26 Ross Ave and	30	849	168	26	988	41	11	32	6	54	40	41
27 Westmont Dr a	16	10	11	24	9	14	56	1578	135	8	1040	33

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Intersection Volume Report
Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	193	1390	192	50	1099	54	117	503	431	308	422	45
2 Fremont Ave a	54	1457	43	7	1113	60	81	3	69	39	4	25
3 Fremont Ave a	2	1400	175	102	951	2	9	5	5	243	2	289
4 Date Ave and	31	170	3	25	267	41	67	154	155	1	20	6
5 Palm Ave and	5	171	2	10	268	13	58	64	71	2	5	7
6 Chestnut St a	5	146	9	14	338	8	7	7	79	6	1	7
7 Fremont Ave a	152	1403	115	25	863	42	25	117	80	53	118	28
8 Date Ave and	0	0	0	195	0	159	84	736	0	0	563	111
9 Chestnut St a	18	178	12	38	373	10	0	0	0	10	2	17
10 Fremont Ave a	51	1539	113	27	898	71	79	43	47	75	60	75
11 Fremont Ave a	687	443	86	24	41	259	399	167	611	33	69	19
12 Palm Ave and	49	124	20	172	217	244	190	416	70	8	385	96
13 Date Ave and	63	127	57	116	81	144	206	514	97	51	487	115
14 Fremont Ave a	36	1421	259	199	799	25	30	137	14	157	158	238
15 Fremont Ave a	28	803	33	186	961	774	616	899	25	125	349	308
16 Palm Ave and	0	0	0	330	0	110	49	898	0	0	570	102
17 Marengo Ave a	17	159	64	285	201	195	307	869	8	48	557	136
18 Atlantic Blvd	95	1061	137	42	951	101	131	965	133	182	563	60
19 Marengo Ave a	73	515	225	58	466	46	53	939	283	70	538	59
20 Marengo Ave a	3	634	4	23	682	188	150	50	8	2	19	16
21 I-710 NB Ramp	584	0	1238	1	0	2	0	530	0	0	1118	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	539	729	783	940	0
23 Fremont Ave a	85	740	242	147	813	68	128	173	216	206	181	237
24 Elm St and He	467	172	98	10	5	40	29	299	223	120	105	2
25 Fremont Ave a	0	731	116	0	0	0	4	91	289	47	0	78
26 Ross Ave and	30	849	168	26	988	41	11	32	6	54	40	41
27 Westmont Dr a	16	10	11	24	9	14	56	1578	135	8	1040	33

 Alhambra Campus Residential Development TIA
 Existing Conditions
 PM Peak Hour

Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	LOS	Del/V/ Veh C	LOS	Del/V/ Veh C	
# 1 Fremont Ave and Mission Rd	F	xxxxxx 1.087	F	xxxxxx 1.087	+ 0.000 V/C
# 2 Fremont Ave and 1000 Fremont A	B	xxxxxx 0.628	B	xxxxxx 0.628	+ 0.000 V/C
# 3 Fremont Ave and Orange St	C	xxxxxx 0.792	C	xxxxxx 0.792	+ 0.000 V/C
# 4 Date Ave and Orange St	B	13.7 0.279	B	13.7 0.279	+ 0.000 D/V
# 5 Palm Ave and Orange St	B	10.4 0.416	B	10.4 0.416	+ 0.000 V/C
# 6 Chestnut St and Palm Ave	B	10.7 0.488	B	10.7 0.488	+ 0.000 V/C
# 7 Fremont Ave and Poplar Blvd	B	xxxxxx 0.696	B	xxxxxx 0.696	+ 0.000 V/C
# 8 Date Ave and Mission Rd	C	15.9 0.430	C	15.9 0.430	+ 0.000 D/V
# 9 Chestnut St and Date Ave	B	10.3 0.027	B	10.3 0.027	+ 0.000 D/V
# 10 Fremont Ave and Concord Ave	A	xxxxxx 0.595	A	xxxxxx 0.595	+ 0.000 V/C
# 11 Fremont Ave and Montezuma Ave	B	xxxxxx 0.674	B	xxxxxx 0.674	+ 0.000 V/C
# 12 Palm Ave and Commonwealth Ave	A	xxxxxx 0.524	A	xxxxxx 0.524	+ 0.000 V/C
# 13 Date Ave and Commonwealth Ave	A	xxxxxx 0.597	A	xxxxxx 0.597	+ 0.000 V/C
# 14 Fremont Ave and Commonwealth A	D	xxxxxx 0.861	D	xxxxxx 0.861	+ 0.000 V/C
# 15 Fremont Ave and Valley Blvd	D	xxxxxx 0.884	D	xxxxxx 0.884	+ 0.000 V/C
# 16 Palm Ave and Mission Rd	A	xxxxxx 0.587	A	xxxxxx 0.587	+ 0.000 V/C
# 17 Marengo Ave and Valley Blvd	C	xxxxxx 0.743	C	xxxxxx 0.743	+ 0.000 V/C
# 18 Atlantic Blvd and Mission Road	E	xxxxxx 0.916	E	xxxxxx 0.916	+ 0.000 V/C
# 19 Marengo Ave and Mission Road	D	xxxxxx 0.891	D	xxxxxx 0.891	+ 0.000 V/C
# 20 Marengo Ave and Front St	C	xxxxxx 0.772	C	xxxxxx 0.772	+ 0.000 V/C
# 21 I-710 NB Ramp and Valley Blvd	B	xxxxxx 0.647	B	xxxxxx 0.647	+ 0.000 V/C
# 22 I-710 SB Ramp and Valley Blvd	D	xxxxxx 0.828	D	xxxxxx 0.828	+ 0.000 V/C
# 23 Fremont Ave and Hellman Ave	C	xxxxxx 0.762	C	xxxxxx 0.762	+ 0.000 V/C

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 24 Elm St and Hellman Ave/Ramona	C	23.2	0.754	C	23.2	0.754	+ 0.000 V/C
# 25 Fremont Ave and Ramona Road/10	F	73.1	1.199	F	73.1	1.199	+ 0.000 V/C
# 26 Ross Ave and Fremont Ave	A	xxxxx	0.498	A	xxxxx	0.498	+ 0.000 V/C
# 27 Westmont Dr and Valley Blvd	B	xxxxx	0.636	B	xxxxx	0.636	+ 0.000 V/C

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Fremont Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.087

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Fremont Ave

Mission Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 1 1 0

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Volume Module:

Base Vol: 193 1390 192 50 1099 54 117 503 431 308 422 45

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 193 1390 192 50 1099 54 117 503 431 308 422 45

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 193 1390 192 50 1099 54 117 503 431 308 422 45

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 193 1390 192 50 1099 54 117 503 431 308 422 45

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 193 1390 192 50 1099 54 117 503 431 308 422 45

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 193 1390 192 50 1099 54 117 503 431 308 422 45

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.76 0.24 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.81 0.19

Final Sat.: 1600 2812 388 1600 3200 1600 1600 3200 1600 1600 2892 308

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Capacity Analysis Module:

Vol/Sat: 0.12 0.49 0.49 0.03 0.34 0.03 0.07 0.16 0.27 0.19 0.15 0.15

Crit Moves: **** **** **** ****

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.628
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Street Name:	Fremont Ave	1000 Fremont Ave	
Approach:	North Bound	South Bound	East Bound
Movement:	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Permitted
Rights:	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 0 2 0 1	1 0 2 0 1	1 0 0 1 0

Volume Module:												
Base Vol:	54	1457	43	7	1113	60	81	3	69	39	4	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	54	1457	43	7	1113	60	81	3	69	39	4	25
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	1457	43	7	1113	60	81	3	69	39	4	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	1457	43	7	1113	60	81	3	69	39	4	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	1457	43	7	1113	60	81	3	69	39	4	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	1457	43	7	1113	60	81	3	69	39	4	25

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.04	0.96	1.00	0.14	0.86
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	67	1533	1600	221	1379

Capacity Analysis Module:												
Vol/Sat:	0.03	0.46	0.03	0.00	0.35	0.04	0.05	0.04	0.05	0.02	0.02	0.02
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.792

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 65 Level Of Service: C

Street Name: Fremont Ave

Orange St

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R

Control:	Protected					Protected					Split Phase					Split Phase				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	1	0	0	1	0	0	1	1	0	1	0	0

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Control: Protected Protected Split Phase Split Phase

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 1 1 0 1 1 0 0 1 1 0 0

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Volume Module:

Base Vol: 2 1400 175 102 951 2 9 5 5 243 2 289

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 2 1400 175 102 951 2 9 5 5 243 2 289

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 2 1400 175 102 951 2 9 5 5 243 2 289

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 2 1400 175 102 951 2 9 5 5 243 2 289

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 2 1400 175 102 951 2 9 5 5 243 2 289

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 2 1400 175 102 951 2 9 5 5 243 2 289

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 1.99 0.01 0.64 0.36 1.00 1.00 0.01 0.99

Final Sat.: 1600 3200 1600 1600 3193 7 1029 571 1600 1600 11 1589

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Capacity Analysis Module:

Vol/Sat: 0.00 0.44 0.11 0.06 0.30 0.30 0.01 0.01 0.00 0.15 0.18 0.18

Crit Moves: **** **** **** ****

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Date Ave and Orange St

Average Delay (sec/veh): 6.3 Worst Case Level Of Service: B[13.7]

Street Name:	Date Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	1	0	1	0	0	0	1	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	PM Peak
Base Vol:	31	170	3	25	267	41
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	31	170	3	25	267	41
Added Vol:	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	31	170	3	25	267	41
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	31	170	3	25	267	41
Reduct Vol:	0	0	0	0	0	0
FinalVolume:	31	170	3	25	267	41

Critical Gap Module:	Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3	

Capacity Module:	Cnflct Vol:	308	xxxx	xxxxx	173	xxxx	xxxxx	564	552	267	724	590	170
Potent Cap.:	1264	xxxx	xxxxx	1416	xxxx	xxxxx	440	444	777	344	423	879	
Move Cap.:	1264	xxxx	xxxxx	1416	xxxx	xxxxx	407	426	777	192	405	879	
Total Cap:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	565	551	xxxxx	287	525	xxxxx	
Volume/Cap:	0.02	xxxx	xxxx	0.02	xxxx	xxxx	0.12	0.28	0.20	0.00	0.04	0.01	

Level Of Service Module:	2Way95thQ:	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	0.7	xxxx	xxxx	0.0
Control Del:	7.9	xxxx	xxxxx	7.6	xxxx	xxxxx	xxxxx	xxxx	10.8	xxxxx	xxxx	9.1	
LOS by Move:	A	*	*	A	*	*	*	*	B	*	*	A	
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	555	xxxx	xxxxx	505	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1.9	xxxx	xxxxx	0.1	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	15.7	xxxx	xxxxx	12.4	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	C	*	*	B	*	*	
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	13.7	xxxxxx	xxxxxx	11.7	xxxxxx	xxxxxx	
ApproachLOS:	*	*	*	*	*	*	B	*	*	B	*	*	

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Palm Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.416
Loss Time (sec): 0 Average Delay (sec/veh): 10.4
Optimal Cycle: 0 Level of Service: B

Palm Ave						Orange St									
North Bound			South Bound			East Bound			West Bound						
Approach:	L	T	R	L	T	R	L	T	R	L	T	R			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak															
Base Vol:	5	171	2	10	268	13	58	64	71	2	5	7			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	5	171	2	10	268	13	58	64	71	2	5	7			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	5	171	2	10	268	13	58	64	71	2	5	7			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	5	171	2	10	268	13	58	64	71	2	5	7			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	5	171	2	10	268	13	58	64	71	2	5	7			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Final Volume:	5	171	2	10	268	13	58	64	71	2	5	7			
Saturation Flow Module:															
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Lanes:	0.03	0.97	1.00	0.04	0.96	1.00	0.48	0.52	1.00	0.29	0.71	1.00			
Final Sat.:	19	633	743	24	644	765	273	301	675	156	389	624			
Capacity Analysis Module:															
Vol/Sat:	0.27	0.27	0.00	0.42	0.42	0.02	0.21	0.21	0.11	0.01	0.01	0.01			
Crit Moves:	****			****			****			****					
Delay/Veh:	10.0	10.0	7.4	11.5	11.5	7.3	10.1	10.1	8.2	8.9	8.9	8.0			
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	10.0	10.0	7.4	11.5	11.5	7.3	10.1	10.1	8.2	8.9	8.9	8.0			
LOS by Move:	A	A	A	B	B	A	B	B	A	A	A	A			
ApproachDel:	9.9			11.3			9.4			8.4					
Delay Adj:	1.00			1.00			1.00			1.00					
ApprAdjDel:	9.9			11.3			9.4			8.4					
LOS by Appr:	A			B			A			A					
AllWayAvgQ:	0.3	0.3	0.0	0.7	0.7	0.0	0.2	0.2	0.1	0.0	0.0	0.0			

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.488
Loss Time (sec): 0 Average Delay (sec/veh): 10.7
Optimal Cycle: 0 Level Of Service: B

Street Name:	Chestnut St	Palm Ave
Approach:	North Bound	South Bound
Movement:	L - T - R	L - T - R
	L - T - R	L - T - R

Control:	Stop Sign	Stop Sign
Rights:	Include	Include
Min. Green:	0 0 0	0 0 0
Lanes:	0 1 0 0 1	0 1 0 0 1

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Volume Module: >> Count Date: 17 Nov 2015 << PM Peak

Base Vol:	5	146	9	14	338	8	7	79	6	1	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	146	9	14	338	8	7	79	6	1	7
Added Vol:	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	146	9	14	338	8	7	79	6	1	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	146	9	14	338	8	7	79	6	1	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	146	9	14	338	8	7	79	6	1	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	5	146	9	14	338	8	7	79	6	1	7

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Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.97	1.00	0.04	0.96	1.00	0.50	0.50	1.00	0.86	0.14
Final Sat.:	23	669	800	29	692	836	279	279	657	452	75

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Capacity Analysis Module:

Vol/Sat:	0.22	0.22	0.01	0.49	0.49	0.01	0.03	0.03	0.12	0.01	0.01	0.01
Crit Moves:	****			****					****	****		
Delay/Veh:	9.2	9.2	7.1	12.1	12.1	7.0	8.8	8.8	8.4	9.1	9.1	7.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.2	9.2	7.1	12.1	12.1	7.0	8.8	8.8	8.4	9.1	9.1	7.9
LOS by Move:	A	A	A	B	B	A	A	A	A	A	A	A
ApproachDel:	9.0			12.0			8.4			8.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.0			12.0			8.4			8.5		
LOS by Appr:	A			B			A			A		
AllWayAvgQ:	0.3	0.3	0.0	0.9	0.9	0.0	0.0	0.0	0.1	0.0	0.0	0.0

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.696
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	B

Street Name:	Fremont Ave	Poplar Blvd	
Approach:	North Bound	South Bound	East Bound West Bound
Movement:	L - T - R	L - T - R	L - T - R L - T - R
	-----	-----	-----
Control:	Permitted	Permitted	Permitted Permitted
Rights:	Include	Include	Include Include
Min. Green:	0 0 0	0 0 0	0 0 0 0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0 4.0 4.0 4.0
Lanes:	1 0 1 1 0	1 0 1 1 0	1 0 1 0 1 1 0 1 0 1
	-----	-----	-----

Volume Module:

Base Vol:	152 1403 115	25 863 42	25 117 80	53 118 28
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	152 1403 115	25 863 42	25 117 80	53 118 28
Added Vol:	0 0 0	0 0 0	0 0 0	0 0 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	152 1403 115	25 863 42	25 117 80	53 118 28
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	152 1403 115	25 863 42	25 117 80	53 118 28
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	152 1403 115	25 863 42	25 117 80	53 118 28
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
FinalVolume:	152 1403 115	25 863 42	25 117 80	53 118 28

Saturation Flow Module:

Sat/Lane:	1600 1600 1600	1600 1600 1600	1600 1600 1600	1600 1600 1600
Adjustment:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Lanes:	1.00 1.85 0.15	1.00 1.91 0.09	1.00 1.00 1.00	1.00 1.00 1.00
Final Sat.:	1600 2958 242	1600 3051 149	1600 1600 1600	1600 1600 1600

Capacity Analysis Module:

Vol/Sat:	0.10 0.47 0.47	0.02 0.28 0.28	0.02 0.07 0.05	0.03 0.07 0.02
Crit Moves:	****	****	****	****

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Date Ave and Mission Rd

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: C[15.9]

Date Ave						Mission Rd									
North Bound			South Bound			East Bound			West Bound						
Approach:	L	T	R	L	T	R	L	T	R	L	T	R			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0
Volume Module:	>>	Count	Date:	17 Nov 2015	<<	PM Peak									
Base Vol:	0	0	0	195	0	159	84	736	0	0	563	111			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	0	0	0	195	0	159	84	736	0	0	563	111			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	0	0	0	195	0	159	84	736	0	0	563	111			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	0	0	0	195	0	159	84	736	0	0	563	111			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
FinalVolume:	0	0	0	195	0	159	84	736	0	0	563	111			

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxxx	xxxx	xxxxx	1155	xxxx	337	674	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxxx	xxxx	xxxxx	193	xxxx	665	927	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxxx	xxxx	xxxxx	180	xxxx	665	927	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	270	305	xxxxx	453	318	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxxx	xxxx	xxxx	0.43	xxxx	0.24	0.09	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxxx	xxxx	xxxxx	2.2	xxxx	0.9	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	18.9	xxxx	12.1	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	C	*	B	A	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			15.9			xxxxxx			xxxxxx					
ApproachLOS:	*			C			*			*					

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B[10.3]

Street Name:	Chestnut St				Date Ave					
Approach:	North Bound		South Bound		East Bound		West Bound			
Movement:	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign			
Rights:	Include		Include		Include		Include			
Lanes:	1	0	1	0	1	0	0	1	0	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	PM Peak
Base Vol:	18	178	12	38	373	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	178	12	38	373	10
Added Vol:	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	18	178	12	38	373	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	178	12	38	373	10
Reduct Vol:	0	0	0	0	0	0
FinalVolume:	18	178	12	38	373	10

Critical Gap Module:	
Critical Gp:	4.1 xxxxx xxxxxx 4.1 xxxxx xxxxxx 7.1 6.5 6.2 6.4 6.5 6.2
FollowUpTim:	2.2 xxxxx xxxxxx 2.2 xxxxx xxxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:	
Cnflct Vol:	383 xxxxx xxxxxx 190 xxxxx xxxxxx 679 675 373 668 673 178
Potent Cap.:	1187 xxxxx xxxxxx 1396 xxxxx xxxxxx 369 378 678 426 379 870
Move Cap.:	1187 xxxxx xxxxxx 1396 xxxxx xxxxxx 348 362 678 413 363 870
Total Cap:	xxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx 505 494 xxxxxx 552 486 xxxxxx
Volume/Cap:	0.02 xxxxx xxxxx 0.03 xxxxx xxxxx 0.00 0.00 0.00 0.02 0.00 0.02

Level Of Service Module:	
2Way95thQ:	0.0 xxxxx xxxxxx 0.1 xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx 0.1
Control Del:	8.1 xxxxx xxxxxx 7.7 xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx 9.2
LOS by Move:	A * * A * * * * * * * *
Movement:	LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.:	xxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx 0 xxxxxx 540 xxxxx xxxxxx
SharedQueue:	xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 0.1 xxxxx xxxxxx
Shrd ConDel:	xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 11.8 xxxxx xxxxxx
Shared LOS:	* * * * * * * * B * *
ApproachDel:	xxxxxxx xxxxxx xxxxxx xxxxxx 10.3
ApproachLOS:	* * * * B

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Fremont Ave and Concord Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.595

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 40 Level Of Service: A

Street Name: Fremont Ave

Concord Ave

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 1 0 1 0 1 1 0 1 1 0 0 1 0

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Volume Module:

Base Vol: 51 1539 113 27 898 71 79 43 47 75 60 75

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 51 1539 113 27 898 71 79 43 47 75 60 75

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 51 1539 113 27 898 71 79 43 47 75 60 75

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 51 1539 113 27 898 71 79 43 47 75 60 75

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 51 1539 113 27 898 71 79 43 47 75 60 75

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 51 1539 113 27 898 71 79 43 47 75 60 75

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.79 0.21 1.00 1.85 0.15 1.00 1.00 1.00 1.00 0.44 0.56

Final Sat.: 1600 4472 328 1600 2966 234 1600 1600 1600 1600 711 889

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Capacity Analysis Module:

Vol/Sat: 0.03 0.34 0.34 0.02 0.30 0.30 0.05 0.03 0.03 0.05 0.08 0.08

Crit Moves: **** **** **** ****

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.674
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	B

Street Name:	Fremont Ave	Montezuma Ave	
Approach:	North Bound	South Bound	East Bound
Movement:	L - T - R	L - T - R	L - T - R
	-----	-----	-----
Control:	Protected	Permitted	Protected
Rights:	Include	Ignore	Include
Min. Green:	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	2 0 0 1 0	0 1 1 0 1	2 0 0 1 1
	-----	-----	-----

Volume Module:

Base Vol:	687 443 86	24 41 259	399 167 611	33 69 19
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	687 443 86	24 41 259	399 167 611	33 69 19
Added Vol:	0 0 0	0 0 0	0 0 0	0 0 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	687 443 86	24 41 259	399 167 611	33 69 19
User Adj:	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	687 443 86	24 41 0	399 167 611	33 69 19
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	687 443 86	24 41 0	399 167 611	33 69 19
PCE Adj:	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 1.00	1.00 1.00 1.00
FinalVolume:	687 443 86	24 41 0	399 167 611	33 69 19

Saturation Flow Module:

Sat/Lane:	1600 1600 1600	1600 1600 1600	1600 1600 1600	1600 1600 1600
Adjustment:	0.90 1.00 1.00	1.00 1.00 1.00	0.90 1.00 1.00	1.00 1.00 1.00
Lanes:	2.00 0.84 0.16	0.74 1.26 1.00	2.00 0.43 1.57	0.27 0.57 0.16
Final Sat.:	2880 1340 260	1182 2018 1600	2880 687 2513	436 912 251

Capacity Analysis Module:

Vol/Sat:	0.24 0.33 0.33	0.02 0.02 0.00	0.14 0.24 0.24	0.02 0.08 0.08
Crit Moves:	****		****	

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.524

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 35 Level Of Service: A

Street Name:	Palm Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

Volume Module:	Palm Ave			Palm Ave			Commonwealth Ave			Commonwealth Ave		
Base Vol:	49	124	20	172	217	244	190	416	70	8	385	96
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	49	124	20	172	217	244	190	416	70	8	385	96
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	124	20	172	217	244	190	416	70	8	385	96
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	49	124	20	172	217	244	190	416	70	8	385	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	124	20	172	217	244	190	416	70	8	385	96
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	124	20	172	217	244	190	416	70	8	385	96

Saturation Flow Module:	Palm Ave			Palm Ave			Commonwealth Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.71	0.29	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2739	461	1600	3200	1600

Capacity Analysis Module:	Palm Ave			Palm Ave			Commonwealth Ave			Commonwealth Ave		
Vol/Sat:	0.03	0.08	0.01	0.11	0.14	0.15	0.12	0.15	0.15	0.01	0.12	0.06
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.597
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Street Name:	Date Ave						Commonwealth Ave											
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
Control:	Permitted						Permitted						Permitted					
Rights:	Include						Include						Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	0	1	1	0	0	1	0	1	0	1	1	0			

Volume Module:

Base Vol:	63	127	57	116	81	144	206	514	97	51	487	115
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	63	127	57	116	81	144	206	514	97	51	487	115
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	63	127	57	116	81	144	206	514	97	51	487	115
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	63	127	57	116	81	144	206	514	97	51	487	115
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	127	57	116	81	144	206	514	97	51	487	115
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	63	127	57	116	81	144	206	514	97	51	487	115

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.36	0.64	1.00	1.68	0.32	1.00	1.62	0.38
Final Sat.:	1600	1600	1600	1600	576	1024	1600	2692	508	1600	2589	611

Capacity Analysis Module:

Vol/Sat:	0.04	0.08	0.04	0.07	0.14	0.14	0.13	0.19	0.19	0.03	0.19	0.19
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.861
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	84	Level Of Service:	D

Street Name:	Fremont Ave	Commonwealth Ave	
Approach:	North Bound	South Bound	East Bound
Movement:	L - T - R	L - T - R	L - T - R
	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected
Rights:	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 0 2 0 1	1 0 1 1 0	1 0 0 1 0

Volume Module:												
Base Vol:	36	1421	259	199	799	25	30	137	14	157	158	238
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	1421	259	199	799	25	30	137	14	157	158	238
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	1421	259	199	799	25	30	137	14	157	158	238
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	1421	259	199	799	25	30	137	14	157	158	238
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	1421	259	199	799	25	30	137	14	157	158	238
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	1421	259	199	799	25	30	137	14	157	158	238

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.94	0.06	1.00	0.91	0.09	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3103	97	1600	1452	148	1600	1600	1600

Capacity Analysis Module:												
Vol/Sat:	0.02	0.44	0.16	0.12	0.26	0.26	0.02	0.09	0.09	0.10	0.10	0.15
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Fremont Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.884

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 93 Level Of Service: D

Street Name: Fremont Ave

Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 2 2 0 2 0 1 1 0 2 0 1

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Volume Module:

Base Vol: 28 803 33 186 961 774 616 899 25 125 349 308

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 28 803 33 186 961 774 616 899 25 125 349 308

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 28 803 33 186 961 774 616 899 25 125 349 308

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 28 803 33 186 961 774 616 899 25 125 349 308

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 28 803 33 186 961 774 616 899 25 125 349 308

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 28 803 33 186 961 774 616 899 25 125 349 308

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.92 0.08 1.00 2.00 2.00 2.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 3074 126 1600 3200 3200 2880 3200 1600 1600 3200 1600

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Capacity Analysis Module:

Vol/Sat: 0.02 0.26 0.26 0.12 0.30 0.24 0.21 0.28 0.02 0.08 0.11 0.19

Crit Moves: **** **** **** ****

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.587
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Street Name:	Palm Ave	Mission Rd
Approach:	North Bound	South Bound
Movement:	L - T - R	L - T - R
Control:	Protected	Protected
Rights:	Include	Include
Min. Green:	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	0 0 0 0 0	1 0 0 0 1

Volume Module: >> Count Date:	17 Nov 2015 << PM Peak											
Base Vol:	0	0	0	330	0	110	49	898	0	0	570	102
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	330	0	110	49	898	0	0	570	102
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	330	0	110	49	898	0	0	570	102
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	330	0	110	49	898	0	0	570	102
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	330	0	110	49	898	0	0	570	102
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	330	0	110	49	898	0	0	570	102

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.70	0.30
Final Sat.:	0	0	0	1600	0	1600	1600	3200	0	0	2714	486

Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.21	0.00	0.07	0.03	0.28	0.00	0.00	0.21	0.21
Crit Moves:				****				****				****

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.743
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Marengo Ave	Valley Blvd	
Approach:	North Bound	South Bound	East Bound
Movement:	L - T - R	L - T - R	L - T - R
	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected
Rights:	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 0 1 0 1	1 0 0 1 0	1 0 2 0 1

Volume Module:												
Base Vol:	17	159	64	285	201	195	307	869	8	48	557	136
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	17	159	64	285	201	195	307	869	8	48	557	136
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	159	64	285	201	195	307	869	8	48	557	136
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	159	64	285	201	195	307	869	8	48	557	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	159	64	285	201	195	307	869	8	48	557	136
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	17	159	64	285	201	195	307	869	8	48	557	136

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.51	0.49	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	812	788	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:												
Vol/Sat:	0.01	0.10	0.04	0.18	0.25	0.25	0.19	0.27	0.01	0.03	0.17	0.09
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.916

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 109 Level Of Service: E

Street Name:	Atlantic Blvd						Mission Road						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1	0

Volume Module:

Base Vol:	95	1061	137	42	951	101	131	965	133	182	563	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	95	1061	137	42	951	101	131	965	133	182	563	60
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	95	1061	137	42	951	101	131	965	133	182	563	60
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	95	1061	137	42	951	101	131	965	133	182	563	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	1061	137	42	951	101	131	965	133	182	563	60
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	95	1061	137	42	951	101	131	965	133	182	563	60

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.77	0.23	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.81	0.19
Final Sat.:	1600	2834	366	1600	3200	1600	1600	3200	1600	1600	2892	308

Capacity Analysis Module:

Vol/Sat:	0.06	0.37	0.37	0.03	0.30	0.06	0.08	0.30	0.08	0.11	0.19	0.19
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec):	100	Critical Vol./Cap.(X):	0.891
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	96	Level Of Service:	D

Street Name:	Marengo Ave						Mission Rd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted			Permitted			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	0	1	1	0	0	1	0	1	0	1	1	0

Volume Module:

Base Vol:	73	515	225	58	466	46	53	939	283	70	538	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	73	515	225	58	466	46	53	939	283	70	538	59
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	73	515	225	58	466	46	53	939	283	70	538	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	73	515	225	58	466	46	53	939	283	70	538	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	515	225	58	466	46	53	939	283	70	538	59
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	73	515	225	58	466	46	53	939	283	70	538	59

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.91	0.09	1.00	1.54	0.46	1.00	1.80	0.20
Final Sat.:	1600	1600	1600	1600	1456	144	1600	2459	741	1600	2884	316

Capacity Analysis Module:

Vol/Sat:	0.05	0.32	0.14	0.04	0.32	0.32	0.03	0.38	0.38	0.04	0.19	0.19
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #20 Marengo Ave and Front St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.772

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 61 Level Of Service: C

Street Name: Marengo Ave

Front St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 3 634 4 23 682 188 150 50 8 2 19 16

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 3 634 4 23 682 188 150 50 8 2 19 16

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 3 634 4 23 682 188 150 50 8 2 19 16

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 3 634 4 23 682 188 150 50 8 2 19 16

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 3 634 4 23 682 188 150 50 8 2 19 16

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 3 634 4 23 682 188 150 50 8 2 19 16

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 0.99 0.01 1.00 0.78 0.22 0.75 0.25 1.00 0.10 0.90 1.00

Final Sat.: 1600 1590 10 1600 1254 346 1200 400 1600 152 1448 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.40 0.40 0.01 0.54 0.54 0.09 0.13 0.01 0.00 0.01 0.01

Crit Moves: **** **** **** ****

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #21 I-710 NB Ramp and Valley Blvd

Cycle (sec): 120 Critical Vol./Cap.(X): 0.647

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 46 Level Of Service: B

Street Name: I-710 NB Ramp

Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Split Phase Split Phase Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1! 0 1 0 0 1! 0 0 0 0 2 0 0 0 0 0 3 1 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 584 0 1238 1 0 2 0 530 0 0 1118 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 584 0 1238 1 0 2 0 530 0 0 1118 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 584 0 1238 1 0 2 0 530 0 0 1118 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 584 0 1238 1 0 2 0 530 0 0 1118 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 584 0 1238 1 0 2 0 530 0 0 1118 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 584 0 1238 1 0 2 0 530 0 0 1118 0

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 0.00 2.00 0.33 0.00 0.67 0.00 2.00 0.00 0.00 4.00 0.00

Final Sat.: 1600 0 3200 533 0 1067 0 3200 0 0 6400 0

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.37 0.00 0.39 0.00 0.00 0.00 0.00 0.17 0.00 0.00 0.17 0.00

Crit Moves: **** **** **** ****

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.828
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	73	Level Of Service:	D

Street Name:	I-710 SB Ramp						Valley Blvd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	0	0	0	0	0	0	0	0	2	0	1	2	0	2	0

Volume Module:												
Base Vol:	0	0	0	0	0	0	0	539	729	783	940	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	539	729	783	940	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	539	729	783	940	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	539	729	783	940	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	539	729	783	940	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	0	0	539	729	783	940	0

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	0	0	0	0	0	0	0	3200	1600	2880	3200	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.46	0.27	0.29	0.00
Crit Moves:									****	****		

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.762
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	C

Street Name:	Fremont Ave						Hellman Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	85	740	242	147	813	68	128	173	216	206	181	237
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	85	740	242	147	813	68	128	173	216	206	181	237
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	85	740	242	147	813	68	128	173	216	206	181	237
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	85	740	242	147	813	68	128	173	216	206	181	237
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	85	740	242	147	813	68	128	173	216	206	181	237
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	85	740	242	147	813	68	128	173	216	206	181	237

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.51	0.49	1.00	1.85	0.15	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2411	789	1600	2953	247	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.05	0.31	0.31	0.09	0.28	0.28	0.08	0.11	0.14	0.13	0.11	0.15
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
 Existing Conditions
 PM Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.754
 Loss Time (sec): 0 Average Delay (sec/veh): 23.2
 Optimal Cycle: 0 Level Of Service: C

Street Name:	Elm St						Hellman Ave/Ramona Rd/ 10 WB ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	0	1	0	0	1	0

Volume Module: PM Peak

Base Vol:	467	172	98	10	5	40	29	299	223	120	105	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	467	172	98	10	5	40	29	299	223	120	105	2
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	467	172	98	10	5	40	29	299	223	120	105	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	467	172	98	10	5	40	29	299	223	120	105	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	467	172	98	10	5	40	29	299	223	120	105	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	467	172	98	10	5	40	29	299	223	120	105	2

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.27	0.47	0.26	0.67	0.33	1.00	0.09	0.91	1.00	0.53	0.47	1.00
Final Sat.:	1105	-260	130	268	134	454	43	448	544	237	207	496

Capacity Analysis Module:

Vol/Sat:	0.42-0.66	0.75	0.04	0.04	0.09	0.67	0.67	0.41	0.51	0.51	0.00	
Crit Moves:	****			****			****			****		
Delay/Veh:	28.9	28.6	28.6	11.4	11.4	10.7	22.8	22.8	13.5	18.0	18.0	9.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.9	28.6	28.6	11.4	11.4	10.7	22.8	22.8	13.5	18.0	18.0	9.7
LOS by Move:	D	D	D	B	B	B	C	C	B	C	C	A
ApproachDel:	28.9			10.9			19.0			18.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	28.9			10.9			19.0			18.0		
LOS by Appr:	D			B			C			C		
AllWayAvgQ:	2.5	2.5	2.5	0.0	0.0	0.1	1.8	1.8	0.6	0.9	0.9	0.0

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
 Existing Conditions
 PM Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 1.199
 Loss Time (sec): 0 Average Delay (sec/veh): 73.1
 Optimal Cycle: 0 Level Of Service: F

Street Name:	Fremont Ave						Ramona Road/10 EB ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	0	0	0	0	1	0	0	1	0

Volume Module: PM Peak

Base Vol:	0	731	116	0	0	0	4	91	289	47	0	78
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	731	116	0	0	0	4	91	289	47	0	78
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	731	116	0	0	0	4	91	289	47	0	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	731	116	0	0	0	4	91	289	47	0	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	731	116	0	0	0	4	91	289	47	0	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	731	116	0	0	0	4	91	289	47	0	78

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	0.00	0.00	0.04	0.96	1.00	0.38	0.00	0.62
Final Sat.:	0	609	680	0	0	0	22	509	596	201	0	333

Capacity Analysis Module:

Vol/Sat:	xxxx	1.20	0.17	xxxx	xxxx	xxxx	0.18	0.18	0.49	0.23	xxxx	0.23
Crit Moves:	****						****			****		
Delay/Veh:	0.0	125	9.0	0.0	0.0	0.0	10.9	10.9	14.2	11.7	0.0	11.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	125	9.0	0.0	0.0	0.0	10.9	10.9	14.2	11.7	0.0	11.7
LOS by Move:	*	F	A	*	*	*	B	B	B	B	*	B
ApproachDel:	109.2			xxxxxx			13.4			11.7		
Delay Adj:	1.00			xxxxxx			1.00			1.00		
ApprAdjDel:	109.2			xxxxxx			13.4			11.7		
LOS by Appr:	F			*			B			B		
AllWayAvgQ:	0.0	19.7	0.2	0.0	0.0	0.0	0.2	0.2	0.9	0.3	0.3	0.3

Alhambra Campus Residential Development TIA
Existing Conditions
PM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
 Existing Conditions
 PM Peak Hour

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #26 Ross Ave and Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.498
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 33 Level Of Service: A

Street Name:	Fremont Ave						Ross Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	1	0

Volume Module:

Base Vol:	30	849	168	26	988	41	11	32	6	54	40	41
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	849	168	26	988	41	11	32	6	54	40	41
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	849	168	26	988	41	11	32	6	54	40	41
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	30	849	168	26	988	41	11	32	6	54	40	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	849	168	26	988	41	11	32	6	54	40	41
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	30	849	168	26	988	41	11	32	6	54	40	41

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.67	0.33	1.00	1.92	0.08	1.00	0.84	0.16	1.00	1.00	1.00
Final Sat.:	1600	2671	529	1600	3072	128	1600	1347	253	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.32	0.32	0.02	0.32	0.01	0.02	0.02	0.03	0.03	0.03	0.03
Crit Moves:	****			****		****			****			

Alhambra Campus Residential Development TIA
 Existing Conditions
 PM Peak Hour

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #27 Westmont Dr and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.636
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 43 Level Of Service: B

Street Name: Westmont Dr Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0 0	0	0	1! 0 0	1	0	2 0 1	1	0	2 0 1

Volume Module:

Base Vol:	16	10	11	24	9	14	56	1578	135	8	1040	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	10	11	24	9	14	56	1578	135	8	1040	33
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	10	11	24	9	14	56	1578	135	8	1040	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	10	11	24	9	14	56	1578	135	8	1040	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	10	11	24	9	14	56	1578	135	8	1040	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	16	10	11	24	9	14	56	1578	135	8	1040	33

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.43	0.27	0.30	0.51	0.19	0.30	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	692	432	476	817	306	477	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.01	0.02	0.02	0.02	0.03	0.03	0.04	0.49	0.08	0.01	0.33	0.02
Crit Moves:	****			****			****			****		

Intersection

Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	7	18	13	2	5	2	5	59	2	5	192	29
Future Vol, veh/h	7	18	13	2	5	2	5	59	2	5	192	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	20	14	2	5	2	5	64	2	5	209	32
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.1	8.1	8.1	9
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	8%	0%	28%	0%	29%	0%	3%	0%
Vol Thru, %	92%	0%	72%	0%	71%	0%	97%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	2	25	13	7	2	197	29
LT Vol	5	0	7	0	2	0	5	0
Through Vol	59	0	18	0	5	0	192	0
RT Vol	0	2	0	13	0	2	0	29
Lane Flow Rate	70	2	27	14	8	2	214	32
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.095	0.003	0.041	0.018	0.012	0.003	0.278	0.035
Departure Headway (Hd)	4.892	4.151	5.441	4.597	5.479	4.632	4.671	3.957
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	735	865	661	782	656	776	762	894
Service Time	2.601	1.86	3.149	2.305	3.188	2.341	2.445	1.731
HCM Lane V/C Ratio	0.095	0.002	0.041	0.018	0.012	0.003	0.281	0.036
HCM Control Delay	8.1	6.9	8.4	7.4	8.3	7.4	9.3	6.9
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.3	0	0.1	0.1	0	0	1.1	0.1

Intersection

Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	1	1	7	1	3	7	14	90	2	12	163	11
Future Vol, veh/h	1	1	7	1	3	7	14	90	2	12	163	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	8	1	3	8	15	98	2	13	177	12
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1









Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	7.6	7.6	8.3	8.8
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	13%	0%	50%	0%	25%	0%	7%	0%
Vol Thru, %	87%	0%	50%	0%	75%	0%	93%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	104	2	2	7	4	7	175	11
LT Vol	14	0	1	0	1	0	12	0
Through Vol	90	0	1	0	3	0	163	0
RT Vol	0	2	0	7	0	7	0	11
Lane Flow Rate	113	2	2	8	4	8	190	12
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.149	0.002	0.003	0.01	0.007	0.01	0.246	0.013
Departure Headway (Hd)	4.738	3.969	5.56	4.605	5.432	4.602	4.662	3.927
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	752	893	647	782	663	782	767	906
Service Time	2.502	1.733	3.261	2.306	3.132	2.303	2.408	1.673
HCM Lane V/C Ratio	0.15	0.002	0.003	0.01	0.006	0.01	0.248	0.013
HCM Control Delay	8.3	6.7	8.3	7.4	8.2	7.3	8.9	6.7
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.5	0	0	0	0	0	1	0

Intersection

Intersection Delay, s/veh 66.5

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	163	327	398	61	13	358	55	21	78	14	200
Future Vol, veh/h	51	163	327	398	61	13	358	55	21	78	14	200
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	55	177	355	433	66	14	389	60	23	85	15	217
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	31.4	172	26.8	20.1
HCM LOS	D	F	D	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	65%	24%	0%	87%	0%	85%	0%
Vol Thru, %	0%	26%	76%	0%	13%	0%	15%	0%
Vol Right, %	0%	10%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	218	216	214	327	459	13	92	200
LT Vol	218	140	51	0	398	0	78	0
Through Vol	0	55	163	0	61	0	14	0
RT Vol	0	21	0	327	0	13	0	200
Lane Flow Rate	237	234	233	355	499	14	100	217
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.616	0.592	0.567	0.786	1.292	0.032	0.269	0.517
Departure Headway (Hd)	10.1	9.843	9.451	8.591	9.323	8.144	10.484	9.297
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	361	370	384	423	389	440	345	391
Service Time	7.8	7.543	7.151	6.291	7.073	5.892	8.184	6.997
HCM Lane V/C Ratio	0.657	0.632	0.607	0.839	1.283	0.032	0.29	0.555
HCM Control Delay	27.7	25.9	23.8	36.3	176.6	11.2	17	21.5
HCM Lane LOS	D	D	C	E	F	B	C	C
HCM 95th-tile Q	3.9	3.6	3.4	6.8	22.3	0.1	1.1	2.9

Intersection

Intersection Delay, s/veh 109.4

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱↲			↱	↱			
Traffic Vol, veh/h	2	24	584	114	0	15	0	625	48	0	0	0
Future Vol, veh/h	2	24	584	114	0	15	0	625	48	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	26	635	124	0	16	0	679	52	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	81.5	15.3	152.8
HCM LOS	F	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	8%	0%	88%
Vol Thru, %	100%	0%	92%	0%	0%
Vol Right, %	0%	100%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	625	48	26	584	129
LT Vol	0	0	2	0	114
Through Vol	625	0	24	0	0
RT Vol	0	48	0	584	15
Lane Flow Rate	679	52	28	635	140
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.284	0.088	0.053	1.07	0.297
Departure Headway (Hd)	7.009	6.296	7.55	6.793	8.641
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	523	572	477	540	419
Service Time	4.709	3.996	5.25	4.493	6.641
HCM Lane V/C Ratio	1.298	0.091	0.059	1.176	0.334
HCM Control Delay	163.8	9.6	10.7	84.6	15.3
HCM Lane LOS	F	A	B	F	C
HCM 95th-tile Q	27.3	0.3	0.2	17.1	1.2

HCM 2010 TWSC
4: Date Ave & Orange St

03/06/2018

Intersection

Int Delay, s/veh 3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	18	32	42	7	24	3	48	89	5	6	167	66
Future Vol, veh/h	18	32	42	7	24	3	48	89	5	6	167	66
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	35	46	8	26	3	52	97	5	7	182	72

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	409	396	182	413	396	97	182	0	0	97	0	0
Stage 1	195	195	-	201	201	-	-	-	-	-	-	-
Stage 2	214	201	-	212	195	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	553	541	861	549	541	959	1393	-	-	1496	-	-
Stage 1	807	739	-	801	735	-	-	-	-	-	-	-
Stage 2	788	735	-	790	739	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	513	518	861	478	518	959	1393	-	-	1496	-	-
Mov Cap-2 Maneuver	513	518	-	478	518	-	-	-	-	-	-	-
Stage 1	777	736	-	771	708	-	-	-	-	-	-	-
Stage 2	728	708	-	709	736	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.2		12.3		2.6		0.2	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1393	-	-	516	861	508	959	1496	-	-
HCM Lane V/C Ratio	0.037	-	-	0.105	0.053	0.066	0.003	0.004	-	-
HCM Control Delay (s)	7.7	-	-	12.8	9.4	12.6	8.8	7.4	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.2	0.2	0	0	-	-

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	82	432	1209	157	22	78
Future Vol, veh/h	82	432	1209	157	22	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	89	470	1314	171	24	85

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1485	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	449	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	449	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	21.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	449	-	-	-	144	358
HCM Lane V/C Ratio	0.199	-	-	-	0.166	0.237
HCM Control Delay (s)	15	-	-	-	34.9	18.1
HCM Lane LOS	B	-	-	-	D	C
HCM 95th %tile Q(veh)	0.7	-	-	-	0.6	0.9

Intersection

Int Delay, s/veh 1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	0	0	0	2	3	2	76	144	8	12	135	53
Future Vol, veh/h	0	0	0	2	3	2	76	144	8	12	135	53
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	2	3	2	83	157	9	13	147	58

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	496	495	147	495	495	157	147	0	0	157	0	0
Stage 1	173	173	-	322	322	-	-	-	-	-	-	-
Stage 2	323	322	-	173	173	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	484	476	900	485	476	889	1435	-	-	1423	-	-
Stage 1	829	756	-	690	651	-	-	-	-	-	-	-
Stage 2	689	651	-	829	756	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	456	444	900	460	444	889	1435	-	-	1423	-	-
Mov Cap-2 Maneuver	456	444	-	460	444	-	-	-	-	-	-	-
Stage 1	781	749	-	650	613	-	-	-	-	-	-	-
Stage 2	644	613	-	821	749	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	12	2.6	0.5
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1435	-	-	- 450 889 1423	-	-	-
HCM Lane V/C Ratio	0.058	-	-	- 0.012 0.002 0.009	-	-	-
HCM Control Delay (s)	7.7	-	-	0 13.1 9.1 7.6	-	-	-
HCM Lane LOS	A	-	-	A B A A	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	- 0 0 0	-	-	-

Intersection

Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	58	64	71	2	5	7	5	171	2	10	268	13
Future Vol, veh/h	58	64	71	2	5	7	5	171	2	10	268	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	70	77	2	5	8	5	186	2	11	291	14
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.9	8.8	10.5	12.3
HCM LOS	A	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	48%	0%	29%	0%	4%	0%
Vol Thru, %	97%	0%	52%	0%	71%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	176	2	122	71	7	7	278	13
LT Vol	5	0	58	0	2	0	10	0
Through Vol	171	0	64	0	5	0	268	0
RT Vol	0	2	0	71	0	7	0	13
Lane Flow Rate	191	2	133	77	8	8	302	14
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.292	0.003	0.224	0.11	0.014	0.012	0.45	0.018
Departure Headway (Hd)	5.486	4.766	6.091	5.144	6.414	5.559	5.365	4.642
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	649	742	585	689	561	648	668	764
Service Time	3.269	2.549	3.877	2.93	4.114	3.259	3.139	2.416
HCM Lane V/C Ratio	0.294	0.003	0.227	0.112	0.014	0.012	0.452	0.018
HCM Control Delay	10.5	7.6	10.7	8.6	9.2	8.3	12.5	7.5
HCM Lane LOS	B	A	B	A	A	A	B	A
HCM 95th-tile Q	1.2	0	0.9	0.4	0	0	2.3	0.1

Intersection

Intersection Delay, s/veh	11.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	7	7	79	6	1	7	5	146	9	14	338	8
Future Vol, veh/h	7	7	79	6	1	7	5	146	9	14	338	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	8	86	7	1	8	5	159	10	15	367	9
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.8	8.8	9.5	13.3
HCM LOS	A	A	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	50%	0%	86%	0%	4%	0%
Vol Thru, %	97%	0%	50%	0%	14%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	151	9	14	79	7	7	352	8
LT Vol	5	0	7	0	6	0	14	0
Through Vol	146	0	7	0	1	0	338	0
RT Vol	0	9	0	79	0	7	0	8
Lane Flow Rate	164	10	15	86	8	8	383	9
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.237	0.012	0.026	0.125	0.014	0.011	0.533	0.01
Departure Headway (Hd)	5.196	4.475	6.196	5.236	6.504	5.362	5.013	4.291
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	689	797	576	682	548	663	719	832
Service Time	2.941	2.22	3.948	2.988	4.271	3.129	2.751	2.028
HCM Lane V/C Ratio	0.238	0.013	0.026	0.126	0.015	0.012	0.533	0.011
HCM Control Delay	9.6	7.3	9.1	8.7	9.4	8.2	13.4	7.1
HCM Lane LOS	A	A	A	A	A	A	B	A
HCM 95th-tile Q	0.9	0	0.1	0.4	0	0	3.2	0

Intersection

Intersection Delay, s/veh 31.3

Intersection LOS D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱			↱	↱
Traffic Vol, veh/h	29	299	223	120	105	2	467	172	98	10	5	40
Future Vol, veh/h	29	299	223	120	105	2	467	172	98	10	5	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	325	242	130	114	2	508	187	107	11	5	43
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	25	22.4	40.1	12.1
HCM LOS	C	C	E	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	27%	9%	0%	53%	0%	67%	0%
Vol Thru, %	0%	47%	91%	0%	47%	0%	33%	0%
Vol Right, %	0%	27%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	369	368	328	223	225	2	15	40
LT Vol	369	98	29	0	120	0	10	0
Through Vol	0	172	299	0	105	0	5	0
RT Vol	0	98	0	223	0	2	0	40
Lane Flow Rate	401	400	357	242	245	2	16	43
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.878	0.813	0.764	0.468	0.58	0.005	0.042	0.099
Departure Headway (Hd)	7.881	7.315	7.718	6.955	8.535	7.538	9.297	8.22
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	461	496	471	519	423	475	385	436
Service Time	5.615	5.049	5.451	4.687	6.276	5.278	7.049	5.972
HCM Lane V/C Ratio	0.87	0.806	0.758	0.466	0.579	0.004	0.042	0.099
HCM Control Delay	45.5	34.7	31.4	15.7	22.5	10.3	12.5	11.9
HCM Lane LOS	E	D	D	C	C	B	B	B
HCM 95th-tile Q	9.3	7.8	6.6	2.5	3.6	0	0.1	0.3

Intersection

Intersection Delay, s/veh 112.2

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱↲			↱	↱			
Traffic Vol, veh/h	4	91	289	47	0	78	0	731	116	0	0	0
Future Vol, veh/h	4	91	289	47	0	78	0	731	116	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	99	314	51	0	85	0	795	126	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	16	13.3	170.4
HCM LOS	C	B	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	4%	0%	38%
Vol Thru, %	100%	0%	96%	0%	0%
Vol Right, %	0%	100%	0%	100%	62%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	731	116	95	289	125
LT Vol	0	0	4	0	47
Through Vol	731	0	91	0	0
RT Vol	0	116	0	289	78
Lane Flow Rate	795	126	103	314	136
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.37	0.193	0.196	0.532	0.257
Departure Headway (Hd)	6.205	5.497	7.658	6.918	7.681
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	596	657	472	525	470
Service Time	3.905	3.197	5.358	4.618	5.681
HCM Lane V/C Ratio	1.334	0.192	0.218	0.598	0.289
HCM Control Delay	195.9	9.5	12.2	17.2	13.3
HCM Lane LOS	F	A	B	C	B
HCM 95th-tile Q	35.3	0.7	0.7	3.1	1

HCM 2010 TWSC
4: Date Ave & Orange St

03/06/2018

Intersection

Int Delay, s/veh 9.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕	↕	↕	↕	↕	↕	↕
Traffic Vol, veh/h	67	154	155	1	20	6	31	170	3	25	267	41
Future Vol, veh/h	67	154	155	1	20	6	31	170	3	25	267	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	167	168	1	22	7	34	185	3	27	290	45

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	608	597	290	680	597	185	290	0	0	185	0	0
Stage 1	345	345	-	252	252	-	-	-	-	-	-	-
Stage 2	263	252	-	428	345	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	408	416	749	365	416	857	1272	-	-	1390	-	-
Stage 1	671	636	-	752	698	-	-	-	-	-	-	-
Stage 2	742	698	-	605	636	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	375	397	749	184	397	857	1272	-	-	1390	-	-
Mov Cap-2 Maneuver	375	397	-	184	397	-	-	-	-	-	-	-
Stage 1	653	624	-	732	679	-	-	-	-	-	-	-
Stage 2	694	679	-	336	624	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21	13.9	1.2	0.6
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1272	-	-	390	749	376	857	1390	-	-
HCM Lane V/C Ratio	0.026	-	-	0.616	0.225	0.061	0.008	0.02	-	-
HCM Control Delay (s)	7.9	-	-	27.9	11.2	15.2	9.2	7.6	-	-
HCM Lane LOS	A	-	-	D	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	4	0.9	0.2	0	0.1	-	-

Intersection

Int Delay, s/veh 7.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	84	736	563	111	195	159
Future Vol, veh/h	84	736	563	111	195	159
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	91	800	612	121	212	173

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	733	0	0 1255 366
Stage 1	-	-	- 672 -
Stage 2	-	-	- 583 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	868	-	- ~ 164 631
Stage 1	-	-	- 469 -
Stage 2	-	-	- 521 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	868	-	- ~ 133 631
Mov Cap-2 Maneuver	-	-	- 263 -
Stage 1	-	-	- 469 -
Stage 2	-	-	- 423 -

Approach	EB	WB	SB
HCM Control Delay, s	1	0	37.6
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	868	-	-	-	263	631
HCM Lane V/C Ratio	0.105	-	-	-	0.806	0.274
HCM Control Delay (s)	9.6	-	-	-	57.9	12.8
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.4	-	-	-	6.3	1.1

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	0	0	0	10	2	17	18	178	12	38	373	10
Future Vol, veh/h	0	0	0	10	2	17	18	178	12	38	373	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	11	2	18	20	193	13	41	405	11

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	722	721	405	721	721	193	405	0	0	193	0	0
Stage 1	488	488	-	233	233	-	-	-	-	-	-	-
Stage 2	234	233	-	488	488	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	342	353	646	343	353	849	1154	-	-	1380	-	-
Stage 1	561	550	-	770	712	-	-	-	-	-	-	-
Stage 2	769	712	-	561	550	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	321	337	646	331	337	849	1154	-	-	1380	-	-
Mov Cap-2 Maneuver	321	337	-	331	337	-	-	-	-	-	-	-
Stage 1	551	534	-	757	700	-	-	-	-	-	-	-
Stage 2	737	700	-	544	534	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	12.2	0.7	0.7
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1154	-	-	- 332 849 1380	-	-	-
HCM Lane V/C Ratio	0.017	-	-	- 0.039 0.022 0.03	-	-	-
HCM Control Delay (s)	8.2	-	-	0 16.3 9.3 7.7	-	-	-
HCM Lane LOS	A	-	-	A C A A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	- 0.1 0.1 0.1	-	-	-

Appendix C – Internal Capture Calculations

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	The Villages at The Alhambra TIA			Organization:	Kimley-Horn & Associates
Project Location:	Alhambra, CA			Performed By:	
Scenario Description:	Project Trip Generation			Date:	9/28/2017
Analysis Year:	2018			Checked By:	
Analysis Period:	AM Street Peak Hour			Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	710	667		1,040	915	125
Retail	876, 933a	63		401	264	137
Restaurant				0		
Cinema/Entertainment				0		
Residential	220, 230		1061	541	108	433
Hotel				0		
All Other Land Uses ²	550, 493	50k SF	700 students	269	185	84
				2,251	1,472	779

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office	1.00	11%		1.00	11%	
Retail						
Restaurant						
Cinema/Entertainment						
Residential	1.00	11%		1.00	11%	
Hotel						
All Other Land Uses ²	1.00	11%		1.00	11%	

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		35	0	0	0	0
Retail	37		0	0	2	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	9	4	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	2,251	1,472	779
Internal Capture Percentage	8%	6%	11%
External Vehicle-Trips ⁵	1,884	1,257	627
External Transit-Trips ⁶	193	128	65
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	5%	28%
Retail	15%	28%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	2%	3%
Hotel	N/A	N/A

¹ Land Use Codes (LUCs) from <i>Trip Generation Manual</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
³ Enter trips assuming no transit or non-motorized trips (as assumed in ITE <i>Trip Generation Manual</i>).
⁴ Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
⁶ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	The Villages at The Alhambra TIA
Analysis Period:	AM Street Peak Hour

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	915	915	1.00	125	125
Retail	1.00	264	264	1.00	137	137
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	108	108	1.00	433	433
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		35	79	0	1	0
Retail	40		18	0	19	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	9	4	87	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		84	0	0	0	0
Retail	37		0	0	2	0
Restaurant	128	21		0	5	0
Cinema/Entertainment	0	0	0		0	0
Residential	27	45	0	0		0
Hotel	27	11	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	46	869	915	773	96	0
Retail	39	225	264	225	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	2	106	108	94	12	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	185	185	165	20	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	35	90	125	80	10	0
Retail	39	98	137	98	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	13	420	433	374	46	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	84	84	75	9	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

²Person-Trips

³Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	The Villages at The Alhambra TIA			Organization:	Kimley-Horn & Associates
Project Location:	Alhambra, CA			Performed By:	
Scenario Description:	Project Trip Generation			Date:	9/28/2017
Analysis Year:	2018			Checked By:	
Analysis Period:	PM Street Peak Hour			Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	710	667		993	169	824
Retail	876, 933a	63		498	265	233
Restaurant				0		
Cinema/Entertainment				0		
Residential	220, 230		1061	658	428	230
Hotel				0		
All Other Land Uses ²	550, 493	50k SF	700 students	420	225	195
				2,569	1,087	1,482

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office	1.00	11%		1.00	11%	
Retail						
Restaurant						
Cinema/Entertainment						
Residential	1.00	11%		1.00	11%	
Hotel						
All Other Land Uses ²	1.00	11%		1.00	11%	

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail					1600	
Restaurant						
Cinema/Entertainment						
Residential		1600				
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		21	0	0	16	0
Retail	5		0	0	45	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	9	15	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	2,569	1,087	1,482
Internal Capture Percentage	9%	10%	7%
External Vehicle-Trips ⁵	2,134	894	1,240
External Transit-Trips ⁶	213	82	131
External Non-Motorized Trips ⁶	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	8%	4%
Retail	14%	21%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	14%	10%
Hotel	N/A	N/A

¹ Land Use Codes (LUCs) from <i>Trip Generation Manual</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
³ Enter trips assuming no transit or non-motorized trips (as assumed in ITE <i>Trip Generation Manual</i>).
⁴ Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.
⁶ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	The Villages at The Alhambra TIA
Analysis Period:	PM Street Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	169	169	1.00	824	824
Retail	1.00	265	265	1.00	233	233
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	428	428	1.00	230	230
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		165	33	0	16	0
Retail	5		68	9	45	12
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	9	54	48	0		7
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		21	0	0	17	0
Retail	52		0	0	197	0
Restaurant	51	133		0	68	0
Cinema/Entertainment	10	11	0		17	0
Residential	96	15	0	0		0
Hotel	0	5	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	14	155	169	138	17	0
Retail	36	229	265	229	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	61	367	428	327	40	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	225	225	200	25	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	37	787	824	700	87	0
Retail	50	183	233	183	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	24	206	230	183	23	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	195	195	174	21	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

²Person-Trips

³Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Appendix D – Intersection Analysis Worksheets – Existing Plus Project Conditions

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Capacity Analysis Module:
Vol/Sat:    0.01 0.03  0.03  0.02 0.03  0.03  0.04 0.57  0.09  0.01 0.37  0.02
Crit Moves:      ****          ****          ****          ****
*****

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Scenario:                Scenario Report
                        2018 Existing + Proj AM

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Command: 2018 Existing + Proj AM
Volume: 2018 Existing AM
Geometry: Existing
Impact Fee: Default Impact Fee
Trip Generation: 2028 Project AM
Trip Distribution: Cum + Project
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

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Turning Movement Report
Project 2028 AM

Volume	Northbound	Southbound	Eastbound	Westbound	Total
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Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 Fremont Ave and Mission Rd													
Base	221	1349	202	12	1303	44	62	335	475	356	781	43	5183
Added	0	10	15	1	71	14	2	3	0	92	18	9	235
Total	221	1359	217	13	1374	58	64	338	475	448	799	52	5418
#2 Fremont Ave and 1000 Fremont Ave													
Base	48	1296	117	4	1291	36	23	5	54	4	1	6	2885
Added	0	15	5	4	51	0	0	0	0	35	0	22	132
Total	48	1311	122	8	1342	36	23	5	54	39	1	28	3017
#3 Fremont Ave and Orange St													
Base	2	1124	222	140	1320	2	1	1	0	54	0	53	2919
Added	0	24	13	5	4	0	0	0	0	51	0	34	131
Total	2	1148	235	145	1324	2	1	1	0	105	0	87	3050
#4 Date Ave and Orange St													
Base	48	89	5	6	167	66	18	32	42	7	24	3	507
Added	6	22	0	0	4	1	5	22	9	0	3	0	72
Total	54	111	5	6	171	67	23	54	51	7	27	3	579
#5 Palm Ave and Orange St													
Base	5	59	2	5	192	29	7	18	13	2	5	2	339
Added	0	16	0	0	3	1	8	14	0	0	2	0	44
Total	5	75	2	5	195	30	15	32	13	2	7	2	383
#6 Chestnut St and Palm Ave													
Base	14	90	2	12	163	11	1	1	7	1	3	7	312
Added	0	9	0	0	1	1	7	16	0	0	3	0	37
Total	14	99	2	12	164	12	8	17	7	1	6	7	349
#7 Fremont Ave and Poplar Blvd													
Base	90	1036	50	17	1402	15	19	104	65	53	106	18	2975
Added	16	40	16	0	6	0	0	0	2	2	0	0	82
Total	106	1076	66	17	1408	15	19	104	67	55	106	18	3057
#8 Date Ave and Mission Rd													
Base	0	0	0	22	0	78	82	432	0	0	1209	157	1980
Added	0	0	0	42	0	75	13	36	0	0	6	6	178
Total	0	0	0	64	0	153	95	468	0	0	1215	163	2158
#9 Chestnut St and Date Ave													
Base	76	144	8	12	135	53	0	0	0	2	3	2	435
Added	10	13	8	0	11	2	14	16	76	2	2	0	154

Total	86	157	16	12	146	55	14	16	76	4	5	2	589
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#10 Fremont Ave and Concord Ave

Base	56	1088	37	4	1380	59	40	12	68	22	14	10	2790
Added	0	58	0	0	9	0	0	0	0	0	0	0	67
Total	56	1146	37	4	1389	59	40	12	68	22	14	10	2857

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#11 Fremont Ave and Montezuma Ave

Base	683	258	40	4	80	598	405	52	612	50	93	10	2885
Added	2	0	0	0	0	6	36	0	12	0	0	0	56
Total	685	258	40	4	80	604	441	52	624	50	93	10	2941

#12 Palm Ave and Commonwealth Ave

Base	18	32	4	39	215	252	60	212	28	13	259	38	1170
Added	0	24	0	0	4	2	12	0	0	0	0	0	42
Total	18	56	4	39	219	254	72	212	28	13	259	38	1212

#13 Date Ave and Commonwealth Ave

Base	24	40	16	47	66	71	68	239	94	118	326	67	1176
Added	14	0	12	0	0	0	0	0	2	2	0	0	30
Total	38	40	28	47	66	71	68	239	96	120	326	67	1206

#14 Fremont Ave and Commonwealth Ave

Base	39	1008	92	171	1305	62	27	134	16	108	155	107	3224
Added	0	58	0	2	9	0	0	0	0	0	0	14	83
Total	39	1066	92	173	1314	62	27	134	16	108	155	121	3307

#15 Fremont Ave and Valley Blvd

Base	41	915	26	74	805	1273	527	404	28	56	725	185	5059
Added	0	14	0	5	89	69	11	0	0	0	0	1	189
Total	41	929	26	79	894	1342	538	404	28	56	725	186	5248

#16 Palm Ave and Mission Rd

Base	0	0	0	51	0	124	33	422	0	0	1284	84	1998
Added	0	0	0	0	0	1	9	68	0	0	10	0	88
Total	0	0	0	51	0	125	42	490	0	0	1294	84	2086

#17 Marengo Ave and Valley Blvd

Base	22	117	72	223	163	137	166	419	23	62	956	188	2548
Added	0	1	0	11	8	0	0	5	0	0	1	2	28
Total	22	118	72	234	171	137	166	424	23	62	957	190	2576

#18 Atlantic Blvd and Mission Road

Base	154	1062	115	40	943	246	88	516	67	175	956	33	4395
Added	0	0	0	0	0	0	0	32	0	0	5	0	37
Total	154	1062	115	40	943	246	88	548	67	175	961	33	4432

#19 Marengo Ave and Mission Road

Base	85	382	157	43	504	66	44	351	85	272	1171	74	3234
Added	3	0	0	0	0	1	7	32	19	0	5	0	67

Total	88	382	157	43	504	67	51	383	104	272	1176	74	3301
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#20 Marengo Ave and Front St

Base	2	508	3	10	493	358	81	11	7	2	75	34	1584
Added	0	3	0	0	19	0	0	0	0	0	0	0	22
Total	2	511	3	10	512	358	81	11	7	2	75	34	1606

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#21 I-710 NB Ramp and Valley Blvd

Base	603	1	685	4	0	1	0	207	0	0	2176	6	3683
Added	0	0	11	0	0	0	0	0	0	0	69	0	80
Total	603	1	696	4	0	1	0	207	0	0	2245	6	3763

#22 I-710 SB Ramp and Valley Blvd

Base	0	0	0	0	0	0	0	214	650	1593	1200	0	3657
Added	0	0	0	0	0	0	0	0	0	69	0	0	69
Total	0	0	0	0	0	0	0	214	650	1662	1200	0	3726

#23 Fremont Ave and Hellman Ave

Base	142	934	313	127	706	110	108	111	153	168	228	212	3312
Added	0	8	0	40	48	0	0	0	0	0	0	6	102
Total	142	942	313	167	754	110	108	111	153	168	228	218	3414

#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Base	358	55	21	78	14	200	51	163	327	398	61	13	1739
Added	6	0	0	0	0	0	0	0	40	0	0	0	46
Total	364	55	21	78	14	200	51	163	367	398	61	13	1785

#25 Fremont Ave and Ramona Road/10 EB ramp

Base	0	625	48	0	0	0	2	24	584	114	0	15	1412
Added	0	0	36	0	0	0	0	0	6	0	0	0	42
Total	0	625	84	0	0	0	2	24	590	114	0	15	1454

#26 Ross Ave and Fremont Ave

Base	26	1007	212	42	867	34	26	49	5	173	177	17	2635
Added	0	14	0	0	89	0	0	0	0	0	0	0	103
Total	26	1021	212	42	956	34	26	49	5	173	177	17	2738

#27 Westmont Dr and Valley Blvd

Base	51	14	7	4	6	37	17	966	14	3	2036	30	3185
Added	0	0	0	0	0	0	0	11	0	0	69	0	80

Total	51	14	7	4	6	37	17	977	14	3	2105	30	3265
#135													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	36	0	44	6	13	0	0	75	6	180
Total	0	0	0	36	0	44	6	13	0	0	75	6	180

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Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	221	1349	202	12	1303	44	62	335	475	356	781	43
2 Fremont Ave a	48	1296	117	4	1291	36	23	5	54	4	1	6
3 Fremont Ave a	2	1124	222	140	1320	2	1	1	0	54	0	53
4 Date Ave and	48	89	5	6	167	66	18	32	42	7	24	3
5 Palm Ave and	5	59	2	5	192	29	7	18	13	2	5	2
6 Chestnut St a	14	90	2	12	163	11	1	1	7	1	3	7
7 Fremont Ave a	90	1036	50	17	1402	15	19	104	65	53	106	18
8 Date Ave and	0	0	0	22	0	78	82	432	0	0	1209	157
9 Chestnut St a	76	144	8	12	135	53	0	0	0	2	3	2
10 Fremont Ave a	56	1088	37	4	1380	59	40	12	68	22	14	10
11 Fremont Ave a	683	258	40	4	80	598	405	52	612	50	93	10
12 Palm Ave and	18	32	4	39	215	252	60	212	28	13	259	38
13 Date Ave and	24	40	16	47	66	71	68	239	94	118	326	67
14 Fremont Ave a	39	1008	92	171	1305	62	27	134	16	108	155	107
15 Fremont Ave a	41	915	26	74	805	1273	527	404	28	56	725	185
16 Palm Ave and	0	0	0	51	0	124	33	422	0	0	1284	84
17 Marengo Ave a	22	117	72	223	163	137	166	419	23	62	956	188
18 Atlantic Blvd	154	1062	115	40	943	246	88	516	67	175	956	33
19 Marengo Ave a	85	382	157	43	504	66	44	351	85	272	1171	74
20 Marengo Ave a	2	508	3	10	493	358	81	11	7	2	75	34
21 I-710 NB Ramp	603	1	685	4	0	1	0	207	0	0	2176	6
22 I-710 SB Ramp	0	0	0	0	0	0	0	214	650	1593	1200	0

23 Fremont Ave a	142	934	313	127	706	110	108	111	153	168	228	212
24 Elm St and He	358	55	21	78	14	200	51	163	327	398	61	13
25 Fremont Ave a	0	625	48	0	0	0	2	24	584	114	0	15
26 Ross Ave and	26	1007	212	42	867	34	26	49	5	173	177	17
27 Westmont Dr a	51	14	7	4	6	37	17	966	14	3	2036	30

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Intersection Volume Report
 Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	221	1359	217	13	1374	58	64	338	475	448	799	52
2 Fremont Ave a	48	1311	122	8	1342	36	23	5	54	39	1	28
3 Fremont Ave a	2	1148	235	145	1324	2	1	1	0	105	0	87
4 Date Ave and	54	111	5	6	171	67	23	54	51	7	27	3
5 Palm Ave and	5	75	2	5	195	30	15	32	13	2	7	2
6 Chestnut St a	14	99	2	12	164	12	8	17	7	1	6	7
7 Fremont Ave a	106	1076	66	17	1408	15	19	104	67	55	106	18
8 Date Ave and	0	0	0	64	0	153	95	468	0	0	1215	163
9 Chestnut St a	86	157	16	12	146	55	14	16	76	4	5	2
10 Fremont Ave a	56	1146	37	4	1389	59	40	12	68	22	14	10
11 Fremont Ave a	685	258	40	4	80	604	441	52	624	50	93	10
12 Palm Ave and	18	56	4	39	219	254	72	212	28	13	259	38
13 Date Ave and	38	40	28	47	66	71	68	239	96	120	326	67
14 Fremont Ave a	39	1066	92	173	1314	62	27	134	16	108	155	121
15 Fremont Ave a	41	929	26	79	894	1342	538	404	28	56	725	186
16 Palm Ave and	0	0	0	51	0	125	42	490	0	0	1294	84
17 Marengo Ave a	22	118	72	234	171	137	166	424	23	62	957	190
18 Atlantic Blvd	154	1062	115	40	943	246	88	548	67	175	961	33
19 Marengo Ave a	88	382	157	43	504	67	51	383	104	272	1176	74
20 Marengo Ave a	2	511	3	10	512	358	81	11	7	2	75	34
21 I-710 NB Ramp	603	1	696	4	0	1	0	207	0	0	2245	6
22 I-710 SB Ramp	0	0	0	0	0	0	0	214	650	1662	1200	0

23 Fremont Ave a	142	942	313	167	754	110	108	111	153	168	228	218
24 Elm St and He	364	55	21	78	14	200	51	163	367	398	61	13
25 Fremont Ave a	0	625	84	0	0	0	2	24	590	114	0	15
26 Ross Ave and	26	1021	212	42	956	34	26	49	5	173	177	17
27 Westmont Dr a	51	14	7	4	6	37	17	977	14	3	2105	30

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Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Fremont Ave and Mission Rd	F	xxxxxx 1.165	F	xxxxxx 1.244	+ 0.080 V/C
# 2 Fremont Ave and 1000 Fremont A	A	xxxxxx 0.573	B	xxxxxx 0.611	+ 0.038 V/C
# 3 Fremont Ave and Orange St	A	xxxxxx 0.573	B	xxxxxx 0.611	+ 0.037 V/C
# 4 Date Ave and Orange St	B	11.2 0.051	B	11.5 0.088	+ 0.335 D/V
# 5 Palm Ave and Orange St	A	8.4 0.258	A	8.6 0.268	+ 0.010 V/C
# 6 Chestnut St and Palm Ave	A	8.4 0.227	A	8.5 0.234	+ 0.006 V/C
# 7 Fremont Ave and Poplar Blvd	B	xxxxxx 0.697	C	xxxxxx 0.710	+ 0.013 V/C
# 8 Date Ave and Mission Rd	C	17.7 0.197	C	22.3 0.389	+ 4.570 D/V
# 9 Chestnut St and Date Ave	B	10.6 0.054	B	11.6 0.084	+ 0.934 D/V
# 10 Fremont Ave and Concord Ave	B	xxxxxx 0.641	B	xxxxxx 0.644	+ 0.003 V/C
# 11 Fremont Ave and Montezuma Ave	A	xxxxxx 0.600	B	xxxxxx 0.613	+ 0.013 V/C
# 12 Palm Ave and Commonwealth Ave	A	xxxxxx 0.387	A	xxxxxx 0.396	+ 0.009 V/C
# 13 Date Ave and Commonwealth Ave	A	xxxxxx 0.378	A	xxxxxx 0.389	+ 0.011 V/C

# 14 Fremont Ave and Commonwealth A	C	xxxxxx	0.713	C	xxxxxx	0.716	+ 0.003	V/C
# 15 Fremont Ave and Valley Blvd	E	xxxxxx	0.933	E	xxxxxx	0.958	+ 0.025	V/C
# 16 Palm Ave and Mission Rd	B	xxxxxx	0.626	B	xxxxxx	0.635	+ 0.009	V/C
# 17 Marengo Ave and Valley Blvd	C	xxxxxx	0.715	C	xxxxxx	0.723	+ 0.008	V/C
# 18 Atlantic Blvd and Mission Road	D	xxxxxx	0.855	D	xxxxxx	0.857	+ 0.002	V/C
# 19 Marengo Ave and Mission Road	E	xxxxxx	0.926	E	xxxxxx	0.934	+ 0.008	V/C
# 20 Marengo Ave and Front St	C	xxxxxx	0.732	C	xxxxxx	0.744	+ 0.012	V/C

# 21 I-710 NB Ramp and Valley Blvd	B	xxxxx	0.696	C	xxxxx	0.709	+ 0.013 V/C
# 22 I-710 SB Ramp and Valley Blvd	F	xxxxx	1.059	F	xxxxx	1.083	+ 0.024 V/C
# 23 Fremont Ave and Hellman Ave	C	xxxxx	0.779	D	xxxxx	0.807	+ 0.027 V/C
# 24 Elm St and Hellman Ave/Ramona	E	40.0	1.077	E	42.2	1.091	+ 0.014 V/C
# 25 Fremont Ave and Ramona Road/10	F	71.1	1.139	F	71.8	1.144	+ 0.004 V/C

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Intersection		Base	Future	Change
--------------	--	------	--------	--------

	Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	in
# 26 Ross Ave and Fremont Ave	B xxxxx	0.649	B xxxxx	0.653	+ 0.004 V/C
# 27 Westmont Dr and Valley Blvd	D xxxxx	0.808	D xxxxx	0.830	+ 0.022 V/C

Intersection #1 Fremont Ave and Mission Rd

```

*****
Cycle (sec):          100          Critical Vol./Cap.(X):          1.244
Loss Time (sec):      10          Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        180          Level Of Service:            F
*****

```

```

Street Name:          Fremont Ave          Mission Rd
Approach:              North Bound          South Bound          East Bound          West Bound
Movement:              L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:                Protected            Protected            Protected            Protected
Rights:                  Include              Include              Include              Include
Min. Green:              0    0    0          0    0    0          0    0    0          0    0    0
Y+R:                    4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:                   1  0  1  1  0          1  0  2  0  1          1  0  2  0  1          1  0  1  1  0
-----|-----|-----|-----|

```

Volume Module:

```

Base Vol:               221 1349    202    12 1303    44    62 335    475    356 781    43
Growth Adj:             1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
Initial Bse:            221 1349    202    12 1303    44    62 335    475    356 781    43
Added Vol:               0    10    15    1    71    14    2    3    0    92    18    9
PasserByVol:            0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:            221 1359    217    13 1374    58    64 338    475    448 799    52
User Adj:                1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
PHF Adj:                1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
PHF Volume:             221 1359    217    13 1374    58    64 338    475    448 799    52
Reduct Vol:              0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:            221 1359    217    13 1374    58    64 338    475    448 799    52
PCE Adj:                1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
MLF Adj:                1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
FinalVolume:            221 1359    217    13 1374    58    64 338    475    448 799    52
-----|-----|-----|-----|

```

Saturation Flow Module:

```

Sat/Lane:               1600 1600    1600    1600 1600    1600    1600 1600    1600    1600 1600    1600
Adjustment:             1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
Lanes:                  1.00 1.72    0.28    1.00 2.00    1.00    1.00 2.00    1.00    1.00 1.88    0.12

```



```

Final Sat.: 1600 2759 441 1600 3200 1600 1600 3200 1600 1600 3004 196
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.14 0.49 0.49 0.01 0.43 0.04 0.04 0.11 0.30 0.28 0.27 0.27
Crit Moves: ****          ****          ****          ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #2 Fremont Ave and 1000 Fremont Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.611
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     41          Level Of Service:      B
*****
Street Name:      Fremont Ave          1000 Fremont Ave
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Protected          Protected          Permitted          Permitted
Rights:            Include          Include          Include          Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:             1  0  2  0  1          1  0  2  0  1          1  0  0  1  0          1  0  0  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:          48 1296 117          4 1291 36          23 5 54          4 1 6
Growth Adj:        1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
Initial Bse:        48 1296 117          4 1291 36          23 5 54          4 1 6
Added Vol:          0 15 5          4 51 0          0 0 0          35 0 22
PasserByVol:        0 0 0          0 0 0          0 0 0          0 0 0
Initial Fut:        48 1311 122          8 1342 36          23 5 54          39 1 28
User Adj:           1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
PHF Adj:            1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
PHF Volume:         48 1311 122          8 1342 36          23 5 54          39 1 28
Reduct Vol:         0 0 0          0 0 0          0 0 0          0 0 0
Reduced Vol:        48 1311 122          8 1342 36          23 5 54          39 1 28
PCE Adj:            1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
MLF Adj:            1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
FinalVolume:        48 1311 122          8 1342 36          23 5 54          39 1 28
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600 1600          1600 1600 1600          1600 1600 1600          1600 1600 1600
Adjustment:         1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
Lanes:             1.00 2.00 1.00          1.00 2.00 1.00          1.00 0.08 0.92          1.00 0.03 0.97

```

```

Final Sat.: 1600 3200 1600 1600 3200 1600 1600 136 1464 1600 55 1545
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.03 0.41 0.08 0.01 0.42 0.02 0.01 0.04 0.04 0.02 0.02 0.02
Crit Moves: ****          ****          ****          ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #3 Fremont Ave and Orange St
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.611
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     41          Level Of Service:      B
*****
Street Name:      Fremont Ave          Orange St
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Protected          Protected          Split Phase          Split Phase
Rights:            Include          Include          Include          Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             1  0  2  0  1        1  0  1  1  0          0  1  0  0  1        1  0  1! 0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:          2 1124    222    140 1320    2    1    1    0    54    0    53
Growth Adj:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:        2 1124    222    140 1320    2    1    1    0    54    0    53
Added Vol:          0   24    13     5    4    0    0    0    0    51    0    34
PasserByVol:        0    0    0     0    0    0    0    0    0    0    0    0
Initial Fut:        2 1148    235    145 1324    2    1    1    0   105    0    87
User Adj:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:         2 1148    235    145 1324    2    1    1    0   105    0    87
Reduct Vol:         0    0    0     0    0    0    0    0    0    0    0    0
Reduced Vol:        2 1148    235    145 1324    2    1    1    0   105    0    87
PCE Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:        2 1148    235    145 1324    2    1    1    0   105    0    87
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:         1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:             1.00 2.00  1.00  1.00 1.99  0.01  0.50 0.50  1.00  1.09 0.00  0.91

```

```

Final Sat.: 1600 3200 1600 1600 3195 5 800 800 1600 1750 0 1450
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.00 0.36 0.15 0.09 0.41 0.41 0.00 0.00 0.00 0.06 0.00 0.06
Crit Moves: **** **** **** ****
*****

```

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-----
Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #4 Date Ave and Orange St
*****
Average Delay (sec/veh): 3.9 Worst Case Level Of Service: B[ 11.5]
*****
Street Name: Date Ave Orange St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 0 1 1 0 1 0 1 0 1 0 0 1 0 1 0 0 1
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol: 48 89 5 6 167 66 18 32 42 7 24 3
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 48 89 5 6 167 66 18 32 42 7 24 3
Added Vol: 6 22 0 0 4 1 5 22 9 0 3 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 54 111 5 6 171 67 23 54 51 7 27 3
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 54 111 5 6 171 67 23 54 51 7 27 3
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 54 111 5 6 171 67 23 54 51 7 27 3
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflict Vol: 238 xxxx xxxxx 116 xxxx xxxxx 420 407 171 488 469 111
Potent Cap.: 1341 xxxx xxxxx 1485 xxxx xxxxx 548 537 878 493 495 948
Move Cap.: 1341 xxxx xxxxx 1485 xxxx xxxxx 505 513 878 413 473 948
Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 631 613 xxxxx 536 572 xxxxx
Volume/Cap: 0.04 xxxx xxxx 0.00 xxxx xxxx 0.04 0.09 0.06 0.01 0.05 0.00
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: 0.1 xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx 0.2 xxxx xxxx 0.0

```

Control Del:	7.8	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	9.4	xxxxx	xxxx	8.8			
LOS by Move:	A	*	*	A	*	*	*	*	A	*	*	A			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	618	xxxx	xxxxx	564	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	0.2	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.7	xxxx	xxxxx	11.8	xxxx	xxxxx			

Shared LOS: * * * * * B * * B * *
 ApproachDel: xxxxxx xxxxxx 10.7 11.5
 ApproachLOS: * * B B

 Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #5 Palm Ave and Orange St

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.268
 Loss Time (sec): 0 Average Delay (sec/veh): 8.6
 Optimal Cycle: 0 Level Of Service: A

 Street Name: Palm Ave Orange St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1

 Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
 Base Vol: 5 59 2 5 192 29 7 18 13 2 5 2
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 5 59 2 5 192 29 7 18 13 2 5 2
 Added Vol: 0 16 0 0 3 1 8 14 0 0 2 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 5 75 2 5 195 30 15 32 13 2 7 2
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 5 75 2 5 195 30 15 32 13 2 7 2
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 5 75 2 5 195 30 15 32 13 2 7 2
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 5 75 2 5 195 30 15 32 13 2 7 2

 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.06 0.94 1.00 0.02 0.98 1.00 0.32 0.68 1.00 0.22 0.78 1.00
 Final Sat.: 45 680 848 19 729 876 203 433 750 141 492 737

 Capacity Analysis Module:
 Vol/Sat: 0.11 0.11 0.00 0.27 0.27 0.03 0.07 0.07 0.02 0.01 0.01 0.00
 Crit Moves: **** *
 Delay/Veh: 8.2 8.2 6.9 9.2 9.2 6.9 8.5 8.5 7.3 8.2 8.2 7.3
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 8.2 8.2 6.9 9.2 9.2 6.9 8.5 8.5 7.3 8.2 8.2 7.3
 LOS by Move: A A A A A A A A A A A A
 ApproachDel: 8.2 8.9 8.2 8.0
 Delay Adj: 1.00 1.00 1.00 1.00

ApprAdjDel: 8.2 8.9 8.2 8.0
 LOS by Appr: A A A A
 AllWayAvgQ: 0.1 0.1 0.0 0.4 0.4 0.0 0.1 0.1 0.0 0.0 0.0 0.0

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.234
Loss Time (sec):	0	Average Delay (sec/veh):	8.5
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Chestnut St				Palm Ave					
Approach:	North Bound		South Bound		East Bound		West Bound			
Movement:	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign		Stop Sign		Stop Sign		Stop Sign			
Rights:	Include		Include		Include		Include			
Min. Green:	0	0	0	0	0	0	0	0	0	
Lanes:	0	1	0	0	1	0	1	0	0	1

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol:	14	90	2	12	163	11	1	1	7	1	3	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	90	2	12	163	11	1	1	7	1	3	7
Added Vol:	0	9	0	0	1	1	7	16	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	14	99	2	12	164	12	8	17	7	1	6	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	99	2	12	164	12	8	17	7	1	6	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	99	2	12	164	12	8	17	7	1	6	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	99	2	12	164	12	8	17	7	1	6	7

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.12	0.88	1.00	0.07	0.93	1.00	0.32	0.68	1.00	0.14	0.86	1.00
Final Sat.:	92	649	877	51	702	889	204	433	751	92	551	746

Capacity Analysis Module:

Vol/Sat:	0.15	0.15	0.00	0.23	0.23	0.01	0.04	0.04	0.01	0.01	0.01	0.01
Crit Moves:	****			****			****			****		
Delay/Veh:	8.4	8.4	6.8	8.9	8.9	6.8	8.3	8.3	7.3	8.1	8.1	7.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.4	8.4	6.8	8.9	8.9	6.8	8.3	8.3	7.3	8.1	8.1	7.3
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.3			8.7			8.1			7.7		
Delay Adj:	1.00			1.00			1.00			1.00		

ApprAdjDel: 8.3 8.7 8.1 7.7
 LOS by Appr: A A A A
 AllWayAvgQ: 0.2 0.2 0.0 0.3 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.710
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Street Name:	Fremont Ave				Poplar Blvd															
Approach:	North Bound		South Bound		East Bound		West Bound													
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted				Permitted				Permitted				Permitted							
Rights:	Include				Include				Include				Include							
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	1	0	1	1	0	1	0	1

Volume Module:

Base Vol:	90	1036	50	17	1402	15	19	104	65	53	106	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	1036	50	17	1402	15	19	104	65	53	106	18
Added Vol:	16	40	16	0	6	0	0	0	2	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	106	1076	66	17	1408	15	19	104	67	55	106	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	106	1076	66	17	1408	15	19	104	67	55	106	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	106	1076	66	17	1408	15	19	104	67	55	106	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	106	1076	66	17	1408	15	19	104	67	55	106	18

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.88	0.12	1.00	1.98	0.02	1.00	1.00	1.00	1.00	1.00	1.00

```

Final Sat.: 1600 3015 185 1600 3166 34 1600 1600 1600 1600 1600 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.07 0.36 0.36 0.01 0.44 0.44 0.01 0.07 0.04 0.03 0.07 0.01
Crit Moves: **** **** **** ****
*****

```

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-----
Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #8 Date Ave and Mission Rd
*****
Average Delay (sec/veh): 2.9 Worst Case Level Of Service: C[ 22.3]
*****
Street Name: Date Ave Mission Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 2 0 0 0 0 1 1 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol: 0 0 0 22 0 78 82 432 0 0 1209 157
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 22 0 78 82 432 0 0 1209 157
Added Vol: 0 0 0 42 0 75 13 36 0 0 6 6
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 64 0 153 95 468 0 0 1215 163
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 64 0 153 95 468 0 0 1215 163
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 64 0 153 95 468 0 0 1215 163
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 6.8 xxxx 6.9 4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 3.5 xxxx 3.3 2.2 xxxx xxxxx xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxxx xxxx xxxxx 1721 xxxx 689 1378 xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxxx xxxx xxxxx 82 xxxx 393 504 xxxxx xxxxx xxxx xxxx xxxxx
Move Cap.: xxxxx xxxx xxxxx 70 xxxx 393 504 xxxxx xxxxx xxxx xxxx xxxxx
Total Cap: 180 118 xxxxx 221 229 xxxxx xxxxx xxxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: xxxxx xxxx xxxxx 0.29 xxxx 0.39 0.19 xxxx xxxx xxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxxx xxxx xxxxx 1.2 xxxx 1.9 0.7 xxxx xxxxx xxxx xxxx xxxxx

```


Control Del:	xxxxx	xxxx	xxxxx	27.9	xxxx	20.0	13.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	D	*	C	B	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			

Shared LOS: * * * * * * * * * * * * * * *
 ApproachDel: xxxxxx 22.3 xxxxxx xxxxxx
 ApproachLOS: * C * * *

 Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #9 Chestnut St and Date Ave

 Average Delay (sec/veh): 3.4 Worst Case Level Of Service: B[11.6]

 Street Name: Chestnut St Date Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 1 0 1 1 0 1 0 1 0 0 1! 0 0 0 1 0 0 1
 -----|-----|-----|-----|
 Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
 Base Vol: 76 144 8 12 135 53 0 0 0 2 3 2
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 76 144 8 12 135 53 0 0 0 2 3 2
 Added Vol: 10 13 8 0 11 2 14 16 76 2 2 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 86 157 16 12 146 55 14 16 76 4 5 2
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 86 157 16 12 146 55 14 16 76 4 5 2
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 86 157 16 12 146 55 14 16 76 4 5 2
 -----|-----|-----|-----|
 Critical Gap Module:
 Critical Gp: 4.1 xxxxx xxxxxx 4.1 xxxxx xxxxxx 7.1 6.5 6.2 7.1 6.5 6.2
 FollowUpTim: 2.2 xxxxx xxxxxx 2.2 xxxxx xxxxxx 3.5 4.0 3.3 3.5 4.0 3.3
 -----|-----|-----|-----|
 Capacity Module:
 Cnflct Vol: 201 xxxxx xxxxxx 173 xxxxx xxxxxx 511 515 146 573 554 157
 Potent Cap.: 1383 xxxxx xxxxxx 1416 xxxxx xxxxxx 477 466 906 434 443 894
 Move Cap.: 1383 xxxxx xxxxxx 1416 xxxxx xxxxxx 446 434 906 366 412 894
 Total Cap: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx 566 538 xxxxxx 506 522 xxxxxx
 Volume/Cap: 0.06 xxxxx xxxxx 0.01 xxxxx xxxxx 0.02 0.03 0.08 0.01 0.01 0.00
 -----|-----|-----|-----|
 Level Of Service Module:
 2Way95thQ: 0.2 xxxxx xxxxxx 0.0 xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx 0.0
 Control Del: 7.8 xxxxx xxxxxx 7.6 xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx 9.0
 LOS by Move: A * * A * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx 767 xxxxxx 514 xxxxx xxxxxx
 SharedQueue: xxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx 0.5 xxxxxx 0.1 xxxxx xxxxxx
 Shrd ConDel: xxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx 10.4 xxxxxx 12.1 xxxxx xxxxxx

Shared LOS: * * * * * B * B * *
 ApproachDel: xxxxxx xxxxxx 10.4 11.6
 ApproachLOS: * * B B

 Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #10 Fremont Ave and Concord Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.644
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 44 Level Of Service: B

 Street Name: Fremont Ave Concord Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 1 1 0 1 0 1 0 1 0

 Volume Module:
 Base Vol: 56 1088 37 4 1380 59 40 12 68 22 14 10
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 56 1088 37 4 1380 59 40 12 68 22 14 10
 Added Vol: 0 58 0 0 9 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 56 1146 37 4 1389 59 40 12 68 22 14 10
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 56 1146 37 4 1389 59 40 12 68 22 14 10
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 56 1146 37 4 1389 59 40 12 68 22 14 10
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 56 1146 37 4 1389 59 40 12 68 22 14 10

 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.91 0.09 1.00 1.92 0.08 1.00 1.00 1.00 1.00 0.58 0.42

```

Final Sat.: 1600 4650 150 1600 3070 130 1600 1600 1600 1600 933 667
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.04 0.25 0.25 0.00 0.45 0.45 0.03 0.01 0.04 0.01 0.02 0.01
Crit Moves: ****          ****          ****          ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #11 Fremont Ave and Montezuma Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.613
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     41          Level Of Service:      B
*****
Street Name:      Fremont Ave          Montezuma Ave
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Protected          Permitted          Protected          Permitted
Rights:            Include            Ignore            Include            Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:             2  0  0  1  0          0  1  1  0  1          2  0  0  1  1          0  0  1! 0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:          683  258  40          4  80  598          405  52  612          50  93  10
Growth Adj:        1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
Initial Bse:        683  258  40          4  80  598          405  52  612          50  93  10
Added Vol:          2    0    0          0    0    6          36    0   12          0    0    0
PasserByVol:        0    0    0          0    0    0          0    0    0          0    0    0
Initial Fut:        685  258  40          4  80  604          441  52  624          50  93  10
User Adj:           1.00 1.00 1.00          1.00 1.00 0.00          1.00 1.00 1.00          1.00 1.00 1.00
PHF Adj:            1.00 1.00 1.00          1.00 1.00 0.00          1.00 1.00 1.00          1.00 1.00 1.00
PHF Volume:         685  258  40          4  80    0          441  52  624          50  93  10
Reduct Vol:         0    0    0          0    0    0          0    0    0          0    0    0
Reduced Vol:        685  258  40          4  80    0          441  52  624          50  93  10
PCE Adj:            1.00 1.00 1.00          1.00 1.00 0.00          1.00 1.00 1.00          1.00 1.00 1.00
MLF Adj:            1.00 1.00 1.00          1.00 1.00 0.00          1.00 1.00 1.00          1.00 1.00 1.00
FinalVolume:        685  258  40          4  80    0          441  52  624          50  93  10
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600 1600          1600 1600 1600          1600 1600 1600          1600 1600 1600
Adjustment:         0.90 1.00 1.00          1.00 1.00 1.00          0.90 1.00 1.00          1.00 1.00 1.00
Lanes:             2.00 0.87 0.13          0.10 1.90 1.00          2.00 0.15 1.85          0.33 0.61 0.06

```

```

Final Sat.: 2880 1385 215 152 3048 1600 2880 246 2954 523 973 105
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.24 0.19 0.19 0.00 0.03 0.00 0.15 0.21 0.21 0.03 0.10 0.10
Crit Moves: ****          ****          ****          ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #12 Palm Ave and Commonwealth Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.396
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     28          Level Of Service:      A
*****
Street Name:      Palm Ave          Commonwealth Ave
Approach:          North Bound      South Bound      East Bound      West Bound
Movement:          L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:           Permitted        Permitted        Permitted        Permitted
Rights:            Include          Include          Include          Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             1  0  1  0  1        1  0  1  0  1        1  0  1  1  0        1  0  2  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:          18   32    4          39  215   252          60  212   28          13  259   38
Growth Adj:        1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00
Initial Bse:        18   32    4          39  215   252          60  212   28          13  259   38
Added Vol:          0   24    0           0    4    2          12    0    0           0    0    0
PasserByVol:        0    0    0           0    0    0           0    0    0           0    0    0
Initial Fut:        18   56    4          39  219   254          72  212   28          13  259   38
User Adj:           1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00
PHF Adj:            1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00
PHF Volume:         18   56    4          39  219   254          72  212   28          13  259   38
Reduct Vol:         0    0    0           0    0    0           0    0    0           0    0    0
Reduced Vol:        18   56    4          39  219   254          72  212   28          13  259   38
PCE Adj:            1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00
MLF Adj:            1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00
FinalVolume:        18   56    4          39  219   254          72  212   28          13  259   38
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600        1600 1600  1600        1600 1600  1600        1600 1600  1600
Adjustment:         1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00
Lanes:             1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.77  0.23        1.00 2.00  1.00

```

```

Final Sat.: 1600 1600 1600 1600 1600 1600 1600 2827 373 1600 3200 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.01 0.04 0.00 0.02 0.14 0.16 0.05 0.07 0.08 0.01 0.08 0.02
Crit Moves: ****          ****
*****

```

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

```

*****
Intersection #13 Date Ave and Commonwealth Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.389
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     28          Level Of Service:      A
*****

```

Street Name:	Date Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

```

Volume Module:
Base Vol:      24  40  16  47  66  71  68  239  94  118  326  67
Growth Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    24  40  16  47  66  71  68  239  94  118  326  67
Added Vol:      14   0  12   0   0   0   0   0   2   2   0   0
PasserByVol:    0   0   0   0   0   0   0   0   0   0   0   0
Initial Fut:    38  40  28  47  66  71  68  239  96  120  326  67
User Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:     38  40  28  47  66  71  68  239  96  120  326  67
Reduct Vol:     0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol:    38  40  28  47  66  71  68  239  96  120  326  67
PCE Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:    38  40  28  47  66  71  68  239  96  120  326  67

```

```

Saturation Flow Module:
Sat/Lane:      1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:         1.00 1.00 1.00 1.00 0.48 0.52 1.00 1.43 0.57 1.00 1.66 0.34

```

```

Final Sat.: 1600 1600 1600 1600 771 829 1600 2283 917 1600 2654 546
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.02 0.03 0.02 0.03 0.09 0.09 0.04 0.10 0.10 0.08 0.12 0.12
Crit Moves: ****          ****          ****          ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #14 Fremont Ave and Commonwealth Ave
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.716
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     52      Level Of Service:      C
*****
Street Name:      Fremont Ave      Commonwealth Ave
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Protected      Protected      Protected      Protected
Rights:      Include      Include      Include      Include
Min. Green:      0 0 0      0 0 0      0 0 0      0 0 0
Y+R:      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0
Lanes:      1 0 2 0 1      1 0 1 1 0      1 0 0 1 0      1 0 1 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:      39 1008 92 171 1305 62 27 134 16 108 155 107
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 39 1008 92 171 1305 62 27 134 16 108 155 107
Added Vol: 0 58 0 2 9 0 0 0 0 0 0 14
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 39 1066 92 173 1314 62 27 134 16 108 155 121
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 39 1066 92 173 1314 62 27 134 16 108 155 121
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 39 1066 92 173 1314 62 27 134 16 108 155 121
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 39 1066 92 173 1314 62 27 134 16 108 155 121
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 1.91 0.09 1.00 0.89 0.11 1.00 1.00 1.00

```

```

Final Sat.: 1600 3200 1600 1600 3056 144 1600 1429 171 1600 1600 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.02 0.33 0.06 0.11 0.43 0.43 0.02 0.09 0.09 0.07 0.10 0.08
Crit Moves: ****          ****          ****          ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #15 Fremont Ave and Valley Blvd
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.958
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     141          Level Of Service:      E
*****
Street Name:      Fremont Ave          Valley Blvd
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Protected          Protected          Protected          Protected
Rights:            Include            Include            Include            Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             1  0  1  1  0          1  0  2  0  2          2  0  2  0  1          1  0  2  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:          41  915  26          74  805  1273          527  404  28          56  725  185
Growth Adj:        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
Initial Bse:        41  915  26          74  805  1273          527  404  28          56  725  185
Added Vol:          0   14   0           5   89   69          11   0   0           0   0   1
PasserByVol:        0   0   0           0   0   0           0   0   0           0   0   0
Initial Fut:        41  929  26          79  894  1342          538  404  28          56  725  186
User Adj:           1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
PHF Adj:            1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
PHF Volume:         41  929  26          79  894  1342          538  404  28          56  725  186
Reduct Vol:         0   0   0           0   0   0           0   0   0           0   0   0
Reduced Vol:        41  929  26          79  894  1342          538  404  28          56  725  186
PCE Adj:            1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
MLF Adj:            1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
FinalVolume:        41  929  26          79  894  1342          538  404  28          56  725  186
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600 1600        1600 1600 1600        1600 1600 1600        1600 1600 1600
Adjustment:         1.00 1.00 1.00        1.00 1.00 1.00        0.90 1.00 1.00        1.00 1.00 1.00
Lanes:             1.00 1.95 0.05        1.00 2.00 2.00        2.00 2.00 1.00        1.00 2.00 1.00

```



```

Final Sat.: 1600 3113      87 1600 3200 3200 2880 3200 1600 1600 3200 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.03 0.30 0.30 0.05 0.28 0.42 0.19 0.13 0.02 0.04 0.23 0.12
Crit Moves: ****                ****      ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #16 Palm Ave and Mission Rd
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.635
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     43          Level Of Service:      B
*****
Street Name:      Palm Ave          Mission Rd
Approach:          North Bound      South Bound      East Bound      West Bound
Movement:          L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:           Protected        Protected        Permitted        Permitted
Rights:            Include          Include          Include          Include
Min. Green:        0    0    0        0    0    0        0    0    0        0    0    0
Y+R:               4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0
Lanes:             0  0  0  0  0      1  0  0  0  1      1  0  2  0  0      0  0  1  1  0
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol:          0    0    0        51    0  124      33  422    0        0 1284    84
Growth Adj:        1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Initial Bse:        0    0    0        51    0  124      33  422    0        0 1284    84
Added Vol:          0    0    0         0    0    1         9   68    0        0   10    0
PasserByVol:        0    0    0         0    0    0         0    0    0        0    0    0
Initial Fut:        0    0    0         51    0  125      42  490    0        0 1294    84
User Adj:           1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:            1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Volume:         0    0    0         51    0  125      42  490    0        0 1294    84
Reduct Vol:         0    0    0         0    0    0         0    0    0        0    0    0
Reduced Vol:        0    0    0         51    0  125      42  490    0        0 1294    84
PCE Adj:            1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
MLF Adj:            1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
FinalVolume:        0    0    0         51    0  125      42  490    0        0 1294    84
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:             0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 1.88 0.12

```

```

Final Sat.:    0    0    0 1600    0 1600 1600 3200    0    0 3005 195
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.00 0.00 0.00 0.03 0.00 0.08 0.03 0.15 0.00 0.00 0.43 0.43
Crit Moves:                ****  ****                ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #17 Marengo Ave and Valley Blvd
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.723
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     53          Level Of Service:      C
*****
Street Name:      Marengo Ave          Valley Blvd
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Protected          Protected          Protected          Protected
Rights:            Include            Include            Include            Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             1  0  1  0  1        1  0  0  1  0        1  0  2  0  1        1  0  2  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:          22  117    72    223  163    137    166  419    23    62  956    188
Growth Adj:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:        22  117    72    223  163    137    166  419    23    62  956    188
Added Vol:          0    1    0     11    8    0      0    5    0      0    1    2
PasserByVol:        0    0    0      0    0    0      0    0    0      0    0    0
Initial Fut:        22  118    72    234  171    137    166  424    23    62  957    190
User Adj:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:         22  118    72    234  171    137    166  424    23    62  957    190
Reduct Vol:         0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:        22  118    72    234  171    137    166  424    23    62  957    190
PCE Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:        22  118    72    234  171    137    166  424    23    62  957    190
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:         1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:             1.00 1.00  1.00  1.00 0.56  0.44  1.00 2.00  1.00  1.00 2.00  1.00

```

```

Final Sat.: 1600 1600 1600 1600 888 712 1600 3200 1600 1600 3200 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.01 0.07 0.05 0.15 0.19 0.19 0.10 0.13 0.01 0.04 0.30 0.12
Crit Moves: **** **** **** ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #18 Atlantic Blvd and Mission Road
*****
Cycle (sec): 100 Critical Vol./Cap.(X): 0.857
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 82 Level Of Service: D
*****
Street Name: Atlantic Blvd Mission Road
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 154 1062 115 40 943 246 88 516 67 175 956 33
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 154 1062 115 40 943 246 88 516 67 175 956 33
Added Vol: 0 0 0 0 0 0 0 32 0 0 5 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 154 1062 115 40 943 246 88 548 67 175 961 33
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 154 1062 115 40 943 246 88 548 67 175 961 33
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 154 1062 115 40 943 246 88 548 67 175 961 33
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 154 1062 115 40 943 246 88 548 67 175 961 33
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.80 0.20 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.93 0.07

```

```

Final Sat.: 1600 2887 313 1600 3200 1600 1600 3200 1600 1600 3094 106
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.10 0.37 0.37 0.03 0.29 0.15 0.06 0.17 0.04 0.11 0.31 0.31
Crit Moves: ****          ****          ****          ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #19 Marengo Ave and Mission Road
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.934
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     121          Level Of Service:      E
*****
Street Name:      Marengo Ave          Mission Rd
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Permitted          Permitted          Permitted          Permitted
Rights:           Include          Include          Include          Include
Min. Green:       0    0    0          0    0    0          0    0    0          0    0    0
Y+R:              4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:            1  0  1  0  1          1  0  0  1  0          1  0  1  1  0          1  0  1  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:         85  382  157          43  504  66          44  351  85  272 1171  74
Growth Adj:       1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:      85  382  157          43  504  66          44  351  85  272 1171  74
Added Vol:        3    0    0          0    0    1          7   32  19    0    5    0
PasserByVol:      0    0    0          0    0    0          0    0    0    0    0    0
Initial Fut:      88  382  157          43  504  67          51  383  104  272 1176  74
User Adj:         1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:       88  382  157          43  504  67          51  383  104  272 1176  74
Reduct Vol:       0    0    0          0    0    0          0    0    0    0    0    0
Reduced Vol:      88  382  157          43  504  67          51  383  104  272 1176  74
PCE Adj:          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:      88  382  157          43  504  67          51  383  104  272 1176  74
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600 1600          1600 1600 1600          1600 1600 1600 1600 1600 1600
Adjustment:       1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00 1.00 1.00 1.00
Lanes:            1.00 1.00 1.00          1.00 0.88 0.12          1.00 1.57 0.43 1.00 1.88 0.12

```

```

Final Sat.: 1600 1600 1600 1600 1412 188 1600 2517 683 1600 3011 189
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.06 0.24 0.10 0.03 0.36 0.36 0.03 0.15 0.15 0.17 0.39 0.39
Crit Moves: ****          ****          ****          ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #20 Marengo Ave and Front St
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.744
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     56          Level Of Service:      C
*****
Street Name:      Marengo Ave          Front St
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Permitted          Permitted          Permitted          Permitted
Rights:            Include            Include            Include            Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             1  0  0  1  0        1  0  0  1  0        0  1  0  0  1        0  1  0  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:          2  508          3  10  493  358          81  11          7  2  75  34
Growth Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:        2  508          3  10  493  358          81  11          7  2  75  34
Added Vol:          0    3    0          0    19    0          0    0    0          0    0    0
PasserByVol:        0    0    0          0    0    0          0    0    0          0    0    0
Initial Fut:        2  511          3  10  512  358          81  11          7  2  75  34
User Adj:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:         2  511          3  10  512  358          81  11          7  2  75  34
Reduct Vol:         0    0    0          0    0    0          0    0    0          0    0    0
Reduced Vol:        2  511          3  10  512  358          81  11          7  2  75  34
PCE Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:        2  511          3  10  512  358          81  11          7  2  75  34
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:             1.00 0.99 0.01 1.00 0.59 0.41 0.88 0.12 1.00 0.03 0.97 1.00

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```

Final Sat.: 1600 1591      9 1600 942 658 1409 191 1600 42 1558 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.00 0.32 0.32 0.01 0.54 0.54 0.05 0.06 0.00 0.00 0.05 0.02
Crit Moves: ****          ****          ****          ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #21 I-710 NB Ramp and Valley Blvd
*****
Cycle (sec):      120          Critical Vol./Cap.(X):      0.709
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     53          Level Of Service:      C
*****
Street Name:      I-710 NB Ramp          Valley Blvd
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Split Phase          Split Phase          Permitted          Permitted
Rights:            Include             Include             Include             Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:             1  0  1! 0  1          0  0  1! 0  0          0  0  2  0  0          0  0  3  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:          603    1    685          4    0    1          0  207    0          0  2176    6
Growth Adj:        1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00
Initial Bse:        603    1    685          4    0    1          0  207    0          0  2176    6
Added Vol:          0    0    11          0    0    0          0    0    0          0    69    0
PasserByVol:        0    0    0          0    0    0          0    0    0          0    0    0
Initial Fut:        603    1    696          4    0    1          0  207    0          0  2245    6
User Adj:           1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00
PHF Adj:            1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00
PHF Volume:         603    1    696          4    0    1          0  207    0          0  2245    6
Reduct Vol:         0    0    0          0    0    0          0    0    0          0    0    0
Reduced Vol:        603    1    696          4    0    1          0  207    0          0  2245    6
PCE Adj:            1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00
MLF Adj:            1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00
FinalVolume:        603    1    696          4    0    1          0  207    0          0  2245    6
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:         1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Lanes:             1.39  0.01  1.60  0.80  0.00  0.20  0.00  2.00  0.00  0.00  3.99  0.01

```

```

Final Sat.: 2226    4  2570  1280    0  320    0 3200    0    0 6383    17
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.27 0.27  0.27  0.00 0.00  0.00  0.00 0.06  0.00  0.00 0.35  0.35
Crit Moves:          ****      ****          ****          ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #22 I-710 SB Ramp and Valley Blvd
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      1.083
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     180          Level Of Service:      F
*****
Street Name:      I-710 SB Ramp          Valley Blvd
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Protected          Protected          Protected          Protected
Rights:           Include          Include          Include          Include
Min. Green:       0    0    0          0    0    0          0    0    0          0    0    0
Y+R:              4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:            0  0  0  0  0          0  0  0  0  0          0  0  2  0  1          2  0  2  0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:         0    0    0          0    0    0          0  214  650  1593 1200    0
Growth Adj:       1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:      0    0    0          0    0    0          0  214  650  1593 1200    0
Added Vol:        0    0    0          0    0    0          0    0    0    69    0    0
PasserByVol:     0    0    0          0    0    0          0    0    0    0    0    0
Initial Fut:      0    0    0          0    0    0          0  214  650  1662 1200    0
User Adj:         1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:       0    0    0          0    0    0          0  214  650  1662 1200    0
Reduct Vol:       0    0    0          0    0    0          0    0    0    0    0    0
Reduced Vol:      0    0    0          0    0    0          0  214  650  1662 1200    0
PCE Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:      0    0    0          0    0    0          0  214  650  1662 1200    0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600          1600 1600  1600          1600 1600  1600  1600 1600  1600
Adjustment:       1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00  0.90 1.00  1.00
Lanes:            0.00 0.00  0.00          0.00 0.00  0.00          0.00 2.00  1.00  2.00 2.00  0.00

```

```

Final Sat.:    0    0    0    0    0    0    0 3200 1600 2880 3200    0
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.07 0.41 0.58 0.38 0.00
Crit Moves:                      ****  ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #23 Fremont Ave and Hellman Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.807
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     68          Level Of Service:      D
*****
Street Name:      Fremont Ave          Hellman Ave
Approach:      North Bound          South Bound          East Bound          West Bound
Movement:      L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:      Protected          Protected          Protected          Protected
Rights:      Include          Include          Include          Include
Min. Green:      0    0    0          0    0    0          0    0    0          0    0    0
Y+R:      4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:      1  0  1  1  0          1  0  1  1  0          1  0  1  0  1          1  0  1  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:      142  934  313  127  706  110  108  111  153  168  228  212
Growth Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    142  934  313  127  706  110  108  111  153  168  228  212
Added Vol:      0    8    0    40  48    0    0    0    0    0    0    6
PasserByVol:    0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:    142  942  313  167  754  110  108  111  153  168  228  218
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    142  942  313  167  754  110  108  111  153  168  228  218
Reduct Vol:      0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:    142  942  313  167  754  110  108  111  153  168  228  218
PCE Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:    142  942  313  167  754  110  108  111  153  168  228  218
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:      1.00 1.50 0.50 1.00 1.75 0.25 1.00 1.00 1.00 1.00 1.00 1.00

```


Final Sat.: 1600 2402 798 1600 2793 407 1600 1600 1600 1600 1600 1600
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.09 0.39 0.39 0.10 0.27 0.27 0.07 0.07 0.10 0.11 0.14 0.14
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.091
 Loss Time (sec): 0 Average Delay (sec/veh): 42.2
 Optimal Cycle: 0 Level Of Service: E

 Street Name: Elm St Hellman Ave/Ramona Rd/ 10 WB ramp
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 1 0 1 0 0 0 1 0 1 0 0 1
 -----|-----|-----|-----|
 Volume Module:AM Peak
 Base Vol: 358 55 21 78 14 200 51 163 327 398 61 13
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 358 55 21 78 14 200 51 163 327 398 61 13
 Added Vol: 6 0 0 0 0 0 0 0 0 40 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 364 55 21 78 14 200 51 163 367 398 61 13
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 364 55 21 78 14 200 51 163 367 398 61 13
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 364 55 21 78 14 200 51 163 367 398 61 13
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 364 55 21 78 14 200 51 163 367 398 61 13
 -----|-----|-----|-----|
 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.65 0.25 0.10 0.85 0.15 1.00 0.24 0.76 1.00 0.87 0.13 1.00
 Final Sat.: 1048 -292 37 325 58 437 103 330 481 365 56 473
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.35-0.19 0.56 0.24 0.24 0.46 0.49 0.49 0.76 1.09 1.09 0.03

Crit Moves:			****			****			****		****	
Delay/Veh:	22.3	22.7	22.7	14.7	14.7	17.1	18.6	18.6	29.7	99.8	99.8	10.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.3	22.7	22.7	14.7	14.7	17.1	18.6	18.6	29.7	99.8	99.8	10.3
LOS by Move:	C	C	C	B	B	C	C	C	D	F	F	B
ApproachDel:		22.1			16.4			25.6			97.4	
Delay Adj:		1.00			1.00			1.00			1.00	

ApprAdjDel: 22.1 16.4 25.6 97.4
 LOS by Appr: C C D F
 AllWayAvgQ: 1.2 1.2 1.2 0.3 0.3 0.8 0.9 0.9 2.6 10.3 10.3 0.0

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	1.144
Loss Time (sec):	0	Average Delay (sec/veh):	71.8
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Fremont Ave				Ramona Road/10 EB ramp															
Approach:	North Bound		South Bound		East Bound		West Bound													
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R					
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Rights:	Include				Include				Include				Include							
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Lanes:	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0

Volume Module:AM Peak

Base Vol:	0	625	48	0	0	0	2	24	584	114	0	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	625	48	0	0	0	2	24	584	114	0	15
Added Vol:	0	0	36	0	0	0	0	0	6	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	625	84	0	0	0	2	24	590	114	0	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	625	84	0	0	0	2	24	590	114	0	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	625	84	0	0	0	2	24	590	114	0	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	625	84	0	0	0	2	24	590	114	0	15

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	0.00	0.00	0.08	0.92	1.00	0.88	0.00	0.12
Final Sat.:	0	547	609	0	0	0	41	490	597	421	0	55

Capacity Analysis Module:

Vol/Sat:	xxxx	1.14	0.14	xxxx	xxxx	xxxx	0.05	0.05	0.99	0.27	xxxx	0.27
Crit Moves:	****			****			****			****		
Delay/Veh:	0.0	108	9.5	0.0	0.0	0.0	9.8	9.8	57.7	13.3	0.0	13.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	108	9.5	0.0	0.0	0.0	9.8	9.8	57.7	13.3	0.0	13.3
LOS by Move:	*	F	A	*	*	*	A	A	F	B	*	B
ApproachDel:	96.5			xxxxxx			55.7			13.3		
Delay Adj:	1.00			xxxxxx			1.00			1.00		

```

ApprAdjDel:      96.5          xxxxxx          55.7          13.3
LOS by Appr:      F              *              F              B
AllWayAvgQ:    0.0 15.0    0.2    0.0 0.0    0.0    0.1 0.1    8.1    0.4 0.4    0.4
*****
Note: Queue reported is the number of cars per lane.
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #26 Ross Ave and Fremont Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.653
Loss Time (sec):   10          Average Delay (sec/veh):    xxxxxx
Optimal Cycle:     45          Level Of Service:      B
*****
Street Name:      Fremont Ave          Ross Ave
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Permitted          Permitted          Protected          Protected
Rights:           Include           Include           Include           Include
Min. Green:       0    0    0          0    0    0          0    0    0          0    0    0
Y+R:              4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:            1  0  1  1  0          1  0  1  1  0          1  0  0  1  0          1  0  1  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:         26 1007    212          42 867    34          26 49    5    173 177    17
Growth Adj:       1.00 1.00    1.00        1.00 1.00    1.00        1.00 1.00    1.00    1.00 1.00    1.00
Initial Bse:      26 1007    212          42 867    34          26 49    5    173 177    17
Added Vol:        0   14    0          0   89    0          0   0    0    0   0    0
PasserByVol:      0   0    0          0   0    0          0   0    0    0   0    0
Initial Fut:      26 1021    212          42 956    34          26 49    5    173 177    17
User Adj:         1.00 1.00    1.00        1.00 1.00    1.00        1.00 1.00    1.00    1.00 1.00    1.00
PHF Adj:          1.00 1.00    1.00        1.00 1.00    1.00        1.00 1.00    1.00    1.00 1.00    1.00
PHF Volume:       26 1021    212          42 956    34          26 49    5    173 177    17
Reduct Vol:       0   0    0          0   0    0          0   0    0    0   0    0
Reduced Vol:      26 1021    212          42 956    34          26 49    5    173 177    17
PCE Adj:          1.00 1.00    1.00        1.00 1.00    1.00        1.00 1.00    1.00    1.00 1.00    1.00
MLF Adj:          1.00 1.00    1.00        1.00 1.00    1.00        1.00 1.00    1.00    1.00 1.00    1.00
FinalVolume:      26 1021    212          42 956    34          26 49    5    173 177    17
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600    1600        1600 1600    1600        1600 1600    1600    1600 1600    1600
Adjustment:       1.00 1.00    1.00        1.00 1.00    1.00        1.00 1.00    1.00    1.00 1.00    1.00
Lanes:            1.00 1.66    0.34        1.00 1.93    0.07        1.00 0.91    0.09    1.00 1.00    1.00

```

```

Final Sat.: 1600 2650 550 1600 3090 110 1600 1452 148 1600 1600 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.02 0.39 0.39 0.03 0.31 0.31 0.02 0.03 0.03 0.11 0.11 0.01
Crit Moves: **** **** **** ****
*****

```

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #27 Westmont Dr and Valley Blvd
*****
Cycle (sec): 100 Critical Vol./Cap.(X): 0.830
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 74 Level Of Service: D
*****
Street Name: Westmont Dr Valley Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol: 51 14 7 4 6 37 17 966 14 3 2036 30
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 51 14 7 4 6 37 17 966 14 3 2036 30
Added Vol: 0 0 0 0 0 0 0 0 11 0 0 69 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 51 14 7 4 6 37 17 977 14 3 2105 30
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 51 14 7 4 6 37 17 977 14 3 2105 30
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 51 14 7 4 6 37 17 977 14 3 2105 30
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 51 14 7 4 6 37 17 977 14 3 2105 30
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.71 0.19 0.10 0.08 0.13 0.79 1.00 2.00 1.00 1.00 2.00 1.00

```

Scenario: 2018 Existing + Proj PM

Command: 2018 Existing + Proj PM
Volume: 2018 Existing PM
Geometry: Existing
Impact Fee: Default Impact Fee
Trip Generation: 2028 Project PM
Trip Distribution: Cum + Project
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

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Turning Movement Report
Project 2028 PM

Volume	Northbound	Southbound	Eastbound	Westbound	Total
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Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 Fremont Ave and Mission Rd													
Base	193	1390	192	50	1099	54	117	503	431	308	422	45	4804
Added	0	60	79	8	32	6	12	16	0	42	8	3	266
Total	193	1450	271	58	1131	60	129	519	431	350	430	48	5070
#2 Fremont Ave and 1000 Fremont Ave													
Base	54	1457	43	7	1113	60	81	3	69	39	4	25	2955
Added	0	46	29	18	33	0	0	0	0	14	0	9	149
Total	54	1503	72	25	1146	60	81	3	69	53	4	34	3104
#3 Fremont Ave and Orange St													
Base	2	1400	175	102	951	2	9	5	5	243	2	289	3185
Added	0	10	46	29	21	0	0	0	0	30	0	17	153
Total	2	1410	221	131	972	2	9	5	5	273	2	306	3338
#4 Date Ave and Orange St													
Base	31	170	3	25	267	41	67	154	155	1	20	6	940
Added	9	11	0	0	19	4	2	10	8	0	19	0	82
Total	40	181	3	25	286	45	69	164	163	1	39	6	1022
#5 Palm Ave and Orange St													
Base	5	171	2	10	268	13	58	64	71	2	5	7	676
Added	0	7	0	0	14	7	4	7	0	0	12	0	51
Total	5	178	2	10	282	20	62	71	71	2	17	7	727
#6 Chestnut St and Palm Ave													
Base	5	146	9	14	338	8	7	7	79	6	1	7	627
Added	0	4	0	0	8	6	4	8	0	0	14	0	44
Total	5	150	9	14	346	14	11	15	79	6	15	7	671
#7 Fremont Ave and Poplar Blvd													
Base	152	1403	115	25	863	42	25	117	80	53	118	28	3021
Added	7	19	7	0	35	0	0	0	14	14	0	0	96
Total	159	1422	122	25	898	42	25	117	94	67	118	28	3117
#8 Date Ave and Mission Rd													
Base	0	0	0	195	0	159	84	736	0	0	563	111	1848
Added	0	0	0	21	0	37	65	14	0	0	30	36	203
Total	0	0	0	216	0	196	149	750	0	0	593	147	2051
#9 Chestnut St and Date Ave													
Base	18	178	12	38	373	10	0	0	0	10	2	17	658
Added	65	13	4	0	15	12	7	8	38	7	13	0	182

Total	83	191	16	38	388	22	7	8	38	17	15	17	840
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#10 Fremont Ave and Concord Ave

Base	51	1539	113	27	898	71	79	43	47	75	60	75	3078
Added	0	26	0	0	50	0	0	0	0	0	0	0	76
Total	51	1565	113	27	948	71	79	43	47	75	60	75	3154

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#11 Fremont Ave and Montezuma Ave

Base	687	443	86	24	41	259	399	167	611	33	69	19	2838
Added	10	0	0	0	0	34	17	0	6	0	0	0	67
Total	697	443	86	24	41	293	416	167	617	33	69	19	2905

#12 Palm Ave and Commonwealth Ave

Base	49	124	20	172	217	244	190	416	70	8	385	96	1991
Added	0	11	0	0	21	10	6	0	0	0	0	0	48
Total	49	135	20	172	238	254	196	416	70	8	385	96	2039

#13 Date Ave and Commonwealth Ave

Base	63	127	57	116	81	144	206	514	97	51	487	115	2058
Added	7	0	6	0	0	0	0	0	12	10	0	0	35
Total	70	127	63	116	81	144	206	514	109	61	487	115	2093

#14 Fremont Ave and Commonwealth Ave

Base	36	1421	259	199	799	25	30	137	14	157	158	238	3473
Added	0	26	0	12	50	0	0	0	0	0	0	7	95
Total	36	1447	259	211	849	25	30	137	14	157	158	245	3568

#15 Fremont Ave and Valley Blvd

Base	28	803	33	186	961	774	616	899	25	125	349	308	5107
Added	0	76	0	2	41	32	59	0	0	0	0	5	215
Total	28	879	33	188	1002	806	675	899	25	125	349	313	5322

#16 Palm Ave and Mission Rd

Base	0	0	0	330	0	110	49	898	0	0	570	102	2059
Added	0	0	0	0	0	8	4	31	0	0	58	0	101
Total	0	0	0	330	0	118	53	929	0	0	628	102	2160

#17 Marengo Ave and Valley Blvd

Base	17	159	64	285	201	195	307	869	8	48	557	136	2846
Added	0	7	0	5	4	0	0	2	0	0	5	9	32
Total	17	166	64	290	205	195	307	871	8	48	562	145	2878

#18 Atlantic Blvd and Mission Road

Base	95	1061	137	42	951	101	131	965	133	182	563	60	4421
Added	0	0	0	0	0	0	0	15	0	0	28	0	43
Total	95	1061	137	42	951	101	131	980	133	182	591	60	4464

#19 Marengo Ave and Mission Road

Base	73	515	225	58	466	46	53	939	283	70	538	59	3325
Added	16	0	0	0	0	6	3	15	9	0	28	0	77

Total	89	515	225	58	466	52	56	954	292	70	566	59	3402
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#20 Marengo Ave and Front St

Base	3	634	4	23	682	188	150	50	8	2	19	16	1779
Added	0	16	0	0	9	0	0	0	0	0	0	0	25
Total	3	650	4	23	691	188	150	50	8	2	19	16	1804

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#21 I-710 NB Ramp and Valley Blvd

Base	584	0	1238	1	0	2	0	530	0	0	1118	0	3473
Added	0	0	59	0	0	0	0	0	0	0	32	0	91
Total	584	0	1297	1	0	2	0	530	0	0	1150	0	3564

#22 I-710 SB Ramp and Valley Blvd

Base	0	0	0	0	0	0	0	539	729	783	940	0	2991
Added	0	0	0	0	0	0	0	0	0	32	0	0	32
Total	0	0	0	0	0	0	0	539	729	815	940	0	3023

#23 Fremont Ave and Hellman Ave

Base	85	740	242	147	813	68	128	173	216	206	181	237	3236
Added	0	45	0	19	22	0	0	0	0	0	0	31	117
Total	85	785	242	166	835	68	128	173	216	206	181	268	3353

#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Base	467	172	98	10	5	40	29	299	223	120	105	2	1570
Added	31	0	0	0	0	0	0	0	19	0	0	0	50
Total	498	172	98	10	5	40	29	299	242	120	105	2	1620

#25 Fremont Ave and Ramona Road/10 EB ramp

Base	0	731	116	0	0	0	4	91	289	47	0	78	1356
Added	0	0	17	0	0	0	0	0	34	0	0	0	51
Total	0	731	133	0	0	0	4	91	323	47	0	78	1407

#26 Ross Ave and Fremont Ave

Base	30	849	168	26	988	41	11	32	6	54	40	41	2286
Added	0	76	0	0	41	0	0	0	0	0	0	0	117
Total	30	925	168	26	1029	41	11	32	6	54	40	41	2403

#27 Westmont Dr and Valley Blvd

Base	16	10	11	24	9	14	56	1578	135	8	1040	33	2934
Added	0	0	0	0	0	0	0	59	0	0	32	0	91

Total	16	10	11	24	9	14	56	1637	135	8	1072	33	3025
#135													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	14	0	17	37	65	0	0	37	30	200
Total	0	0	0	14	0	17	37	65	0	0	37	30	200

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Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	193	1390	192	50	1099	54	117	503	431	308	422	45
2 Fremont Ave a	54	1457	43	7	1113	60	81	3	69	39	4	25
3 Fremont Ave a	2	1400	175	102	951	2	9	5	5	243	2	289
4 Date Ave and	31	170	3	25	267	41	67	154	155	1	20	6
5 Palm Ave and	5	171	2	10	268	13	58	64	71	2	5	7
6 Chestnut St a	5	146	9	14	338	8	7	7	79	6	1	7
7 Fremont Ave a	152	1403	115	25	863	42	25	117	80	53	118	28
8 Date Ave and	0	0	0	195	0	159	84	736	0	0	563	111
9 Chestnut St a	18	178	12	38	373	10	0	0	0	10	2	17
10 Fremont Ave a	51	1539	113	27	898	71	79	43	47	75	60	75
11 Fremont Ave a	687	443	86	24	41	259	399	167	611	33	69	19
12 Palm Ave and	49	124	20	172	217	244	190	416	70	8	385	96
13 Date Ave and	63	127	57	116	81	144	206	514	97	51	487	115
14 Fremont Ave a	36	1421	259	199	799	25	30	137	14	157	158	238
15 Fremont Ave a	28	803	33	186	961	774	616	899	25	125	349	308
16 Palm Ave and	0	0	0	330	0	110	49	898	0	0	570	102
17 Marengo Ave a	17	159	64	285	201	195	307	869	8	48	557	136
18 Atlantic Blvd	95	1061	137	42	951	101	131	965	133	182	563	60
19 Marengo Ave a	73	515	225	58	466	46	53	939	283	70	538	59
20 Marengo Ave a	3	634	4	23	682	188	150	50	8	2	19	16
21 I-710 NB Ramp	584	0	1238	1	0	2	0	530	0	0	1118	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	539	729	783	940	0

23 Fremont Ave a	85	740	242	147	813	68	128	173	216	206	181	237
24 Elm St and He	467	172	98	10	5	40	29	299	223	120	105	2
25 Fremont Ave a	0	731	116	0	0	0	4	91	289	47	0	78
26 Ross Ave and	30	849	168	26	988	41	11	32	6	54	40	41
27 Westmont Dr a	16	10	11	24	9	14	56	1578	135	8	1040	33

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Intersection Volume Report
 Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	193	1450	271	58	1131	60	129	519	431	350	430	48
2 Fremont Ave a	54	1503	72	25	1146	60	81	3	69	53	4	34
3 Fremont Ave a	2	1410	221	131	972	2	9	5	5	273	2	306
4 Date Ave and	40	181	3	25	286	45	69	164	163	1	39	6
5 Palm Ave and	5	178	2	10	282	20	62	71	71	2	17	7
6 Chestnut St a	5	150	9	14	346	14	11	15	79	6	15	7
7 Fremont Ave a	159	1422	122	25	898	42	25	117	94	67	118	28
8 Date Ave and	0	0	0	216	0	196	149	750	0	0	593	147
9 Chestnut St a	83	191	16	38	388	22	7	8	38	17	15	17
10 Fremont Ave a	51	1565	113	27	948	71	79	43	47	75	60	75
11 Fremont Ave a	697	443	86	24	41	293	416	167	617	33	69	19
12 Palm Ave and	49	135	20	172	238	254	196	416	70	8	385	96
13 Date Ave and	70	127	63	116	81	144	206	514	109	61	487	115
14 Fremont Ave a	36	1447	259	211	849	25	30	137	14	157	158	245
15 Fremont Ave a	28	879	33	188	1002	806	675	899	25	125	349	313
16 Palm Ave and	0	0	0	330	0	118	53	929	0	0	628	102
17 Marengo Ave a	17	166	64	290	205	195	307	871	8	48	562	145
18 Atlantic Blvd	95	1061	137	42	951	101	131	980	133	182	591	60
19 Marengo Ave a	89	515	225	58	466	52	56	954	292	70	566	59
20 Marengo Ave a	3	650	4	23	691	188	150	50	8	2	19	16
21 I-710 NB Ramp	584	0	1297	1	0	2	0	530	0	0	1150	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	539	729	815	940	0

23 Fremont Ave a	85	785	242	166	835	68	128	173	216	206	181	268
24 Elm St and He	498	172	98	10	5	40	29	299	242	120	105	2
25 Fremont Ave a	0	731	133	0	0	0	4	91	323	47	0	78
26 Ross Ave and	30	925	168	26	1029	41	11	32	6	54	40	41
27 Westmont Dr a	16	10	11	24	9	14	56	1637	135	8	1072	33

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Impact Analysis Report
 Level Of Service

Intersection	Base Del/ LOS Veh	V/ C	Future Del/ LOS Veh	V/ C	Change in
# 1 Fremont Ave and Mission Rd	F xxxxxx	1.087	F xxxxxx	1.162	+ 0.075 V/C
# 2 Fremont Ave and 1000 Fremont A	B xxxxxx	0.628	B xxxxxx	0.663	+ 0.035 V/C
# 3 Fremont Ave and Orange St	C xxxxxx	0.792	D xxxxxx	0.824	+ 0.032 V/C
# 4 Date Ave and Orange St	B 13.7	0.279	B 14.6	0.309	+ 0.917 D/V
# 5 Palm Ave and Orange St	B 10.4	0.416	B 10.7	0.445	+ 0.029 V/C
# 6 Chestnut St and Palm Ave	B 10.7	0.488	B 10.9	0.509	+ 0.021 V/C
# 7 Fremont Ave and Poplar Blvd	B xxxxxx	0.696	C xxxxxx	0.713	+ 0.017 V/C
# 8 Date Ave and Mission Rd	C 15.9	0.430	C 20.8	0.578	+ 4.892 D/V
# 9 Chestnut St and Date Ave	B 10.3	0.027	B 13.1	0.072	+ 2.794 D/V
# 10 Fremont Ave and Concord Ave	A xxxxxx	0.595	B xxxxxx	0.600	+ 0.005 V/C
# 11 Fremont Ave and Montezuma Ave	B xxxxxx	0.674	B xxxxxx	0.676	+ 0.002 V/C
# 12 Palm Ave and Commonwealth Ave	A xxxxxx	0.524	A xxxxxx	0.535	+ 0.011 V/C
# 13 Date Ave and Commonwealth Ave	A xxxxxx	0.597	B xxxxxx	0.601	+ 0.004 V/C

# 14 Fremont Ave and Commonwealth A	D xxxxx 0.861	D xxxxx 0.877	+ 0.016 V/C
# 15 Fremont Ave and Valley Blvd	D xxxxx 0.884	E xxxxx 0.933	+ 0.049 V/C
# 16 Palm Ave and Mission Rd	A xxxxx 0.587	A xxxxx 0.597	+ 0.010 V/C
# 17 Marengo Ave and Valley Blvd	C xxxxx 0.743	C xxxxx 0.753	+ 0.009 V/C
# 18 Atlantic Blvd and Mission Road	E xxxxx 0.916	E xxxxx 0.921	+ 0.005 V/C
# 19 Marengo Ave and Mission Road	D xxxxx 0.891	E xxxxx 0.912	+ 0.021 V/C
# 20 Marengo Ave and Front St	C xxxxx 0.772	C xxxxx 0.777	+ 0.006 V/C

# 21 I-710 NB Ramp and Valley Blvd	B	xxxxx	0.647	B	xxxxx	0.670	+	0.023	V/C
# 22 I-710 SB Ramp and Valley Blvd	D	xxxxx	0.828	D	xxxxx	0.839	+	0.011	V/C
# 23 Fremont Ave and Hellman Ave	C	xxxxx	0.762	C	xxxxx	0.788	+	0.026	V/C
# 24 Elm St and Hellman Ave/Ramona	C	23.2	0.754	D	25.2	0.792	+	0.038	V/C
# 25 Fremont Ave and Ramona Road/10	F	73.1	1.199	F	75.0	1.217	+	0.018	V/C

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Intersection		Base		Future		Change
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	Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	in
# 26 Ross Ave and Fremont Ave	A xxxxx	0.498	A xxxxx	0.515	+ 0.017 V/C
# 27 Westmont Dr and Valley Blvd	B xxxxx	0.636	B xxxxx	0.655	+ 0.018 V/C

Intersection #1 Fremont Ave and Mission Rd

```

*****
Cycle (sec):          100          Critical Vol./Cap.(X):          1.162
Loss Time (sec):      10          Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        180          Level Of Service:              F
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Street Name:          Fremont Ave          Mission Rd
Approach:              North Bound          South Bound          East Bound          West Bound
Movement:              L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:               Protected            Protected            Protected            Protected
Rights:                Include              Include              Include              Include
Min. Green:            0    0    0            0    0    0            0    0    0            0    0    0
Y+R:                   4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:                 1  0  1  1  0            1  0  2  0  1            1  0  2  0  1            1  0  1  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:              193 1390    192          50 1099    54          117 503    431          308 422    45
Growth Adj:            1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00
Initial Bse:           193 1390    192          50 1099    54          117 503    431          308 422    45
Added Vol:              0    60    79            8    32    6            12    16    0            42    8    3
PasserByVol:           0    0    0            0    0    0            0    0    0            0    0    0
Initial Fut:           193 1450    271          58 1131    60          129 519    431          350 430    48
User Adj:              1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00
PHF Adj:               1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00
PHF Volume:            193 1450    271          58 1131    60          129 519    431          350 430    48
Reduct Vol:            0    0    0            0    0    0            0    0    0            0    0    0
Reduced Vol:           193 1450    271          58 1131    60          129 519    431          350 430    48
PCE Adj:               1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00
MLF Adj:               1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00
FinalVolume:           193 1450    271          58 1131    60          129 519    431          350 430    48
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1600 1600    1600          1600 1600    1600          1600 1600    1600          1600 1600    1600
Adjustment:            1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00
Lanes:                 1.00 1.69    0.31          1.00 2.00    1.00          1.00 2.00    1.00          1.00 1.80    0.20

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Final Sat.: 1600 2696 504 1600 3200 1600 1600 3200 1600 1600 2879 321
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.12 0.54 0.54 0.04 0.35 0.04 0.08 0.16 0.27 0.22 0.15 0.15
Crit Moves: **** **** **** ****
*****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #2 Fremont Ave and 1000 Fremont Ave

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Cycle (sec):      100      Critical Vol./Cap.(X):      0.663
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     46      Level Of Service:      B
*****

```

Street Name:	Fremont Ave						1000 Fremont Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	0	1	0	0	1	0	0

```

Volume Module:
Base Vol: 54 1457 43 7 1113 60 81 3 69 39 4 25
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 54 1457 43 7 1113 60 81 3 69 39 4 25
Added Vol: 0 46 29 18 33 0 0 0 0 14 0 9
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 54 1503 72 25 1146 60 81 3 69 53 4 34
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 54 1503 72 25 1146 60 81 3 69 53 4 34
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 54 1503 72 25 1146 60 81 3 69 53 4 34
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 54 1503 72 25 1146 60 81 3 69 53 4 34
-----|-----|-----|-----|-----|

```

```

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.04 0.96 1.00 0.11 0.89

```

```

Final Sat.: 1600 3200 1600 1600 3200 1600 1600 67 1533 1600 168 1432
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.03 0.47 0.05 0.02 0.36 0.04 0.05 0.04 0.05 0.03 0.02 0.02
Crit Moves: **** **** **** ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #3 Fremont Ave and Orange St
*****
Cycle (sec): 100 Critical Vol./Cap.(X): 0.824
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 72 Level Of Service: D
*****
Street Name: Fremont Ave Orange St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 1 0 0 1 1 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 2 1400 175 102 951 2 9 5 5 243 2 289
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2 1400 175 102 951 2 9 5 5 243 2 289
Added Vol: 0 10 46 29 21 0 0 0 0 30 0 17
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2 1410 221 131 972 2 9 5 5 273 2 306
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 2 1410 221 131 972 2 9 5 5 273 2 306
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2 1410 221 131 972 2 9 5 5 273 2 306
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2 1410 221 131 972 2 9 5 5 273 2 306
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 1.99 0.01 0.64 0.36 1.00 1.00 0.01 0.99

```

```

Final Sat.: 1600 3200 1600 1600 3193 7 1029 571 1600 1600 10 1590
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.00 0.44 0.14 0.08 0.30 0.30 0.01 0.01 0.00 0.17 0.19 0.19
Crit Moves: **** **** **** ****
*****

```

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-----
Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #4 Date Ave and Orange St
*****
Average Delay (sec/veh): 6.7 Worst Case Level Of Service: B[ 14.6]
*****
Street Name: Date Ave Orange St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 0 1 1 0 1 0 1 0 1 0 0 1 0 1 0 0 1
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol: 31 170 3 25 267 41 67 154 155 1 20 6
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 31 170 3 25 267 41 67 154 155 1 20 6
Added Vol: 9 11 0 0 19 4 2 10 8 0 19 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 40 181 3 25 286 45 69 164 163 1 39 6
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 40 181 3 25 286 45 69 164 163 1 39 6
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 40 181 3 25 286 45 69 164 163 1 39 6
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 331 xxxx xxxxx 184 xxxx xxxxx 621 600 286 783 642 181
Potent Cap.: 1240 xxxx xxxxx 1403 xxxx xxxxx 403 417 758 314 395 867
Move Cap.: 1240 xxxx xxxxx 1403 xxxx xxxxx 354 397 758 161 375 867
Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 523 530 xxxxx 253 501 xxxxx
Volume/Cap: 0.03 xxxx xxxx 0.02 xxxx xxxx 0.13 0.31 0.22 0.00 0.08 0.01
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: 0.1 xxxx xxxxx 0.1 xxxx xxxxx xxxx xxxx 0.8 xxxx xxxx 0.0

```

Control Del:	8.0	xxxx	xxxxx	7.6	xxxx	xxxxx	xxxxx	xxxx	11.0	xxxxx	xxxx	9.2			
LOS by Move:	A	*	*	A	*	*	*	*	B	*	*	A			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	528	xxxx	xxxxx	489	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	0.3	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	17.1	xxxx	xxxxx	13.0	xxxx	xxxxx			

Shared LOS: * * * * * C * * B * *
 ApproachDel: xxxxxx xxxxxx 14.6 12.5
 ApproachLOS: * * B B

 Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #5 Palm Ave and Orange St

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.445
 Loss Time (sec): 0 Average Delay (sec/veh): 10.7
 Optimal Cycle: 0 Level Of Service: B

 Street Name: Palm Ave Orange St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1
 -----|-----|-----|-----|
 Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
 Base Vol: 5 171 2 10 268 13 58 64 71 2 5 7
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 5 171 2 10 268 13 58 64 71 2 5 7
 Added Vol: 0 7 0 0 14 7 4 7 0 0 12 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 5 178 2 10 282 20 62 71 71 2 17 7
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 5 178 2 10 282 20 62 71 71 2 17 7
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 5 178 2 10 282 20 62 71 71 2 17 7
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 5 178 2 10 282 20 62 71 71 2 17 7
 -----|-----|-----|-----|
 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.03 0.97 1.00 0.03 0.97 1.00 0.47 0.53 1.00 0.11 0.89 1.00
 Final Sat.: 17 619 724 22 634 749 264 302 660 57 484 610
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.29 0.29 0.00 0.44 0.44 0.03 0.24 0.24 0.11 0.04 0.04 0.01
 Crit Moves: **** **** **** ****
 Delay/Veh: 10.3 10.3 7.5 12.1 12.1 7.5 10.4 10.4 8.4 9.0 9.0 8.1
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 10.3 10.3 7.5 12.1 12.1 7.5 10.4 10.4 8.4 9.0 9.0 8.1
 LOS by Move: B B A B B A B B A A A A
 ApproachDel: 10.2 11.8 9.7 8.8
 Delay Adj: 1.00 1.00 1.00 1.00

ApprAdjDel: 10.2 11.8 9.7 8.8
 LOS by Appr: B B A A
 AllWayAvgQ: 0.4 0.4 0.0 0.7 0.7 0.0 0.3 0.3 0.1 0.0 0.0 0.0

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.509
Loss Time (sec):	0	Average Delay (sec/veh):	10.9
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Chestnut St				Palm Ave					
Approach:	North Bound		South Bound		East Bound		West Bound			
Movement:	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign		Stop Sign		Stop Sign		Stop Sign			
Rights:	Include		Include		Include		Include			
Min. Green:	0	0	0	0	0	0	0	0	0	
Lanes:	0	1	0	0	1	0	1	0	0	1

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak

Base Vol:	5	146	9	14	338	8	7	7	79	6	1	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	146	9	14	338	8	7	7	79	6	1	7
Added Vol:	0	4	0	0	8	6	4	8	0	0	14	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	150	9	14	346	14	11	15	79	6	15	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	150	9	14	346	14	11	15	79	6	15	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	150	9	14	346	14	11	15	79	6	15	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	150	9	14	346	14	11	15	79	6	15	7

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.97	1.00	0.04	0.96	1.00	0.42	0.58	1.00	0.29	0.71	1.00
Final Sat.:	22	654	777	27	679	815	235	320	646	156	389	623

Capacity Analysis Module:

Vol/Sat:	0.23	0.23	0.01	0.51	0.51	0.02	0.05	0.05	0.12	0.04	0.04	0.01
Crit Moves:	****			****			****			****		
Delay/Veh:	9.4	9.4	7.2	12.7	12.7	7.1	9.0	9.0	8.5	9.0	9.0	8.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.4	9.4	7.2	12.7	12.7	7.1	9.0	9.0	8.5	9.0	9.0	8.0
LOS by Move:	A	A	A	B	B	A	A	A	A	A	A	A
ApproachDel:	9.3			12.5			8.6			8.7		
Delay Adj:	1.00			1.00			1.00			1.00		


```

Final Sat.: 1600 2947 253 1600 3057 143 1600 1600 1600 1600 1600 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.10 0.48 0.48 0.02 0.29 0.29 0.02 0.07 0.06 0.04 0.07 0.02
Crit Moves: **** **** **** ****
*****

```

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-----
Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #8 Date Ave and Mission Rd
*****
Average Delay (sec/veh): 4.9 Worst Case Level Of Service: C[ 20.8]
*****
Street Name: Date Ave Mission Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 2 0 0 0 0 1 1 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol: 0 0 0 195 0 159 84 736 0 0 563 111
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 195 0 159 84 736 0 0 563 111
Added Vol: 0 0 0 21 0 37 65 14 0 0 30 36
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 216 0 196 149 750 0 0 593 147
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 216 0 196 149 750 0 0 593 147
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 216 0 196 149 750 0 0 593 147
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 6.8 xxx 6.9 4.1 xxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 3.5 xxx 3.3 2.2 xxx xxxxx xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxxx xxxx xxxxx 1340 xxx 370 740 xxx xxxxx xxx xxx xxxxx
Potent Cap.: xxxxx xxxx xxxxx 147 xxx 633 876 xxx xxxxx xxx xxx xxxxx
Move Cap.: xxxxx xxxx xxxxx 127 xxx 633 876 xxx xxxxx xxx xxx xxxxx
Total Cap: 201 233 xxxxx 374 251 xxxxx xxx xxx xxxxx xxx xxx xxxxx
Volume/Cap: xxxxx xxxx xxxxx 0.58 xxx 0.31 0.17 xxx xxx xxx xxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxxx xxxx xxxxx 3.9 xxx 1.3 0.6 xxx xxxxx xxx xxx xxxxx

```

Control Del:	xxxxx	xxxx	xxxxx	27.6	xxxx	13.2	10.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	D	*	B	A	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			

```

Shared LOS:      *      *      *      *      *      *      *      *      *      *      *      *
ApproachDel:    xxxxxx                20.8                xxxxxx                xxxxxx
ApproachLOS:    *                  C                  *                  *
*****
Note: Queue reported is the number of cars per lane.
*****

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-----
Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #9 Chestnut St and Date Ave
*****
Average Delay (sec/veh):      2.7      Worst Case Level Of Service: B[ 13.1]
*****
Street Name:      Chestnut St      Date Ave
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      1 0 1 0 1      1 0 1 0 1      0 0 1! 0 0      0 1 0 0 1
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol:      18 178 12      38 373 10      0 0 0      10 2 17
Growth Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    18 178 12      38 373 10      0 0 0      10 2 17
Added Vol:      65 13 4      0 15 12      7 8 38      7 13 0
PasserByVol:    0 0 0      0 0 0      0 0 0      0 0 0
Initial Fut:    83 191 16      38 388 22      7 8 38      17 15 17
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:     83 191 16      38 388 22      7 8 38      17 15 17
Reduct Vol:     0 0 0      0 0 0      0 0 0      0 0 0
FinalVolume:    83 191 16      38 388 22      7 8 38      17 15 17
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:    4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim:    2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:    410 xxxx xxxxx 207 xxxx xxxxx 845 837 388 855 843 191
Potent Cap.:   1160 xxxx xxxxx 1376 xxxx xxxxx 285 305 665 281 303 856
Move Cap.:     1160 xxxx xxxxx 1376 xxxx xxxxx 248 275 665 239 273 856
Total Cap:     xxxx xxxx xxxxx xxxx xxxx xxxxx 426 432 xxxxx 376 402 xxxxx
Volume/Cap:    0.07 xxxx xxxx 0.03 xxxx xxxx 0.02 0.02 0.06 0.05 0.04 0.02
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:     0.2 xxxx xxxxx 0.1 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx 0.1
Control Del:    8.3 xxxx xxxxx 7.7 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx 9.3
LOS by Move:    A * *      A * *      * * *      * * *      A
Movement:      LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.:    xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 575 xxxxx 388 xxxx xxxxx
SharedQueue:    xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 0.3 xxxxx 0.3 xxxx xxxxx
Shrd ConDel:    xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 11.9 xxxxx 15.1 xxxx xxxxx

```

Shared LOS: * * * * * B * C * *
 ApproachDel: xxxxxx xxxxxx 11.9 13.1
 ApproachLOS: * * B B

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #10 Fremont Ave and Concord Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.600
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 40 Level Of Service: B

 Street Name: Fremont Ave Concord Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 1 1 0 1 0 1 0 1 0

 Volume Module:
 Base Vol: 51 1539 113 27 898 71 79 43 47 75 60 75
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 51 1539 113 27 898 71 79 43 47 75 60 75
 Added Vol: 0 26 0 0 50 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 51 1565 113 27 948 71 79 43 47 75 60 75
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 51 1565 113 27 948 71 79 43 47 75 60 75
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 51 1565 113 27 948 71 79 43 47 75 60 75
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 51 1565 113 27 948 71 79 43 47 75 60 75

 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.80 0.20 1.00 1.86 0.14 1.00 1.00 1.00 1.00 0.44 0.56

```

Final Sat.: 1600 4477 323 1600 2977 223 1600 1600 1600 1600 711 889
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.03 0.35 0.35 0.02 0.32 0.32 0.05 0.03 0.03 0.05 0.08 0.08
Crit Moves: **** **** **** ****
*****

```

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #11 Fremont Ave and Montezuma Ave

```

Cycle (sec):      100          Critical Vol./Cap.(X):      0.676
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     61          Level Of Service:      B
*****

```

Street Name:	Fremont Ave						Montezuma Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	1	0	1	2	0	0	1	0	0

```

Volume Module:
Base Vol: 687 443 86 24 41 259 399 167 611 33 69 19
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 687 443 86 24 41 259 399 167 611 33 69 19
Added Vol: 10 0 0 0 0 0 34 17 0 6 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 697 443 86 24 41 293 416 167 617 33 69 19
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 697 443 86 24 41 0 416 167 617 33 69 19
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 697 443 86 24 41 0 416 167 617 33 69 19
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 697 443 86 24 41 0 416 167 617 33 69 19
-----|-----|-----|-----|-----|

```

```

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 0.90 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 0.84 0.16 0.74 1.26 1.00 2.00 0.43 1.57 0.27 0.57 0.16

```

```

Final Sat.: 2880 1340 260 1182 2018 1600 2880 682 2518 436 912 251
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.24 0.33 0.33 0.02 0.02 0.00 0.14 0.25 0.24 0.02 0.08 0.08
Crit Moves: ****
*****

```

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

```

*****
Intersection #12 Palm Ave and Commonwealth Ave
*****
Cycle (sec): 100 Critical Vol./Cap.(X): 0.535
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 35 Level Of Service: A
*****

```

Street Name:	Palm Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	2

Volume Module:	Palm Ave			Palm Ave			Commonwealth Ave			Commonwealth Ave		
Base Vol:	49	124	20	172	217	244	190	416	70	8	385	96
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	49	124	20	172	217	244	190	416	70	8	385	96
Added Vol:	0	11	0	0	21	10	6	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	135	20	172	238	254	196	416	70	8	385	96
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	49	135	20	172	238	254	196	416	70	8	385	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	135	20	172	238	254	196	416	70	8	385	96
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	135	20	172	238	254	196	416	70	8	385	96

Saturation Flow Module:	Palm Ave			Palm Ave			Commonwealth Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.71	0.29	1.00	2.00	1.00

```

Final Sat.: 1600 1600 1600 1600 1600 1600 1600 2739 461 1600 3200 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.03 0.08 0.01 0.11 0.15 0.16 0.12 0.15 0.15 0.01 0.12 0.06
Crit Moves: **** **** **** ****
*****

```

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #13 Date Ave and Commonwealth Ave

```

Cycle (sec):      100      Critical Vol./Cap.(X):      0.601
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     40      Level Of Service:      B
*****

```

Street Name:	Date Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

```

Volume Module:
Base Vol: 63 127 57 116 81 144 206 514 97 51 487 115
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 63 127 57 116 81 144 206 514 97 51 487 115
Added Vol: 7 0 6 0 0 0 0 0 12 10 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 70 127 63 116 81 144 206 514 109 61 487 115
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 70 127 63 116 81 144 206 514 109 61 487 115
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 70 127 63 116 81 144 206 514 109 61 487 115
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 70 127 63 116 81 144 206 514 109 61 487 115
-----|-----|-----|-----|-----|

```

```

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 0.36 0.64 1.00 1.65 0.35 1.00 1.62 0.38

```

```

Final Sat.: 1600 1600 1600 1600 576 1024 1600 2640 560 1600 2589 611
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.04 0.08 0.04 0.07 0.14 0.14 0.13 0.19 0.19 0.04 0.19 0.19
Crit Moves: ****          ****          ****          ****
*****

```

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #14 Fremont Ave and Commonwealth Ave

```

Cycle (sec):      100          Critical Vol./Cap.(X):      0.877
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     90          Level Of Service:      D
*****

```

Street Name:	Fremont Ave						Commonwealth Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	2	0	1	1	0	1	1	0	1	0	1	0	1

```

Volume Module:
Base Vol:      36 1421 259 199 799 25 30 137 14 157 158 238
Growth Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    36 1421 259 199 799 25 30 137 14 157 158 238
Added Vol:      0 26 0 12 50 0 0 0 0 0 0 7
PasserByVol:    0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:    36 1447 259 211 849 25 30 137 14 157 158 245
User Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:     36 1447 259 211 849 25 30 137 14 157 158 245
Reduct Vol:     0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:    36 1447 259 211 849 25 30 137 14 157 158 245
PCE Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:    36 1447 259 211 849 25 30 137 14 157 158 245
-----|-----|-----|-----|-----|

```

```

Saturation Flow Module:
Sat/Lane:      1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:         1.00 2.00 1.00 1.00 1.94 0.06 1.00 0.91 0.09 1.00 1.00 1.00

```



```

Final Sat.: 1600 3200 1600 1600 3108 92 1600 1452 148 1600 1600 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.02 0.45 0.16 0.13 0.27 0.27 0.02 0.09 0.09 0.10 0.10 0.15
Crit Moves: **** **** **** ****
*****

```

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```

-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #15 Fremont Ave and Valley Blvd
*****
Cycle (sec): 100 Critical Vol./Cap.(X): 0.933
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 119 Level Of Service: E
*****
Street Name: Fremont Ave Valley Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 2 0 2 2 0 2 0 1 1 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol: 28 803 33 186 961 774 616 899 25 125 349 308
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 28 803 33 186 961 774 616 899 25 125 349 308
Added Vol: 0 76 0 2 41 32 59 0 0 0 0 5
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 28 879 33 188 1002 806 675 899 25 125 349 313
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 28 879 33 188 1002 806 675 899 25 125 349 313
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 28 879 33 188 1002 806 675 899 25 125 349 313
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 28 879 33 188 1002 806 675 899 25 125 349 313
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.93 0.07 1.00 2.00 2.00 2.00 2.00 1.00 1.00 2.00 1.00

```

```

Final Sat.: 1600 3084 116 1600 3200 3200 2880 3200 1600 1600 3200 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.02 0.28 0.29 0.12 0.31 0.25 0.23 0.28 0.02 0.08 0.11 0.20
Crit Moves: **** **** **** ****
*****

```

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```

-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #16 Palm Ave and Mission Rd
*****
Cycle (sec): 100 Critical Vol./Cap.(X): 0.597
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 40 Level Of Service: A
*****
Street Name: Palm Ave Mission Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 2 0 0 0 0 1 1 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol: 0 0 0 330 0 110 49 898 0 0 570 102
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 330 0 110 49 898 0 0 570 102
Added Vol: 0 0 0 0 0 8 4 31 0 0 58 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 330 0 118 53 929 0 0 628 102
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 330 0 118 53 929 0 0 628 102
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 330 0 118 53 929 0 0 628 102
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 330 0 118 53 929 0 0 628 102
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 1.72 0.28

```

```

Final Sat.:      0      0      0 1600      0 1600 1600 3200      0      0 2753 447
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.00 0.00 0.00 0.21 0.00 0.07 0.03 0.29 0.00 0.00 0.23 0.23
Crit Moves:      ****                      ****          ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #17 Marengo Ave and Valley Blvd
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.753
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     58          Level Of Service:      C
*****
Street Name:      Marengo Ave          Valley Blvd
Approach:      North Bound          South Bound          East Bound          West Bound
Movement:      L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:      Protected          Protected          Protected          Protected
Rights:      Include          Include          Include          Include
Min. Green:      0      0      0          0      0      0          0      0      0          0      0      0
Y+R:      4.0 4.0 4.0          4.0 4.0 4.0          4.0 4.0 4.0          4.0 4.0 4.0
Lanes:      1 0 1 0 1          1 0 0 1 0          1 0 2 0 1          1 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:      17 159      64      285 201      195      307 869      8      48 557      136
Growth Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
Initial Bse:      17 159      64      285 201      195      307 869      8      48 557      136
Added Vol:      0      7      0          5      4      0          0      2      0          0      5      9
PasserByVol:      0      0      0          0      0      0          0      0      0          0      0      0
Initial Fut:      17 166      64      290 205      195      307 871      8      48 562      145
User Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Volume:      17 166      64      290 205      195      307 871      8      48 562      145
Reduct Vol:      0      0      0          0      0      0          0      0      0          0      0      0
Reduced Vol:      17 166      64      290 205      195      307 871      8      48 562      145
PCE Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
MLF Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
FinalVolume:      17 166      64      290 205      195      307 871      8      48 562      145
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1600 1600      1600      1600 1600      1600      1600 1600      1600      1600 1600      1600
Adjustment:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
Lanes:      1.00 1.00      1.00      1.00 0.51      0.49      1.00 2.00      1.00      1.00 2.00      1.00

```

```

Final Sat.: 1600 1600 1600 1600 820 780 1600 3200 1600 1600 3200 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.01 0.10 0.04 0.18 0.25 0.25 0.19 0.27 0.01 0.03 0.18 0.09
Crit Moves: **** **** **** ****
*****

```

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```

-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #18 Atlantic Blvd and Mission Road
*****
Cycle (sec): 100 Critical Vol./Cap.(X): 0.921
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 111 Level Of Service: E
*****
Street Name: Atlantic Blvd Mission Road
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 95 1061 137 42 951 101 131 965 133 182 563 60
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 95 1061 137 42 951 101 131 965 133 182 563 60
Added Vol: 0 0 0 0 0 0 0 15 0 0 28 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 95 1061 137 42 951 101 131 980 133 182 591 60
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 95 1061 137 42 951 101 131 980 133 182 591 60
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 95 1061 137 42 951 101 131 980 133 182 591 60
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 95 1061 137 42 951 101 131 980 133 182 591 60
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.77 0.23 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.82 0.18

```

```

Final Sat.: 1600 2834 366 1600 3200 1600 1600 3200 1600 1600 2905 295
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.06 0.37 0.37 0.03 0.30 0.06 0.08 0.31 0.08 0.11 0.20 0.20
Crit Moves: **** **** **** ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #19 Marengo Ave and Mission Road
*****
Cycle (sec): 100 Critical Vol./Cap.(X): 0.912
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 107 Level Of Service: E
*****
Street Name: Marengo Ave Mission Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 73 515 225 58 466 46 53 939 283 70 538 59
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 73 515 225 58 466 46 53 939 283 70 538 59
Added Vol: 16 0 0 0 0 6 3 15 9 0 28 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 89 515 225 58 466 52 56 954 292 70 566 59
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 89 515 225 58 466 52 56 954 292 70 566 59
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 89 515 225 58 466 52 56 954 292 70 566 59
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 89 515 225 58 466 52 56 954 292 70 566 59
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 0.90 0.10 1.00 1.53 0.47 1.00 1.81 0.19

```

```

Final Sat.: 1600 1600 1600 1600 1439 161 1600 2450 750 1600 2898 302
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.06 0.32 0.14 0.04 0.32 0.32 0.04 0.39 0.39 0.04 0.20 0.20
Crit Moves: ****          ****          ****          ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #20 Marengo Ave and Front St
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.777
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     62          Level Of Service:      C
*****
Street Name:      Marengo Ave          Front St
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Permitted          Permitted          Permitted          Permitted
Rights:            Include            Include            Include            Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             1  0  0  1  0        1  0  0  1  0        0  1  0  0  1        0  1  0  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:          3  634          4  23  682  188  150  50  8  2  19  16
Growth Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:        3  634          4  23  682  188  150  50  8  2  19  16
Added Vol:          0  16          0  0  9  0  0  0  0  0  0  0
PasserByVol:        0  0          0  0  0  0  0  0  0  0  0  0
Initial Fut:        3  650          4  23  691  188  150  50  8  2  19  16
User Adj:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:         3  650          4  23  691  188  150  50  8  2  19  16
Reduct Vol:         0  0          0  0  0  0  0  0  0  0  0  0
Reduced Vol:        3  650          4  23  691  188  150  50  8  2  19  16
PCE Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:        3  650          4  23  691  188  150  50  8  2  19  16
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:             1.00 0.99 0.01 1.00 0.79 0.21 0.75 0.25 1.00 0.10 0.90 1.00

```

```

Final Sat.: 1600 1590    10 1600 1258    342 1200 400 1600    152 1448 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.00 0.41 0.41 0.01 0.55 0.55 0.09 0.13 0.01 0.00 0.01 0.01
Crit Moves: ****          ****          ****          ****
*****

```

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #21 I-710 NB Ramp and Valley Blvd

```

Cycle (sec):      120          Critical Vol./Cap.(X):      0.670
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     48          Level Of Service:      B
*****

```

Street Name:	I-710 NB Ramp						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	2	0	0	3

```

Volume Module:
Base Vol:    584    0 1238    1    0    2    0 530    0    0 1118    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 584    0 1238    1    0    2    0 530    0    0 1118    0
Added Vol:   0    0    59    0    0    0    0    0    0    0    32    0
PasserByVol: 0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut: 584    0 1297    1    0    2    0 530    0    0 1150    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:  584    0 1297    1    0    2    0 530    0    0 1150    0
Reduct Vol:  0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol: 584    0 1297    1    0    2    0 530    0    0 1150    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 584    0 1297    1    0    2    0 530    0    0 1150    0
-----|-----|-----|-----|-----|

```

```

Saturation Flow Module:
Sat/Lane:    1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:       1.00 0.00 2.00 0.33 0.00 0.67 0.00 2.00 0.00 0.00 4.00 0.00

```

```

Final Sat.: 1600    0 3200    533    0 1067    0 3200    0    0 6400    0
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.37 0.00 0.41 0.00 0.00 0.00 0.00 0.17 0.00 0.00 0.18 0.00
Crit Moves:          ****      ****          ****          ****
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #22 I-710 SB Ramp and Valley Blvd
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.839
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     77          Level Of Service:      D
*****
Street Name:      I-710 SB Ramp          Valley Blvd
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Protected          Protected          Protected          Protected
Rights:            Include            Include            Include            Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             0  0  0  0  0        0  0  0  0  0        0  0  2  0  1        2  0  2  0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:          0    0    0          0    0    0          0  539  729        783  940    0
Growth Adj:        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
Initial Bse:        0    0    0          0    0    0          0  539  729        783  940    0
Added Vol:          0    0    0          0    0    0          0    0    0          32    0    0
PasserByVol:        0    0    0          0    0    0          0    0    0          0    0    0
Initial Fut:        0    0    0          0    0    0          0  539  729        815  940    0
User Adj:           1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
PHF Adj:            1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
PHF Volume:         0    0    0          0    0    0          0  539  729        815  940    0
Reduct Vol:         0    0    0          0    0    0          0    0    0          0    0    0
Reduced Vol:        0    0    0          0    0    0          0  539  729        815  940    0
PCE Adj:            1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
MLF Adj:            1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
FinalVolume:        0    0    0          0    0    0          0  539  729        815  940    0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600 1600        1600 1600 1600        1600 1600 1600        1600 1600 1600
Adjustment:         1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        0.90 1.00 1.00
Lanes:             0.00 0.00 0.00        0.00 0.00 0.00        0.00 2.00 1.00        2.00 2.00 0.00

```



```

Final Sat.:    0    0    0    0    0    0    0 3200 1600 2880 3200    0
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.17 0.46 0.28 0.29 0.00
Crit Moves:                                     ****  ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #23 Fremont Ave and Hellman Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.788
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     64          Level Of Service:      C
*****
Street Name:      Fremont Ave          Hellman Ave
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Protected          Protected          Protected          Protected
Rights:            Include            Include            Include            Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:              4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             1  0  1  1  0        1  0  1  1  0        1  0  1  0  1        1  0  1  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:          85  740  242  147  813  68  128  173  216  206  181  237
Growth Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:        85  740  242  147  813  68  128  173  216  206  181  237
Added Vol:          0   45   0   19   22   0   0   0   0   0   0   31
PasserByVol:        0   0   0   0   0   0   0   0   0   0   0   0
Initial Fut:        85  785  242  166  835  68  128  173  216  206  181  268
User Adj:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:         85  785  242  166  835  68  128  173  216  206  181  268
Reduct Vol:         0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol:        85  785  242  166  835  68  128  173  216  206  181  268
PCE Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:        85  785  242  166  835  68  128  173  216  206  181  268
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:             1.00 1.53 0.47 1.00 1.85 0.15 1.00 1.00 1.00 1.00 1.00 1.00

```

Final Sat.: 1600 2446 754 1600 2959 241 1600 1600 1600 1600 1600 1600
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.05 0.32 0.32 0.10 0.28 0.28 0.08 0.11 0.14 0.13 0.11 0.17
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.792
 Loss Time (sec): 0 Average Delay (sec/veh): 25.2
 Optimal Cycle: 0 Level Of Service: D

 Street Name: Elm St Hellman Ave/Ramona Rd/ 10 WB ramp
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 1 0 1 0 0 0 1 0 1 0 0 1
 -----|-----|-----|-----|
 Volume Module: PM Peak
 Base Vol: 467 172 98 10 5 40 29 299 223 120 105 2
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 467 172 98 10 5 40 29 299 223 120 105 2
 Added Vol: 31 0 0 0 0 0 0 0 0 19 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 498 172 98 10 5 40 29 299 242 120 105 2
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 498 172 98 10 5 40 29 299 242 120 105 2
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 498 172 98 10 5 40 29 299 242 120 105 2
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 498 172 98 10 5 40 29 299 242 120 105 2
 -----|-----|-----|-----|
 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.30 0.45 0.25 0.67 0.33 1.00 0.09 0.91 1.00 0.53 0.47 1.00
 Final Sat.: 1112 -267 124 265 133 450 43 444 540 234 205 489
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.45-0.64 0.79 0.04 0.04 0.09 0.67 0.67 0.45 0.51 0.51 0.00

Crit Moves:			****			****		****			****	
Delay/Veh:	32.4	32.2	32.2	11.5	11.5	10.9	23.3	23.3	14.3	18.4	18.4	9.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.4	32.2	32.2	11.5	11.5	10.9	23.3	23.3	14.3	18.4	18.4	9.8
LOS by Move:	D	D	D	B	B	B	C	C	B	C	C	A
ApproachDel:		32.4			11.0			19.5			18.4	
Delay Adj:		1.00			1.00			1.00			1.00	

ApprAdjDel: 32.4 11.0 19.5 18.4
 LOS by Appr: D B C C
 AllWayAvgQ: 3.0 3.0 3.0 0.0 0.0 0.1 1.8 1.8 0.8 0.9 0.9 0.0

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	1.217
Loss Time (sec):	0	Average Delay (sec/veh):	75.0
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Fremont Ave				Ramona Road/10 EB ramp															
Approach:	North Bound		South Bound		East Bound		West Bound													
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R					
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Rights:	Include				Include				Include				Include							
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Lanes:	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0

Volume Module:PM Peak

Base Vol:	0	731	116	0	0	0	4	91	289	47	0	78
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	731	116	0	0	0	4	91	289	47	0	78
Added Vol:	0	0	17	0	0	0	0	0	34	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	731	133	0	0	0	4	91	323	47	0	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	731	133	0	0	0	4	91	323	47	0	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	731	133	0	0	0	4	91	323	47	0	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	731	133	0	0	0	4	91	323	47	0	78

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	0.00	0.00	0.04	0.96	1.00	0.38	0.00	0.62
Final Sat.:	0	601	669	0	0	0	22	509	594	199	0	330

Capacity Analysis Module:

Vol/Sat:	xxxx	1.22	0.20	xxxx	xxxx	xxxx	0.18	0.18	0.54	0.24	xxxx	0.24
Crit Moves:	****						****			****		
Delay/Veh:	0.0	132	9.3	0.0	0.0	0.0	10.9	10.9	15.6	11.8	0.0	11.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	132	9.3	0.0	0.0	0.0	10.9	10.9	15.6	11.8	0.0	11.8
LOS by Move:	*	F	A	*	*	*	B	B	C	B	*	B
ApproachDel:	113.4			xxxxxx			14.5			11.8		
Delay Adj:	1.00			xxxxxx			1.00			1.00		

ApprAdjDel: 113.4 xxxxxx 14.5 11.8
 LOS by Appr: F * B B
 AllWayAvgQ: 0.0 20.6 0.2 0.0 0.0 0.0 0.2 0.2 1.1 0.3 0.3 0.3

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.515
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Fremont Ave				Ross Ave															
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R					
Control:	Permitted				Permitted				Protected				Protected							
Rights:	Include				Include				Include				Include							
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0					
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0					
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	0	1	0	1	0	1	0	1

Volume Module:

Base Vol:	30	849	168	26	988	41	11	32	6	54	40	41
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	849	168	26	988	41	11	32	6	54	40	41
Added Vol:	0	76	0	0	41	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	925	168	26	1029	41	11	32	6	54	40	41
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	30	925	168	26	1029	41	11	32	6	54	40	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	925	168	26	1029	41	11	32	6	54	40	41
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	30	925	168	26	1029	41	11	32	6	54	40	41

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	1.92	0.08	1.00	0.84	0.16	1.00	1.00	1.00

```

Final Sat.: 1600 2708 492 1600 3077 123 1600 1347 253 1600 1600 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.02 0.34 0.34 0.02 0.33 0.33 0.01 0.02 0.02 0.03 0.03 0.03
Crit Moves: **** **** **** ****
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #27 Westmont Dr and Valley Blvd
*****
Cycle (sec): 100 Critical Vol./Cap.(X): 0.655
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 45 Level Of Service: B
*****
Street Name: Westmont Dr Valley Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol: 16 10 11 24 9 14 56 1578 135 8 1040 33
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 16 10 11 24 9 14 56 1578 135 8 1040 33
Added Vol: 0 0 0 0 0 0 0 0 59 0 0 32 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 16 10 11 24 9 14 56 1637 135 8 1072 33
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 16 10 11 24 9 14 56 1637 135 8 1072 33
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 16 10 11 24 9 14 56 1637 135 8 1072 33
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 16 10 11 24 9 14 56 1637 135 8 1072 33
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.43 0.27 0.30 0.51 0.19 0.30 1.00 2.00 1.00 1.00 2.00 1.00

```

Final Sat.: 692 432 476 817 306 477 1600 3200 1600 1600 3200 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.01 0.02 0.02 0.02 0.03 0.03 0.04 0.51 0.08 0.01 0.34 0.02
Crit Moves: **** **** **** ****

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Intersection

Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗	↘		↗	↘		↗	↘		↗	↘
Traffic Vol, veh/h	15	32	13	2	7	2	5	75	2	5	195	30
Future Vol, veh/h	15	32	13	2	7	2	5	75	2	5	195	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	35	14	2	8	2	5	82	2	5	212	33
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.4	8.2	8.4	9.2
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	6%	0%	32%	0%	22%	0%	3%	0%
Vol Thru, %	94%	0%	68%	0%	78%	0%	97%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	80	2	47	13	9	2	200	30
LT Vol	5	0	15	0	2	0	5	0
Through Vol	75	0	32	0	7	0	195	0
RT Vol	0	2	0	13	0	2	0	30
Lane Flow Rate	87	2	51	14	10	2	217	33
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.12	0.003	0.078	0.018	0.015	0.003	0.291	0.037
Departure Headway (Hd)	4.972	4.238	5.521	4.657	5.537	4.72	4.826	4.112
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	723	846	650	770	648	759	748	873
Service Time	2.687	1.953	3.241	2.377	3.26	2.444	2.539	1.825
HCM Lane V/C Ratio	0.12	0.002	0.078	0.018	0.015	0.003	0.29	0.038
HCM Control Delay	8.4	7	8.7	7.5	8.3	7.5	9.5	7
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0	0.3	0.1	0	0	1.2	0.1

Intersection

Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	8	17	7	1	6	7	14	99	2	12	164	12
Future Vol, veh/h	8	17	7	1	6	7	14	99	2	12	164	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	18	8	1	7	8	15	108	2	13	178	13
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1









Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.3	7.8	8.6	9
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	12%	0%	32%	0%	14%	0%	7%	0%
Vol Thru, %	88%	0%	68%	0%	86%	0%	93%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	113	2	25	7	7	7	176	12
LT Vol	14	0	8	0	1	0	12	0
Through Vol	99	0	17	0	6	0	164	0
RT Vol	0	2	0	7	0	7	0	12
Lane Flow Rate	123	2	27	8	8	8	191	13
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.167	0.002	0.042	0.01	0.012	0.01	0.251	0.014
Departure Headway (Hd)	4.893	4.129	5.509	4.644	5.445	4.669	4.716	3.981
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	738	872	653	774	660	770	752	884
Service Time	2.593	1.829	3.218	2.353	3.155	2.379	2.507	1.772
HCM Lane V/C Ratio	0.167	0.002	0.041	0.01	0.012	0.01	0.254	0.015
HCM Control Delay	8.6	6.8	8.5	7.4	8.2	7.4	9.1	6.8
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.6	0	0.1	0	0	0	1	0

Intersection

Intersection Delay, s/veh 71.1

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	163	367	398	61	13	364	55	21	78	14	200
Future Vol, veh/h	51	163	367	398	61	13	364	55	21	78	14	200
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	55	177	399	433	66	14	396	60	23	85	15	217
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	40.5	180.3	27.9	20.6
HCM LOS	E	F	D	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	66%	24%	0%	87%	0%	85%	0%
Vol Thru, %	0%	25%	76%	0%	13%	0%	15%	0%
Vol Right, %	0%	9%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	218	222	214	367	459	13	92	200
LT Vol	218	146	51	0	398	0	78	0
Through Vol	0	55	163	0	61	0	14	0
RT Vol	0	21	0	367	0	13	0	200
Lane Flow Rate	237	241	233	399	499	14	100	217
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.622	0.615	0.57	0.887	1.312	0.033	0.272	0.524
Departure Headway (Hd)	10.227	9.976	9.528	8.667	9.467	8.286	10.632	9.444
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	356	364	381	423	384	432	340	385
Service Time	7.927	7.676	7.228	6.367	7.214	6.032	8.332	7.144
HCM Lane V/C Ratio	0.666	0.662	0.612	0.943	1.299	0.032	0.294	0.564
HCM Control Delay	28.4	27.4	24.1	50	185.1	11.3	17.3	22.1
HCM Lane LOS	D	D	C	E	F	B	C	C
HCM 95th-tile Q	4	3.9	3.4	9.2	22.9	0.1	1.1	2.9

Intersection

Intersection Delay, s/veh 106.2

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱↲			↱	↱			
Traffic Vol, veh/h	2	24	590	114	0	15	0	625	84	0	0	0
Future Vol, veh/h	2	24	590	114	0	15	0	625	84	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	26	641	124	0	16	0	679	91	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	86.8	15.2	139.7
HCM LOS	F	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	8%	0%	88%
Vol Thru, %	100%	0%	92%	0%	0%
Vol Right, %	0%	100%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	625	84	26	590	129
LT Vol	0	0	2	0	114
Through Vol	625	0	24	0	0
RT Vol	0	84	0	590	15
Lane Flow Rate	679	91	28	641	140
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.267	0.155	0.054	1.088	0.298
Departure Headway (Hd)	7.041	6.328	7.53	6.773	8.582
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	523	571	478	539	422
Service Time	4.741	4.028	5.23	4.473	6.582
HCM Lane V/C Ratio	1.298	0.159	0.059	1.189	0.332
HCM Control Delay	157.1	10.2	10.7	90.2	15.2
HCM Lane LOS	F	B	B	F	C
HCM 95th-tile Q	26.3	0.5	0.2	17.9	1.2

Intersection

Int Delay, s/veh 4.3










Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	23	54	51	7	27	3	54	111	5	6	171	67
Future Vol, veh/h	23	54	51	7	27	3	54	111	5	6	171	67
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	59	55	8	29	3	59	121	5	7	186	73

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	452	437	186	466	437	121	186	0	0	121	0	0
Stage 1	199	199	-	238	238	-	-	-	-	-	-	-
Stage 2	253	238	-	228	199	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	518	513	856	507	513	930	1388	-	-	1467	-	-
Stage 1	803	736	-	765	708	-	-	-	-	-	-	-
Stage 2	751	708	-	775	736	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	475	489	856	415	489	930	1388	-	-	1467	-	-
Mov Cap-2 Maneuver	475	489	-	415	489	-	-	-	-	-	-	-
Stage 1	769	732	-	732	678	-	-	-	-	-	-	-
Stage 2	686	678	-	664	732	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.2		12.9		2.4		0.2	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1388	-	-	485	856	472	930	1467	-	-
HCM Lane V/C Ratio	0.042	-	-	0.173	0.065	0.078	0.004	0.004	-	-
HCM Control Delay (s)	7.7	-	-	14	9.5	13.3	8.9	7.5	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.2	0.3	0	0	-	-

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	95	468	1215	163	64	153
Future Vol, veh/h	95	468	1215	163	64	153
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	103	509	1321	177	70	166
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	1498	0	-	0	1870	749
Stage 1	-	-	-	-	1409	-
Stage 2	-	-	-	-	461	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	444	-	-	-	~ 64	354
Stage 1	-	-	-	-	192	-
Stage 2	-	-	-	-	601	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	444	-	-	-	~ 43	354
Mov Cap-2 Maneuver	-	-	-	-	136	-
Stage 1	-	-	-	-	192	-
Stage 2	-	-	-	-	407	-
Approach	EB	WB		SB		
HCM Control Delay, s	2.6	0		33.5		
HCM LOS				D		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	444	-	-	-	136	354
HCM Lane V/C Ratio	0.233	-	-	-	0.512	0.47
HCM Control Delay (s)	15.5	-	-	-	56.4	23.9
HCM Lane LOS	C	-	-	-	F	C
HCM 95th %tile Q(veh)	0.9	-	-	-	2.4	2.4
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	16	76	4	5	2	86	157	16	12	146	55
Future Vol, veh/h	14	16	76	4	5	2	86	157	16	12	146	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	17	83	4	5	2	93	171	17	13	159	60
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	545	543	159	593	543	171	159	0	0	171	0	0
Stage 1	185	185	-	358	358	-	-	-	-	-	-	-
Stage 2	360	358	-	235	185	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	449	447	886	417	447	873	1420	-	-	1406	-	-
Stage 1	817	747	-	660	628	-	-	-	-	-	-	-
Stage 2	658	628	-	768	747	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	418	414	886	345	414	873	1420	-	-	1406	-	-
Mov Cap-2 Maneuver	418	414	-	345	414	-	-	-	-	-	-	-
Stage 1	763	740	-	617	587	-	-	-	-	-	-	-
Stage 2	608	587	-	674	740	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	11.5		13.7		2.6		0.4					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1420	-	-	671 380 873	1406	-	-					
HCM Lane V/C Ratio	0.066	-	-	0.172 0.026 0.002	0.009	-	-					
HCM Control Delay (s)	7.7	-	-	11.5 14.7 9.1	7.6	-	-					
HCM Lane LOS	A	-	-	B B A	A	-	-					
HCM 95th %tile Q(veh)	0.2	-	-	0.6 0.1 0	0	-	-					

Intersection

Intersection Delay, s/veh	11.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	62	71	71	2	17	7	5	178	2	10	282	20
Future Vol, veh/h	62	71	71	2	17	7	5	178	2	10	282	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	77	77	2	18	8	5	193	2	11	307	22
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10.3	9.2	11	13.1
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	47%	0%	11%	0%	3%	0%
Vol Thru, %	97%	0%	53%	0%	89%	0%	97%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	183	2	133	71	19	7	292	20
LT Vol	5	0	62	0	2	0	10	0
Through Vol	178	0	71	0	17	0	282	0
RT Vol	0	2	0	71	0	7	0	20
Lane Flow Rate	199	2	145	77	21	8	317	22
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.315	0.003	0.253	0.115	0.037	0.012	0.491	0.029
Departure Headway (Hd)	5.704	4.983	6.293	5.349	6.457	5.693	5.567	4.844
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	631	719	571	671	555	628	651	743
Service Time	3.428	2.707	4.021	3.077	4.195	3.431	3.267	2.544
HCM Lane V/C Ratio	0.315	0.003	0.254	0.115	0.038	0.013	0.487	0.03
HCM Control Delay	11	7.7	11.1	8.8	9.4	8.5	13.5	7.7
HCM Lane LOS	B	A	B	A	A	A	B	A
HCM 95th-tile Q	1.3	0	1	0.4	0.1	0	2.7	0.1

Intersection

Intersection Delay, s/veh	11.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	11	15	79	6	15	7	5	150	9	14	346	14
Future Vol, veh/h	11	15	79	6	15	7	5	150	9	14	346	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	16	86	7	16	8	5	163	10	15	376	15
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9	9.1	9.7	13.8
HCM LOS	A	A	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	42%	0%	29%	0%	4%	0%
Vol Thru, %	97%	0%	58%	0%	71%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	155	9	26	79	21	7	360	14
LT Vol	5	0	11	0	6	0	14	0
Through Vol	150	0	15	0	15	0	346	0
RT Vol	0	9	0	79	0	7	0	14
Lane Flow Rate	168	10	28	86	23	8	391	15
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.249	0.012	0.049	0.127	0.04	0.012	0.555	0.019
Departure Headway (Hd)	5.311	4.59	6.237	5.316	6.295	5.442	5.108	4.385
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	672	774	571	670	564	651	704	811
Service Time	3.076	2.355	4.009	3.087	4.081	3.227	2.861	2.138
HCM Lane V/C Ratio	0.25	0.013	0.049	0.128	0.041	0.012	0.555	0.018
HCM Control Delay	9.8	7.4	9.3	8.9	9.3	8.3	14.1	7.2
HCM Lane LOS	A	A	A	A	A	A	B	A
HCM 95th-tile Q	1	0	0.2	0.4	0.1	0	3.4	0.1

Intersection

Intersection Delay, s/veh 35.1

Intersection LOS E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱			↱	↱
Traffic Vol, veh/h	29	299	242	120	105	2	498	172	98	10	5	40
Future Vol, veh/h	29	299	242	120	105	2	498	172	98	10	5	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	325	263	130	114	2	541	187	107	11	5	43
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	25.9	23	47.1	12.2
HCM LOS	D	C	E	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	29%	9%	0%	53%	0%	67%	0%
Vol Thru, %	0%	45%	91%	0%	47%	0%	33%	0%
Vol Right, %	0%	26%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	388	380	328	242	225	2	15	40
LT Vol	388	110	29	0	120	0	10	0
Through Vol	0	172	299	0	105	0	5	0
RT Vol	0	98	0	242	0	2	0	40
Lane Flow Rate	422	413	357	263	245	2	16	43
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.931	0.847	0.772	0.514	0.588	0.005	0.043	0.101
Departure Headway (Hd)	7.937	7.387	7.791	7.028	8.657	7.659	9.409	8.332
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	456	491	467	513	418	467	381	430
Service Time	5.671	5.121	5.522	4.758	6.4	5.402	7.161	6.083
HCM Lane V/C Ratio	0.925	0.841	0.764	0.513	0.586	0.004	0.042	0.1
HCM Control Delay	55	39	32.4	17	23.1	10.4	12.6	12
HCM Lane LOS	F	E	D	C	C	B	B	B
HCM 95th-tile Q	10.8	8.6	6.7	2.9	3.7	0	0.1	0.3

Intersection

Intersection Delay, s/veh 114.2

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↔			↱	↱			
Traffic Vol, veh/h	4	91	323	47	0	78	0	731	133	0	0	0
Future Vol, veh/h	4	91	323	47	0	78	0	731	133	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	99	351	51	0	85	0	795	145	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	17.9	13.5	175.4
HCM LOS	C	B	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	4%	0%	38%
Vol Thru, %	100%	0%	96%	0%	0%
Vol Right, %	0%	100%	0%	100%	62%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	731	133	95	323	125
LT Vol	0	0	4	0	47
Through Vol	731	0	91	0	0
RT Vol	0	133	0	323	78
Lane Flow Rate	795	145	103	351	136
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.392	0.225	0.196	0.597	0.259
Departure Headway (Hd)	6.309	5.6	7.703	6.964	7.767
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	580	645	469	523	466
Service Time	4.009	3.3	5.403	4.664	5.767
HCM Lane V/C Ratio	1.371	0.225	0.22	0.671	0.292
HCM Control Delay	205.5	9.9	12.3	19.5	13.5
HCM Lane LOS	F	A	B	C	B
HCM 95th-tile Q	36.2	0.9	0.7	3.9	1

Intersection												
Int Delay, s/veh	11.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	69	164	163	1	39	6	40	181	3	25	286	45
Future Vol, veh/h	69	164	163	1	39	6	40	181	3	25	286	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	75	178	177	1	42	7	43	197	3	27	311	49
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	670	649	311	738	649	197	311	0	0	197	0	0
Stage 1	365	365	-	284	284	-	-	-	-	-	-	-
Stage 2	305	284	-	454	365	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	371	389	729	334	389	844	1249	-	-	1376	-	-
Stage 1	654	623	-	723	676	-	-	-	-	-	-	-
Stage 2	705	676	-	586	623	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	322	368	729	151	368	844	1249	-	-	1376	-	-
Mov Cap-2 Maneuver	322	368	-	151	368	-	-	-	-	-	-	-
Stage 1	631	611	-	698	653	-	-	-	-	-	-	-
Stage 2	632	653	-	308	611	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	26.7		15.6		1.4		0.5					
HCM LOS	D		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1249	-	-	353	729	355	844	1376	-	-		
HCM Lane V/C Ratio	0.035	-	-	0.717	0.243	0.122	0.008	0.02	-	-		
HCM Control Delay (s)	8	-	-	37.3	11.5	16.6	9.3	7.7	-	-		
HCM Lane LOS	A	-	-	E	B	C	A	A	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	5.3	1	0.4	0	0.1	-	-		

Intersection

Int Delay, s/veh 23

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	149	750	593	147	216	196
Future Vol, veh/h	149	750	593	147	216	196
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	162	815	645	160	235	213

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	804	0	0 1456 402
Stage 1	-	-	- 724 -
Stage 2	-	-	- 732 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	816	-	- ~ 121 598
Stage 1	-	-	- 441 -
Stage 2	-	-	- 437 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	816	-	- ~ 77 598
Mov Cap-2 Maneuver	-	-	- ~ 188 -
Stage 1	-	-	- 441 -
Stage 2	-	-	- 278 -

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	110.6
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	816	-	-	-	188	598
HCM Lane V/C Ratio	0.198	-	-	-	1.249	0.356
HCM Control Delay (s)	10.5	-	-	-	198	14.3
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.7	-	-	-	12.8	1.6

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	7	8	38	17	15	17	83	191	16	38	388	22
Future Vol, veh/h	7	8	38	17	15	17	83	191	16	38	388	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	9	41	18	16	18	90	208	17	41	422	24

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	900	892	422	917	892	208	422	0	0	208	0	0
Stage 1	504	504	-	388	388	-	-	-	-	-	-	-
Stage 2	396	388	-	529	504	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	259	281	632	253	281	832	1137	-	-	1363	-	-
Stage 1	550	541	-	636	609	-	-	-	-	-	-	-
Stage 2	629	609	-	533	541	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	221	251	632	211	251	832	1137	-	-	1363	-	-
Mov Cap-2 Maneuver	221	251	-	211	251	-	-	-	-	-	-	-
Stage 1	506	525	-	586	561	-	-	-	-	-	-	-
Stage 2	550	561	-	475	525	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	14.7		18.7		2.4		0.7	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1137	-	-	429 228 832	1363	-	-
HCM Lane V/C Ratio	0.079	-	-	0.134 0.153 0.022	0.03	-	-
HCM Control Delay (s)	8.4	-	-	14.7 23.6 9.4	7.7	-	-
HCM Lane LOS	A	-	-	B C A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.5 0.5 0.1	0.1	-	-

Appendix E – Intersection Analysis Worksheets – Ambient (2028) Conditions

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Crit Moves:          ****          ****          ****          ****
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Scenario Report	
Scenario:	2028 Ambient Growth AM
Command:	2028 Ambient Growth AM
Volume:	2028 AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	None

Trip Distribution: None
 Paths: Default Path
 Routes: Default Route
 Configuration: Default Configuration

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 Turning Movement Report
 None

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 Fremont Ave and Mission Rd													
Base	247	1505	225	13	1454	49	69	374	530	397	871	48	5783
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	247	1505	225	13	1454	49	69	374	530	397	871	48	5783

#2 Fremont Ave and 1000 Fremont Ave

Base	54	1446	131	4	1440	40	26	6	60	4	1	7	3219
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	54	1446	131	4	1440	40	26	6	60	4	1	7	3219

#3 Fremont Ave and Orange St

Base	2	1254	248	156	1473	2	1	1	0	60	0	59	3257
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	1254	248	156	1473	2	1	1	0	60	0	59	3257

#4 Date Ave and Orange St

Base	54	99	6	7	186	74	20	36	47	8	27	3	566
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	54	99	6	7	186	74	20	36	47	8	27	3	566

#5 Palm Ave and Orange St

Base	6	66	2	6	214	32	8	20	15	2	6	2	378
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6	66	2	6	214	32	8	20	15	2	6	2	378

#6 Chestnut St and Palm Ave

Base	16	100	2	13	182	12	1	1	8	1	3	8	348
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	16	100	2	13	182	12	1	1	8	1	3	8	348

#7 Fremont Ave and Poplar Blvd

Base	100	1156	56	19	1564	17	21	116	73	59	118	20	3319
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	100	1156	56	19	1564	17	21	116	73	59	118	20	3319

#8 Date Ave and Mission Rd

Base	0	0	0	25	0	87	91	482	0	0	1349	175	2209
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	25	0	87	91	482	0	0	1349	175	2209

#9 Chestnut St and Date Ave

Base	85	161	9	13	151	59	0	0	0	2	3	2	485
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	85	161	9	13	151	59	0	0	0	2	3	2	485

#10 Fremont Ave and Concord Ave

Base	62	1214	41	4	1540	66	45	13	76	25	16	11	3113
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Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	62	1214	41	4	1540	66	45	13	76	25	16	11	3113

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#11 Fremont Ave and Montezuma Ave

Base	762	288	45	4	89	667	452	58	683	56	104	11	3219
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	762	288	45	4	89	667	452	58	683	56	104	11	3219

#12 Palm Ave and Commonwealth Ave

Base	20	36	4	44	240	281	67	237	31	15	289	42	1305
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	20	36	4	44	240	281	67	237	31	15	289	42	1305

#13 Date Ave and Commonwealth Ave

Base	27	45	18	52	74	79	76	267	105	132	364	75	1312
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	27	45	18	52	74	79	76	267	105	132	364	75	1312

#14 Fremont Ave and Commonwealth Ave

Base	44	1125	103	191	1456	69	30	150	18	120	173	119	3597
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	44	1125	103	191	1456	69	30	150	18	120	173	119	3597

#15 Fremont Ave and Valley Blvd

Base	46	1021	29	83	898	1420	588	451	31	62	809	206	5644
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	46	1021	29	83	898	1420	588	451	31	62	809	206	5644

#16 Palm Ave and Mission Rd

Base	0	0	0	57	0	138	37	471	0	0	1433	94	2229
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	57	0	138	37	471	0	0	1433	94	2229

#17 Marengo Ave and Valley Blvd

Base	25	131	80	249	182	153	185	467	26	69	1067	210	2843
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	25	131	80	249	182	153	185	467	26	69	1067	210	2843

#18 Atlantic Blvd and Mission Road

Base	172	1185	128	45	1052	274	98	576	75	195	1067	37	4904
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	172	1185	128	45	1052	274	98	576	75	195	1067	37	4904

#19 Marengo Ave and Mission Road

Base	95	426	175	48	562	74	49	392	95	303	1306	83	3608
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	95	426	175	48	562	74	49	392	95	303	1306	83	3608

#20 Marengo Ave and Front St

Base	2	567	3	11	550	399	90	12	8	2	84	38	1767
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Added	0	0	0	0	0	0	0	0	0	0	0	0	
Total	2	567	3	11	550	399	90	12	8	2	84	38	1767

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Volume	Northbound		Southbound		Eastbound		Westbound		Total
Type	Left	Thru Right	Left	Thru Right	Left	Thru Right	Left	Thru Right	Volume

#21 I-710 NB Ramp and Valley Blvd													
Base	673	1	764	4	0	1	0	231	0	0	2428	7	4109
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	673	1	764	4	0	1	0	231	0	0	2428	7	4109

#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	239	725	1777	1339	0	4080
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	239	725	1777	1339	0	4080

#23 Fremont Ave and Hellman Ave													
Base	158	1042	349	142	788	123	120	124	171	187	254	237	3695
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	158	1042	349	142	788	123	120	124	171	187	254	237	3695

#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps														
Base	399	61	23	87	16	223	57	182	365	444	68	15	1940	
Added	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	399	61	23	87	16	223	57	182	365	444	68	15	1940	

#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	697	54	0	0	0	2	27	652	127	0	17	1575
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	697	54	0	0	0	2	27	652	127	0	17	1575

#26 Ross Ave and Fremont Ave													
Base	29	1124	237	47	967	38	29	55	6	193	197	19	2940
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	29	1124	237	47	967	38	29	55	6	193	197	19	2940

#27 Westmont Dr and Valley Blvd													
Base	57	16	8	4	7	41	19	1078	16	3	2272	33	3554
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	57	16	8	4	7	41	19	1078	16	3	2272	33	3554

[illegible]

Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0

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Intersection Volume Report
 Base Volume Alternative

Node	Intersection	Northbound			Southbound			Eastbound			Westbound		
		L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1	Fremont Ave a	247	1505	225	13	1454	49	69	374	530	397	871	48
2	Fremont Ave a	54	1446	131	4	1440	40	26	6	60	4	1	7
3	Fremont Ave a	2	1254	248	156	1473	2	1	1	0	60	0	59
4	Date Ave and	54	99	6	7	186	74	20	36	47	8	27	3
5	Palm Ave and	6	66	2	6	214	32	8	20	15	2	6	2
6	Chestnut St a	16	100	2	13	182	12	1	1	8	1	3	8
7	Fremont Ave a	100	1156	56	19	1564	17	21	116	73	59	118	20
8	Date Ave and	0	0	0	25	0	87	91	482	0	0	1349	175
9	Chestnut St a	85	161	9	13	151	59	0	0	0	2	3	2
10	Fremont Ave a	62	1214	41	4	1540	66	45	13	76	25	16	11
11	Fremont Ave a	762	288	45	4	89	667	452	58	683	56	104	11
12	Palm Ave and	20	36	4	44	240	281	67	237	31	15	289	42
13	Date Ave and	27	45	18	52	74	79	76	267	105	132	364	75
14	Fremont Ave a	44	1125	103	191	1456	69	30	150	18	120	173	119
15	Fremont Ave a	46	1021	29	83	898	1420	588	451	31	62	809	206
16	Palm Ave and	0	0	0	57	0	138	37	471	0	0	1433	94
17	Marengo Ave a	25	131	80	249	182	153	185	467	26	69	1067	210
18	Atlantic Blvd	172	1185	128	45	1052	274	98	576	75	195	1067	37
19	Marengo Ave a	95	426	175	48	562	74	49	392	95	303	1306	83
20	Marengo Ave a	2	567	3	11	550	399	90	12	8	2	84	38
21	I-710 NB Ramp	673	1	764	4	0	1	0	231	0	0	2428	7
22	I-710 SB Ramp	0	0	0	0	0	0	0	239	725	1777	1339	0
23	Fremont Ave a	158	1042	349	142	788	123	120	124	171	187	254	237
24	Elm St and He	399	61	23	87	16	223	57	182	365	444	68	15
25	Fremont Ave a	0	697	54	0	0	0	2	27	652	127	0	17

26 Ross Ave and	29	1124	237	47	967	38	29	55	6	193	197	19
27 Westmont Dr a	57	16	8	4	7	41	19	1078	16	3	2272	33

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Intersection Volume Report
 Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	247	1505	225	13	1454	49	69	374	530	397	871	48
2 Fremont Ave a	54	1446	131	4	1440	40	26	6	60	4	1	7
3 Fremont Ave a	2	1254	248	156	1473	2	1	1	0	60	0	59
4 Date Ave and	54	99	6	7	186	74	20	36	47	8	27	3
5 Palm Ave and	6	66	2	6	214	32	8	20	15	2	6	2
6 Chestnut St a	16	100	2	13	182	12	1	1	8	1	3	8
7 Fremont Ave a	100	1156	56	19	1564	17	21	116	73	59	118	20
8 Date Ave and	0	0	0	25	0	87	91	482	0	0	1349	175
9 Chestnut St a	85	161	9	13	151	59	0	0	0	2	3	2
10 Fremont Ave a	62	1214	41	4	1540	66	45	13	76	25	16	11
11 Fremont Ave a	762	288	45	4	89	667	452	58	683	56	104	11
12 Palm Ave and	20	36	4	44	240	281	67	237	31	15	289	42
13 Date Ave and	27	45	18	52	74	79	76	267	105	132	364	75
14 Fremont Ave a	44	1125	103	191	1456	69	30	150	18	120	173	119
15 Fremont Ave a	46	1021	29	83	898	1420	588	451	31	62	809	206
16 Palm Ave and	0	0	0	57	0	138	37	471	0	0	1433	94
17 Marengo Ave a	25	131	80	249	182	153	185	467	26	69	1067	210
18 Atlantic Blvd	172	1185	128	45	1052	274	98	576	75	195	1067	37
19 Marengo Ave a	95	426	175	48	562	74	49	392	95	303	1306	83
20 Marengo Ave a	2	567	3	11	550	399	90	12	8	2	84	38
21 I-710 NB Ramp	673	1	764	4	0	1	0	231	0	0	2428	7
22 I-710 SB Ramp	0	0	0	0	0	0	0	239	725	1777	1339	0
23 Fremont Ave a	158	1042	349	142	788	123	120	124	171	187	254	237
24 Elm St and He	399	61	23	87	16	223	57	182	365	444	68	15
25 Fremont Ave a	0	697	54	0	0	0	2	27	652	127	0	17

26 Ross Ave and	29	1124	237	47	967	38	29	55	6	193	197	19
27 Westmont Dr a	57	16	8	4	7	41	19	1078	16	3	2272	33

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Impact Analysis Report
 Level Of Service

Intersection	Base LOS Veh C	Del/ V/ C	Future LOS Veh C	Del/ V/ C	Change in
# 1 Fremont Ave and Mission Rd	F xxxxxx	1.288	F xxxxxx	1.288	+ 0.000 V/C
# 2 Fremont Ave and 1000 Fremont A	B xxxxxx	0.628	B xxxxxx	0.628	+ 0.000 V/C
# 3 Fremont Ave and Orange St	B xxxxxx	0.628	B xxxxxx	0.628	+ 0.000 V/C
# 4 Date Ave and Orange St	B 11.6	0.058	B 11.6	0.058	+ 0.000 D/V
# 5 Palm Ave and Orange St	A 8.7	0.289	A 8.7	0.289	+ 0.000 V/C
# 6 Chestnut St and Palm Ave	A 8.6	0.254	A 8.6	0.254	+ 0.000 V/C
# 7 Fremont Ave and Poplar Blvd	C xxxxxx	0.766	C xxxxxx	0.766	+ 0.000 V/C
# 8 Date Ave and Mission Rd	C 20.5	0.247	C 20.5	0.247	+ 0.000 D/V
# 9 Chestnut St and Date Ave	B 10.9	0.062	B 10.9	0.062	+ 0.000 D/V
# 10 Fremont Ave and Concord Ave	C xxxxxx	0.704	C xxxxxx	0.704	+ 0.000 V/C
# 11 Fremont Ave and Montezuma Ave	B xxxxxx	0.657	B xxxxxx	0.657	+ 0.000 V/C
# 12 Palm Ave and Commonwealth Ave	A xxxxxx	0.420	A xxxxxx	0.420	+ 0.000 V/C
# 13 Date Ave and Commonwealth Ave	A xxxxxx	0.411	A xxxxxx	0.411	+ 0.000 V/C
# 14 Fremont Ave and Commonwealth A	C xxxxxx	0.784	C xxxxxx	0.784	+ 0.000 V/C

# 15 Fremont Ave and Valley Blvd	F xxxxx	1.029	F xxxxx	1.029	+ 0.000 V/C
# 16 Palm Ave and Mission Rd	B xxxxx	0.686	B xxxxx	0.686	+ 0.000 V/C
# 17 Marengo Ave and Valley Blvd	C xxxxx	0.786	C xxxxx	0.786	+ 0.000 V/C
# 18 Atlantic Blvd and Mission Road	E xxxxx	0.942	E xxxxx	0.942	+ 0.000 V/C
# 19 Marengo Ave and Mission Road	F xxxxx	1.021	F xxxxx	1.021	+ 0.000 V/C
# 20 Marengo Ave and Front St	D xxxxx	0.805	D xxxxx	0.805	+ 0.000 V/C
# 21 I-710 NB Ramp and Valley Blvd	C xxxxx	0.767	C xxxxx	0.767	+ 0.000 V/C
# 22 I-710 SB Ramp and Valley Blvd	F xxxxx	1.170	F xxxxx	1.170	+ 0.000 V/C

# 23 Fremont Ave and Hellman Ave	D	xxxxx	0.858	D	xxxxx	0.858	+ 0.000 V/C
# 24 Elm St and Hellman Ave/Ramona	F	61.0	1.262	F	61.0	1.262	+ 0.000 V/C
# 25 Fremont Ave and Ramona Road/10	F	110.2	1.287	F	110.2	1.287	+ 0.000 V/C

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Intersection	Base		Future		Change in		
	Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C			
# 26 Ross Ave and Fremont Ave	C	xxxxx	0.713	C	xxxxx	0.713	+ 0.000 V/C


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# 27 Westmont Dr and Valley Blvd      D xxxxx 0.890      D xxxxx 0.890      + 0.000 V/C
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Fremont Ave and Mission Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.288
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name:	Fremont Ave						Mission Rd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	1	0	1	0	2	0	1	1	0	1	1	0

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Volume Module:

Base Vol:	221	1349	202	12	1303	44	62	335	475	356	781	43
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	247	1505	225	13	1454	49	69	374	530	397	871	48
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	247	1505	225	13	1454	49	69	374	530	397	871	48
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	247	1505	225	13	1454	49	69	374	530	397	871	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	247	1505	225	13	1454	49	69	374	530	397	871	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	247	1505	225	13	1454	49	69	374	530	397	871	48

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.74	0.26	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.90	0.10
Final Sat.:	1600	2783	417	1600	3200	1600	1600	3200	1600	1600	3033	167

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Capacity Analysis Module:

Vol/Sat:	0.15	0.54	0.54	0.01	0.45	0.03	0.04	0.12	0.33	0.25	0.29	0.29
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ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.628
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Street Name:	Fremont Ave						1000 Fremont Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	0	1	0

Volume Module:												
Base Vol:	48	1296	117	4	1291	36	23	5	54	4	1	6
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	54	1446	131	4	1440	40	26	6	60	4	1	7
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	1446	131	4	1440	40	26	6	60	4	1	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	1446	131	4	1440	40	26	6	60	4	1	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	1446	131	4	1440	40	26	6	60	4	1	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	1446	131	4	1440	40	26	6	60	4	1	7

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.08	0.92	1.00	0.14	0.86
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	136	1464	1600	229	1371

Capacity Analysis Module:												
Vol/Sat:	0.03	0.45	0.08	0.00	0.45	0.03	0.02	0.04	0.04	0.00	0.00	0.00

Level Of Service Computation Report															
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)															

Intersection #3 Fremont Ave and Orange St															

Cycle (sec):	100			Critical Vol./Cap.(X):			0.628								
Loss Time (sec):	10			Average Delay (sec/veh):			xxxxxx								
Optimal Cycle:	42			Level Of Service:			B								

Street Name:	Fremont Ave						Orange St								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
----- ----- ----- -----															
Control:	Protected			Protected			Split Phase			Split Phase					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	2	0	1	1	0	1	0	0	1	1	0	0	
----- ----- ----- -----															
Volume Module:															
Base Vol:	2	1124	222	140	1320	2	1	1	0	54	0	53			
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12			
Initial Bse:	2	1254	248	156	1473	2	1	1	0	60	0	59			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	2	1254	248	156	1473	2	1	1	0	60	0	59			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	2	1254	248	156	1473	2	1	1	0	60	0	59			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	2	1254	248	156	1473	2	1	1	0	60	0	59			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	2	1254	248	156	1473	2	1	1	0	60	0	59			
----- ----- ----- -----															
Saturation Flow Module:															
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600			
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.50	0.50	1.00	1.01	xxxx	0.99			
Final Sat.:	1600	3200	1600	1600	3195	5	800	800	1600	1615	0	1585			
----- ----- ----- -----															
Capacity Analysis Module:															
Vol/Sat:	0.00	0.39	0.15	0.10	0.46	0.46	0.00	0.00	0.00	0.04	0.00	0.04			

Crit Moves: **** **** **** ****

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                        Level Of Service Computation Report
                2000 HCM Unsignalized Method (Future Volume Alternative)
  *****
Intersection #4 Date Ave and Orange St
  *****
Average Delay (sec/veh):               3.5               Worst Case Level Of Service: B[ 11.6]
  *****
Street Name:                               Date Ave                               Orange St
Approach:               North Bound               South Bound               East Bound               West Bound
Movement:               L - T - R               L - T - R               L - T - R               L - T - R
-----|-----|-----|-----|-----|
Control:               Uncontrolled               Uncontrolled               Stop Sign               Stop Sign
Rights:                Include                Include                Include                Include
Lanes:                1 0 1 0 1               1 0 1 0 1               0 1 0 0 1               0 1 0 0 1
-----|-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol:            48 89 5            6 167 66           18 32 42           7 24 3
Growth Adj:          1.12 1.12 1.12   1.12 1.12 1.12   1.12 1.12 1.12   1.12 1.12 1.12
Initial Bse:          54 99 6           7 186 74           20 36 47           8 27 3
Added Vol:            0 0 0            0 0 0            0 0 0            0 0 0
PasserByVol:          0 0 0            0 0 0            0 0 0            0 0 0
Initial Fut:          54 99 6           7 186 74           20 36 47           8 27 3
User Adj:            1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:             1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:          54 99 6           7 186 74           20 36 47           8 27 3
Reduct Vol:            0 0 0            0 0 0            0 0 0            0 0 0
FinalVolume:          54 99 6           7 186 74           20 36 47           8 27 3
-----|-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:          4.1 xxxx xxxxx   4.1 xxxx xxxxx   7.1 6.5 6.2   7.1 6.5 6.2
FollowUpTim:          2.2 xxxx xxxxxx   2.2 xxxx xxxxxx   3.5 4.0 3.3   3.5 4.0 3.3
-----|-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:          260 xxxx xxxxxx   105 xxxx xxxxxx   424 412 186   484 480 99
Potent Cap.:         1316 xxxx xxxxxx   1499 xxxx xxxxxx   544 533 861   496 488 962
Move Cap.:           1316 xxxx xxxxxx   1499 xxxx xxxxxx   501 509 861   429 466 962
Total Cap:           xxxx xxxx xxxxxx   xxxx xxxx xxxxxx   632 612 xxxxx   548 564 xxxxxx
Volume/Cap:          0.04 xxxx xxxxx   0.00 xxxx xxxxx   0.03 0.06 0.05   0.01 0.05 0.00
-----|-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:           0.1 xxxx xxxxxx   0.0 xxxx xxxxxx   xxxx xxxx   0.2 xxxx xxxx   0.0
Control Del:          7.9 xxxx xxxxxx   7.4 xxxx xxxxxx   xxxxxx xxxx   9.4 xxxxxx xxxx   8.8
LOS by Move:          A * *           A * *           * *           A * *           A
Movement:            LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.:          xxxx xxxx xxxxxx   xxxx xxxx xxxxxx   619 xxxx xxxxxx   561 xxxx xxxxxx
  
```

SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	0.2	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.4	xxxx	xxxxx	11.8	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	B	*	*	B	*	*
ApproachDel:	xxxxxx			xxxxxx			10.5			11.6		
ApproachLOS:	*			*			B			B		

 Note: Queue reported is the number of cars per lane.

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                        Level Of Service Computation Report
                2000 HCM 4-Way Stop Method (Future Volume Alternative)
*****
Intersection #5 Palm Ave and Orange St
*****
Cycle (sec):          100                Critical Vol./Cap.(X):          0.289
Loss Time (sec):       0                  Average Delay (sec/veh):        8.7
Optimal Cycle:         0                  Level Of Service:             A
*****
Street Name:          Palm Ave                      Orange St
Approach:              North Bound                    South Bound                    East Bound                    West Bound
Movement:              L - T - R                      L - T - R                      L - T - R                      L - T - R
-----|-----|-----|-----|-----|
Control:               Stop Sign                      Stop Sign                      Stop Sign                      Stop Sign
Rights:                Include                        Include                        Include                        Include
Min. Green:            0 0 0 0                      0 0 0 0                      0 0 0 0                      0 0 0 0
Lanes:                 0 1 0 0 1                      0 1 0 0 1                      0 1 0 0 1                      0 1 0 0 1
-----|-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol:              5 59 2                      5 192 29                      7 18 13                      2 5 2
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 6 66 2                      6 214 32                      8 20 15                      2 6 2
Added Vol:             0 0 0                      0 0 0                      0 0 0                      0 0 0
PasserByVol:          0 0 0                      0 0 0                      0 0 0                      0 0 0
Initial Fut: 6 66 2                      6 214 32                      8 20 15                      2 6 2
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 6 66 2                      6 214 32                      8 20 15                      2 6 2
Reduct Vol: 0 0 0                      0 0 0                      0 0 0                      0 0 0
Reduced Vol: 6 66 2                      6 214 32                      8 20 15                      2 6 2
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 6 66 2                      6 214 32                      8 20 15                      2 6 2
-----|-----|-----|-----|-----|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.08 0.92 1.00 0.03 0.97 1.00 0.28 0.72 1.00 0.29 0.71 1.00
Final Sat.: 57 674 859 19 740 892 177 456 744 179 448 736
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.10 0.10 0.00 0.29 0.29 0.04 0.04 0.04 0.02 0.01 0.01 0.00
Crit Moves: ****                      ****                      ****                      ****
Delay/Veh: 8.1 8.1 6.8 9.3 9.3 6.8 8.3 8.3 7.3 8.2 8.2 7.3
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 8.1 8.1 6.8 9.3 9.3 6.8 8.3 8.3 7.3 8.2 8.2 7.3
LOS by Move: A A A A A A A A A A A A
ApproachDel: 8.0 9.0 8.0 8.0
Delay Adj: 1.00 1.00 1.00
ApprAdjDel: 8.0 9.0 8.0 8.0
LOS by Appr: A A A A
AllWayAvgQ: 0.1 0.1 0.0 0.4 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0
  
```

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.254
Loss Time (sec): 0 Average Delay (sec/veh): 8.6
Optimal Cycle: 0 Level Of Service: A

Street Name: Chestnut St Palm Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol: 14 90 2 12 163 11 1 1 7 1 3 7
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 16 100 2 13 182 12 1 1 8 1 3 8
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 16 100 2 13 182 12 1 1 8 1 3 8
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 16 100 2 13 182 12 1 1 8 1 3 8
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 16 100 2 13 182 12 1 1 8 1 3 8
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 16 100 2 13 182 12 1 1 8 1 3 8
-----|-----|-----|-----|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.13 0.87 1.00 0.07 0.93 1.00 0.50 0.50 1.00 0.25 0.75 1.00
Final Sat.: 101 650 893 53 715 908 310 310 741 158 475 742
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.15 0.15 0.00 0.25 0.25 0.01 0.00 0.00 0.01 0.01 0.01 0.01
Crit Moves: **** **** **** ****
Delay/Veh: 8.3 8.3 6.7 8.9 8.9 6.7 8.2 8.2 7.3 8.1 8.1 7.3
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 8.3 8.3 6.7 8.9 8.9 6.7 8.2 8.2 7.3 8.1 8.1 7.3
LOS by Move: A A A A A A A A A A A A
ApproachDel: 8.3 8.8 7.5 7.6
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 8.3 8.8 7.5 7.6
LOS by Appr: A A A A
AllWayAvgQ: 0.2 0.2 0.0 0.3 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0

 Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #7 Fremont Ave and Poplar Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.766
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 60 Level Of Service: C

 Street Name: Fremont Ave Poplar Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 1 0 1 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 90 1036 50 17 1402 15 19 104 65 53 106 18
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 100 1156 56 19 1564 17 21 116 73 59 118 20
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 100 1156 56 19 1564 17 21 116 73 59 118 20
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 100 1156 56 19 1564 17 21 116 73 59 118 20
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 100 1156 56 19 1564 17 21 116 73 59 118 20
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 100 1156 56 19 1564 17 21 116 73 59 118 20
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.91 0.09 1.00 1.98 0.02 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat.: 1600 3053 147 1600 3166 34 1600 1600 1600 1600 1600 1600
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.06 0.38 0.38 0.01 0.49 0.49 0.01 0.07 0.05 0.04 0.07 0.01

SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * * * * *
ApproachDel: xxxxxx 20.5 xxxxxx xxxxxx
ApproachLOS: * C *

 Note: Queue reported is the number of cars per lane.

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-----
                        Level Of Service Computation Report
                2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #9 Chestnut St and Date Ave
*****
Average Delay (sec/veh):      1.7      Worst Case Level Of Service: B[ 10.9]
*****
Street Name:      Chestnut St      Date Ave
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      1 0 1 0 1      1 0 1 0 1      0 0 1! 0 0      0 1 0 0 1
-----|-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol:      76 144 8      12 135 53      0 0 0      2 3 2
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 85 161 9      13 151 59      0 0 0      2 3 2
Added Vol:      0 0 0      0 0 0      0 0 0      0 0 0
PasserByVol: 0 0 0      0 0 0      0 0 0      0 0 0
Initial Fut: 85 161 9      13 151 59      0 0 0      2 3 2
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 85 161 9      13 151 59      0 0 0      2 3 2
Reduct Vol: 0 0 0      0 0 0      0 0 0      0 0 0
FinalVolume: 85 161 9      13 151 59      0 0 0      2 3 2
-----|-----|-----|-----|-----|
Critical Gap Module:
Critical Gap: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 6.4 6.5 6.2
FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 210 xxxx xxxxx 170 xxxx xxxxx 515 517 151 537 567 161
Potent Cap.: 1373 xxxx xxxxx 1420 xxxx xxxxx 474 465 901 508 436 890
Move Cap.: 1373 xxxx xxxxx 1420 xxxx xxxxx 444 433 901 481 405 890
Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 567 539 xxxxx 601 517 xxxxx
Volume/Cap: 0.06 xxxx xxxxx 0.01 xxxx xxxxx 0.00 0.00 0.00 0.00 0.01 0.00
-----|-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: 0.2 xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx 0.0
Control Del: 7.8 xxxx xxxxx 7.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx 9.1
LOS by Move: A * * A * * * * * * * A
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 0 xxxxx 548 xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.0 xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 11.6 xxxx xxxxx
Shared LOS: * * * * * * * * * * B * *
ApproachDel: xxxxxx xxxxxx xxxxxx 10.9
ApproachLOS: * * * B
  
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 Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #10 Fremont Ave and Concord Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.704
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 50 Level Of Service: C

Street Name:	Fremont Ave						Concord Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	1	0	1	0	0	1

Volume Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Base Vol:	56	1088	37	4	1380	59	40	12	68	22	14	10
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	62	1214	41	4	1540	66	45	13	76	25	16	11
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	1214	41	4	1540	66	45	13	76	25	16	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	62	1214	41	4	1540	66	45	13	76	25	16	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	1214	41	4	1540	66	45	13	76	25	16	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	1214	41	4	1540	66	45	13	76	25	16	11

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.90	0.10	1.00	1.92	0.08	1.00	1.00	1.00	1.00	0.58	0.42
Final Sat.:	1600	4642	158	1600	3069	131	1600	1600	1600	1600	933	667

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Vol/Sat:	0.04	0.26	0.26	0.00	0.50	0.50	0.03	0.01	0.05	0.02	0.02	0.02

* * * *

Vol/Sat:	0.26	0.21	0.21	0.00	0.03	0.00	0.16	0.23	0.23	0.03	0.11	0.11
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Crit Moves:  ****                      ****                      ****                      ****
*****
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Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.420
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Street Name:	Palm Ave					Commonwealth Ave									
Approach:	North Bound		South Bound			East Bound			West Bound						
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted					Permitted					Permitted				
Rights:	Include					Include					Include				
Min. Green:	0		0		0	0		0		0	0		0		0
Y+R:	4.0		4.0		4.0	4.0		4.0		4.0	4.0		4.0		4.0
Lanes:	1	0	1	0	1	1	0	1	0	1	1	0	1	0	1

Volume Module:												
Base Vol:	18	32	4	39	215	252	60	212	28	13	259	38
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	20	36	4	44	240	281	67	237	31	15	289	42
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	36	4	44	240	281	67	237	31	15	289	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	36	4	44	240	281	67	237	31	15	289	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	36	4	44	240	281	67	237	31	15	289	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	36	4	44	240	281	67	237	31	15	289	42

Saturation Flow Module:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.77	0.23	1.00	2.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2827	373	1600	3200

Capacity Analysis Module:												
Vol/Sat:	0.01	0.02	0.00	0.03	0.15	0.18	0.04	0.08	0.08	0.01	0.09	0.03

* * * *

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ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.411
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Street Name:	Date Ave					Commonwealth Ave									
Approach:	North Bound		South Bound			East Bound			West Bound						
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted					Permitted					Permitted				
Rights:	Include					Include					Include				
Min. Green:	0		0		0	0		0		0	0		0		0
Y+R:	4.0		4.0		4.0	4.0		4.0		4.0	4.0		4.0		4.0
Lanes:	1	0	1	0	1	1	0	0	1	0	1	0	1	1	0

Volume Module:												
Base Vol:	24	40	16	47	66	71	68	239	94	118	326	67
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	27	45	18	52	74	79	76	267	105	132	364	75
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	45	18	52	74	79	76	267	105	132	364	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	27	45	18	52	74	79	76	267	105	132	364	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	27	45	18	52	74	79	76	267	105	132	364	75
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	27	45	18	52	74	79	76	267	105	132	364	75

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.48	0.52	1.00	1.44	0.56	1.00	1.66	0.34
Final Sat.:	1600	1600	1600	1600	771	829	1600	2297	903	1600	2654	546

Capacity Analysis Module:												
Vol/Sat:	0.02	0.03	0.01	0.03	0.10	0.10	0.05	0.12	0.12	0.08	0.14	0.14

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.784
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxxx
 Optimal Cycle: 63 Level Of Service: C

Street Name:	Fremont Ave						Commonwealth Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	2	0	1	1	0	1	1	0	1	0	0	1	0

Volume Module:															
Base Vol:	39	1008	92	171	1305	62	27	134	16	108	155	107			
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12			
Initial Bse:	44	1125	103	191	1456	69	30	150	18	120	173	119			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	44	1125	103	191	1456	69	30	150	18	120	173	119			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	44	1125	103	191	1456	69	30	150	18	120	173	119			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	44	1125	103	191	1456	69	30	150	18	120	173	119			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	44	1125	103	191	1456	69	30	150	18	120	173	119			

Saturation Flow Module:															
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600			
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Lanes:	1.00	2.00	1.00	1.00	1.91	0.09	1.00	0.89	0.11	1.00	1.00	1.00			
Final Sat.:	1600	3200	1600	1600	3055	145	1600	1429	171	1600	1600	1600			

Capacity Analysis Module:

Vol/Sat: 0.03 0.35 0.06 0.12 0.48 0.48 0.02 0.10 0.10 0.08 0.11 0.07
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #15 Fremont Ave and Valley Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.029
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

 Street Name: Fremont Ave Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 2 2 0 2 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 41 915 26 74 805 1273 527 404 28 56 725 185
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 46 1021 29 83 898 1420 588 451 31 62 809 206
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 46 1021 29 83 898 1420 588 451 31 62 809 206
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 46 1021 29 83 898 1420 588 451 31 62 809 206
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 46 1021 29 83 898 1420 588 451 31 62 809 206
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 46 1021 29 83 898 1420 588 451 31 62 809 206

 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.94 0.06 1.00 2.00 2.00 2.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1600 3112 88 1600 3200 3200 2880 3200 1600 1600 3200 1600

 Capacity Analysis Module:

Vol/Sat: 0.03 0.33 0.33 0.05 0.28 0.44 0.20 0.14 0.02 0.04 0.25 0.13
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #16 Palm Ave and Mission Rd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.686
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 48 Level Of Service: B

 Street Name: Palm Ave Mission Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 2 0 0 0 0 1 1 0
 -----|-----|-----|-----|
 Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
 Base Vol: 0 0 0 51 0 124 33 422 0 0 1284 84
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 0 0 0 57 0 138 37 471 0 0 1433 94
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 0 57 0 138 37 471 0 0 1433 94
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 0 57 0 138 37 471 0 0 1433 94
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 57 0 138 37 471 0 0 1433 94
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 57 0 138 37 471 0 0 1433 94
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 1.88 0.12
 Final Sat.: 0 0 0 1600 0 1600 1600 3200 0 0 3004 196
 -----|-----|-----|-----|
 Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.09 0.02 0.15 0.00 0.00 0.48 0.48
 Crit Moves: **** *

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #17 Marengo Ave and Valley Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.786
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 64 Level Of Service: C

 Street Name: Marengo Ave Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 0 1 0 1 0 2 0 1 1 0 2 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 22 117 72 223 163 137 166 419 23 62 956 188
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 25 131 80 249 182 153 185 467 26 69 1067 210
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 25 131 80 249 182 153 185 467 26 69 1067 210
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 25 131 80 249 182 153 185 467 26 69 1067 210
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 25 131 80 249 182 153 185 467 26 69 1067 210
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 25 131 80 249 182 153 185 467 26 69 1067 210
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.00 1.00 1.00 0.54 0.46 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1600 1600 1600 1600 869 731 1600 3200 1600 1600 3200 1600
 -----|-----|-----|-----|
 Capacity Analysis Module:

Vol/Sat: 0.02 0.08 0.05 0.16 0.21 0.21 0.12 0.15 0.02 0.04 0.33 0.13
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #18 Atlantic Blvd and Mission Road

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.942
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 127 Level Of Service: E

 Street Name: Atlantic Blvd Mission Road
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 2 0 1 1 0 1 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 154 1062 115 40 943 246 88 516 67 175 956 33
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 172 1185 128 45 1052 274 98 576 75 195 1067 37
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 172 1185 128 45 1052 274 98 576 75 195 1067 37
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 172 1185 128 45 1052 274 98 576 75 195 1067 37
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 172 1185 128 45 1052 274 98 576 75 195 1067 37
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 172 1185 128 45 1052 274 98 576 75 195 1067 37
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.80 0.20 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.93 0.07
 Final Sat.: 1600 2887 313 1600 3200 1600 1600 3200 1600 1600 3093 107
 -----|-----|-----|-----|
 Capacity Analysis Module:

Vol/Sat: 0.11 0.41 0.41 0.03 0.33 0.17 0.06 0.18 0.05 0.12 0.34 0.34
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #19 Marengo Ave and Mission Road

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.021
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

 Street Name: Marengo Ave Mission Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 0 1 1 0 1 0 1 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 85 382 157 43 504 66 44 351 85 272 1171 74
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 95 426 175 48 562 74 49 392 95 303 1306 83
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 95 426 175 48 562 74 49 392 95 303 1306 83
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 95 426 175 48 562 74 49 392 95 303 1306 83
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 95 426 175 48 562 74 49 392 95 303 1306 83
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 95 426 175 48 562 74 49 392 95 303 1306 83
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.00 1.00 1.00 0.88 0.12 1.00 1.61 0.39 1.00 1.88 0.12
 Final Sat.: 1600 1600 1600 1600 1415 185 1600 2576 624 1600 3010 190
 -----|-----|-----|-----|
 Capacity Analysis Module:

Vol/Sat: 0.06 0.27 0.11 0.03 0.40 0.40 0.03 0.15 0.15 0.19 0.43 0.43
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #20 Marengo Ave and Front St

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.805
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 68 Level Of Service: D

 Street Name: Marengo Ave Front St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 0 1 0 0 1 0 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 2 508 3 10 493 358 81 11 7 2 75 34
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 2 567 3 11 550 399 90 12 8 2 84 38
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 2 567 3 11 550 399 90 12 8 2 84 38
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 2 567 3 11 550 399 90 12 8 2 84 38
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 2 567 3 11 550 399 90 12 8 2 84 38
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 2 567 3 11 550 399 90 12 8 2 84 38
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 0.99 0.01 1.00 0.58 0.42 0.88 0.12 1.00 0.03 0.97 1.00
 Final Sat.: 1600 1591 9 1600 927 673 1409 191 1600 42 1558 1600
 -----|-----|-----|-----|
 Capacity Analysis Module:

Vol/Sat: 0.00 0.36 0.36 0.01 0.59 0.59 0.06 0.06 0.00 0.00 0.05 0.02
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #21 I-710 NB Ramp and Valley Blvd

 Cycle (sec): 120 Critical Vol./Cap.(X): 0.767
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 63 Level Of Service: C

 Street Name: I-710 NB Ramp Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Split Phase Split Phase Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1! 0 1 0 0 1! 0 0 0 0 2 0 0 0 0 3 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 603 1 685 4 0 1 0 207 0 0 2176 6
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 673 1 764 4 0 1 0 231 0 0 2428 7
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 673 1 764 4 0 1 0 231 0 0 2428 7
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 673 1 764 4 0 1 0 231 0 0 2428 7
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 673 1 764 4 0 1 0 231 0 0 2428 7
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 673 1 764 4 0 1 0 231 0 0 2428 7
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.40 0.01 1.59 0.79 0.01 0.20 0.00 2.00 0.00 0.00 3.99 0.01
 Final Sat.: 2245 4 2551 1280 0 320 0 3200 0 0 6382 18
 -----|-----|-----|-----|
 Capacity Analysis Module:

Vol/Sat: 0.30 0.30 0.30 0.00 0.00 0.00 0.00 0.07 0.00 0.00 0.38 0.38
 Crit Moves: **** *

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #22 I-710 SB Ramp and Valley Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.170
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

 Street Name: I-710 SB Ramp Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 0 0 0 0 0 2 0 1 2 0 2 0 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 0 0 0 0 0 0 0 0 214 650 1593 1200 0
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 0 0 0 0 0 0 0 0 239 725 1777 1339 0
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 0 0 0 0 0 0 239 725 1777 1339 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 0 0 0 0 0 0 239 725 1777 1339 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 0 0 0 0 0 239 725 1777 1339 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 0 0 0 0 0 239 725 1777 1339 0
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00
 Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00
 Final Sat.: 0 0 0 0 0 0 0 0 3200 1600 2880 3200 0
 -----|-----|-----|-----|
 Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.07 0.45 0.62 0.42 0.00
 Crit Moves: **** *

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #23 Fremont Ave and Hellman Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.858
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 83 Level Of Service: D

 Street Name: Fremont Ave Hellman Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 1 0 1 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 142 934 313 127 706 110 108 111 153 168 228 212
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 158 1042 349 142 788 123 120 124 171 187 254 237
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 158 1042 349 142 788 123 120 124 171 187 254 237
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 158 1042 349 142 788 123 120 124 171 187 254 237
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 158 1042 349 142 788 123 120 124 171 187 254 237
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 158 1042 349 142 788 123 120 124 171 187 254 237
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.50 0.50 1.00 1.73 0.27 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat.: 1600 2397 803 1600 2769 431 1600 1600 1600 1600 1600 1600
 -----|-----|-----|-----|
 Capacity Analysis Module:

Vol/Sat: 0.10 0.43 0.43 0.09 0.28 0.28 0.08 0.08 0.11 0.12 0.16 0.15
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.262
 Loss Time (sec): 0 Average Delay (sec/veh): 61.0
 Optimal Cycle: 0 Level Of Service: F

 Street Name: Elm St Hellman Ave/Ramona Rd/ 10 WB ramp
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 1 0 1 0 0 0 1 0 0 0 1 0 1 0 0 1
 -----|-----|-----|-----|
 Volume Module:AM Peak
 Base Vol: 358 55 21 78 14 200 51 163 327 398 61 13
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 399 61 23 87 16 223 57 182 365 444 68 15
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 399 61 23 87 16 223 57 182 365 444 68 15
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 399 61 23 87 16 223 57 182 365 444 68 15
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 399 61 23 87 16 223 57 182 365 444 68 15
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 399 61 23 87 16 223 57 182 365 444 68 15
 -----|-----|-----|-----|
 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.65 0.25 0.10 0.85 0.15 1.00 0.24 0.76 1.00 0.87 0.13 1.00
 Final Sat.: 1031 -287 37 321 58 431 100 321 467 352 54 454
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.39-0.21 0.63 0.27 0.27 0.52 0.57 0.57 0.78 1.26 1.26 0.03
 Crit Moves: **** **** **** ****
 Delay/Veh: 25.6 26.2 26.2 15.4 15.4 19.1 21.6 21.6 32.3 162.2 162 10.7
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh:	25.6	26.2	26.2	15.4	15.4	19.1	21.6	21.6	32.3	162.2	162	10.7
LOS by Move:	D	D	D	C	C	C	C	C	D	F	F	B
ApproachDel:	25.4				18.0			28.0			158.0	
Delay Adj:	1.00				1.00			1.00			1.00	
ApprAdjDel:	25.4				18.0			28.0			158.0	
LOS by Appr:		D			C			D			F	
AllWayAvgQ:	1.5	1.5	1.5	0.4	0.4	1.0	1.2	1.2	2.8	17.0	17.0	0.0

 Note: Queue reported is the number of cars per lane.

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                        Level Of Service Computation Report
                    2000 HCM 4-Way Stop Method (Future Volume Alternative)
*****
Intersection #25 Fremont Ave and Ramona Road/10 EB ramp
*****
Cycle (sec):          100                Critical Vol./Cap.(X):          1.287
Loss Time (sec):      0                  Average Delay (sec/veh):        110.2
Optimal Cycle:        0                  Level Of Service:              F
*****
Street Name:          Fremont Ave                Ramona Road/10 EB ramp
Approach:              North Bound                South Bound                East Bound                West Bound
Movement:              L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|
Control:               Stop Sign                Stop Sign                Stop Sign                Stop Sign
Rights:                Include                Include                Include                Include
Min. Green:            0 0 0 0                0 0 0 0                0 0 0 0                0 0 0 0
Lanes:                 0 0 1 0 1                0 0 0 0 0                0 1 0 0 1                0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:AM Peak
Base Vol:              0 625 48                0 0 0                2 24 584 114 0 15
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse:          0 697 54                0 0 0                2 27 652 127 0 17
Added Vol:            0 0 0                0 0 0                0 0 0 0 0 0
PasserByVol:          0 0 0                0 0 0                0 0 0 0 0 0
Initial Fut:          0 697 54                0 0 0                2 27 652 127 0 17
User Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:           0 697 54                0 0 0                2 27 652 127 0 17
Reduct Vol:           0 0 0                0 0 0                0 0 0 0 0 0
Reduced Vol:          0 697 54                0 0 0                2 27 652 127 0 17
PCE Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:          0 697 54                0 0 0                2 27 652 127 0 17
-----|-----|-----|-----|
Saturation Flow Module:
Adjustment:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:                0.00 1.00 1.00 0.00 0.00 0.00 0.08 0.92 1.00 0.88 xxxx 0.12
Final Sat.:           0 542 605                0 0 0                41 491 597 421 0 55
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              xxxx 1.29 0.09          xxxx xxxx xxxx 0.05 0.05 1.09 0.30 0.00 0.30
Crit Moves:           ****                    ****                    ****
Delay/Veh:            0.0 163 9.2              0.0 0.0 0.0 9.9 9.9 87.3 13.8 13.8 13.8
Delay Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:           0.0 163 9.2              0.0 0.0 0.0 9.9 9.9 87.3 13.8 13.8 13.8
LOS by Move:          * F A                  * * * A A F B B B
ApproachDel:          152.3                  xxxxxx 84.0 13.8
Delay Adj:            1.00                  xxxxxx 1.00 1.00
ApprAdjDel:           152.3                  xxxxxx 84.0 13.8
LOS by Appr:          F                      * F B
AllWayAvgQ:           0.0 23.2 0.1 0.0 0.0 0.0 0.1 0.1 13.0 0.4 0.4 0.4
  
```

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.713
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 52 Level Of Service: C

Street Name: Fremont Ave Ross Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol: 26 1007 212 42 867 34 26 49 5 173 177 17
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 29 1124 237 47 967 38 29 55 6 193 197 19
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 29 1124 237 47 967 38 29 55 6 193 197 19
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 29 1124 237 47 967 38 29 55 6 193 197 19
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 29 1124 237 47 967 38 29 55 6 193 197 19
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 29 1124 237 47 967 38 29 55 6 193 197 19
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.65 0.35 1.00 1.92 0.08 1.00 0.91 0.09 1.00 1.00 1.00
Final Sat.: 1600 2643 557 1600 3079 121 1600 1452 148 1600 1600 1600
-----|-----|-----|-----|
Capacity Analysis Module:

Vol/Sat: 0.02 0.43 0.43 0.03 0.31 0.31 0.02 0.04 0.04 0.12 0.12 0.01
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #27 Westmont Dr and Valley Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.890
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 95 Level Of Service: D

 Street Name: Westmont Dr Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 2 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 51 14 7 4 6 37 17 966 14 3 2036 30
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 57 16 8 4 7 41 19 1078 16 3 2272 33
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 57 16 8 4 7 41 19 1078 16 3 2272 33
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 57 16 8 4 7 41 19 1078 16 3 2272 33
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 57 16 8 4 7 41 19 1078 16 3 2272 33
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 57 16 8 4 7 41 19 1078 16 3 2272 33
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.71 0.19 0.10 0.08 0.13 0.79 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1133 311 156 136 204 1260 1600 3200 1600 1600 3200 1600
 -----|-----|-----|-----|
 Capacity Analysis Module:

Vol/Sat: 0.04 0.05 0.05 0.00 0.03 0.03 0.01 0.34 0.01 0.00 0.71 0.02
Crit Moves: **** **** **** ****

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Scenario Report
Scenario: 2028 Ambient Growth PM
Command: 2028 Ambient Growth PM
Volume: 2028 PM
Geometry: Existing
Impact Fee: Default Impact Fee

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[illegible]

Total	215	1551	214	56	1226	60	131	561	481	344	471	50	5360
-------	-----	------	-----	----	------	----	-----	-----	-----	-----	-----	----	------

#2 Fremont Ave and 1000 Fremont Ave

Base	60	1626	48	8	1242	67	90	3	77	44	4	28	3297
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	60	1626	48	8	1242	67	90	3	77	44	4	28	3297

#3 Fremont Ave and Orange St

Base	2	1562	195	114	1061	2	10	6	6	271	2	322	3554
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	1562	195	114	1061	2	10	6	6	271	2	322	3554

#4 Date Ave and Orange St

Base	35	190	3	28	298	46	75	172	173	1	22	7	1049
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	35	190	3	28	298	46	75	172	173	1	22	7	1049

#5 Palm Ave and Orange St

Base	6	191	2	11	299	15	65	71	79	2	6	8	754
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6	191	2	11	299	15	65	71	79	2	6	8	754

#6 Chestnut St and Palm Ave

Base	6	163	10	16	377	9	8	8	88	7	1	8	700
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6	163	10	16	377	9	8	8	88	7	1	8	700

#7 Fremont Ave and Poplar Blvd

Base	170	1565	128	28	963	47	28	131	89	59	132	31	3371
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	170	1565	128	28	963	47	28	131	89	59	132	31	3371

#8 Date Ave and Mission Rd

Base	0	0	0	218	0	177	94	821	0	0	628	124	2062
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	218	0	177	94	821	0	0	628	124	2062

#9 Chestnut St and Date Ave

Base	20	199	13	42	416	11	0	0	0	11	2	19	734
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	20	199	13	42	416	11	0	0	0	11	2	19	734

#10 Fremont Ave and Concord Ave

Base	57	1717	126	30	1002	79	88	48	52	84	67	84	3434
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	57	1717	126	30	1002	79	88	48	52	84	67	84	3434

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#11 Fremont Ave and Montezuma Ave

Base	766	494	96	27	46	289	445	186	682	37	77	21	3166
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	766	494	96	27	46	289	445	186	682	37	77	21	3166

#12 Palm Ave and Commonwealth Ave

Base	55	138	22	192	242	272	212	464	78	9	430	107	2221
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	55	138	22	192	242	272	212	464	78	9	430	107	2221

#13 Date Ave and Commonwealth Ave

Base	70	142	64	129	90	161	230	573	108	57	543	128	2296
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	70	142	64	129	90	161	230	573	108	57	543	128	2296

#14 Fremont Ave and Commonwealth Ave

Base	40	1585	289	222	891	28	33	153	16	175	176	266	3875
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	40	1585	289	222	891	28	33	153	16	175	176	266	3875

#15 Fremont Ave and Valley Blvd

Base	31	896	37	208	1072	864	687	1003	28	139	389	344	5698
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	31	896	37	208	1072	864	687	1003	28	139	389	344	5698

#16 Palm Ave and Mission Rd

Base	0	0	0	368	0	123	55	1002	0	0	636	114	2297
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	368	0	123	55	1002	0	0	636	114	2297

#17 Marengo Ave and Valley Blvd

Base	19	177	71	318	224	218	343	970	9	54	621	152	3175
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	19	177	71	318	224	218	343	970	9	54	621	152	3175

#18 Atlantic Blvd and Mission Road

Base	106	1184	153	47	1061	113	146	1077	148	203	628	67	4933
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	106	1184	153	47	1061	113	146	1077	148	203	628	67	4933

#19 Marengo Ave and Mission Road

Base	81	575	251	65	520	51	59	1048	316	78	600	66	3710
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	81	575	251	65	520	51	59	1048	316	78	600	66	3710

#20 Marengo Ave and Front St

Base	3	707	4	26	761	210	167	56	9	2	21	18	1985
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	707	4	26	761	210	167	56	9	2	21	18	1985

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#21 I-710 NB Ramp and Valley Blvd

Base	652	0	1381	1	0	2	0	591	0	0	1247	0	3875
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	652	0	1381	1	0	2	0	591	0	0	1247	0	3875

#22 I-710 SB Ramp and Valley Blvd

Base	0	0	0	0	0	0	0	601	813	874	1049	0	3337
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	601	813	874	1049	0	3337

#23 Fremont Ave and Hellman Ave

Base	95	826	270	164	907	76	143	193	241	230	202	264	3610
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	95	826	270	164	907	76	143	193	241	230	202	264	3610

#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Base	521	192	109	11	6	45	32	334	249	134	117	2	1752
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	521	192	109	11	6	45	32	334	249	134	117	2	1752

#25 Fremont Ave and Ramona Road/10 EB ramp

Base	0	816	129	0	0	0	4	102	322	52	0	87	1513
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	816	129	0	0	0	4	102	322	52	0	87	1513

#26 Ross Ave and Fremont Ave

Base	33	947	187	29	1102	46	12	36	7	60	45	46	2550
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	33	947	187	29	1102	46	12	36	7	60	45	46	2550

#27 Westmont Dr and Valley Blvd

Base	18	11	12	27	10	16	62	1761	151	9	1160	37	3273
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	18	11	12	27	10	16	62	1761	151	9	1160	37	3273

#135

Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0

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Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	215	1551	214	56	1226	60	131	561	481	344	471	50
2 Fremont Ave a	60	1626	48	8	1242	67	90	3	77	44	4	28
3 Fremont Ave a	2	1562	195	114	1061	2	10	6	6	271	2	322
4 Date Ave and	35	190	3	28	298	46	75	172	173	1	22	7
5 Palm Ave and	6	191	2	11	299	15	65	71	79	2	6	8
6 Chestnut St a	6	163	10	16	377	9	8	8	88	7	1	8
7 Fremont Ave a	170	1565	128	28	963	47	28	131	89	59	132	31
8 Date Ave and	0	0	0	218	0	177	94	821	0	0	628	124
9 Chestnut St a	20	199	13	42	416	11	0	0	0	11	2	19
10 Fremont Ave a	57	1717	126	30	1002	79	88	48	52	84	67	84
11 Fremont Ave a	766	494	96	27	46	289	445	186	682	37	77	21
12 Palm Ave and	55	138	22	192	242	272	212	464	78	9	430	107
13 Date Ave and	70	142	64	129	90	161	230	573	108	57	543	128
14 Fremont Ave a	40	1585	289	222	891	28	33	153	16	175	176	266
15 Fremont Ave a	31	896	37	208	1072	864	687	1003	28	139	389	344
16 Palm Ave and	0	0	0	368	0	123	55	1002	0	0	636	114
17 Marengo Ave a	19	177	71	318	224	218	343	970	9	54	621	152
18 Atlantic Blvd	106	1184	153	47	1061	113	146	1077	148	203	628	67
19 Marengo Ave a	81	575	251	65	520	51	59	1048	316	78	600	66
20 Marengo Ave a	3	707	4	26	761	210	167	56	9	2	21	18
21 I-710 NB Ramp	652	0	1381	1	0	2	0	591	0	0	1247	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	601	813	874	1049	0
23 Fremont Ave a	95	826	270	164	907	76	143	193	241	230	202	264
24 Elm St and He	521	192	109	11	6	45	32	334	249	134	117	2
25 Fremont Ave a	0	816	129	0	0	0	4	102	322	52	0	87

26 Ross Ave and	33	947	187	29	1102	46	12	36	7	60	45	46
27 Westmont Dr a	18	11	12	27	10	16	62	1761	151	9	1160	37

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Intersection Volume Report
 Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	215	1551	214	56	1226	60	131	561	481	344	471	50
2 Fremont Ave a	60	1626	48	8	1242	67	90	3	77	44	4	28
3 Fremont Ave a	2	1562	195	114	1061	2	10	6	6	271	2	322
4 Date Ave and	35	190	3	28	298	46	75	172	173	1	22	7
5 Palm Ave and	6	191	2	11	299	15	65	71	79	2	6	8
6 Chestnut St a	6	163	10	16	377	9	8	8	88	7	1	8
7 Fremont Ave a	170	1565	128	28	963	47	28	131	89	59	132	31
8 Date Ave and	0	0	0	218	0	177	94	821	0	0	628	124
9 Chestnut St a	20	199	13	42	416	11	0	0	0	11	2	19
10 Fremont Ave a	57	1717	126	30	1002	79	88	48	52	84	67	84
11 Fremont Ave a	766	494	96	27	46	289	445	186	682	37	77	21
12 Palm Ave and	55	138	22	192	242	272	212	464	78	9	430	107
13 Date Ave and	70	142	64	129	90	161	230	573	108	57	543	128
14 Fremont Ave a	40	1585	289	222	891	28	33	153	16	175	176	266
15 Fremont Ave a	31	896	37	208	1072	864	687	1003	28	139	389	344
16 Palm Ave and	0	0	0	368	0	123	55	1002	0	0	636	114
17 Marengo Ave a	19	177	71	318	224	218	343	970	9	54	621	152
18 Atlantic Blvd	106	1184	153	47	1061	113	146	1077	148	203	628	67
19 Marengo Ave a	81	575	251	65	520	51	59	1048	316	78	600	66
20 Marengo Ave a	3	707	4	26	761	210	167	56	9	2	21	18
21 I-710 NB Ramp	652	0	1381	1	0	2	0	591	0	0	1247	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	601	813	874	1049	0
23 Fremont Ave a	95	826	270	164	907	76	143	193	241	230	202	264
24 Elm St and He	521	192	109	11	6	45	32	334	249	134	117	2
25 Fremont Ave a	0	816	129	0	0	0	4	102	322	52	0	87

26 Ross Ave and	33	947	187	29	1102	46	12	36	7	60	45	46
27 Westmont Dr a	18	11	12	27	10	16	62	1761	151	9	1160	37

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Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	LOS	Del/V/ Veh C	LOS	Del/V/ Veh C	
# 1 Fremont Ave and Mission Rd	F	xxxxxx 1.202	F	xxxxxx 1.202	+ 0.000 V/C
# 2 Fremont Ave and 1000 Fremont A	B	xxxxxx 0.690	B	xxxxxx 0.690	+ 0.000 V/C
# 3 Fremont Ave and Orange St	D	xxxxxx 0.872	D	xxxxxx 0.872	+ 0.000 V/C
# 4 Date Ave and Orange St	C	15.1 0.328	C	15.1 0.328	+ 0.000 D/V
# 5 Palm Ave and Orange St	B	11.1 0.474	B	11.1 0.474	+ 0.000 V/C
# 6 Chestnut St and Palm Ave	B	11.6 0.552	B	11.6 0.552	+ 0.000 V/C
# 7 Fremont Ave and Poplar Blvd	C	xxxxxx 0.765	C	xxxxxx 0.765	+ 0.000 V/C
# 8 Date Ave and Mission Rd	C	18.7 0.528	C	18.7 0.528	+ 0.000 D/V
# 9 Chestnut St and Date Ave	B	10.6 0.031	B	10.6 0.031	+ 0.000 D/V
# 10 Fremont Ave and Concord Ave	B	xxxxxx 0.652	B	xxxxxx 0.652	+ 0.000 V/C
# 11 Fremont Ave and Montezuma Ave	C	xxxxxx 0.740	C	xxxxxx 0.740	+ 0.000 V/C
# 12 Palm Ave and Commonwealth Ave	A	xxxxxx 0.573	A	xxxxxx 0.573	+ 0.000 V/C
# 13 Date Ave and Commonwealth Ave	B	xxxxxx 0.654	B	xxxxxx 0.654	+ 0.000 V/C
# 14 Fremont Ave and Commonwealth A	E	xxxxxx 0.949	E	xxxxxx 0.949	+ 0.000 V/C

# 15 Fremont Ave and Valley Blvd	E xxxxx	0.975	E xxxxx	0.975	+ 0.000 V/C
# 16 Palm Ave and Mission Rd	B xxxxx	0.643	B xxxxx	0.643	+ 0.000 V/C
# 17 Marengo Ave and Valley Blvd	D xxxxx	0.818	D xxxxx	0.818	+ 0.000 V/C
# 18 Atlantic Blvd and Mission Road	F xxxxx	1.010	F xxxxx	1.010	+ 0.000 V/C
# 19 Marengo Ave and Mission Road	E xxxxx	0.983	E xxxxx	0.983	+ 0.000 V/C
# 20 Marengo Ave and Front St	D xxxxx	0.850	D xxxxx	0.850	+ 0.000 V/C
# 21 I-710 NB Ramp and Valley Blvd	C xxxxx	0.712	C xxxxx	0.712	+ 0.000 V/C
# 22 I-710 SB Ramp and Valley Blvd	E xxxxx	0.912	E xxxxx	0.912	+ 0.000 V/C

23 Fremont Ave and Hellman Ave D xxxxx 0.839 D xxxxx 0.839 + 0.000 V/C
 # 24 Elm St and Hellman Ave/Ramona D 32.1 0.870 D 32.1 0.870 + 0.000 V/C
 # 25 Fremont Ave and Ramona Road/10 F 111.4 1.370 F 111.4 1.370 + 0.000 V/C

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Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
	LOS Veh	C	LOS Veh	C	

# 26 Ross Ave and Fremont Ave	A xxxxx 0.544	A xxxxx 0.544	+ 0.000 V/C
# 27 Westmont Dr and Valley Blvd	B xxxxx 0.698	B xxxxx 0.698	+ 0.000 V/C

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #1 Fremont Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.202
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

Street Name:	Fremont Ave						Mission Rd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	1	0	1	0	2	0	1	1	0	1	1	0

Volume Module:

Base Vol:	193	1390	192	50	1099	54	117	503	431	308	422	45
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	215	1551	214	56	1226	60	131	561	481	344	471	50
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	215	1551	214	56	1226	60	131	561	481	344	471	50
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	215	1551	214	56	1226	60	131	561	481	344	471	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	215	1551	214	56	1226	60	131	561	481	344	471	50
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	215	1551	214	56	1226	60	131	561	481	344	471	50

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.76	0.24	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.81	0.19
Final Sat.:	1600	2812	388	1600	3200	1600	1600	3200	1600	1600	2892	308

Capacity Analysis Module:

Vol/Sat: 0.13 0.55 0.55 0.03 0.38 0.04 0.08 0.18 0.30 0.21 0.16 0.16
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #2 Fremont Ave and 1000 Fremont Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.690
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 49 Level Of Service: B

 Street Name: Fremont Ave 1000 Fremont Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 1 0 0 1 0

 Volume Module:
 Base Vol: 54 1457 43 7 1113 60 81 3 69 39 4 25
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 60 1626 48 8 1242 67 90 3 77 44 4 28
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 60 1626 48 8 1242 67 90 3 77 44 4 28
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 60 1626 48 8 1242 67 90 3 77 44 4 28
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 60 1626 48 8 1242 67 90 3 77 44 4 28
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 60 1626 48 8 1242 67 90 3 77 44 4 28

 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.04 0.96 1.00 0.14 0.86
 Final Sat.: 1600 3200 1600 1600 3200 1600 1600 67 1533 1600 221 1379

 Capacity Analysis Module:

Vol/Sat: 0.04 0.51 0.03 0.00 0.39 0.04 0.06 0.05 0.05 0.03 0.02 0.02
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #3 Fremont Ave and Orange St

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.872
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 88 Level Of Service: D

 Street Name: Fremont Ave Orange St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 1 1 0 0 1 1 0 1 0 0

 Volume Module:
 Base Vol: 2 1400 175 102 951 2 9 5 5 243 2 289
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 2 1562 195 114 1061 2 10 6 6 271 2 322
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 2 1562 195 114 1061 2 10 6 6 271 2 322
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 2 1562 195 114 1061 2 10 6 6 271 2 322
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 2 1562 195 114 1061 2 10 6 6 271 2 322
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 2 1562 195 114 1061 2 10 6 6 271 2 322

 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.00 1.00 1.00 1.99 0.01 0.64 0.36 1.00 1.00 0.01 0.99
 Final Sat.: 1600 3200 1600 1600 3193 7 1029 571 1600 1600 11 1589

 Capacity Analysis Module:

Vol/Sat: 0.00 0.49 0.12 0.07 0.33 0.33 0.01 0.01 0.00 0.17 0.20 0.20
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #4 Date Ave and Orange St

 Average Delay (sec/veh): 6.8 Worst Case Level Of Service: C[15.1]

 Street Name: Date Ave Orange St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 1 0 1 1 0 1 0 0 1 0 1 0 0 1
 -----|-----|-----|-----|
 Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
 Base Vol: 31 170 3 25 267 41 67 154 155 1 20 6
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 35 190 3 28 298 46 75 172 173 1 22 7
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 35 190 3 28 298 46 75 172 173 1 22 7
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 35 190 3 28 298 46 75 172 173 1 22 7
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 35 190 3 28 298 46 75 172 173 1 22 7
 -----|-----|-----|-----|
 Critical Gap Module:
 Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
 FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
 -----|-----|-----|-----|
 Capacity Module:
 Cnflct Vol: 344 xxxx xxxxx 193 xxxx xxxxx 629 616 298 808 658 190
 Potent Cap.: 1227 xxxx xxxxx 1392 xxxx xxxxx 398 409 746 302 387 857
 Move Cap.: 1227 xxxx xxxxx 1392 xxxx xxxxx 363 389 746 147 368 857
 Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 530 524 xxxxx 235 496 xxxxx
 Volume/Cap: 0.03 xxxx xxxx 0.02 xxxx xxxx 0.14 0.33 0.23 0.00 0.04 0.01
 -----|-----|-----|-----|
 Level Of Service Module:
 2Way95thQ: 0.1 xxxx xxxxx 0.1 xxxx xxxxx xxxx xxxx 0.9 xxxx xxxx 0.0
 Control Del: 8.0 xxxx xxxxx 7.6 xxxx xxxxx xxxxx xxxx 11.3 xxxxx xxxx 9.2
 LOS by Move: A * * A * * B * * A
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	526	xxxx	xxxxx	471	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.5	xxxx	xxxxx	0.2	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	17.7	xxxx	xxxxx	13.0	xxxx	xxxxx
Shared LOS:		*	*		*	*		C	*		B	*
ApproachDel:		xxxxxx			xxxxxx			15.1			12.2	
ApproachLOS:		*			*			C			B	

Note: Queue reported is the number of cars per lane.

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                        Level Of Service Computation Report
                2000 HCM 4-Way Stop Method (Future Volume Alternative)
*****
Intersection #5 Palm Ave and Orange St
*****
Cycle (sec):          100                Critical Vol./Cap.(X):          0.474
Loss Time (sec):       0                  Average Delay (sec/veh):        11.1
Optimal Cycle:         0                  Level Of Service:             B
*****
Street Name:          Palm Ave                                Orange St
Approach:              North Bound      South Bound      East Bound      West Bound
Movement:              L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:               Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:                Include          Include          Include          Include
Min. Green:            0   0   0         0   0   0         0   0   0         0   0   0
Lanes:                 0  1  0  0  1     0  1  0  0  1     0  1  0  0  1     0  1  0  0  1
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol:              5  171   2      10  268  13      58  64   71      2   5   7
Growth Adj:  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:    6  191   2      11  299  15      65  71   79      2   6   8
Added Vol:      0   0   0         0   0   0         0   0   0         0   0   0
PasserByVol:    0   0   0         0   0   0         0   0   0         0   0   0
Initial Fut:    6  191   2      11  299  15      65  71   79      2   6   8
User Adj:       1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     6  191   2      11  299  15      65  71   79      2   6   8
Reduct Vol:     0   0   0         0   0   0         0   0   0         0   0   0
Reduced Vol:    6  191   2      11  299  15      65  71   79      2   6   8
PCE Adj:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    6  191   2      11  299  15      65  71   79      2   6   8
-----|-----|-----|-----|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.03 0.97  1.00  0.04 0.96  1.00  0.48 0.52  1.00  0.29 0.71  1.00
Final Sat.:  18  618  721    24  631  745    266 293  653    149 373  595
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.31 0.31  0.00  0.47 0.47  0.02  0.24 0.24  0.12  0.01 0.01  0.01
Crit Moves:      ****          ****          ****          ****
Delay/Veh:     10.5 10.5   7.5  12.6 12.6   7.4  10.6 10.6   8.5   9.1  9.1   8.2
Delay Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:    10.5 10.5   7.5  12.6 12.6   7.4  10.6 10.6   8.5   9.1  9.1   8.2
LOS by Move:    B   B   A       B   B   A       B   B   A       A   A   A
ApproachDel:    10.5                12.4                9.8                8.6
Delay Adj:      1.00                1.00                1.00                1.00
ApprAdjDel:     10.5                12.4                9.8                8.6
LOS by Appr:    B                B                A                A
AllWayAvgQ:     0.4  0.4  0.0   0.8  0.8  0.0   0.3  0.3  0.1   0.0  0.0  0.0

```

 Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #6 Chestnut St and Palm Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.552
 Loss Time (sec): 0 Average Delay (sec/veh): 11.6
 Optimal Cycle: 0 Level Of Service: B

 Street Name: Chestnut St Palm Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1
 -----|-----|-----|-----|
 Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
 Base Vol: 5 146 9 14 338 8 7 7 79 6 1 7
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 6 163 10 16 377 9 8 8 88 7 1 8
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 6 163 10 16 377 9 8 8 88 7 1 8
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 6 163 10 16 377 9 8 8 88 7 1 8
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 6 163 10 16 377 9 8 8 88 7 1 8
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 6 163 10 16 377 9 8 8 88 7 1 8
 -----|-----|-----|-----|
 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.03 0.97 1.00 0.04 0.96 1.00 0.50 0.50 1.00 0.86 0.14 1.00
 Final Sat.: 23 658 783 28 683 822 271 271 635 437 73 607
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.25 0.25 0.01 0.55 0.55 0.01 0.03 0.03 0.14 0.02 0.02 0.01
 Crit Moves: **** **** **** ****
 Delay/Veh: 9.5 9.5 7.2 13.5 13.5 7.0 9.0 9.0 8.7 9.3 9.3 8.1
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 9.5 9.5 7.2 13.5 13.5 7.0 9.0 9.0 8.7 9.3 9.3 8.1
 LOS by Move: A A A B B A A A A A A A
 ApproachDel: 9.4 13.4 8.7 8.7
 Delay Adj: 1.00 1.00 1.00
 ApprAdjDel: 9.4 13.4 8.7 8.7
 LOS by Appr: A B A A
 AllWayAvgQ: 0.3 0.3 0.0 1.2 1.2 0.0 0.0 0.0 0.1 0.0 0.0 0.0

 Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #7 Fremont Ave and Poplar Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.765
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 60 Level Of Service: C

 Street Name: Fremont Ave Poplar Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 1 0 1 0 1

 Volume Module:
 Base Vol: 152 1403 115 25 863 42 25 117 80 53 118 28
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 170 1565 128 28 963 47 28 131 89 59 132 31
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 170 1565 128 28 963 47 28 131 89 59 132 31
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 170 1565 128 28 963 47 28 131 89 59 132 31
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 170 1565 128 28 963 47 28 131 89 59 132 31
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 170 1565 128 28 963 47 28 131 89 59 132 31

 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.85 0.15 1.00 1.91 0.09 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat.: 1600 2958 242 1600 3051 149 1600 1600 1600 1600 1600 1600

Capacity Analysis Module:

Vol/Sat: 0.11 0.53 0.53 0.02 0.32 0.32 0.02 0.08 0.06 0.04 0.08 0.02

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Date Ave and Mission Rd

Average Delay (sec/veh): 4.0 Worst Case Level Of Service: C[18.7]

Street Name:

Date Ave

Mission Rd

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

-----|-----|-----|-----|-----|

Control: Stop Sign

Stop Sign

Uncontrolled

Uncontrolled

Rights: Include

Include

Include

Include

Lanes: 0 0 0 0 0

1 0 0 0 1

1 0 2 0 0

0 0 1 1 0

-----|-----|-----|-----|-----|

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak

Base Vol: 0 0 0 195 0 159 84 736 0 0 563 111

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 0 0 0 218 0 177 94 821 0 0 628 124

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 218 0 177 94 821 0 0 628 124

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 218 0 177 94 821 0 0 628 124

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

FinalVolume: 0 0 0 218 0 177 94 821 0 0 628 124

-----|-----|-----|-----|-----|

Critical Gap Module:

Critical Gp:xxxxx xxxxx xxxxxx 6.8 xxxxx 6.9 4.1 xxxxx xxxxxx xxxxxx xxxxx xxxxxx

FollowUpTim:xxxxxx xxxxx xxxxxx 3.5 xxxxx 3.3 2.2 xxxxx xxxxxx xxxxxx xxxxx xxxxxx

-----|-----|-----|-----|-----|

Capacity Module:

Cnflct Vol: xxxxx xxxxx xxxxxx 1288 xxxxx 376 752 xxxxx xxxxxx xxxxx xxxxx xxxxxx

Potent Cap.: xxxxx xxxxx xxxxxx 158 xxxxx 627 867 xxxxx xxxxxx xxxxx xxxxx xxxxxx

Move Cap.: xxxxx xxxxx xxxxxx 145 xxxxx 627 867 xxxxx xxxxxx xxxxx xxxxx xxxxxx

Total Cap: 229 266 xxxxxx 412 279 xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx

Volume/Cap: xxxxx xxxxx xxxxx 0.53 xxxxx 0.28 0.11 xxxxx xxxxx xxxxx xxxxx xxxxx

-----|-----|-----|-----|-----|

Level Of Service Module:

2Way95thQ: xxxxx xxxxx xxxxxx 3.2 xxxxx 1.2 0.4 xxxxx xxxxxx xxxxx xxxxx xxxxxx

Control Del:xxxxxx xxxxx xxxxxx 23.4 xxxxx 13.0 9.7 xxxxx xxxxxx xxxxxx xxxxx xxxxxx

LOS by Move: * * * C * B A * * * * *

Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx xxxx xxxxx	xxxx xxxx xxxxx	xxxx xxxx xxxxx	xxxx xxxx xxxxx
SharedQueue:	xxxxx xxxx xxxxx	xxxxx xxxx xxxxx	xxxxx xxxx xxxxx	xxxxx xxxx xxxxx
Shrd ConDel:	xxxxx xxxx xxxxx	xxxxx xxxx xxxxx	xxxxx xxxx xxxxx	xxxxx xxxx xxxxx
Shared LOS:	* * *	* * *	* * *	* * *
ApproachDel:	xxxxxx	18.7	xxxxxx	xxxxxx
ApproachLOS:	*	C	*	*

Note: Queue reported is the number of cars per lane.

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                        Level Of Service Computation Report
                2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #9 Chestnut St and Date Ave
*****
Average Delay (sec/veh):      1.1      Worst Case Level Of Service: B[ 10.6]
*****
Street Name:      Chestnut St      Date Ave
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      1 0 1 0 1      1 0 1 0 1      0 0 1! 0 0      0 1 0 0 1
-----|-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol:      18 178 12      38 373 10      0 0 0      10 2 17
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 20 199 13      42 416 11      0 0 0      11 2 19
Added Vol:      0 0 0      0 0 0      0 0 0      0 0 0
PasserByVol: 0 0 0      0 0 0      0 0 0      0 0 0
Initial Fut: 20 199 13      42 416 11      0 0 0      11 2 19
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 20 199 13      42 416 11      0 0 0      11 2 19
Reduct Vol: 0 0 0      0 0 0      0 0 0      0 0 0
FinalVolume: 20 199 13      42 416 11      0 0 0      11 2 19
-----|-----|-----|-----|-----|
Critical Gap Module:
Critical Gap: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 6.4 6.5 6.2
FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 427 xxxx xxxxx 212 xxxx xxxxx 757 753 416 745 751 199
Potent Cap.: 1143 xxxx xxxxx 1370 xxxx xxxxx 327 341 641 384 342 848
Move Cap.: 1143 xxxx xxxxx 1370 xxxx xxxxx 306 325 641 370 326 848
Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 469 464 xxxxx 516 455 xxxxx
Volume/Cap: 0.02 xxxx xxxxx 0.03 xxxx xxxxx 0.00 0.00 0.00 0.02 0.00 0.02
-----|-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: 0.1 xxxx xxxxx 0.1 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx 0.1
Control Del: 8.2 xxxx xxxxx 7.7 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx 9.3
LOS by Move: A * * A * * * * * * * A
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 0 xxxxx 505 xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.1 xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 12.3 xxxx xxxxx
Shared LOS: * * * * * * * * * * B * *
ApproachDel: xxxxxx xxxxxx xxxxxx 10.6
ApproachLOS: * * * * B

```

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Fremont Ave and Concord Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.652
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 45 Level Of Service: B

Street Name:	Fremont Ave						Concord Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	1	0	1	1	0	0

Volume Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Base Vol:	51	1539	113	27	898	71	79	43	47	75	60	75
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	57	1717	126	30	1002	79	88	48	52	84	67	84
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	1717	126	30	1002	79	88	48	52	84	67	84
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	1717	126	30	1002	79	88	48	52	84	67	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	1717	126	30	1002	79	88	48	52	84	67	84
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	1717	126	30	1002	79	88	48	52	84	67	84

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.79	0.21	1.00	1.85	0.15	1.00	1.00	1.00	1.00	0.44	0.56
Final Sat.:	1600	4472	328	1600	2966	234	1600	1600	1600	1600	711	889

Capacity Analysis Module:

Vol/Sat: 0.04 0.38 0.38 0.02 0.34 0.34 0.06 0.03 0.03 0.05 0.09 0.09

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.740

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 79 Level Of Service: C

Street Name:

Fremont Ave

Montezuma Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Permitted Protected Permitted

Rights: Include Ignore Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 2 0 0 1 0 0 1 1 0 1 2 0 0 1 1 0 0 1 0 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 687 443 86 24 41 259 399 167 611 33 69 19

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 766 494 96 27 46 289 445 186 682 37 77 21

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 766 494 96 27 46 289 445 186 682 37 77 21

User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 766 494 96 27 46 0 445 186 682 37 77 21

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 766 494 96 27 46 0 445 186 682 37 77 21

PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 766 494 96 27 46 0 445 186 682 37 77 21

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 0.90 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 2.00 0.84 0.16 0.74 1.26 1.00 2.00 0.43 1.57 0.27 0.57 0.16

Final Sat.: 2880 1340 260 1182 2018 1600 2880 687 2513 436 912 251

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.27 0.37 0.37 0.02 0.02 0.00 0.15 0.27 0.27 0.02 0.08 0.08

Crit Moves: ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.573

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 38 Level Of Service: A

Street Name:

Palm Ave

Commonwealth Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 1 0 1 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 49 124 20 172 217 244 190 416 70 8 385 96

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 55 138 22 192 242 272 212 464 78 9 430 107

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 55 138 22 192 242 272 212 464 78 9 430 107

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 55 138 22 192 242 272 212 464 78 9 430 107

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 55 138 22 192 242 272 212 464 78 9 430 107

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 55 138 22 192 242 272 212 464 78 9 430 107

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.71 0.29 1.00 2.00 1.00

Final Sat.: 1600 1600 1600 1600 1600 1600 1600 2739 461 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.03 0.09 0.01 0.12 0.15 0.17 0.13 0.17 0.17 0.01 0.13 0.07

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.654

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 45 Level Of Service: B

Street Name:

Date Ave

Commonwealth Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 0 1 1 0 1 0 1 1 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 63 127 57 116 81 144 206 514 97 51 487 115

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 70 142 64 129 90 161 230 573 108 57 543 128

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 70 142 64 129 90 161 230 573 108 57 543 128

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 70 142 64 129 90 161 230 573 108 57 543 128

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 70 142 64 129 90 161 230 573 108 57 543 128

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 70 142 64 129 90 161 230 573 108 57 543 128

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.36 0.64 1.00 1.68 0.32 1.00 1.62 0.38

Final Sat.: 1600 1600 1600 1600 576 1024 1600 2692 508 1600 2589 611

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.04 0.09 0.04 0.08 0.16 0.16 0.14 0.21 0.21 0.04 0.21 0.21

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.949

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 132 Level Of Service: E

Street Name: Fremont Ave

Commonwealth Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 1 1 0 1 1 0 1 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 36 1421 259 199 799 25 30 137 14 157 158 238

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 40 1585 289 222 891 28 33 153 16 175 176 266

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 40 1585 289 222 891 28 33 153 16 175 176 266

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 40 1585 289 222 891 28 33 153 16 175 176 266

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 40 1585 289 222 891 28 33 153 16 175 176 266

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 40 1585 289 222 891 28 33 153 16 175 176 266

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 1.94 0.06 1.00 0.91 0.09 1.00 1.00 1.00

Final Sat.: 1600 3200 1600 1600 3103 97 1600 1452 148 1600 1600 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.03 0.50 0.18 0.14 0.29 0.29 0.02 0.11 0.11 0.11 0.11 0.17

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Fremont Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.975

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 159 Level Of Service: E

Street Name: Fremont Ave

Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 2 2 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 28 803 33 186 961 774 616 899 25 125 349 308

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 31 896 37 208 1072 864 687 1003 28 139 389 344

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 31 896 37 208 1072 864 687 1003 28 139 389 344

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 31 896 37 208 1072 864 687 1003 28 139 389 344

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 31 896 37 208 1072 864 687 1003 28 139 389 344

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 31 896 37 208 1072 864 687 1003 28 139 389 344

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.92 0.08 1.00 2.00 2.00 2.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 3074 126 1600 3200 3200 2880 3200 1600 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.29 0.29 0.13 0.34 0.27 0.24 0.31 0.02 0.09 0.12 0.21
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.643

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 44 Level Of Service: B

Street Name: Palm Ave

Mission Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 2 0 0 0 0 1 1 0

-----|-----|-----|-----|

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak

Base Vol: 0 0 0 330 0 110 49 898 0 0 570 102

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 0 0 0 368 0 123 55 1002 0 0 636 114

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 368 0 123 55 1002 0 0 636 114

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 368 0 123 55 1002 0 0 636 114

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 368 0 123 55 1002 0 0 636 114

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 0 0 368 0 123 55 1002 0 0 636 114

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 1.70 0.30

Final Sat.: 0 0 0 1600 0 1600 1600 3200 0 0 2714 486

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.23 0.00 0.08 0.03 0.31 0.00 0.00 0.23 0.23

Crit Moves: **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.818

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 71 Level Of Service: D

Street Name:

Marengo Ave

Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 0 1 0 1 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 17 159 64 285 201 195 307 869 8 48 557 136

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 19 177 71 318 224 218 343 970 9 54 621 152

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 19 177 71 318 224 218 343 970 9 54 621 152

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 19 177 71 318 224 218 343 970 9 54 621 152

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 19 177 71 318 224 218 343 970 9 54 621 152

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 19 177 71 318 224 218 343 970 9 54 621 152

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.51 0.49 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 1600 1600 1600 812 788 1600 3200 1600 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.01 0.11 0.04 0.20 0.28 0.28 0.21 0.30 0.01 0.03 0.19 0.09

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 1.010

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Atlantic Blvd Mission Road

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 1 1 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 95 1061 137 42 951 101 131 965 133 182 563 60

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 106 1184 153 47 1061 113 146 1077 148 203 628 67

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 106 1184 153 47 1061 113 146 1077 148 203 628 67

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 106 1184 153 47 1061 113 146 1077 148 203 628 67

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 106 1184 153 47 1061 113 146 1077 148 203 628 67

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 106 1184 153 47 1061 113 146 1077 148 203 628 67

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.77 0.23 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.81 0.19

Final Sat.: 1600 2834 366 1600 3200 1600 1600 3200 1600 1600 2892 308

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.07 0.42 0.42 0.03 0.33 0.07 0.09 0.34 0.09 0.13 0.22 0.22

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.983

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 171 Level Of Service: E

Street Name: Marengo Ave

Mission Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 1 1 0 1 0 1 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 73 515 225 58 466 46 53 939 283 70 538 59

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 81 575 251 65 520 51 59 1048 316 78 600 66

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 81 575 251 65 520 51 59 1048 316 78 600 66

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 81 575 251 65 520 51 59 1048 316 78 600 66

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 81 575 251 65 520 51 59 1048 316 78 600 66

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 81 575 251 65 520 51 59 1048 316 78 600 66

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.91 0.09 1.00 1.54 0.46 1.00 1.80 0.20

Final Sat.: 1600 1600 1600 1600 1456 144 1600 2459 741 1600 2884 316

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.05 0.36 0.16 0.04 0.36 0.36 0.04 0.43 0.43 0.05 0.21 0.21

Crit Moves: ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #20 Marengo Ave and Front St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.850

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 80 Level Of Service: D

Street Name:

Marengo Ave

Front St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 0 1 0 1 0 0 1 0 1 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 3 634 4 23 682 188 150 50 8 2 19 16

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 3 707 4 26 761 210 167 56 9 2 21 18

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 3 707 4 26 761 210 167 56 9 2 21 18

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 3 707 4 26 761 210 167 56 9 2 21 18

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 3 707 4 26 761 210 167 56 9 2 21 18

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 3 707 4 26 761 210 167 56 9 2 21 18

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 0.99 0.01 1.00 0.78 0.22 0.75 0.25 1.00 0.10 0.90 1.00

Final Sat.: 1600 1590 10 1600 1254 346 1200 400 1600 152 1448 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.44 0.44 0.02 0.61 0.61 0.10 0.14 0.01 0.00 0.01 0.01

Crit Moves: ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #21 I-710 NB Ramp and Valley Blvd

Cycle (sec): 120 Critical Vol./Cap.(X): 0.712

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 54 Level Of Service: C

Street Name: I-710 NB Ramp

Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Split Phase Split Phase Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1! 0 1 0 0 1! 0 0 0 0 2 0 0 0 0 3 1 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 584 0 1238 1 0 2 0 530 0 0 1118 0

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 652 0 1381 1 0 2 0 591 0 0 1247 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 652 0 1381 1 0 2 0 591 0 0 1247 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 652 0 1381 1 0 2 0 591 0 0 1247 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 652 0 1381 1 0 2 0 591 0 0 1247 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 652 0 1381 1 0 2 0 591 0 0 1247 0

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 0.00 2.00 0.33 0.00 0.67 0.00 2.00 0.00 0.00 4.00 0.00

Final Sat.: 1600 0 3200 533 0 1067 0 3200 0 0 6400 0

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.41 0.00 0.43 0.00 0.00 0.00 0.18 0.00 0.00 0.19 0.00

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.912

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 106 Level Of Service: E

Street Name: I-710 SB Ramp

Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 0 0 0 2 0 1 2 0 2 0 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 0 0 0 0 0 0 0 0 539 729 783 940 0

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 0 0 0 0 0 0 0 0 601 813 874 1049 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 0 0 0 0 0 601 813 874 1049 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 0 0 0 0 0 601 813 874 1049 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 0 0 0 0 0 601 813 874 1049 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 0 0 0 0 0 0 0 601 813 874 1049 0

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00

Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00

Final Sat.: 0 0 0 0 0 0 0 0 3200 1600 2880 3200 0

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.19 0.51 0.30 0.33 0.00

Crit Moves:

**** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.839

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 77 Level Of Service: D

Street Name:

Fremont Ave

Hellman Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 1 0 1 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 85 740 242 147 813 68 128 173 216 206 181 237

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 95 826 270 164 907 76 143 193 241 230 202 264

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 95 826 270 164 907 76 143 193 241 230 202 264

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 95 826 270 164 907 76 143 193 241 230 202 264

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 95 826 270 164 907 76 143 193 241 230 202 264

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 95 826 270 164 907 76 143 193 241 230 202 264

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.51 0.49 1.00 1.85 0.15 1.00 1.00 1.00 1.00 1.00 1.00

Final Sat.: 1600 2411 789 1600 2953 247 1600 1600 1600 1600 1600 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.06 0.34 0.34 0.10 0.31 0.31 0.09 0.12 0.15 0.14 0.13 0.17
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.870
 Loss Time (sec): 0 Average Delay (sec/veh): 32.1
 Optimal Cycle: 0 Level Of Service: D

Street Name:	Elm St				Hellman Ave/Ramona Rd/ 10 WB ramp			
Approach:	North Bound		South Bound		East Bound		West Bound	
Movement:	L	T	R	L	T	R	L	T
Control:	Stop Sign		Stop Sign		Stop Sign		Stop Sign	
Rights:	Include		Include		Include		Include	
Min. Green:	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	0	1

Volume Module:PM Peak

Base Vol:	467	172	98	10	5	40	29	299	223	120	105	2
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	521	192	109	11	6	45	32	334	249	134	117	2
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	521	192	109	11	6	45	32	334	249	134	117	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	521	192	109	11	6	45	32	334	249	134	117	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	521	192	109	11	6	45	32	334	249	134	117	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	521	192	109	11	6	45	32	334	249	134	117	2

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.27	0.47	0.26	0.67	0.33	1.00	0.09	0.91	1.00	0.53	0.47	1.00
Final Sat.:	1069	-252	126	258	129	436	42	435	525	228	200	472

Capacity Analysis Module:

Vol/Sat: 0.49-0.76 0.87 0.04 0.04 0.10 0.77 0.77 0.47 0.59 0.59 0.00
 Crit Moves: **** **** ****
 Delay/Veh: 42.8 42.3 42.3 11.9 11.9 11.3 30.4 30.4 15.2 21.6 21.6 10.0

Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.8	42.3	42.3	11.9	11.9	11.3	30.4	30.4	15.2	21.6	21.6	10.0
LOS by Move:	E	E	E	B	B	B	D	D	C	C	C	B
ApproachDel:	42.8				11.5			24.3			21.5	
Delay Adj:	1.00				1.00			1.00			1.00	
ApprAdjDel:	42.8				11.5			24.3			21.5	
LOS by Appr:		E			B			C			C	

AllWayAvgQ: 4.2 4.2 4.2 0.0 0.0 0.1 2.7 2.7 0.8 1.3 1.3 0.0

 Note: Queue reported is the number of cars per lane.

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                        Level Of Service Computation Report
                2000 HCM 4-Way Stop Method (Future Volume Alternative)
*****
Intersection #25 Fremont Ave and Ramona Road/10 EB ramp
*****
Cycle (sec):          100                Critical Vol./Cap.(X):          1.370
Loss Time (sec):       0                  Average Delay (sec/veh):        111.4
Optimal Cycle:         0                  Level Of Service:              F
*****
Street Name:          Fremont Ave                Ramona Road/10 EB ramp
Approach:             North Bound                South Bound                East Bound                West Bound
Movement:             L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|-----|
Control:              Stop Sign                Stop Sign                Stop Sign                Stop Sign
Rights:               Include                  Include                  Include                  Include
Min. Green:           0 0 1 0 1                0 0 0 0 0                0 0 0 0 0                0 0 0 0 0
Lanes:               0 0 1 0 1                0 0 0 0 0                0 1 0 0 1                0 0 1! 0 0
-----|-----|-----|-----|-----|
Volume Module:PM Peak
Base Vol:             0 731 116                0 0 0 0 0                4 91 289 47 0 78
Growth Adj:  1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse:  0 816 129 0 0 0 0 4 102 322 52 0 87
Added Vol:     0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:   0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:   0 816 129 0 0 0 0 4 102 322 52 0 87
User Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0 816 129 0 0 0 0 4 102 322 52 0 87
Reduct Vol:    0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:   0 816 129 0 0 0 0 4 102 322 52 0 87
PCE Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:   0 816 129 0 0 0 0 4 102 322 52 0 87
-----|-----|-----|-----|-----|
Saturation Flow Module:
Adjustment:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:       0.00 1.00 1.00 0.00 0.00 0.00 0.04 0.96 1.00 0.38 0.00 0.62
Final Sat.:  0 595 662 0 0 0 22 507 592 199 0 330
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      xxxx 1.37 0.20 xxxx xxxx xxxx 0.20 0.20 0.54 0.26 xxxx 0.26
Crit Moves:   ****                      ****
Delay/Veh:    0.0 195 9.3 0.0 0.0 0.0 11.2 11.2 15.7 12.1 0.0 12.1
Delay Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:   0.0 195 9.3 0.0 0.0 0.0 11.2 11.2 15.7 12.1 0.0 12.1
LOS by Move:  * F A * * * B B C B * B
ApproachDel:  169.9 xxxxxx 14.6 12.1
Delay Adj:    1.00 xxxxxx 1.00 1.00
ApprAdjDel:   169.9 xxxxxx 14.6 12.1
LOS by Appr:  F * B B
  
```

AllWayAvgQ: 0.0 30.9 0.2 0.0 0.0 0.0 0.2 0.2 1.1 0.3 0.3 0.3

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.544
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 36 Level Of Service: A

Street Name:	Fremont Ave						Ross Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	1	0

Volume Module:	Fremont Ave			Fremont Ave			Ross Ave			Ross Ave		
Base Vol:	30	849	168	26	988	41	11	32	6	54	40	41
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	33	947	187	29	1102	46	12	36	7	60	45	46
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	947	187	29	1102	46	12	36	7	60	45	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	947	187	29	1102	46	12	36	7	60	45	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	947	187	29	1102	46	12	36	7	60	45	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	947	187	29	1102	46	12	36	7	60	45	46

Saturation Flow Module:	Fremont Ave			Fremont Ave			Ross Ave			Ross Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.67	0.33	1.00	1.92	0.08	1.00	0.84	0.16	1.00	1.00	1.00
Final Sat.:	1600	2671	529	1600	3072	128	1600	1347	253	1600	1600	1600

Capacity Analysis Module:

Vol/Sat: 0.02 0.35 0.35 0.02 0.36 0.36 0.01 0.03 0.03 0.04 0.03 0.03

Crit Moves: ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Westmont Dr and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.698

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 50 Level Of Service: B

Street Name:

Westmont Dr

Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 16 10 11 24 9 14 56 1578 135 8 1040 33

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 18 11 12 27 10 16 62 1761 151 9 1160 37

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 18 11 12 27 10 16 62 1761 151 9 1160 37

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 18 11 12 27 10 16 62 1761 151 9 1160 37

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 18 11 12 27 10 16 62 1761 151 9 1160 37

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 18 11 12 27 10 16 62 1761 151 9 1160 37

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.43 0.27 0.30 0.51 0.19 0.30 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 692 432 476 817 306 477 1600 3200 1600 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:
Vol/Sat: 0.01 0.03 0.03 0.02 0.03 0.03 0.04 0.55 0.09 0.01 0.36 0.02
Crit Moves: **** **** **** ****









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Scenario: Scenario Report
2028 Ambient Growth + Project AM
Command: 2028 Ambient Growth + Proj AM
Volume: 2028 AM
Geometry: Existing
Impact Fee: Default Impact Fee

Intersection

Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	20	15	2	6	2	6	66	2	6	214	32
Future Vol, veh/h	8	20	15	2	6	2	6	66	2	6	214	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	22	16	2	7	2	7	72	2	7	233	35
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.2	8.1	8.2	9.3
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	8%	0%	29%	0%	25%	0%	3%	0%
Vol Thru, %	92%	0%	71%	0%	75%	0%	97%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	72	2	28	15	8	2	220	32
LT Vol	6	0	8	0	2	0	6	0
Through Vol	66	0	20	0	6	0	214	0
RT Vol	0	2	0	15	0	2	0	32
Lane Flow Rate	78	2	30	16	9	2	239	35
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.107	0.003	0.047	0.021	0.013	0.003	0.311	0.038
Departure Headway (Hd)	4.94	4.196	5.533	4.686	5.558	4.728	4.686	3.971
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	729	857	650	768	647	760	758	888
Service Time	2.647	1.903	3.239	2.391	3.266	2.436	2.472	1.758
HCM Lane V/C Ratio	0.107	0.002	0.046	0.021	0.014	0.003	0.315	0.039
HCM Control Delay	8.2	6.9	8.5	7.5	8.3	7.5	9.6	6.9
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0	0.1	0.1	0	0	1.3	0.1

Intersection

Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗	↘		↗	↘		↗	↘		↗	↘
Traffic Vol, veh/h	1	1	8	1	3	8	16	100	2	13	182	12
Future Vol, veh/h	1	1	8	1	3	8	16	100	2	13	182	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	9	1	3	9	17	109	2	14	198	13
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1









Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	7.6	7.7	8.5	9.1
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	14%	0%	50%	0%	25%	0%	7%	0%
Vol Thru, %	86%	0%	50%	0%	75%	0%	93%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	116	2	2	8	4	8	195	12
LT Vol	16	0	1	0	1	0	13	0
Through Vol	100	0	1	0	3	0	182	0
RT Vol	0	2	0	8	0	8	0	12
Lane Flow Rate	126	2	2	9	4	9	212	13
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.167	0.002	0.003	0.011	0.007	0.011	0.275	0.014
Departure Headway (Hd)	4.755	3.985	5.648	4.692	5.519	4.69	4.671	3.937
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	748	888	637	767	652	768	765	903
Service Time	2.525	1.754	3.349	2.393	3.219	2.39	2.421	1.687
HCM Lane V/C Ratio	0.168	0.002	0.003	0.012	0.006	0.012	0.277	0.014
HCM Control Delay	8.5	6.8	8.4	7.4	8.3	7.4	9.2	6.7
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.6	0	0	0	0	0	1.1	0

Intersection

Intersection Delay, s/veh 99

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	57	182	365	444	68	15	399	61	23	87	16	223
Future Vol, veh/h	57	182	365	444	68	15	399	61	23	87	16	223
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	62	198	397	483	74	16	434	66	25	95	17	242
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1






Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	46.5	265.2	34.2	23.9
HCM LOS	E	F	D	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	66%	24%	0%	87%	0%	84%	0%
Vol Thru, %	0%	25%	76%	0%	13%	0%	16%	0%
Vol Right, %	0%	9%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	239	244	239	365	512	15	103	223
LT Vol	239	160	57	0	444	0	87	0
Through Vol	0	61	182	0	68	0	16	0
RT Vol	0	23	0	365	0	15	0	223
Lane Flow Rate	260	265	260	397	557	16	112	242
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.696	0.69	0.657	0.912	1.52	0.039	0.31	0.596
Departure Headway (Hd)	10.766	10.513	10.162	9.295	9.835	8.65	11.143	9.949
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	338	347	359	393	373	414	325	366
Service Time	8.466	8.213	7.862	6.995	7.588	6.402	8.843	7.649
HCM Lane V/C Ratio	0.769	0.764	0.724	1.01	1.493	0.039	0.345	0.661
HCM Control Delay	34.8	33.6	30.3	57.1	272.6	11.8	18.8	26.3
HCM Lane LOS	D	D	D	F	F	B	C	D
HCM 95th-tile Q	4.9	4.9	4.4	9.6	30.5	0.1	1.3	3.7

Intersection

Intersection Delay, s/veh 157.1

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	27	652	127	0	17	0	697	54	0	0	0
Future Vol, veh/h	2	27	652	127	0	17	0	697	54	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	29	709	138	0	18	0	758	59	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	128.3	16.7	210.2
HCM LOS	F	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	7%	0%	88%
Vol Thru, %	100%	0%	93%	0%	0%
Vol Right, %	0%	100%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	697	54	29	652	144
LT Vol	0	0	2	0	127
Through Vol	697	0	27	0	0
RT Vol	0	54	0	652	17
Lane Flow Rate	758	59	32	709	157
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.431	0.099	0.06	1.205	0.336
Departure Headway (Hd)	7.284	6.569	7.905	7.149	9.147
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	508	549	456	517	396
Service Time	4.984	4.269	5.605	4.849	7.147
HCM Lane V/C Ratio	1.492	0.107	0.07	1.371	0.396
HCM Control Delay	225.7	10	11.1	133.5	16.7
HCM Lane LOS	F	A	B	F	C
HCM 95th-tile Q	34.3	0.3	0.2	22.9	1.5

HCM 2010 TWSC
4: Date Ave & Orange St

03/06/2018

Intersection

Int Delay, s/veh 3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	20	36	47	8	27	3	54	99	6	7	186	74
Future Vol, veh/h	20	36	47	8	27	3	54	99	6	7	186	74
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	39	51	9	29	3	59	108	7	8	202	80

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	457	442	202	462	442	108	202	0	0	108	0	0
Stage 1	217	217	-	225	225	-	-	-	-	-	-	-
Stage 2	240	225	-	237	217	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	514	510	839	510	510	946	1370	-	-	1483	-	-
Stage 1	785	723	-	778	718	-	-	-	-	-	-	-
Stage 2	763	718	-	766	723	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	471	485	839	433	485	946	1370	-	-	1483	-	-
Mov Cap-2 Maneuver	471	485	-	433	485	-	-	-	-	-	-	-
Stage 1	751	719	-	744	687	-	-	-	-	-	-	-
Stage 2	697	687	-	677	719	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.8		12.9		2.6		0.2	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1370	-	-	480	839	472	946	1483	-	-
HCM Lane V/C Ratio	0.043	-	-	0.127	0.061	0.081	0.003	0.005	-	-
HCM Control Delay (s)	7.7	-	-	13.6	9.6	13.3	8.8	7.4	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.2	0.3	0	0	-	-

Intersection

Int Delay, s/veh 2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	91	482	1349	175	25	87
Future Vol, veh/h	91	482	1349	175	25	87
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	99	524	1466	190	27	95

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1657	0	0 2021 828
Stage 1	-	-	- 1561 -
Stage 2	-	-	- 460 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	385	-	- 50 314
Stage 1	-	-	- 159 -
Stage 2	-	-	- 602 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	385	-	- 32 314
Mov Cap-2 Maneuver	-	-	- 114 -
Stage 1	-	-	- 159 -
Stage 2	-	-	- 383 -

Approach	EB	WB	SB
HCM Control Delay, s	2.8	0	26.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	385	-	-	-	114	314
HCM Lane V/C Ratio	0.257	-	-	-	0.238	0.301
HCM Control Delay (s)	17.6	-	-	-	46.2	21.3
HCM Lane LOS	C	-	-	-	E	C
HCM 95th %tile Q(veh)	1	-	-	-	0.9	1.2

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	0	0	0	2	3	2	85	161	9	13	151	59
Future Vol, veh/h	0	0	0	2	3	2	85	161	9	13	151	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	2	3	2	92	175	10	14	164	64

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	553	552	164	552	552	175	164	0	0	175	0	0
Stage 1	192	192	-	360	360	-	-	-	-	-	-	-
Stage 2	361	360	-	192	192	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	444	442	881	444	442	868	1414	-	-	1401	-	-
Stage 1	810	742	-	658	626	-	-	-	-	-	-	-
Stage 2	657	626	-	810	742	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	415	409	881	419	409	868	1414	-	-	1401	-	-
Mov Cap-2 Maneuver	415	409	-	419	409	-	-	-	-	-	-	-
Stage 1	757	735	-	615	585	-	-	-	-	-	-	-
Stage 2	609	585	-	802	735	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	12.5	2.6	0.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1414	-	-	- 413 868	1401	-	-
HCM Lane V/C Ratio	0.065	-	-	- 0.013 0.003	0.01	-	-
HCM Control Delay (s)	7.7	-	-	0 13.8 9.2	7.6	-	-
HCM Lane LOS	A	-	-	A B A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	- 0 0	0	-	-

Intersection

Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	65	71	79	2	6	8	6	191	2	11	299	15
Future Vol, veh/h	65	71	79	2	6	8	6	191	2	11	299	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	71	77	86	2	7	9	7	208	2	12	325	16
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10.4	9.1	11.4	14
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	48%	0%	25%	0%	4%	0%
Vol Thru, %	97%	0%	52%	0%	75%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	197	2	136	79	8	8	310	15
LT Vol	6	0	65	0	2	0	11	0
Through Vol	191	0	71	0	6	0	299	0
RT Vol	0	2	0	79	0	8	0	15
Lane Flow Rate	214	2	148	86	9	9	337	16
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.341	0.003	0.261	0.129	0.016	0.014	0.523	0.022
Departure Headway (Hd)	5.732	5.009	6.365	5.415	6.655	5.816	5.592	4.868
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	630	716	565	663	538	615	650	740
Service Time	3.452	2.729	4.094	3.144	4.395	3.555	3.292	2.568
HCM Lane V/C Ratio	0.34	0.003	0.262	0.13	0.017	0.015	0.518	0.022
HCM Control Delay	11.4	7.7	11.3	8.9	9.5	8.6	14.3	7.7
HCM Lane LOS	B	A	B	A	A	A	B	A
HCM 95th-tile Q	1.5	0	1	0.4	0	0	3	0.1

Intersection

Intersection Delay, s/veh	12.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	8	8	88	7	1	8	6	163	10	16	377	9
Future Vol, veh/h	8	8	88	7	1	8	6	163	10	16	377	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	9	96	8	1	9	7	177	11	17	410	10
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1









Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.1	9	9.9	15.1
HCM LOS	A	A	A	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	4%	0%	50%	0%	88%	0%	4%	0%
Vol Thru, %	96%	0%	50%	0%	12%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	169	10	16	88	8	8	393	9
LT Vol	6	0	8	0	7	0	16	0
Through Vol	163	0	8	0	1	0	377	0
RT Vol	0	10	0	88	0	8	0	9
Lane Flow Rate	184	11	17	96	9	9	427	10
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.27	0.014	0.031	0.144	0.016	0.013	0.603	0.012
Departure Headway (Hd)	5.294	4.571	6.364	5.403	6.709	5.556	5.083	4.36
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	676	778	560	659	530	638	709	817
Service Time	3.054	2.331	4.133	3.172	4.5	3.346	2.832	2.108
HCM Lane V/C Ratio	0.272	0.014	0.03	0.146	0.017	0.014	0.602	0.012
HCM Control Delay	10	7.4	9.3	9.1	9.6	8.4	15.3	7.2
HCM Lane LOS	A	A	A	A	A	A	C	A
HCM 95th-tile Q	1.1	0	0.1	0.5	0	0	4.1	0

Intersection

Intersection Delay, s/veh 48

Intersection LOS E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	334	249	134	117	2	521	192	109	11	6	45
Future Vol, veh/h	32	334	249	134	117	2	521	192	109	11	6	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	363	271	146	127	2	566	209	118	12	7	49
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	34.3	27.9	67.2	12.7
HCM LOS	D	D	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	27%	9%	0%	53%	0%	65%	0%
Vol Thru, %	0%	47%	91%	0%	47%	0%	35%	0%
Vol Right, %	0%	27%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	412	410	366	249	251	2	17	45
LT Vol	412	109	32	0	134	0	11	0
Through Vol	0	192	334	0	117	0	6	0
RT Vol	0	109	0	249	0	2	0	45
Lane Flow Rate	447	446	398	271	273	2	18	49
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	1.021	0.948	0.874	0.537	0.668	0.005	0.049	0.116
Departure Headway (Hd)	8.219	7.651	8.024	7.259	8.987	7.987	9.813	8.742
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	443	477	454	501	404	451	367	412
Service Time	5.919	5.351	5.724	4.959	6.687	5.687	7.513	6.442
HCM Lane V/C Ratio	1.009	0.935	0.877	0.541	0.676	0.004	0.049	0.119
HCM Control Delay	77.3	57	45.3	18.1	28	10.7	13	12.6
HCM Lane LOS	F	F	E	C	D	B	B	B
HCM 95th-tile Q	13.5	11.5	9.1	3.1	4.7	0	0.2	0.4

Intersection

Intersection Delay, s/veh 160.2

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱↲			↱	↱			
Traffic Vol, veh/h	4	102	322	52	0	87	0	816	129	0	0	0
Future Vol, veh/h	4	102	322	52	0	87	0	816	129	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	111	350	57	0	95	0	887	140	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	18.6	14.4	245.7
HCM LOS	C	B	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	4%	0%	37%
Vol Thru, %	100%	0%	96%	0%	0%
Vol Right, %	0%	100%	0%	100%	63%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	816	129	106	322	139
LT Vol	0	0	4	0	52
Through Vol	816	0	102	0	0
RT Vol	0	129	0	322	87
Lane Flow Rate	887	140	115	350	151
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.572	0.221	0.22	0.598	0.289
Departure Headway (Hd)	6.379	5.67	8.071	7.332	8.105
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	577	637	448	497	446
Service Time	4.079	3.37	5.771	5.032	6.105
HCM Lane V/C Ratio	1.537	0.22	0.257	0.704	0.339
HCM Control Delay	283	10	13	20.4	14.4
HCM Lane LOS	F	A	B	C	B
HCM 95th-tile Q	47.4	0.8	0.8	3.9	1.2

HCM 2010 TWSC
4: Date Ave & Orange St

03/06/2018

Intersection

Int Delay, s/veh 12.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	75	172	173	1	22	7	35	190	3	28	298	46
Future Vol, veh/h	75	172	173	1	22	7	35	190	3	28	298	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	82	187	188	1	24	8	38	207	3	30	324	50

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	680	668	324	761	668	207	324	0	0	207	0	0
Stage 1	385	385	-	283	283	-	-	-	-	-	-	-
Stage 2	295	283	-	478	385	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	365	379	717	322	379	833	1236	-	-	1364	-	-
Stage 1	638	611	-	724	677	-	-	-	-	-	-	-
Stage 2	713	677	-	568	611	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	330	359	717	135	359	833	1236	-	-	1364	-	-
Mov Cap-2 Maneuver	330	359	-	135	359	-	-	-	-	-	-	-
Stage 1	618	598	-	702	656	-	-	-	-	-	-	-
Stage 2	660	656	-	282	598	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	29.7		14.9		1.2		0.6	
HCM LOS	D		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1236	-	-	350	717	335	833	1364	-	-
HCM Lane V/C Ratio	0.031	-	-	0.767	0.262	0.075	0.009	0.022	-	-
HCM Control Delay (s)	8	-	-	42.2	11.8	16.6	9.4	7.7	-	-
HCM Lane LOS	A	-	-	E	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	6.2	1.1	0.2	0	0.1	-	-

Intersection

Int Delay, s/veh 14.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	94	821	628	124	218	177
Future Vol, veh/h	94	821	628	124	218	177
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	102	892	683	135	237	192

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	817	0	0 1401 409
Stage 1	-	-	- 750 -
Stage 2	-	-	- 651 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	807	-	- ~ 131 592
Stage 1	-	-	- 427 -
Stage 2	-	-	- 481 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	807	-	- ~ 98 592
Mov Cap-2 Maneuver	-	-	- ~ 223 -
Stage 1	-	-	- 427 -
Stage 2	-	-	- 360 -

Approach	EB	WB	SB
HCM Control Delay, s	1	0	74.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	807	-	-	-	223	592
HCM Lane V/C Ratio	0.127	-	-	-	1.063	0.325
HCM Control Delay (s)	10.1	-	-	-	124.2	14
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.4	-	-	-	10.3	1.4

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	0	0	0	11	2	19	20	199	13	42	416	11
Future Vol, veh/h	0	0	0	11	2	19	20	199	13	42	416	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	12	2	21	22	216	14	46	452	12

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	804	803	452	803	803	216	452	0	0	216	0	0
Stage 1	543	543	-	260	260	-	-	-	-	-	-	-
Stage 2	261	260	-	543	543	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	301	317	608	302	317	824	1109	-	-	1354	-	-
Stage 1	524	520	-	745	693	-	-	-	-	-	-	-
Stage 2	744	693	-	524	520	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	280	300	608	290	300	824	1109	-	-	1354	-	-
Mov Cap-2 Maneuver	280	300	-	290	300	-	-	-	-	-	-	-
Stage 1	514	502	-	730	679	-	-	-	-	-	-	-
Stage 2	709	679	-	506	502	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	13	0.7	0.7
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1109	-	-	- 291 824 1354	-	-	-
HCM Lane V/C Ratio	0.02	-	-	- 0.049 0.025 0.034	-	-	-
HCM Control Delay (s)	8.3	-	-	0 18 9.5 7.8	-	-	-
HCM Lane LOS	A	-	-	A C A A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	- 0.2 0.1 0.1	-	-	-

Appendix F – Intersection Analysis Worksheets – Ambient (2028) Plus Project Conditions

Capacity Analysis Module:
Vol/Sat: 0.01 0.03 0.03 0.02 0.03 0.03 0.04 0.55 0.09 0.01 0.36 0.02
Crit Moves: **** **** **** ****

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2028 Ambient Growth + ProjeWed Apr 11, 2018 10:41:59 Page 1-1

Scenario: Scenario Report
2028 Ambient Growth + Project AM
Command: 2028 Ambient Growth + Proj AM
Volume: 2028 AM
Geometry: Existing
Impact Fee: Default Impact Fee

Trip Generation: 2028 Project AM
 Trip Distribution: Cum + Project
 Paths: Default Path
 Routes: Default Route
 Configuration: Default Configuration

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 Turning Movement Report
 Project 2028 AM

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 Fremont Ave and Mission Rd													
Base	247	1505	225	13	1454	49	69	374	530	397	871	48	5783
Added	0	10	15	1	71	14	2	3	0	92	18	9	235

Total	247	1515	240	14	1525	63	71	377	530	489	889	57	6018
-------	-----	------	-----	----	------	----	----	-----	-----	-----	-----	----	------

#2 Fremont Ave and 1000 Fremont Ave

Base	54	1446	131	4	1440	40	26	6	60	4	1	7	3219
Added	0	15	5	4	51	0	0	0	0	35	0	22	132
Total	54	1461	136	8	1491	40	26	6	60	39	1	29	3351

#3 Fremont Ave and Orange St

Base	2	1254	248	156	1473	2	1	1	0	60	0	59	3257
Added	0	24	13	5	4	0	0	0	0	51	0	34	131
Total	2	1278	261	161	1477	2	1	1	0	111	0	93	3388

#4 Date Ave and Orange St

Base	54	99	6	7	186	74	20	36	47	8	27	3	566
Added	6	22	0	0	4	1	5	22	9	0	3	0	72
Total	60	121	6	7	190	75	25	58	56	8	30	3	638

#5 Palm Ave and Orange St

Base	6	66	2	6	214	32	8	20	15	2	6	2	378
Added	0	16	0	0	3	1	8	14	0	0	2	0	44
Total	6	82	2	6	217	33	16	34	15	2	8	2	422

#6 Chestnut St and Palm Ave

Base	16	100	2	13	182	12	1	1	8	1	3	8	348
Added	0	9	0	0	1	1	7	16	0	0	3	0	37
Total	16	109	2	13	183	13	8	17	8	1	6	8	385

#7 Fremont Ave and Poplar Blvd

Base	100	1156	56	19	1564	17	21	116	73	59	118	20	3319
Added	16	40	16	0	6	0	0	0	2	2	0	0	82
Total	116	1196	72	19	1570	17	21	116	75	61	118	20	3401

#8 Date Ave and Mission Rd

Base	0	0	0	25	0	87	91	482	0	0	1349	175	2209
Added	0	0	0	42	0	75	13	36	0	0	6	6	178
Total	0	0	0	67	0	162	104	518	0	0	1355	181	2387

#9 Chestnut St and Date Ave

Base	85	161	9	13	151	59	0	0	0	2	3	2	485
Added	10	13	8	0	11	2	14	16	76	2	2	0	154
Total	95	174	17	13	162	61	14	16	76	4	5	2	639

#10 Fremont Ave and Concord Ave

Base	62	1214	41	4	1540	66	45	13	76	25	16	11	3113
Added	0	58	0	0	9	0	0	0	0	0	0	0	67
Total	62	1272	41	4	1549	66	45	13	76	25	16	11	3180

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#11 Fremont Ave and Montezuma Ave

Base	762	288	45	4	89	667	452	58	683	56	104	11	3219
Added	2	0	0	0	0	6	36	0	12	0	0	0	56
Total	764	288	45	4	89	673	488	58	695	56	104	11	3275

#12 Palm Ave and Commonwealth Ave

Base	20	36	4	44	240	281	67	237	31	15	289	42	1305
Added	0	24	0	0	4	2	12	0	0	0	0	0	42
Total	20	60	4	44	244	283	79	237	31	15	289	42	1347

#13 Date Ave and Commonwealth Ave

Base	27	45	18	52	74	79	76	267	105	132	364	75	1312
Added	14	0	12	0	0	0	0	0	2	2	0	0	30
Total	41	45	30	52	74	79	76	267	107	134	364	75	1342

#14 Fremont Ave and Commonwealth Ave

Base	44	1125	103	191	1456	69	30	150	18	120	173	119	3597
Added	0	58	0	2	9	0	0	0	0	0	0	14	83
Total	44	1183	103	193	1465	69	30	150	18	120	173	133	3680

#15 Fremont Ave and Valley Blvd

Base	46	1021	29	83	898	1420	588	451	31	62	809	206	5644
Added	0	14	0	5	89	69	11	0	0	0	0	1	189
Total	46	1035	29	88	987	1489	599	451	31	62	809	207	5833

#16 Palm Ave and Mission Rd

Base	0	0	0	57	0	138	37	471	0	0	1433	94	2229
Added	0	0	0	0	0	1	9	68	0	0	10	0	88
Total	0	0	0	57	0	139	46	539	0	0	1443	94	2317

#17 Marengo Ave and Valley Blvd

Base	25	131	80	249	182	153	185	467	26	69	1067	210	2843
Added	0	1	0	11	8	0	0	5	0	0	1	2	28
Total	25	132	80	260	190	153	185	472	26	69	1068	212	2871

#18 Atlantic Blvd and Mission Road

Base	172	1185	128	45	1052	274	98	576	75	195	1067	37	4904
Added	0	0	0	0	0	0	0	32	0	0	5	0	37
Total	172	1185	128	45	1052	274	98	608	75	195	1072	37	4941

#19 Marengo Ave and Mission Road

Base	95	426	175	48	562	74	49	392	95	303	1306	83	3608
Added	3	0	0	0	0	1	7	32	19	0	5	0	67
Total	98	426	175	48	562	75	56	424	114	303	1311	83	3675

#20 Marengo Ave and Front St

Base	2	567	3	11	550	399	90	12	8	2	84	38	1767
Added	0	3	0	0	19	0	0	0	0	0	0	0	22
Total	2	570	3	11	569	399	90	12	8	2	84	38	1789

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#21 I-710 NB Ramp and Valley Blvd

Base	673	1	764	4	0	1	0	231	0	0	2428	7	4109
Added	0	0	11	0	0	0	0	0	0	0	69	0	80
Total	673	1	775	4	0	1	0	231	0	0	2497	7	4189

#22 I-710 SB Ramp and Valley Blvd

Base	0	0	0	0	0	0	0	239	725	1777	1339	0	4080
Added	0	0	0	0	0	0	0	0	0	69	0	0	69
Total	0	0	0	0	0	0	0	239	725	1846	1339	0	4149

#23 Fremont Ave and Hellman Ave

Base	158	1042	349	142	788	123	120	124	171	187	254	237	3695
Added	0	8	0	40	48	0	0	0	0	0	0	6	102
Total	158	1050	349	182	836	123	120	124	171	187	254	243	3797

#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Base	399	61	23	87	16	223	57	182	365	444	68	15	1940
Added	6	0	0	0	0	0	0	0	40	0	0	0	46
Total	405	61	23	87	16	223	57	182	405	444	68	15	1986

#25 Fremont Ave and Ramona Road/10 EB ramp

Base	0	697	54	0	0	0	2	27	652	127	0	17	1575
Added	0	0	36	0	0	0	0	0	6	0	0	0	42
Total	0	697	90	0	0	0	2	27	658	127	0	17	1617

#26 Ross Ave and Fremont Ave

Base	29	1124	237	47	967	38	29	55	6	193	197	19	2940
Added	0	14	0	0	89	0	0	0	0	0	0	0	103
Total	29	1138	237	47	1056	38	29	55	6	193	197	19	3043

#27 Westmont Dr and Valley Blvd

Base	57	16	8	4	7	41	19	1078	16	3	2272	33	3554
Added	0	0	0	0	0	0	0	11	0	0	69	0	80
Total	57	16	8	4	7	41	19	1089	16	3	2341	33	3634

#135

Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	36	0	44	6	13	0	0	75	6	180
Total	0	0	0	36	0	44	6	13	0	0	75	6	180

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Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	247	1505	225	13	1454	49	69	374	530	397	871	48
2 Fremont Ave a	54	1446	131	4	1440	40	26	6	60	4	1	7
3 Fremont Ave a	2	1254	248	156	1473	2	1	1	0	60	0	59
4 Date Ave and	54	99	6	7	186	74	20	36	47	8	27	3
5 Palm Ave and	6	66	2	6	214	32	8	20	15	2	6	2
6 Chestnut St a	16	100	2	13	182	12	1	1	8	1	3	8
7 Fremont Ave a	100	1156	56	19	1564	17	21	116	73	59	118	20
8 Date Ave and	0	0	0	25	0	87	91	482	0	0	1349	175
9 Chestnut St a	85	161	9	13	151	59	0	0	0	2	3	2
10 Fremont Ave a	62	1214	41	4	1540	66	45	13	76	25	16	11
11 Fremont Ave a	762	288	45	4	89	667	452	58	683	56	104	11
12 Palm Ave and	20	36	4	44	240	281	67	237	31	15	289	42
13 Date Ave and	27	45	18	52	74	79	76	267	105	132	364	75
14 Fremont Ave a	44	1125	103	191	1456	69	30	150	18	120	173	119
15 Fremont Ave a	46	1021	29	83	898	1420	588	451	31	62	809	206
16 Palm Ave and	0	0	0	57	0	138	37	471	0	0	1433	94
17 Marengo Ave a	25	131	80	249	182	153	185	467	26	69	1067	210
18 Atlantic Blvd	172	1185	128	45	1052	274	98	576	75	195	1067	37
19 Marengo Ave a	95	426	175	48	562	74	49	392	95	303	1306	83
20 Marengo Ave a	2	567	3	11	550	399	90	12	8	2	84	38
21 I-710 NB Ramp	673	1	764	4	0	1	0	231	0	0	2428	7
22 I-710 SB Ramp	0	0	0	0	0	0	0	239	725	1777	1339	0
23 Fremont Ave a	158	1042	349	142	788	123	120	124	171	187	254	237
24 Elm St and He	399	61	23	87	16	223	57	182	365	444	68	15

25 Fremont Ave a	0	697	54	0	0	0	2	27	652	127	0	17
26 Ross Ave and	29	1124	237	47	967	38	29	55	6	193	197	19
27 Westmont Dr a	57	16	8	4	7	41	19	1078	16	3	2272	33

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Intersection Volume Report
 Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	247	1515	240	14	1525	63	71	377	530	489	889	57
2 Fremont Ave a	54	1461	136	8	1491	40	26	6	60	39	1	29
3 Fremont Ave a	2	1278	261	161	1477	2	1	1	0	111	0	93
4 Date Ave and	60	121	6	7	190	75	25	58	56	8	30	3
5 Palm Ave and	6	82	2	6	217	33	16	34	15	2	8	2
6 Chestnut St a	16	109	2	13	183	13	8	17	8	1	6	8
7 Fremont Ave a	116	1196	72	19	1570	17	21	116	75	61	118	20
8 Date Ave and	0	0	0	67	0	162	104	518	0	0	1355	181
9 Chestnut St a	95	174	17	13	162	61	14	16	76	4	5	2
10 Fremont Ave a	62	1272	41	4	1549	66	45	13	76	25	16	11
11 Fremont Ave a	764	288	45	4	89	673	488	58	695	56	104	11
12 Palm Ave and	20	60	4	44	244	283	79	237	31	15	289	42
13 Date Ave and	41	45	30	52	74	79	76	267	107	134	364	75
14 Fremont Ave a	44	1183	103	193	1465	69	30	150	18	120	173	133
15 Fremont Ave a	46	1035	29	88	987	1489	599	451	31	62	809	207
16 Palm Ave and	0	0	0	57	0	139	46	539	0	0	1443	94
17 Marengo Ave a	25	132	80	260	190	153	185	472	26	69	1068	212
18 Atlantic Blvd	172	1185	128	45	1052	274	98	608	75	195	1072	37
19 Marengo Ave a	98	426	175	48	562	75	56	424	114	303	1311	83
20 Marengo Ave a	2	570	3	11	569	399	90	12	8	2	84	38
21 I-710 NB Ramp	673	1	775	4	0	1	0	231	0	0	2497	7
22 I-710 SB Ramp	0	0	0	0	0	0	0	239	725	1846	1339	0
23 Fremont Ave a	158	1050	349	182	836	123	120	124	171	187	254	243
24 Elm St and He	405	61	23	87	16	223	57	182	405	444	68	15

25 Fremont Ave a	0	697	90	0	0	0	2	27	658	127	0	17
26 Ross Ave and	29	1138	237	47	1056	38	29	55	6	193	197	19
27 Westmont Dr a	57	16	8	4	7	41	19	1089	16	3	2341	33

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Impact Analysis Report
 Level Of Service

Intersection	Base Del/ LOS Veh	V/ C	Future Del/ LOS Veh	V/ C	Change in
# 1 Fremont Ave and Mission Rd	F xxxxx	1.288	F xxxxx	1.368	+ 0.080 V/C
# 2 Fremont Ave and 1000 Fremont A	B xxxxx	0.628	B xxxxx	0.665	+ 0.038 V/C
# 3 Fremont Ave and Orange St	B xxxxx	0.628	B xxxxx	0.665	+ 0.037 V/C
# 4 Date Ave and Orange St	B 11.6	0.058	B 11.9	0.098	+ 0.363 D/V
# 5 Palm Ave and Orange St	A 8.7	0.289	A 8.8	0.299	+ 0.010 V/C
# 6 Chestnut St and Palm Ave	A 8.6	0.254	A 8.7	0.261	+ 0.007 V/C
# 7 Fremont Ave and Poplar Blvd	C xxxxx	0.766	C xxxxx	0.779	+ 0.013 V/C
# 8 Date Ave and Mission Rd	C 20.5	0.247	D 27.5	0.465	+ 7.011 D/V
# 9 Chestnut St and Date Ave	B 10.9	0.062	B 11.9	0.086	+ 1.004 D/V
# 10 Fremont Ave and Concord Ave	C xxxxx	0.704	C xxxxx	0.706	+ 0.003 V/C
# 11 Fremont Ave and Montezuma Ave	B xxxxx	0.657	B xxxxx	0.671	+ 0.013 V/C
# 12 Palm Ave and Commonwealth Ave	A xxxxx	0.420	A xxxxx	0.429	+ 0.009 V/C
# 13 Date Ave and Commonwealth Ave	A xxxxx	0.411	A xxxxx	0.421	+ 0.011 V/C
# 14 Fremont Ave and Commonwealth A	C xxxxx	0.784	C xxxxx	0.787	+ 0.003 V/C

# 15 Fremont Ave and Valley Blvd	F	xxxxxx	1.029	F	xxxxxx	1.055	+ 0.025	V/C
# 16 Palm Ave and Mission Rd	B	xxxxxx	0.686	B	xxxxxx	0.696	+ 0.009	V/C
# 17 Marengo Ave and Valley Blvd	C	xxxxxx	0.786	C	xxxxxx	0.794	+ 0.008	V/C
# 18 Atlantic Blvd and Mission Road	E	xxxxxx	0.942	E	xxxxxx	0.944	+ 0.002	V/C
# 19 Marengo Ave and Mission Road	F	xxxxxx	1.021	F	xxxxxx	1.030	+ 0.008	V/C
# 20 Marengo Ave and Front St	D	xxxxxx	0.805	D	xxxxxx	0.817	+ 0.012	V/C
# 21 I-710 NB Ramp and Valley Blvd	C	xxxxxx	0.767	C	xxxxxx	0.780	+ 0.013	V/C
# 22 I-710 SB Ramp and Valley Blvd	F	xxxxxx	1.170	F	xxxxxx	1.194	+ 0.024	V/C

# 23 Fremont Ave and Hellman Ave	D	xxxxx	0.858	D	xxxxx	0.885	+	0.027	V/C
# 24 Elm St and Hellman Ave/Ramona	F	61.0	1.262	F	64.4	1.277	+	0.015	V/C
# 25 Fremont Ave and Ramona Road/10	F	110.2	1.287	F	110.2	1.287	+	0.000	V/C

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Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
	LOS Veh	C	LOS Veh	C	

# 26 Ross Ave and Fremont Ave	C xxxxx 0.713	C xxxxx 0.717	+ 0.004 V/C
# 27 Westmont Dr and Valley Blvd	D xxxxx 0.890	E xxxxx 0.912	+ 0.022 V/C

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #1 Fremont Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.368
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

Street Name: Fremont Ave						Mission Rd					
Approach: North Bound			South Bound			East Bound			West Bound		
Movement: L - T - R			L - T - R			L - T - R			L - T - R		
Control: Protected			Protected			Protected			Protected		
Rights: Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	2	0	1	1
Volume Module:											
Base Vol:	221	1349	202	12	1303	44	62	335	475	356	781
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	247	1505	225	13	1454	49	69	374	530	397	871
Added Vol:	0	10	15	1	71	14	2	3	0	92	18
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	247	1515	240	14	1525	63	71	377	530	489	889
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	247	1515	240	14	1525	63	71	377	530	489	889
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	247	1515	240	14	1525	63	71	377	530	489	889
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	247	1515	240	14	1525	63	71	377	530	489	889
Saturation Flow Module:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.73	0.27	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.88
Final Sat.:	1600	2762	438	1600	3200	1600	1600	3200	1600	1600	3007

Capacity Analysis Module:

Vol/Sat: 0.15 0.55 0.55 0.01 0.48 0.04 0.04 0.12 0.33 0.31 0.30 0.30

Crit Moves: ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.665

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 46 Level Of Service: B

Street Name: Fremont Ave

1000 Fremont Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 48 1296 117 4 1291 36 23 5 54 4 1 6

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 54 1446 131 4 1440 40 26 6 60 4 1 7

Added Vol: 0 15 5 4 51 0 0 0 0 35 0 22

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 54 1461 136 8 1491 40 26 6 60 39 1 29

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 54 1461 136 8 1491 40 26 6 60 39 1 29

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 54 1461 136 8 1491 40 26 6 60 39 1 29

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 54 1461 136 8 1491 40 26 6 60 39 1 29

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.08 0.92 1.00 0.04 0.96

Final Sat.: 1600 3200 1600 1600 3200 1600 1600 136 1464 1600 60 1540

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.03 0.46 0.08 0.01 0.47 0.03 0.02 0.04 0.04 0.02 0.02 0.02

Crit Moves: **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.665

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 46 Level Of Service: B

Street Name: Fremont Ave

Orange St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Split Phase Split Phase

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 1 1 0 1 1 0 1 1 0 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 2 1124 222 140 1320 2 1 1 0 54 0 53

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 2 1254 248 156 1473 2 1 1 0 60 0 59

Added Vol: 0 24 13 5 4 0 0 0 0 51 0 34

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 2 1278 261 161 1477 2 1 1 0 111 0 93

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 2 1278 261 161 1477 2 1 1 0 111 0 93

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 2 1278 261 161 1477 2 1 1 0 111 0 93

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 2 1278 261 161 1477 2 1 1 0 111 0 93

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 1.99 0.01 0.50 0.50 1.00 1.09 0.00 0.91

Final Sat.: 1600 3200 1600 1600 3195 5 800 800 1600 1742 0 1458

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.40 0.16 0.10 0.46 0.46 0.00 0.00 0.00 0.06 0.00 0.06
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #4 Date Ave and Orange St

Average Delay (sec/veh): 4.0 Worst Case Level Of Service: B[11.9]

Street Name:	Date Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	1	0	1	0	1	0	1	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	AM Peak
Base Vol:	48	89	5	6	167	66
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	54	99	6	7	186	74
Added Vol:	6	22	0	0	4	1
PasserByVol:	0	0	0	0	0	0
Initial Fut:	60	121	6	7	190	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	121	6	7	190	75
Reduct Vol:	0	0	0	0	0	0
FinalVolume:	60	121	6	7	190	75

Critical Gap Module:	Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3	

Capacity Module:	Cnflct Vol:	265	xxxx	xxxxxx	127	xxxx	xxxxxx	463	450	190	538	519	121
Potent Cap.:	1311	xxxx	xxxxxx	1472	xxxx	xxxxxx	512	508	857	457	464	935	
Move Cap.:	1311	xxxx	xxxxxx	1472	xxxx	xxxxxx	466	482	857	374	441	935	
Total Cap:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	602	592	xxxxxx	501	547	xxxxxx	
Volume/Cap:	0.05	xxxx	xxxx	0.00	xxxx	xxxx	0.04	0.10	0.07	0.02	0.05	0.00	

Level Of Service Module:	2Way95thQ:	0.1	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	0.2	xxxx	xxxx	0.0
Control Del:	7.9	xxxx	xxxxxx	7.5	xxxx	xxxxxx	xxxxxx	xxxxxx	9.5	xxxxxx	xxxx	8.9	
LOS by Move:	A	*	*	A	*	*	*	*	A	*	*	A	

Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx xxxx xxxxx	xxxx xxxx xxxxx	595 xxxx xxxxx	537 xxxx xxxxx
SharedQueue:	xxxxx xxxx xxxxx	xxxxx xxxx xxxxx	0.5 xxxx xxxxx	0.2 xxxx xxxxx
Shrd ConDel:	xxxxx xxxx xxxxx	xxxxx xxxx xxxxx	12.0 xxxx xxxxx	12.2 xxxx xxxxx
Shared LOS:	* * *	* * *	B * *	B * *
ApproachDel:	xxxxxx	xxxxxx	11.0	11.9

ApproachLOS: * * B B

 Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #5 Palm Ave and Orange St

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.299
 Loss Time (sec): 0 Average Delay (sec/veh): 8.8
 Optimal Cycle: 0 Level Of Service: A

 Street Name: Palm Ave Orange St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|-----|
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1
 -----|-----|-----|-----|-----|
 Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
 Base Vol: 5 59 2 5 192 29 7 18 13 2 5 2
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 6 66 2 6 214 32 8 20 15 2 6 2
 Added Vol: 0 16 0 0 3 1 8 14 0 0 2 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 6 82 2 6 217 33 16 34 15 2 8 2
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 6 82 2 6 217 33 16 34 15 2 8 2
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 6 82 2 6 217 33 16 34 15 2 8 2
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 6 82 2 6 217 33 16 34 15 2 8 2
 -----|-----|-----|-----|-----|
 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.06 0.94 1.00 0.03 0.97 1.00 0.32 0.68 1.00 0.23 0.77 1.00
 Final Sat.: 46 672 840 19 725 869 198 427 733 141 478 720
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.12 0.12 0.00 0.30 0.30 0.04 0.08 0.08 0.02 0.02 0.02 0.00
 Crit Moves: **** **** **** ****
 Delay/Veh: 8.3 8.3 6.9 9.5 9.5 6.9 8.6 8.6 7.4 8.3 8.3 7.4
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 8.3 8.3 6.9 9.5 9.5 6.9 8.6 8.6 7.4 8.3 8.3 7.4
 LOS by Move: A A A A A A A A A A A A
 ApproachDel: 8.3 9.2 8.3 8.1
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 8.3 9.2 8.3 8.1
 LOS by Appr: A A A A

AllWayAvgQ: 0.1 0.1 0.0 0.4 0.4 0.0 0.1 0.1 0.0 0.0 0.0 0.0

 Note: Queue reported is the number of cars per lane.

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-----
                        Level Of Service Computation Report
                2000 HCM 4-Way Stop Method (Future Volume Alternative)
  *****
Intersection #6 Chestnut St and Palm Ave
  *****
Cycle (sec):          100                Critical Vol./Cap.(X):          0.261
Loss Time (sec):      0                  Average Delay (sec/veh):        8.7
Optimal Cycle:        0                  Level Of Service:              A
  *****
Street Name:          Chestnut St                      Palm Ave
Approach:             North Bound                      South Bound          East Bound          West Bound
Movement:             L - T - R                        L - T - R                    L - T - R          L - T - R
-----|-----|-----|-----|-----|
Control:              Stop Sign                        Stop Sign                    Stop Sign          Stop Sign
Rights:               Include                          Include                      Include            Include
Min. Green:           0 0 0 0 1                      0 0 0 0 1                  0 0 0 0 1          0 0 0 0 1
Lanes:                0 1 0 0 1                      0 1 0 0 1                  0 1 0 0 1          0 1 0 0 1
-----|-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol:             14 90 2 12 163 11 1 1 7 1 3 7
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 16 100 2 13 182 12 1 1 8 1 3 8
Added Vol:            0 9 0 0 1 1 7 16 0 0 3 0
PasserByVol:          0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 16 109 2 13 183 13 8 17 8 1 6 8
User Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:           16 109 2 13 183 13 8 17 8 1 6 8
Reduct Vol:           0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:          16 109 2 13 183 13 8 17 8 1 6 8
PCE Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:          16 109 2 13 183 13 8 17 8 1 6 8
-----|-----|-----|-----|-----|
Saturation Flow Module:
Adjustment:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:                0.12 0.88 1.00 0.07 0.93 1.00 0.32 0.68 1.00 0.15 0.85 1.00
Final Sat.:           92 644 870 51 700 884 201 424 734 94 536 729
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              0.17 0.17 0.00 0.26 0.26 0.02 0.04 0.04 0.01 0.01 0.01 0.01
Crit Moves:           ****                      ****                      ****                      ****
Delay/Veh:            8.5 8.5 6.8 9.1 9.1 6.8 8.4 8.4 7.3 8.2 8.2 7.4
Delay Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:           8.5 8.5 6.8 9.1 9.1 6.8 8.4 8.4 7.3 8.2 8.2 7.4
LOS by Move:          A A A A A A A A A A A A
ApproachDel:          8.5 9.0 8.1 7.7
Delay Adj:            1.00 1.00 1.00 1.00
ApprAdjDel:           8.5 9.0 8.1 7.7
LOS by Appr:          A A A A
  
```


Capacity Analysis Module:

Vol/Sat: 0.07 0.40 0.40 0.01 0.50 0.01 0.07 0.05 0.04 0.07 0.01

Crit Moves: ****

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Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Date Ave and Mission Rd

Average Delay (sec/veh): 3.3 Worst Case Level Of Service: D[27.5]

Street Name:

Date Ave

Mission Rd

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

-----|-----|-----|-----|-----|

Control: Stop Sign

Stop Sign

Uncontrolled

Uncontrolled

Rights: Include

Include

Include

Include

Lanes: 0 0 0 0 0

1 0 0 0 1

1 0 2 0 0

0 0 1 1 0

-----|-----|-----|-----|-----|

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol: 0 0 0 22 0 78 82 432 0 0 1209 157

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 0 0 0 25 0 87 91 482 0 0 1349 175

Added Vol: 0 0 0 42 0 75 13 36 0 0 6 6

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 67 0 162 104 518 0 0 1355 181

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 67 0 162 104 518 0 0 1355 181

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

FinalVolume: 0 0 0 67 0 162 104 518 0 0 1355 181

-----|-----|-----|-----|-----|

Critical Gap Module:

Critical Gp:xxxxx xxxxx xxxxxx 6.8 xxxxx 6.9 4.1 xxxxx xxxxxx xxxxxx xxxxx xxxxxx

FollowUpTim:xxxxxx xxxxx xxxxxx 3.5 xxxxx 3.3 2.2 xxxxx xxxxxx xxxxxx xxxxx xxxxxx

-----|-----|-----|-----|-----|

Capacity Module:

Cnflct Vol: xxxxx xxxxx xxxxxx 1913 xxxxx 768 1536 xxxxx xxxxxx xxxxx xxxxx xxxxxx

Potent Cap.: xxxxx xxxxx xxxxxx 61 xxxxx 349 439 xxxxx xxxxxx xxxxx xxxxx xxxxxx

Move Cap.: xxxxx xxxxx xxxxxx 50 xxxxx 349 439 xxxxx xxxxxx xxxxx xxxxx xxxxxx

Total Cap: 115 74 xxxxxx 184 194 xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx

Volume/Cap: xxxxx xxxxx xxxxx 0.36 xxxxx 0.46 0.24 xxxxx xxxxx xxxxx xxxxx xxxxx

-----|-----|-----|-----|-----|

Level Of Service Module:

2Way95thQ: xxxxx xxxxx xxxxxx 1.7 xxxxx 2.5 0.9 xxxxx xxxxxx xxxxx xxxxx xxxxxx

Control Del:xxxxxx xxxxx xxxxxx 35.6 xxxxx 24.2 15.8 xxxxx xxxxxx xxxxxx xxxxx xxxxxx

LOS by Move: * * * E * C C * * * * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx
SharedQueue:xxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx
Shrd ConDel:xxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx
Shared LOS: * * * * * * * * * * *
ApproachDel: xxxxxxx 27.5 xxxxxxx xxxxxxx

ApproachLOS: * D * *

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 3.3 Worst Case Level Of Service: B[11.9]

Street Name:	Chestnut St						Date Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	1	0	1	0	0	1	0	0
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak												
Base Vol:	76	144	8	12	135	53	0	0	0	2	3	2
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	85	161	9	13	151	59	0	0	0	2	3	2
Added Vol:	10	13	8	0	11	2	14	16	76	2	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	95	174	17	13	162	61	14	16	76	4	5	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	95	174	17	13	162	61	14	16	76	4	5	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	95	174	17	13	162	61	14	16	76	4	5	2
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	223	xxxx	xxxxxx	191	xxxx	xxxxxx	564	569	162	628	613	174
Potent Cap.:	1358	xxxx	xxxxxx	1395	xxxx	xxxxxx	439	435	889	398	410	875
Move Cap.:	1358	xxxx	xxxxxx	1395	xxxx	xxxxxx	408	401	889	332	378	875
Total Cap:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	535	512	xxxxxx	476	495	xxxxxx
Volume/Cap:	0.07	xxxx	xxxx	0.01	xxxx	xxxx	0.03	0.03	0.09	0.01	0.01	0.00
Level Of Service Module:												
2Way95thQ:	0.2	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	0.0
Control Del:	7.8	xxxx	xxxxxx	7.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.1
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	A
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	742	xxxxxx	486	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.5	xxxxxx	0.1	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.7	xxxxxx	12.6	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	B	*	*
ApproachDel:	xxxxxxx			xxxxxxx			10.7			11.9		

ApproachLOS: * * B B

 Note: Queue reported is the number of cars per lane.

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                          Level Of Service Computation Report
                    ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #10 Fremont Ave and Concord Ave
*****
Cycle (sec):           100                Critical Vol./Cap.(X):           0.706
Loss Time (sec):       10                Average Delay (sec/veh):         xxxxxx
Optimal Cycle:         51                Level Of Service:              C
*****
Street Name:           Fremont Ave                Concord Ave
Approach:              North Bound                South Bound                East Bound                West Bound
Movement:              L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|-----|-----|
Control:               Protected                Protected                Permitted                Permitted
Rights:               Include                Include                Include                Include
Min. Green:            0   0   0                0   0   0                0   0   0                0   0   0
Y+R:                  4.0  4.0  4.0                4.0  4.0  4.0                4.0  4.0  4.0                4.0  4.0  4.0
Lanes:                 1  0  2  1  0                1  0  1  1  0                1  0  1  0  1                1  0  0  1  0
-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:              56 1088    37    4 1380    59    40  12    68    22  14    10
Growth Adj:            1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:           62 1214    41    4 1540    66    45  13    76    25  16    11
Added Vol:             0   58    0    0   9    0    0   0    0    0   0    0
PasserByVol:          0   0    0    0   0    0    0   0    0    0   0    0
Initial Fut:           62 1272    41    4 1549    66    45  13    76    25  16    11
User Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:               1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:           62 1272    41    4 1549    66    45  13    76    25  16    11
Reduct Vol:            0   0    0    0   0    0    0   0    0    0   0    0
Reduced Vol:          62 1272    41    4 1549    66    45  13    76    25  16    11
PCE Adj:               1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:               1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:          62 1272    41    4 1549    66    45  13    76    25  16    11
-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1600 1600  1600  1600 1600  1600 1600  1600  1600 1600  1600
Adjustment:            1.00 1.00  1.00  1.00 1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:                 1.00 2.91  0.09  1.00 1.92  0.08  1.00 1.00  1.00  1.00 0.58  0.42
Final Sat.:            1600 4649  151  1600 3070  130  1600 1600  1600  1600 933   667
-----|-----|-----|-----|-----|-----|

```

Capacity Analysis Module:

Vol/Sat: 0.04 0.27 0.27 0.00 0.50 0.50 0.03 0.01 0.05 0.02 0.02 0.02

Crit Moves: ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.671

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 47 Level Of Service: B

Street Name:

Fremont Ave

Montezuma Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Permitted Protected Permitted

Rights: Include Ignore Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 2 0 0 1 0 0 1 1 0 1 2 0 0 1 1 0 0 1 0 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 683 258 40 4 80 598 405 52 612 50 93 10

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 762 288 45 4 89 667 452 58 683 56 104 11

Added Vol: 2 0 0 0 0 6 36 0 12 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 764 288 45 4 89 673 488 58 695 56 104 11

User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 764 288 45 4 89 0 488 58 695 56 104 11

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 764 288 45 4 89 0 488 58 695 56 104 11

PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 764 288 45 4 89 0 488 58 695 56 104 11

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 0.90 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 2.00 0.87 0.13 0.10 1.90 1.00 2.00 0.15 1.85 0.33 0.61 0.06

Final Sat.: 2880 1385 215 152 3048 1600 2880 247 2953 523 973 105

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.27 0.21 0.21 0.00 0.03 0.00 0.17 0.24 0.24 0.03 0.11 0.11

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.429

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 30 Level Of Service: A

Street Name:

Palm Ave

Commonwealth Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 18 32 4 39 215 252 60 212 28 13 259 38

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 20 36 4 44 240 281 67 237 31 15 289 42

Added Vol: 0 24 0 0 4 2 12 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 20 60 4 44 244 283 79 237 31 15 289 42

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 20 60 4 44 244 283 79 237 31 15 289 42

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 20 60 4 44 244 283 79 237 31 15 289 42

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 20 60 4 44 244 283 79 237 31 15 289 42

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.77 0.23 1.00 2.00 1.00

Final Sat.: 1600 1600 1600 1600 1600 1600 1600 2827 373 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.01 0.04 0.00 0.03 0.15 0.18 0.05 0.08 0.08 0.01 0.09 0.03

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.421

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 29 Level Of Service: A

Street Name:

Date Ave

Commonwealth Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 1 1 0 1 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 24 40 16 47 66 71 68 239 94 118 326 67

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 27 45 18 52 74 79 76 267 105 132 364 75

Added Vol: 14 0 12 0 0 0 0 0 2 2 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 41 45 30 52 74 79 76 267 107 134 364 75

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 41 45 30 52 74 79 76 267 107 134 364 75

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 41 45 30 52 74 79 76 267 107 134 364 75

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 41 45 30 52 74 79 76 267 107 134 364 75

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.48 0.52 1.00 1.43 0.57 1.00 1.66 0.34

Final Sat.: 1600 1600 1600 1600 771 829 1600 2284 916 1600 2654 546

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.03 0.03 0.02 0.03 0.10 0.05 0.12 0.12 0.08 0.14 0.14
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.787

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 64 Level Of Service: C

Street Name:	Fremont Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	39	1008	92	171	1305	62	27	134	16	108	155	107
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	44	1125	103	191	1456	69	30	150	18	120	173	119
Added Vol:	0	58	0	2	9	0	0	0	0	0	0	14
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	1183	103	193	1465	69	30	150	18	120	173	133
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	44	1183	103	193	1465	69	30	150	18	120	173	133
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	1183	103	193	1465	69	30	150	18	120	173	133
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	44	1183	103	193	1465	69	30	150	18	120	173	133

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.91	0.09	1.00	0.89	0.11	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3056	144	1600	1429	171	1600	1600	1600

Capacity Analysis Module:

Vol/Sat: 0.03 0.37 0.06 0.12 0.48 0.48 0.02 0.10 0.10 0.08 0.11 0.08

Crit Moves: ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Fremont Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.055

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Fremont Ave

Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 2 2 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 41 915 26 74 805 1273 527 404 28 56 725 185

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 46 1021 29 83 898 1420 588 451 31 62 809 206

Added Vol: 0 14 0 5 89 69 11 0 0 0 0 1

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 46 1035 29 88 987 1489 599 451 31 62 809 207

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 46 1035 29 88 987 1489 599 451 31 62 809 207

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 46 1035 29 88 987 1489 599 451 31 62 809 207

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 46 1035 29 88 987 1489 599 451 31 62 809 207

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.95 0.05 1.00 2.00 2.00 2.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 3113 87 1600 3200 3200 2880 3200 1600 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.03 0.33 0.33 0.05 0.31 0.47 0.21 0.14 0.02 0.04 0.25 0.13

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.696

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 49 Level Of Service: B

Street Name:

Palm Ave

Mission Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 2 0 0 0 0 1 1 0

-----|-----|-----|-----|

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol: 0 0 0 51 0 124 33 422 0 0 1284 84

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 0 0 0 57 0 138 37 471 0 0 1433 94

Added Vol: 0 0 0 0 0 1 9 68 0 0 10 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 57 0 139 46 539 0 0 1443 94

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 57 0 139 46 539 0 0 1443 94

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 57 0 139 46 539 0 0 1443 94

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 0 0 57 0 139 46 539 0 0 1443 94

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 1.88 0.12

Final Sat.: 0 0 0 1600 0 1600 1600 3200 0 0 3005 195

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.09 0.03 0.17 0.00 0.00 0.48 0.48

Crit Moves: **** *

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.794

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 65 Level Of Service: C

Street Name: Marengo Ave Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 0 1 0 1 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 22 117 72 223 163 137 166 419 23 62 956 188

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 25 131 80 249 182 153 185 467 26 69 1067 210

Added Vol: 0 1 0 11 8 0 0 5 0 0 1 2

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 25 132 80 260 190 153 185 472 26 69 1068 212

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 25 132 80 260 190 153 185 472 26 69 1068 212

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 25 132 80 260 190 153 185 472 26 69 1068 212

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 25 132 80 260 190 153 185 472 26 69 1068 212

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.55 0.45 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 1600 1600 1600 886 714 1600 3200 1600 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.08 0.05 0.16 0.21 0.21 0.12 0.15 0.02 0.04 0.33 0.13

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.944

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 128 Level Of Service: E

Street Name: Atlantic Blvd Mission Road

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 1 1 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 154 1062 115 40 943 246 88 516 67 175 956 33

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 172 1185 128 45 1052 274 98 576 75 195 1067 37

Added Vol: 0 0 0 0 0 0 0 32 0 0 5 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 172 1185 128 45 1052 274 98 608 75 195 1072 37

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 172 1185 128 45 1052 274 98 608 75 195 1072 37

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 172 1185 128 45 1052 274 98 608 75 195 1072 37

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 172 1185 128 45 1052 274 98 608 75 195 1072 37

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.80 0.20 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.93 0.07

Final Sat.: 1600 2887 313 1600 3200 1600 1600 3200 1600 1600 3094 106

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.11 0.41 0.41 0.03 0.33 0.17 0.06 0.19 0.05 0.12 0.35 0.35

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 1.030

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Marengo Ave

Mission Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 1 1 0 1 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 85 382 157 43 504 66 44 351 85 272 1171 74

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 95 426 175 48 562 74 49 392 95 303 1306 83

Added Vol: 3 0 0 0 0 1 7 32 19 0 5 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 98 426 175 48 562 75 56 424 114 303 1311 83

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 98 426 175 48 562 75 56 424 114 303 1311 83

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 98 426 175 48 562 75 56 424 114 303 1311 83

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 98 426 175 48 562 75 56 424 114 303 1311 83

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.88 0.12 1.00 1.58 0.42 1.00 1.88 0.12

Final Sat.: 1600 1600 1600 1600 1413 187 1600 2522 678 1600 3010 190

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.06 0.27 0.11 0.03 0.40 0.40 0.04 0.17 0.17 0.19 0.44 0.44
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #20 Marengo Ave and Front St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.817
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 71 Level Of Service: D

Street Name:	Marengo Ave						Front St											
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
Control:	Permitted						Permitted						Permitted					
Rights:	Include						Include						Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	0	1	0	0	1	0	0	1	0	1	0	0	1			

Volume Module:

Base Vol:	2	508	3	10	493	358	81	11	7	2	75	34
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	2	567	3	11	550	399	90	12	8	2	84	38
Added Vol:	0	3	0	0	19	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	570	3	11	569	399	90	12	8	2	84	38
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	570	3	11	569	399	90	12	8	2	84	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	570	3	11	569	399	90	12	8	2	84	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	570	3	11	569	399	90	12	8	2	84	38

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.99	0.01	1.00	0.59	0.41	0.88	0.12	1.00	0.03	0.97	1.00
Final Sat.:	1600	1591	9	1600	940	660	1409	191	1600	42	1558	1600

Capacity Analysis Module:

Vol/Sat: 0.00 0.36 0.36 0.01 0.61 0.61 0.06 0.06 0.00 0.00 0.05 0.02

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #21 I-710 NB Ramp and Valley Blvd

Cycle (sec): 120 Critical Vol./Cap.(X): 0.780

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 66 Level Of Service: C

Street Name: I-710 NB Ramp

Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Split Phase Split Phase Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1! 0 1 0 0 1! 0 0 0 0 2 0 0 0 0 0 3 1 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 603 1 685 4 0 1 0 207 0 0 2176 6

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 673 1 764 4 0 1 0 231 0 0 2428 7

Added Vol: 0 0 11 0 0 0 0 0 0 0 69 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 673 1 775 4 0 1 0 231 0 0 2497 7

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 673 1 775 4 0 1 0 231 0 0 2497 7

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 673 1 775 4 0 1 0 231 0 0 2497 7

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 673 1 775 4 0 1 0 231 0 0 2497 7

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.39 0.01 1.60 0.79 0.01 0.20 0.00 2.00 0.00 0.00 3.99 0.01

Final Sat.: 2228 4 2568 1280 0 320 0 3200 0 0 6383 17

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.30 0.30 0.30 0.00 0.00 0.00 0.07 0.00 0.00 0.39 0.39

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.194

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: I-710 SB Ramp

Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 0 0 0 2 0 1 2 0 2 0 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 0 0 0 0 0 0 0 0 214 650 1593 1200 0

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 0 0 0 0 0 0 0 0 239 725 1777 1339 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 69 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 0 0 0 0 0 239 725 1846 1339 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 0 0 0 0 0 239 725 1846 1339 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 0 0 0 0 0 239 725 1846 1339 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 0 0 0 0 0 0 0 239 725 1846 1339 0

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00

Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00

Final Sat.: 0 0 0 0 0 0 0 0 3200 1600 2880 3200 0

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.07 0.45 0.64 0.42 0.00

Crit Moves: **** *

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.885

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 93 Level Of Service: D

Street Name: Fremont Ave

Hellman Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 1 0 1 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 142 934 313 127 706 110 108 111 153 168 228 212

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 158 1042 349 142 788 123 120 124 171 187 254 237

Added Vol: 0 8 0 40 48 0 0 0 0 0 0 6

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 158 1050 349 182 836 123 120 124 171 187 254 243

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 158 1050 349 182 836 123 120 124 171 187 254 243

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 158 1050 349 182 836 123 120 124 171 187 254 243

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 158 1050 349 182 836 123 120 124 171 187 254 243

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.50 0.50 1.00 1.74 0.26 1.00 1.00 1.00 1.00 1.00 1.00

Final Sat.: 1600 2401 799 1600 2790 410 1600 1600 1600 1600 1600 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.10 0.44 0.44 0.11 0.30 0.30 0.08 0.08 0.11 0.12 0.16 0.15
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.277
 Loss Time (sec): 0 Average Delay (sec/veh): 64.4
 Optimal Cycle: 0 Level Of Service: F

Street Name:	Elm St				Hellman Ave/Ramona Rd/ 10 WB ramp			
Approach:	North Bound		South Bound		East Bound		West Bound	
Movement:	L	T	R	L	T	R	L	T
Control:	Stop Sign		Stop Sign		Stop Sign		Stop Sign	
Rights:	Include		Include		Include		Include	
Min. Green:	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	0	1

Volume Module:AM Peak

Base Vol:	358	55	21	78	14	200	51	163	327	398	61	13
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	399	61	23	87	16	223	57	182	365	444	68	15
Added Vol:	6	0	0	0	0	0	0	0	40	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	405	61	23	87	16	223	57	182	405	444	68	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	405	61	23	87	16	223	57	182	405	444	68	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	405	61	23	87	16	223	57	182	405	444	68	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	405	61	23	87	16	223	57	182	405	444	68	15

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.65	0.25	0.10	0.85	0.15	1.00	0.24	0.76	1.00	0.87	0.13	1.00
Final Sat.:	1024	-286	37	318	57	426	100	320	466	348	53	446

Capacity Analysis Module:

Vol/Sat: 0.40-0.21 0.64 0.27 0.27 0.52 0.57 0.57 0.87 1.28 1.28 0.03
 Crit Moves: **** **** ****
 Delay/Veh: 26.5 27.1 27.1 15.6 15.6 19.5 21.7 21.7 42.8 168.6 169 10.8

Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.5	27.1	27.1	15.6	15.6	19.5	21.7	21.7	42.8	168.6	169	10.8
LOS by Move:	D	D	D	C	C	C	C	C	E	F	F	B
ApproachDel:	26.3			18.3				35.0			164.2	
Delay Adj:	1.00			1.00				1.00			1.00	
ApprAdjDel:	26.3			18.3				35.0			164.2	
LOS by Appr:		D			C			D			F	

AllWayAvgQ: 1.6 1.6 1.6 0.4 0.4 1.0 1.2 1.2 4.2 17.5 17.5 0.0

 Note: Queue reported is the number of cars per lane.

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                        Level Of Service Computation Report
                2000 HCM 4-Way Stop Method (Future Volume Alternative)
*****
Intersection #25 Fremont Ave and Ramona Road/10 EB ramp
*****
Cycle (sec):          100                Critical Vol./Cap.(X):          1.287
Loss Time (sec):       0                  Average Delay (sec/veh):        110.2
Optimal Cycle:         0                  Level Of Service:              F
*****
Street Name:          Fremont Ave                Ramona Road/10 EB ramp
Approach:              North Bound                South Bound                East Bound                West Bound
Movement:              L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|-----|
Control:               Stop Sign                Stop Sign                Stop Sign                Stop Sign
Rights:                Include                Include                Include                Include
Min. Green:            0 0 0 0                0 0 0 0                0 0 0 0                0 0 0 0
Lanes:                 0 0 1 0 1                0 0 0 0 0                0 1 0 0 1                0 0 1! 0 0
-----|-----|-----|-----|-----|
Volume Module:AM Peak
Base Vol:              0 625 48                0 0 0                2 24 584 114 0 15
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 0 697 54 0 0 0 2 27 652 127 0 17
Added Vol: 0 0 36 0 0 0 0 0 6 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 697 90 0 0 0 2 27 658 127 0 17
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 697 90 0 0 0 2 27 658 127 0 17
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 697 90 0 0 0 2 27 658 127 0 17
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 697 90 0 0 0 2 27 658 127 0 17
-----|-----|-----|-----|-----|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 1.00 1.00 0.00 0.00 0.00 0.08 0.92 1.00 0.88 xxxx 0.12
Final Sat.: 0 542 605 0 0 0 41 488 594 421 0 55
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: xxxx 1.29 0.15 xxxx xxxx xxxx 0.05 0.05 1.11 0.30 0.00 0.30
Crit Moves: **** **** ****
Delay/Veh: 0.0 163 9.7 0.0 0.0 0.0 9.9 9.9 93.1 13.8 13.8 13.8
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 163 9.7 0.0 0.0 0.0 9.9 9.9 93.1 13.8 13.8 13.8
LOS by Move: * F A * * * A A F B B B
ApproachDel: 145.8 xxxxxx 89.6 13.8
Delay Adj: 1.00 xxxxxx 1.00 1.00
ApprAdjDel: 145.8 xxxxxx 89.6 13.8
LOS by Appr: F * F B
  
```

AllWayAvgQ: 0.0 23.2 0.2 0.0 0.0 0.0 0.1 0.1 13.9 0.4 0.4 0.4

 Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #26 Ross Ave and Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.717
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 52 Level Of Service: C

Street Name:	Fremont Ave						Ross Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	0	1	0	1

Volume Module:	Fremont Ave			Fremont Ave			Ross Ave			Ross Ave		
Base Vol:	26	1007	212	42	867	34	26	49	5	173	177	17
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	29	1124	237	47	967	38	29	55	6	193	197	19
Added Vol:	0	14	0	0	89	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	1138	237	47	1056	38	29	55	6	193	197	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	1138	237	47	1056	38	29	55	6	193	197	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	1138	237	47	1056	38	29	55	6	193	197	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	1138	237	47	1056	38	29	55	6	193	197	19

Saturation Flow Module:	Fremont Ave			Fremont Ave			Ross Ave			Ross Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.66	0.34	1.00	1.93	0.07	1.00	0.91	0.09	1.00	1.00	1.00
Final Sat.:	1600	2649	551	1600	3089	111	1600	1452	148	1600	1600	1600

Capacity Analysis Module:

Vol/Sat: 0.02 0.43 0.43 0.03 0.34 0.34 0.02 0.04 0.04 0.12 0.12 0.01

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Westmont Dr and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.912

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 106 Level Of Service: E

Street Name:

Westmont Dr

Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 51 14 7 4 6 37 17 966 14 3 2036 30

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 57 16 8 4 7 41 19 1078 16 3 2272 33

Added Vol: 0 0 0 0 0 0 0 0 11 0 0 69 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 57 16 8 4 7 41 19 1089 16 3 2341 33

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 57 16 8 4 7 41 19 1089 16 3 2341 33

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 57 16 8 4 7 41 19 1089 16 3 2341 33

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 57 16 8 4 7 41 19 1089 16 3 2341 33

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.71 0.19 0.10 0.08 0.13 0.79 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1133 311 156 136 204 1260 1600 3200 1600 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:
Vol/Sat: 0.04 0.05 0.05 0.00 0.03 0.03 0.01 0.34 0.01 0.00 0.73 0.02
Crit Moves: **** **** ****

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Scenario: 2028 Ambient Growth + Project PM
Command: 2028 Ambient Growth + Proj PM
Volume: 2028 PM
Geometry: Existing

Impact Fee: Default Impact Fee
 Trip Generation: 2028 Project PM
 Trip Distribution: Cum + Project
 Paths: Default Path
 Routes: Default Route
 Configuration: Default Configuration

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 Turning Movement Report
 Project 2028 PM

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 Fremont Ave and Mission Rd													
Base	215	1551	214	56	1226	60	131	561	481	344	471	50	5360

Added	0	60	79	8	32	6	12	16	0	42	8	3	266
Total	215	1611	293	64	1258	66	143	577	481	386	479	53	5626

#2 Fremont Ave and 1000 Fremont Ave

Base	60	1626	48	8	1242	67	90	3	77	44	4	28	3297
Added	0	46	29	18	33	0	0	0	0	14	0	9	149
Total	60	1672	77	26	1275	67	90	3	77	58	4	37	3446

#3 Fremont Ave and Orange St

Base	2	1562	195	114	1061	2	10	6	6	271	2	322	3554
Added	0	10	46	29	21	0	0	0	0	30	0	17	153
Total	2	1572	241	143	1082	2	10	6	6	301	2	339	3707

#4 Date Ave and Orange St

Base	35	190	3	28	298	46	75	172	173	1	22	7	1049
Added	9	11	0	0	19	4	2	10	8	0	19	0	82
Total	44	201	3	28	317	50	77	182	181	1	41	7	1131

#5 Palm Ave and Orange St

Base	6	191	2	11	299	15	65	71	79	2	6	8	754
Added	0	7	0	0	14	7	4	7	0	0	12	0	51
Total	6	198	2	11	313	22	69	78	79	2	18	8	805

#6 Chestnut St and Palm Ave

Base	6	163	10	16	377	9	8	8	88	7	1	8	700
Added	0	4	0	0	8	6	4	8	0	0	14	0	44
Total	6	167	10	16	385	15	12	16	88	7	15	8	744

#7 Fremont Ave and Poplar Blvd

Base	170	1565	128	28	963	47	28	131	89	59	132	31	3371
Added	7	19	7	0	35	0	0	0	14	14	0	0	96
Total	177	1584	135	28	998	47	28	131	103	73	132	31	3467

#8 Date Ave and Mission Rd

Base	0	0	0	218	0	177	94	821	0	0	628	124	2062
Added	0	0	0	21	0	37	65	14	0	0	30	36	203
Total	0	0	0	239	0	214	159	835	0	0	658	160	2265

#9 Chestnut St and Date Ave

Base	20	199	13	42	416	11	0	0	0	11	2	19	734
Added	65	13	4	0	15	12	7	8	38	7	13	0	182
Total	85	212	17	42	431	23	7	8	38	18	15	19	916

#10 Fremont Ave and Concord Ave

Base	57	1717	126	30	1002	79	88	48	52	84	67	84	3434
Added	0	26	0	0	50	0	0	0	0	0	0	0	76
Total	57	1743	126	30	1052	79	88	48	52	84	67	84	3510

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#11 Fremont Ave and Montezuma Ave

Base	766	494	96	27	46	289	445	186	682	37	77	21	3166
Added	10	0	0	0	0	34	17	0	6	0	0	0	67
Total	776	494	96	27	46	323	462	186	688	37	77	21	3233

#12 Palm Ave and Commonwealth Ave

Base	55	138	22	192	242	272	212	464	78	9	430	107	2221
Added	0	11	0	0	21	10	6	0	0	0	0	0	48
Total	55	149	22	192	263	282	218	464	78	9	430	107	2269

#13 Date Ave and Commonwealth Ave

Base	70	142	64	129	90	161	230	573	108	57	543	128	2296
Added	7	0	6	0	0	0	0	0	12	10	0	0	35
Total	77	142	70	129	90	161	230	573	120	67	543	128	2331

#14 Fremont Ave and Commonwealth Ave

Base	40	1585	289	222	891	28	33	153	16	175	176	266	3875
Added	0	26	0	12	50	0	0	0	0	0	0	7	95
Total	40	1611	289	234	941	28	33	153	16	175	176	273	3970

#15 Fremont Ave and Valley Blvd

Base	31	896	37	208	1072	864	687	1003	28	139	389	344	5698
Added	0	76	0	2	41	32	59	0	0	0	0	5	215
Total	31	972	37	210	1113	896	746	1003	28	139	389	349	5913

#16 Palm Ave and Mission Rd

Base	0	0	0	368	0	123	55	1002	0	0	636	114	2297
Added	0	0	0	0	0	8	4	31	0	0	58	0	101
Total	0	0	0	368	0	131	59	1033	0	0	694	114	2398

#17 Marengo Ave and Valley Blvd

Base	19	177	71	318	224	218	343	970	9	54	621	152	3175
Added	0	7	0	5	4	0	0	2	0	0	5	9	32
Total	19	184	71	323	228	218	343	972	9	54	626	161	3207

#18 Atlantic Blvd and Mission Road

Base	106	1184	153	47	1061	113	146	1077	148	203	628	67	4933
Added	0	0	0	0	0	0	0	15	0	0	28	0	43
Total	106	1184	153	47	1061	113	146	1092	148	203	656	67	4976

#19 Marengo Ave and Mission Road

Base	81	575	251	65	520	51	59	1048	316	78	600	66	3710
Added	16	0	0	0	0	6	3	15	9	0	28	0	77
Total	97	575	251	65	520	57	62	1063	325	78	628	66	3787

#20 Marengo Ave and Front St													
Base	3	707	4	26	761	210	167	56	9	2	21	18	1985
Added	0	16	0	0	9	0	0	0	0	0	0	0	25
Total	3	723	4	26	770	210	167	56	9	2	21	18	2010

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#21 I-710 NB Ramp and Valley Blvd													
Base	652	0	1381	1	0	2	0	591	0	0	1247	0	3875
Added	0	0	59	0	0	0	0	0	0	0	32	0	91
Total	652	0	1440	1	0	2	0	591	0	0	1279	0	3966

#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	601	813	874	1049	0	3337
Added	0	0	0	0	0	0	0	0	0	32	0	0	32
Total	0	0	0	0	0	0	0	601	813	906	1049	0	3369

#23 Fremont Ave and Hellman Ave													
Base	95	826	270	164	907	76	143	193	241	230	202	264	3610
Added	0	45	0	19	22	0	0	0	0	0	0	31	117
Total	95	871	270	183	929	76	143	193	241	230	202	295	3727

#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	521	192	109	11	6	45	32	334	249	134	117	2	1752
Added	31	0	0	0	0	0	0	0	19	0	0	0	50
Total	552	192	109	11	6	45	32	334	268	134	117	2	1802

#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	816	129	0	0	0	4	102	322	52	0	87	1513
Added	0	0	17	0	0	0	0	0	34	0	0	0	51
Total	0	816	146	0	0	0	4	102	356	52	0	87	1564

#26 Ross Ave and Fremont Ave													
Base	33	947	187	29	1102	46	12	36	7	60	45	46	2550
Added	0	76	0	0	41	0	0	0	0	0	0	0	117
Total	33	1023	187	29	1143	46	12	36	7	60	45	46	2667

#27 Westmont Dr and Valley Blvd													
Base	18	11	12	27	10	16	62	1761	151	9	1160	37	3273
Added	0	0	0	0	0	0	0	59	0	0	32	0	91
Total	18	11	12	27	10	16	62	1820	151	9	1192	37	3364

#135

Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	14	0	17	37	65	0	0	37	30	200
Total	0	0	0	14	0	17	37	65	0	0	37	30	200

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Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	215	1551	214	56	1226	60	131	561	481	344	471	50
2 Fremont Ave a	60	1626	48	8	1242	67	90	3	77	44	4	28
3 Fremont Ave a	2	1562	195	114	1061	2	10	6	6	271	2	322
4 Date Ave and	35	190	3	28	298	46	75	172	173	1	22	7
5 Palm Ave and	6	191	2	11	299	15	65	71	79	2	6	8
6 Chestnut St a	6	163	10	16	377	9	8	8	88	7	1	8
7 Fremont Ave a	170	1565	128	28	963	47	28	131	89	59	132	31
8 Date Ave and	0	0	0	218	0	177	94	821	0	0	628	124
9 Chestnut St a	20	199	13	42	416	11	0	0	0	11	2	19
10 Fremont Ave a	57	1717	126	30	1002	79	88	48	52	84	67	84
11 Fremont Ave a	766	494	96	27	46	289	445	186	682	37	77	21
12 Palm Ave and	55	138	22	192	242	272	212	464	78	9	430	107
13 Date Ave and	70	142	64	129	90	161	230	573	108	57	543	128
14 Fremont Ave a	40	1585	289	222	891	28	33	153	16	175	176	266
15 Fremont Ave a	31	896	37	208	1072	864	687	1003	28	139	389	344
16 Palm Ave and	0	0	0	368	0	123	55	1002	0	0	636	114
17 Marengo Ave a	19	177	71	318	224	218	343	970	9	54	621	152
18 Atlantic Blvd	106	1184	153	47	1061	113	146	1077	148	203	628	67
19 Marengo Ave a	81	575	251	65	520	51	59	1048	316	78	600	66
20 Marengo Ave a	3	707	4	26	761	210	167	56	9	2	21	18
21 I-710 NB Ramp	652	0	1381	1	0	2	0	591	0	0	1247	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	601	813	874	1049	0
23 Fremont Ave a	95	826	270	164	907	76	143	193	241	230	202	264
24 Elm St and He	521	192	109	11	6	45	32	334	249	134	117	2

25 Fremont Ave a	0	816	129	0	0	0	4	102	322	52	0	87
26 Ross Ave and	33	947	187	29	1102	46	12	36	7	60	45	46
27 Westmont Dr a	18	11	12	27	10	16	62	1761	151	9	1160	37

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Intersection Volume Report
 Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	215	1611	293	64	1258	66	143	577	481	386	479	53
2 Fremont Ave a	60	1672	77	26	1275	67	90	3	77	58	4	37
3 Fremont Ave a	2	1572	241	143	1082	2	10	6	6	301	2	339
4 Date Ave and	44	201	3	28	317	50	77	182	181	1	41	7
5 Palm Ave and	6	198	2	11	313	22	69	78	79	2	18	8
6 Chestnut St a	6	167	10	16	385	15	12	16	88	7	15	8
7 Fremont Ave a	177	1584	135	28	998	47	28	131	103	73	132	31
8 Date Ave and	0	0	0	239	0	214	159	835	0	0	658	160
9 Chestnut St a	85	212	17	42	431	23	7	8	38	18	15	19
10 Fremont Ave a	57	1743	126	30	1052	79	88	48	52	84	67	84
11 Fremont Ave a	776	494	96	27	46	323	462	186	688	37	77	21
12 Palm Ave and	55	149	22	192	263	282	218	464	78	9	430	107
13 Date Ave and	77	142	70	129	90	161	230	573	120	67	543	128
14 Fremont Ave a	40	1611	289	234	941	28	33	153	16	175	176	273
15 Fremont Ave a	31	972	37	210	1113	896	746	1003	28	139	389	349
16 Palm Ave and	0	0	0	368	0	131	59	1033	0	0	694	114
17 Marengo Ave a	19	184	71	323	228	218	343	972	9	54	626	161
18 Atlantic Blvd	106	1184	153	47	1061	113	146	1092	148	203	656	67
19 Marengo Ave a	97	575	251	65	520	57	62	1063	325	78	628	66
20 Marengo Ave a	3	723	4	26	770	210	167	56	9	2	21	18
21 I-710 NB Ramp	652	0	1440	1	0	2	0	591	0	0	1279	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	601	813	906	1049	0
23 Fremont Ave a	95	871	270	183	929	76	143	193	241	230	202	295
24 Elm St and He	552	192	109	11	6	45	32	334	268	134	117	2

25 Fremont Ave a	0	816	146	0	0	0	4	102	356	52	0	87
26 Ross Ave and	33	1023	187	29	1143	46	12	36	7	60	45	46
27 Westmont Dr a	18	11	12	27	10	16	62	1820	151	9	1192	37

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Impact Analysis Report
 Level Of Service

Intersection	Base Del/ V/ LOS Veh C	Future Del/ V/ LOS Veh C	Change in
# 1 Fremont Ave and Mission Rd	F xxxxxx 1.202	F xxxxxx 1.276	+ 0.075 V/C
# 2 Fremont Ave and 1000 Fremont A	B xxxxxx 0.690	C xxxxxx 0.721	+ 0.031 V/C
# 3 Fremont Ave and Orange St	D xxxxxx 0.872	E xxxxxx 0.904	+ 0.032 V/C
# 4 Date Ave and Orange St	C 15.1 0.328	C 16.3 0.361	+ 1.244 D/V
# 5 Palm Ave and Orange St	B 11.1 0.474	B 11.5 0.504	+ 0.030 V/C
# 6 Chestnut St and Palm Ave	B 11.6 0.552	B 11.9 0.574	+ 0.022 V/C
# 7 Fremont Ave and Poplar Blvd	C xxxxxx 0.765	C xxxxxx 0.782	+ 0.017 V/C
# 8 Date Ave and Mission Rd	C 18.7 0.528	D 28.0 0.707	+ 9.283 D/V
# 9 Chestnut St and Date Ave	B 10.6 0.031	B 13.7 0.076	+ 3.121 D/V
# 10 Fremont Ave and Concord Ave	B xxxxxx 0.652	B xxxxxx 0.657	+ 0.005 V/C
# 11 Fremont Ave and Montezuma Ave	C xxxxxx 0.740	C xxxxxx 0.742	+ 0.002 V/C
# 12 Palm Ave and Commonwealth Ave	A xxxxxx 0.573	A xxxxxx 0.584	+ 0.011 V/C
# 13 Date Ave and Commonwealth Ave	B xxxxxx 0.654	B xxxxxx 0.659	+ 0.004 V/C
# 14 Fremont Ave and Commonwealth A	E xxxxxx 0.949	E xxxxxx 0.965	+ 0.016 V/C

# 15 Fremont Ave and Valley Blvd	E xxxxx 0.975	F xxxxx 1.023	+ 0.049 V/C
# 16 Palm Ave and Mission Rd	B xxxxx 0.643	B xxxxx 0.653	+ 0.010 V/C
# 17 Marengo Ave and Valley Blvd	D xxxxx 0.818	D xxxxx 0.827	+ 0.009 V/C
# 18 Atlantic Blvd and Mission Road	F xxxxx 1.010	F xxxxx 1.015	+ 0.005 V/C
# 19 Marengo Ave and Mission Road	E xxxxx 0.983	F xxxxx 1.004	+ 0.021 V/C
# 20 Marengo Ave and Front St	D xxxxx 0.850	D xxxxx 0.855	+ 0.006 V/C
# 21 I-710 NB Ramp and Valley Blvd	C xxxxx 0.712	C xxxxx 0.735	+ 0.023 V/C

# 22 I-710 SB Ramp and Valley Blvd	E	xxxxx	0.912	E	xxxxx	0.923	+	0.011	V/C
# 23 Fremont Ave and Hellman Ave	D	xxxxx	0.839	D	xxxxx	0.865	+	0.026	V/C
# 24 Elm St and Hellman Ave/Ramona	D	32.1	0.870	E	35.5	0.908	+	0.039	V/C
# 25 Fremont Ave and Ramona Road/10	F	111.4	1.370	F	113.2	1.390	+	0.020	V/C

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Intersection	Base		Future		Change
	Del/	V/	Del/	V/	in

	LOS Veh	C	LOS Veh	C
# 26 Ross Ave and Fremont Ave	A xxxxx	0.544	A xxxxx	0.561 + 0.017 V/C
# 27 Westmont Dr and Valley Blvd	B xxxxx	0.698	C xxxxx	0.717 + 0.018 V/C

```

*****
Cycle (sec):          100                Critical Vol./Cap.(X):          1.276
Loss Time (sec):      10                Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        180                Level Of Service:              F
*****

Street Name:          Fremont Ave                Mission Rd
Approach:              North Bound                South Bound                East Bound                West Bound
Movement:              L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|
Control:               Protected                Protected                Protected                Protected
Rights:                Include                Include                Include                Include
Min. Green:            0      0      0                0      0      0                0      0      0                0      0      0
Y+R:                   4.0    4.0    4.0                4.0    4.0    4.0                4.0    4.0    4.0                4.0    4.0    4.0
Lanes:                 1    0    1    1    0                1    0    2    0    1                1    0    2    0    1                1    0    1    1    0
-----|-----|-----|-----|
Volume Module:
Base Vol:              193 1390    192                50 1099    54                117 503    431                308 422    45
Growth Adj:            1.12 1.12    1.12                1.12 1.12    1.12                1.12 1.12    1.12                1.12 1.12    1.12
Initial Bse:           215 1551    214                56 1226    60                131 561    481                344 471    50
Added Vol:              0      60      79                8      32      6                12      16      0                42      8      3
PasserByVol:           0      0      0                0      0      0                0      0      0                0      0      0
Initial Fut:           215 1611    293                64 1258    66                143 577    481                386 479    53
User Adj:              1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00
PHF Adj:               1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00
PHF Volume:            215 1611    293                64 1258    66                143 577    481                386 479    53
Reduct Vol:            0      0      0                0      0      0                0      0      0                0      0      0
Reduced Vol:           215 1611    293                64 1258    66                143 577    481                386 479    53
PCE Adj:               1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00
MLF Adj:               1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00
FinalVolume:           215 1611    293                64 1258    66                143 577    481                386 479    53
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1600 1600    1600                1600 1600    1600                1600 1600    1600                1600 1600    1600
Adjustment:            1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00
Lanes:                 1.00 1.69    0.31                1.00 2.00    1.00                1.00 2.00    1.00                1.00 1.80    0.20
Final Sat.:            1600 2707    493                1600 3200    1600                1600 3200    1600                1600 2880    320
-----|-----|-----|-----|

```

Capacity Analysis Module:

Vol/Sat: 0.13 0.60 0.60 0.04 0.39 0.04 0.09 0.18 0.30 0.24 0.17 0.17

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.721

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 53 Level Of Service: C

Street Name: Fremont Ave

1000 Fremont Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 1 0 0 1 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 54 1457 43 7 1113 60 81 3 69 39 4 25

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 60 1626 48 8 1242 67 90 3 77 44 4 28

Added Vol: 0 46 29 18 33 0 0 0 0 14 0 9

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 60 1672 77 26 1275 67 90 3 77 58 4 37

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 60 1672 77 26 1275 67 90 3 77 58 4 37

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 60 1672 77 26 1275 67 90 3 77 58 4 37

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 60 1672 77 26 1275 67 90 3 77 58 4 37

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.04 0.96 1.00 0.11 0.89

Final Sat.: 1600 3200 1600 1600 3200 1600 1600 67 1533 1600 173 1427

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.04 0.52 0.05 0.02 0.40 0.04 0.06 0.05 0.05 0.04 0.03 0.03

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.904

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 102 Level Of Service: E

Street Name: Fremont Ave

Orange St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Split Phase Split Phase

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 1 1 0 1 1 0 1 1 0 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 2 1400 175 102 951 2 9 5 5 243 2 289

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 2 1562 195 114 1061 2 10 6 6 271 2 322

Added Vol: 0 10 46 29 21 0 0 0 0 30 0 17

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 2 1572 241 143 1082 2 10 6 6 301 2 339

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 2 1572 241 143 1082 2 10 6 6 301 2 339

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 2 1572 241 143 1082 2 10 6 6 301 2 339

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 2 1572 241 143 1082 2 10 6 6 301 2 339

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 1.99 0.01 0.64 0.36 1.00 1.00 0.01 0.99

Final Sat.: 1600 3200 1600 1600 3193 7 1029 571 1600 1600 10 1590

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.49 0.15 0.09 0.34 0.34 0.01 0.01 0.00 0.19 0.21 0.21

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Date Ave and Orange St

Average Delay (sec/veh): 7.4 Worst Case Level Of Service: C[16.3]

Street Name: Date Ave Orange St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|-----|

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 1 0 1 0 1 1 0 1 0 0 1 0 1 0 0 1

-----|-----|-----|-----|-----|

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak

Base Vol: 31 170 3 25 267 41 67 154 155 1 20 6

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 35 190 3 28 298 46 75 172 173 1 22 7

Added Vol: 9 11 0 0 19 4 2 10 8 0 19 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 44 201 3 28 317 50 77 182 181 1 41 7

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 44 201 3 28 317 50 77 182 181 1 41 7

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

FinalVolume: 44 201 3 28 317 50 77 182 181 1 41 7

-----|-----|-----|-----|-----|

Critical Gap Module:

Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2

FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

-----|-----|-----|-----|-----|

Capacity Module:

Cnflct Vol: 367 xxxx xxxxx 204 xxxx xxxxx 686 664 317 867 710 201

Potent Cap.: 1203 xxxx xxxxx 1380 xxxx xxxxx 364 384 728 275 361 845

Move Cap.: 1203 xxxx xxxxx 1380 xxxx xxxxx 314 362 728 120 341 845

Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 490 504 xxxxx 204 473 xxxxx

Volume/Cap: 0.04 xxxx xxxx 0.02 xxxx xxxx 0.16 0.36 0.25 0.01 0.09 0.01

-----|-----|-----|-----|-----|

Level Of Service Module:

2Way95thQ: 0.1 xxxx xxxxx 0.1 xxxx xxxxx xxxx xxxx 1.0 xxxx xxxx 0.0

Control Del: 8.1 xxxx xxxxx 7.7 xxxx xxxxx xxxxx xxxx 11.6 xxxxx xxxx 9.3

LOS by Move: A * * A * * * * B * * A

Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx xxxx xxxxx	xxxx xxxx xxxxx	500 xxxx xxxxx	457 xxxx xxxxx
SharedQueue:	xxxxx xxxx xxxxx	xxxxx xxxx xxxxx	2.9 xxxx xxxxx	0.3 xxxx xxxxx
Shrd ConDel:	xxxxx xxxx xxxxx	xxxxx xxxx xxxxx	19.6 xxxx xxxxx	13.7 xxxx xxxxx
Shared LOS:	* * *	* * *	C * *	B * *
ApproachDel:	xxxxxx	xxxxxx	16.3	13.1

AllWayAvgQ: 0.4 0.4 0.0 0.9 0.9 0.0 0.3 0.3 0.1 0.0 0.0 0.0

 Note: Queue reported is the number of cars per lane.

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-----
                        Level Of Service Computation Report
                2000 HCM 4-Way Stop Method (Future Volume Alternative)
*****
Intersection #6 Chestnut St and Palm Ave
*****
Cycle (sec):          100                Critical Vol./Cap.(X):          0.574
Loss Time (sec):       0                  Average Delay (sec/veh):        11.9
Optimal Cycle:         0                  Level Of Service:              B
*****
Street Name:          Chestnut St                Palm Ave
Approach:             North Bound                South Bound                East Bound                West Bound
Movement:             L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|-----|
Control:              Stop Sign                Stop Sign                Stop Sign                Stop Sign
Rights:               Include                Include                Include                Include
Min. Green:           0 0 0 0                0 0 0 0                0 0 0 0                0 0 0 0
Lanes:               0 1 0 0 1                0 1 0 0 1                0 1 0 0 1                0 1 0 0 1
-----|-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol:             5 146 9 14 338 8 7 7 79 6 1 7
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 6 163 10 16 377 9 8 8 88 7 1 8
Added Vol:            0 4 0 0 8 6 4 8 0 0 14 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 6 167 10 16 385 15 12 16 88 7 15 8
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 6 167 10 16 385 15 12 16 88 7 15 8
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 6 167 10 16 385 15 12 16 88 7 15 8
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 6 167 10 16 385 15 12 16 88 7 15 8
-----|-----|-----|-----|-----|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.03 0.97 1.00 0.04 0.96 1.00 0.43 0.57 1.00 0.31 0.69 1.00
Final Sat.: 21 641 759 27 670 803 230 308 624 161 363 598
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.26 0.26 0.01 0.57 0.57 0.02 0.05 0.05 0.14 0.04 0.04 0.01
Crit Moves: **** **** **** ****
Delay/Veh: 9.8 9.8 7.3 14.2 14.2 7.2 9.2 9.2 8.8 9.2 9.2 8.2
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 9.8 9.8 7.3 14.2 14.2 7.2 9.2 9.2 8.8 9.2 9.2 8.2
LOS by Move: A A A B B A A A A A A
ApproachDel: 9.6 14.0 8.9 8.9
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 9.6 14.0 8.9 8.9
LOS by Appr: A B A A
  
```


Capacity Analysis Module:

Vol/Sat: 0.11 0.54 0.54 0.02 0.33 0.33 0.02 0.08 0.06 0.05 0.08 0.02

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Date Ave and Mission Rd

Average Delay (sec/veh): 6.3 Worst Case Level Of Service: D[28.0]

Street Name:

Date Ave

Mission Rd

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

-----|-----|-----|-----|-----|

Control: Stop Sign

Stop Sign

Uncontrolled

Uncontrolled

Rights: Include

Include

Include

Include

Lanes: 0 0 0 0 0

1 0 0 0 1

1 0 2 0 0

0 0 1 1 0

-----|-----|-----|-----|-----|

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak

Base Vol: 0 0 0 195 0 159 84 736 0 0 563 111

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 0 0 0 218 0 177 94 821 0 0 628 124

Added Vol: 0 0 0 21 0 37 65 14 0 0 30 36

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 239 0 214 159 835 0 0 658 160

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 239 0 214 159 835 0 0 658 160

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

FinalVolume: 0 0 0 239 0 214 159 835 0 0 658 160

-----|-----|-----|-----|-----|

Critical Gap Module:

Critical Gp:xxxxx xxxx xxxxx 6.8 xxxx 6.9 4.1 xxxx xxxxx xxxxx xxxx xxxxx

FollowUpTim:xxxxx xxxx xxxxx 3.5 xxxx 3.3 2.2 xxxx xxxxx xxxxx xxxx xxxxx

-----|-----|-----|-----|-----|

Capacity Module:

Cnflct Vol: xxxx xxxx xxxxx 1473 xxxx 409 818 xxxx xxxxx xxxxx xxxx xxxxx

Potent Cap.: xxxx xxxx xxxxx 120 xxxx 597 819 xxxx xxxxx xxxxx xxxx xxxxx

Move Cap.: xxxx xxxx xxxxx 102 xxxx 597 819 xxxx xxxxx xxxxx xxxx xxxxx

Total Cap: 168 199 xxxxx 337 218 xxxxx xxxx xxxx xxxxx xxxxx xxxx xxxxx

Volume/Cap: xxxx xxxx xxxx 0.71 xxxx 0.36 0.19 xxxx xxxx xxxxx xxxx xxxx xxxxx

-----|-----|-----|-----|-----|

Level Of Service Module:

2Way95thQ: xxxx xxxx xxxxx 6.4 xxxx 1.7 0.7 xxxx xxxxx xxxxx xxxx xxxxx

Control Del:xxxxx xxxx xxxxx 40.2 xxxx 14.4 10.5 xxxx xxxxx xxxxx xxxx xxxxx

LOS by Move: * * * E * B B * * * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx
SharedQueue:xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx
Shrd ConDel:xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx xxxxx xxxx xxxxxx
Shared LOS: * * * * * * * * * * * *
ApproachDel: xxxxxxx 28.0 xxxxxxx xxxxxxx

ApproachLOS: * D * *

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: B[13.7]

Street Name:	Chestnut St						Date Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	1	0	1	0	0	1	0	0
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak												
Base Vol:	18	178	12	38	373	10	0	0	0	10	2	17
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	20	199	13	42	416	11	0	0	0	11	2	19
Added Vol:	65	13	4	0	15	12	7	8	38	7	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	85	212	17	42	431	23	7	8	38	18	15	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	85	212	17	42	431	23	7	8	38	18	15	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	85	212	17	42	431	23	7	8	38	18	15	19
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	454	xxxx	xxxxxx	229	xxxx	xxxxxx	924	915	431	932	921	212
Potent Cap.:	1117	xxxx	xxxxxx	1351	xxxx	xxxxxx	252	275	628	249	273	834
Move Cap.:	1117	xxxx	xxxxxx	1351	xxxx	xxxxxx	216	246	628	210	244	834
Total Cap:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	395	406	xxxxxx	344	374	xxxxxx
Volume/Cap:	0.08	xxxx	xxxx	0.03	xxxx	xxxx	0.02	0.02	0.06	0.05	0.04	0.02
Level Of Service Module:												
2Way95thQ:	0.2	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	0.1
Control Del:	8.5	xxxx	xxxxxx	7.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.4
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	A
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	542	xxxxxx	357	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.3	xxxxxx	0.3	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	12.4	xxxxxx	16.1	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	C	*	*
ApproachDel:	xxxxxxx			xxxxxxx			12.4			13.7		

ApproachLOS: * * B B

 Note: Queue reported is the number of cars per lane.

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                          Level Of Service Computation Report
                    ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #10 Fremont Ave and Concord Ave
*****
Cycle (sec):           100                Critical Vol./Cap.(X):           0.657
Loss Time (sec):       10                Average Delay (sec/veh):         xxxxxx
Optimal Cycle:         45                Level Of Service:             B
*****
Street Name:           Fremont Ave                Concord Ave
Approach:              North Bound                South Bound                East Bound                West Bound
Movement:              L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|-----|-----|
Control:               Protected                Protected                Permitted                Permitted
Rights:                Include                Include                Include                Include
Min. Green:            0   0   0                0   0   0                0   0   0                0   0   0
Y+R:                   4.0  4.0  4.0            4.0  4.0  4.0            4.0  4.0  4.0            4.0  4.0  4.0
Lanes:                 1  0  2  1  0            1  0  1  1  0            1  0  1  0  1            1  0  0  1  0
-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:              51 1539   113            27  898   71            79  43   47            75  60   75
Growth Adj:            1.12 1.12  1.12            1.12 1.12  1.12            1.12 1.12  1.12            1.12 1.12  1.12
Initial Bse:           57 1717  126            30 1002   79            88  48   52            84  67   84
Added Vol:             0   26   0                0   50   0                0   0   0                0   0   0
PasserByVol:           0   0   0                0   0   0                0   0   0                0   0   0
Initial Fut:           57 1743  126            30 1052   79            88  48   52            84  67   84
User Adj:              1.00 1.00  1.00            1.00 1.00  1.00            1.00 1.00  1.00            1.00 1.00  1.00
PHF Adj:               1.00 1.00  1.00            1.00 1.00  1.00            1.00 1.00  1.00            1.00 1.00  1.00
PHF Volume:           57 1743  126            30 1052   79            88  48   52            84  67   84
Reduct Vol:            0   0   0                0   0   0                0   0   0                0   0   0
Reduced Vol:          57 1743  126            30 1052   79            88  48   52            84  67   84
PCE Adj:              1.00 1.00  1.00            1.00 1.00  1.00            1.00 1.00  1.00            1.00 1.00  1.00
MLF Adj:              1.00 1.00  1.00            1.00 1.00  1.00            1.00 1.00  1.00            1.00 1.00  1.00
FinalVolume:          57 1743  126            30 1052   79            88  48   52            84  67   84
-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1600 1600  1600            1600 1600  1600            1600 1600  1600            1600 1600  1600
Adjustment:            1.00 1.00  1.00            1.00 1.00  1.00            1.00 1.00  1.00            1.00 1.00  1.00
Lanes:                 1.00 2.80  0.20            1.00 1.86  0.14            1.00 1.00  1.00            1.00 0.44  0.56
Final Sat.:           1600 4476  324            1600 2976  224            1600 1600  1600            1600 711   889
-----|-----|-----|-----|-----|-----|

```


Capacity Analysis Module:

Vol/Sat: 0.04 0.39 0.39 0.02 0.35 0.35 0.06 0.03 0.03 0.05 0.09 0.09

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.742

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 80 Level Of Service: C

Street Name:

Fremont Ave

Montezuma Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Permitted Protected Permitted

Rights: Include Ignore Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 2 0 0 1 0 0 1 1 0 1 0 0 1 0 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 687 443 86 24 41 259 399 167 611 33 69 19

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 766 494 96 27 46 289 445 186 682 37 77 21

Added Vol: 10 0 0 0 0 34 17 0 6 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 776 494 96 27 46 323 462 186 688 37 77 21

User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 776 494 96 27 46 0 462 186 688 37 77 21

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 776 494 96 27 46 0 462 186 688 37 77 21

PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 776 494 96 27 46 0 462 186 688 37 77 21

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 0.90 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 2.00 0.84 0.16 0.74 1.26 1.00 2.00 0.43 1.57 0.27 0.57 0.16

Final Sat.: 2880 1340 260 1182 2018 1600 2880 682 2518 436 912 251

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.27 0.37 0.37 0.02 0.02 0.00 0.16 0.27 0.27 0.02 0.08 0.08

Crit Moves: ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.584

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 39 Level Of Service: A

Street Name:

Palm Ave

Commonwealth Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 1 0 1 0 1 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 49 124 20 172 217 244 190 416 70 8 385 96

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 55 138 22 192 242 272 212 464 78 9 430 107

Added Vol: 0 11 0 0 21 10 6 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 55 149 22 192 263 282 218 464 78 9 430 107

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 55 149 22 192 263 282 218 464 78 9 430 107

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 55 149 22 192 263 282 218 464 78 9 430 107

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 55 149 22 192 263 282 218 464 78 9 430 107

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.71 0.29 1.00 2.00 1.00

Final Sat.: 1600 1600 1600 1600 1600 1600 1600 2739 461 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.03 0.09 0.01 0.12 0.16 0.18 0.14 0.17 0.17 0.01 0.13 0.07
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.659
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 45 Level Of Service: B

Street Name:	Date Ave						Commonwealth Ave						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Permitted			Permitted			Permitted			Permitted			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1	0

Volume Module:

Base Vol:	63	127	57	116	81	144	206	514	97	51	487	115
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	70	142	64	129	90	161	230	573	108	57	543	128
Added Vol:	7	0	6	0	0	0	0	0	12	10	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	77	142	70	129	90	161	230	573	120	67	543	128
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	77	142	70	129	90	161	230	573	120	67	543	128
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	142	70	129	90	161	230	573	120	67	543	128
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	77	142	70	129	90	161	230	573	120	67	543	128

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.36	0.64	1.00	1.65	0.35	1.00	1.62	0.38
Final Sat.:	1600	1600	1600	1600	576	1024	1600	2645	555	1600	2589	611

Capacity Analysis Module:

Vol/Sat: 0.05 0.09 0.04 0.08 0.16 0.16 0.14 0.22 0.22 0.04 0.21 0.21

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.965

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 148 Level Of Service: E

Street Name: Fremont Ave

Commonwealth Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 1 1 0 1 1 0 1 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 36 1421 259 199 799 25 30 137 14 157 158 238

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 40 1585 289 222 891 28 33 153 16 175 176 266

Added Vol: 0 26 0 12 50 0 0 0 0 0 0 7

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 40 1611 289 234 941 28 33 153 16 175 176 273

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 40 1611 289 234 941 28 33 153 16 175 176 273

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 40 1611 289 234 941 28 33 153 16 175 176 273

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 40 1611 289 234 941 28 33 153 16 175 176 273

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 1.94 0.06 1.00 0.91 0.09 1.00 1.00 1.00

Final Sat.: 1600 3200 1600 1600 3108 92 1600 1452 148 1600 1600 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.03 0.50 0.18 0.15 0.30 0.30 0.02 0.11 0.11 0.11 0.11 0.17

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Fremont Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.023

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Fremont Ave

Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 2 2 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 28 803 33 186 961 774 616 899 25 125 349 308

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 31 896 37 208 1072 864 687 1003 28 139 389 344

Added Vol: 0 76 0 2 41 32 59 0 0 0 0 5

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 31 972 37 210 1113 896 746 1003 28 139 389 349

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 31 972 37 210 1113 896 746 1003 28 139 389 349

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 31 972 37 210 1113 896 746 1003 28 139 389 349

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 31 972 37 210 1113 896 746 1003 28 139 389 349

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.93 0.07 1.00 2.00 2.00 2.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 3083 117 1600 3200 3200 2880 3200 1600 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.32 0.32 0.13 0.35 0.28 0.26 0.31 0.02 0.09 0.12 0.22
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.653
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 45 Level Of Service: B

Street Name:	Palm Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak

Base Vol:	0	0	0	330	0	110	49	898	0	0	570	102
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	368	0	123	55	1002	0	0	636	114
Added Vol:	0	0	0	0	0	8	4	31	0	0	58	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	368	0	131	59	1033	0	0	694	114
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	368	0	131	59	1033	0	0	694	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	368	0	131	59	1033	0	0	694	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	368	0	131	59	1033	0	0	694	114

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.72	0.28
Final Sat.:	0	0	0	1600	0	1600	1600	3200	0	0	2749	451

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.23 0.00 0.08 0.04 0.32 0.00 0.00 0.25 0.25

Crit Moves: **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.827

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 73 Level Of Service: D

Street Name: Marengo Ave

Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 0 1 0 1 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 17 159 64 285 201 195 307 869 8 48 557 136

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 19 177 71 318 224 218 343 970 9 54 621 152

Added Vol: 0 7 0 5 4 0 0 2 0 0 5 9

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 19 184 71 323 228 218 343 972 9 54 626 161

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 19 184 71 323 228 218 343 972 9 54 626 161

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 19 184 71 323 228 218 343 972 9 54 626 161

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 19 184 71 323 228 218 343 972 9 54 626 161

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.51 0.49 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 1600 1600 1600 819 781 1600 3200 1600 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.01 0.12 0.04 0.20 0.28 0.28 0.21 0.30 0.01 0.03 0.20 0.10

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 1.015

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Atlantic Blvd Mission Road

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 1 1 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 95 1061 137 42 951 101 131 965 133 182 563 60

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 106 1184 153 47 1061 113 146 1077 148 203 628 67

Added Vol: 0 0 0 0 0 0 0 15 0 0 28 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 106 1184 153 47 1061 113 146 1092 148 203 656 67

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 106 1184 153 47 1061 113 146 1092 148 203 656 67

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 106 1184 153 47 1061 113 146 1092 148 203 656 67

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 106 1184 153 47 1061 113 146 1092 148 203 656 67

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.77 0.23 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.81 0.19

Final Sat.: 1600 2834 366 1600 3200 1600 1600 3200 1600 1600 2904 296


```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.07 0.42 0.42 0.03 0.33 0.07 0.09 0.34 0.09 0.13 0.23 0.23
Crit Moves:      ****      ****      ****      ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #19 Marengo Ave and Mission Road
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      1.004
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     180      Level Of Service:      F
*****
Street Name:      Marengo Ave      Mission Rd
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:          Permitted      Permitted      Permitted      Permitted
Rights:           Include      Include      Include      Include
Min. Green:       0    0    0      0    0    0      0    0    0      0    0    0
Y+R:             4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0
Lanes:           1  0  1  0  1      1  0  0  1  0      1  0  1  1  0      1  0  1  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:         73  515  225      58  466  46      53  939  283      70  538  59
Growth Adj:       1.12 1.12  1.12      1.12 1.12  1.12      1.12 1.12  1.12      1.12 1.12  1.12
Initial Bse:      81  575  251      65  520  51      59 1048  316      78  600  66
Added Vol:        16   0   0         0   0   6         3  15   9         0  28   0
PasserByVol:      0   0   0         0   0   0         0   0   0         0   0   0
Initial Fut:      97  575  251      65  520  57      62 1063  325      78  628  66
User Adj:         1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
PHF Volume:       97  575  251      65  520  57      62 1063  325      78  628  66
Reduct Vol:       0   0   0         0   0   0         0   0   0         0   0   0
Reduced Vol:      97  575  251      65  520  57      62 1063  325      78  628  66
PCE Adj:          1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
FinalVolume:      97  575  251      65  520  57      62 1063  325      78  628  66
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600      1600 1600  1600      1600 1600  1600      1600 1600  1600
Adjustment:       1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
Lanes:           1.00 1.00  1.00      1.00 0.90  0.10      1.00 1.53  0.47      1.00 1.81  0.19
Final Sat.:       1600 1600  1600      1600 1441  159      1600 2451  749      1600 2897  303

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.06 0.36  0.16  0.04 0.36  0.36  0.04 0.43  0.43  0.05 0.22  0.22
Crit Moves:  ****                ****                ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #20 Marengo Ave and Front St
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.855
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     82          Level Of Service:      D
*****
Street Name:      Marengo Ave          Front St
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:          Permitted            Permitted            Permitted            Permitted
Rights:           Include              Include              Include              Include
Min. Green:       0    0    0            0    0    0            0    0    0            0    0    0
Y+R:              4.0  4.0  4.0            4.0  4.0  4.0            4.0  4.0  4.0            4.0  4.0  4.0
Lanes:            1  0  0  1  0            1  0  0  1  0            0  1  0  0  1            0  1  0  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:         3  634      4    23  682  188  150  50    8    2  19  16
Growth Adj:       1.12 1.12  1.12  1.12 1.12  1.12 1.12 1.12  1.12 1.12 1.12  1.12
Initial Bse:      3  707      4    26  761  210  167  56    9    2  21  18
Added Vol:        0   16      0     0   9    0     0   0    0     0   0    0
PasserByVol:      0    0      0     0   0    0     0   0    0     0   0    0
Initial Fut:      3  723      4    26  770  210  167  56    9    2  21  18
User Adj:         1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Volume:       3  723      4    26  770  210  167  56    9    2  21  18
Reduct Vol:       0    0      0     0   0    0     0   0    0     0   0    0
Reduced Vol:      3  723      4    26  770  210  167  56    9    2  21  18
PCE Adj:          1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:      3  723      4    26  770  210  167  56    9    2  21  18
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600  1600 1600  1600 1600 1600  1600 1600 1600  1600
Adjustment:       1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Lanes:            1.00 0.99  0.01  1.00 0.79  0.21 0.75 0.25  1.00 0.10 0.90  1.00
Final Sat.:       1600 1590    10  1600 1257  343 1200  400  1600   152 1448  1600

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.00 0.45  0.45  0.02 0.61  0.61  0.10 0.14  0.01  0.00 0.01  0.01
Crit Moves:  ****                ****                ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #21 I-710 NB Ramp and Valley Blvd
*****
Cycle (sec):      120          Critical Vol./Cap.(X):      0.735
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     57          Level Of Service:      C
*****
Street Name:      I-710 NB Ramp          Valley Blvd
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Split Phase          Split Phase          Permitted          Permitted
Rights:           Include          Include          Include          Include
Min. Green:       0    0    0          0    0    0          0    0    0          0    0    0
Y+R:             4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:           1  0  1! 0  1          0  0  1! 0  0          0  0  2  0  0          0  0  3  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:         584    0  1238          1    0    2          0  530    0          0 1118    0
Growth Adj:       1.12 1.12  1.12          1.12 1.12  1.12          1.12 1.12  1.12          1.12 1.12  1.12
Initial Bse:      652    0  1381          1    0    2          0  591    0          0 1247    0
Added Vol:        0    0    59          0    0    0          0    0    0          0    32    0
PasserByVol:      0    0    0          0    0    0          0    0    0          0    0    0
Initial Fut:      652    0  1440          1    0    2          0  591    0          0 1279    0
User Adj:         1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Volume:       652    0  1440          1    0    2          0  591    0          0 1279    0
Reduct Vol:       0    0    0          0    0    0          0    0    0          0    0    0
Reduced Vol:      652    0  1440          1    0    2          0  591    0          0 1279    0
PCE Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
FinalVolume:      652    0  1440          1    0    2          0  591    0          0 1279    0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600          1600 1600  1600          1600 1600  1600          1600 1600  1600
Adjustment:       1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
Lanes:           1.00 0.00  2.00          0.33 0.00  0.67          0.00 2.00  0.00          0.00 4.00  0.00
Final Sat.:       1600    0  3200          533    0 1067          0 3200    0          0 6400    0

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.41 0.00 0.45 0.00 0.00 0.00 0.00 0.18 0.00 0.00 0.20 0.00
Crit Moves:          ****      ****          ****          ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #22 I-710 SB Ramp and Valley Blvd
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.923
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:    113          Level Of Service:      E
*****
Street Name:      I-710 SB Ramp          Valley Blvd
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Protected          Protected          Protected          Protected
Rights:           Include          Include          Include          Include
Min. Green:       0    0    0          0    0    0          0    0    0          0    0    0
Y+R:              4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:            0  0  0  0  0          0  0  0  0  0          0  0  2  0  1          2  0  2  0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:         0    0    0          0    0    0          0  539  729          783  940    0
Growth Adj:       1.12 1.12  1.12          1.12 1.12  1.12          1.12 1.12  1.12          1.12 1.12  1.12
Initial Bse:      0    0    0          0    0    0          0  601  813          874 1049    0
Added Vol:        0    0    0          0    0    0          0    0    0          32    0    0
PasserByVol:      0    0    0          0    0    0          0    0    0          0    0    0
Initial Fut:      0    0    0          0    0    0          0  601  813          906 1049    0
User Adj:         1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Volume:       0    0    0          0    0    0          0  601  813          906 1049    0
Reduct Vol:       0    0    0          0    0    0          0    0    0          0    0    0
Reduced Vol:      0    0    0          0    0    0          0  601  813          906 1049    0
PCE Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
FinalVolume:      0    0    0          0    0    0          0  601  813          906 1049    0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600          1600 1600  1600          1600 1600  1600          1600 1600  1600
Adjustment:       1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          0.90 1.00  1.00
Lanes:            0.00 0.00  0.00          0.00 0.00  0.00          0.00 2.00  1.00          2.00 2.00  0.00
Final Sat.:       0    0    0          0    0    0          0 3200  1600          2880 3200    0

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00  0.00  0.00 0.00  0.00 0.00 0.19  0.51  0.31 0.33  0.00
Crit Moves:
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #23 Fremont Ave and Hellman Ave
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.865
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     85      Level Of Service:      D
*****
Street Name:      Fremont Ave      Hellman Ave
Approach:          North Bound      South Bound      East Bound      West Bound
Movement:          L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:           Protected      Protected      Protected      Protected
Rights:            Include      Include      Include      Include
Min. Green:        0    0    0      0    0    0      0    0    0      0    0    0
Y+R:              4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0
Lanes:             1  0  1  1  0      1  0  1  1  0      1  0  1  0  1      1  0  1  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:          85  740  242  147  813  68  128  173  216  206  181  237
Growth Adj:        1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:        95  826  270  164  907  76  143  193  241  230  202  264
Added Vol:          0   45   0   19  22   0   0   0   0   0   0   31
PasserByVol:        0   0   0   0   0   0   0   0   0   0   0   0
Initial Fut:        95  871  270  183  929  76  143  193  241  230  202  295
User Adj:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:         95  871  270  183  929  76  143  193  241  230  202  295
Reduct Vol:         0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol:        95  871  270  183  929  76  143  193  241  230  202  295
PCE Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:        95  871  270  183  929  76  143  193  241  230  202  295
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:         1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:             1.00 1.53  0.47  1.00 1.85  0.15  1.00 1.00  1.00  1.00 1.00  1.00
Final Sat.:         1600 2443  757  1600 2958  242  1600 1600  1600  1600 1600  1600

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-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.06 0.36 0.36 0.11 0.31 0.31 0.09 0.12 0.15 0.14 0.13 0.18
Crit Moves:      ****      ****      ****      ****
*****

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-----
Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)
*****
Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.908
Loss Time (sec):    0      Average Delay (sec/veh):      35.5
Optimal Cycle:      0      Level Of Service:      E
*****
Street Name:      Elm St      Hellman Ave/Ramona Rd/ 10 WB ramp
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Stop Sign      Stop Sign      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Min. Green:      0 0 0      0 0 0      0 0 0      0 0 0
Lanes:      1 0 1! 0 0      0 1 0 0 1      0 1 0 0 1      0 1 0 0 1
-----|-----|-----|-----|
Volume Module:PM Peak
Base Vol:      467 172 98 10 5 40 29 299 223 120 105 2
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 521 192 109 11 6 45 32 334 249 134 117 2
Added Vol: 31 0 0 0 0 0 0 0 19 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 552 192 109 11 6 45 32 334 268 134 117 2
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 552 192 109 11 6 45 32 334 268 134 117 2
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 552 192 109 11 6 45 32 334 268 134 117 2
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 552 192 109 11 6 45 32 334 268 134 117 2
-----|-----|-----|-----|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.29 0.45 0.26 0.67 0.33 1.00 0.09 0.91 1.00 0.53 0.47 1.00
Final Sat.: 1075 -258 120 257 128 434 42 432 523 226 198 468
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.51-0.74 0.91 0.04 0.04 0.10 0.77 0.77 0.51 0.59 0.59 0.00
Crit Moves:      ****      ****      ****      ****

```

Delay/Veh:	49.2	48.8	48.8	12.0	12.0	11.5	31.0	31.0	16.3	22.1	22.1	10.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.2	48.8	48.8	12.0	12.0	11.5	31.0	31.0	16.3	22.1	22.1	10.1
LOS by Move:	E	E	E	B	B	B	D	D	C	C	C	B
ApproachDel:	49.2				11.6			24.8			22.0	
Delay Adj:	1.00				1.00			1.00			1.00	
ApprAdjDel:	49.2				11.6			24.8			22.0	
LOS by Appr:	E				B			C			C	

AllWayAvgQ: 5.0 5.0 5.0 0.0 0.0 0.1 2.7 2.7 1.0 1.3 1.3 0.0

 Note: Queue reported is the number of cars per lane.

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-----
                        Level Of Service Computation Report
                2000 HCM 4-Way Stop Method (Future Volume Alternative)
*****
Intersection #25 Fremont Ave and Ramona Road/10 EB ramp
*****
Cycle (sec):          100                Critical Vol./Cap.(X):          1.390
Loss Time (sec):       0                  Average Delay (sec/veh):        113.2
Optimal Cycle:         0                  Level Of Service:              F
*****
Street Name:          Fremont Ave                Ramona Road/10 EB ramp
Approach:             North Bound                South Bound                East Bound                West Bound
Movement:             L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|-----|
Control:              Stop Sign                Stop Sign                Stop Sign                Stop Sign
Rights:               Include                Include                Include                Include
Min. Green:           0 0 1 0 1                0 0 0 0 0                0 0 0 0 0                0 0 0 0 0
Lanes:               0 0 1 0 1                0 0 0 0 0                0 1 0 0 1                0 0 1! 0 0
-----|-----|-----|-----|-----|
Volume Module:PM Peak
Base Vol:             0 731 116                0 0 0                4 91 289                47 0 78
Growth Adj:  1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse:  0 816 129                0 0 0                4 102 322                52 0 87
Added Vol:     0 0 17                0 0 0                0 0 34                0 0 0
PasserByVol:   0 0 0                0 0 0                0 0 0                0 0 0
Initial Fut:   0 816 146                0 0 0                4 102 356                52 0 87
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0 816 146                0 0 0                4 102 356                52 0 87
Reduct Vol:    0 0 0                0 0 0                0 0 0                0 0 0
Reduced Vol:   0 816 146                0 0 0                4 102 356                52 0 87
PCE Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:   0 816 146                0 0 0                4 102 356                52 0 87
-----|-----|-----|-----|-----|
Saturation Flow Module:
Adjustment:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:       0.00 1.00 1.00 0.00 0.00 0.00 0.04 0.96 1.00 0.38 0.00 0.62
Final Sat.:  0 587 651                0 0 0                22 505 590                197 0 327
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      xxxx 1.39 0.22  xxxx xxxx  xxxx  0.20 0.20  0.60  0.27 xxxx  0.27
Crit Moves:      ****                ****                ****
Delay/Veh:      0.0 204 9.7  0.0 0.0  0.0  11.2 11.2  17.5  12.2 0.0  12.2
Delay Adj:      1.00 1.00 1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:     0.0 204 9.7  0.0 0.0  0.0  11.2 11.2  17.5  12.2 0.0  12.2
LOS by Move:    *  F  A  *  *  *  B  B  C  B  *  B
ApproachDel:    174.5                xxxxxx                16.1                12.2
Delay Adj:      1.00                xxxxxx                1.00                1.00
ApprAdjDel:     174.5                xxxxxx                16.1                12.2
LOS by Appr:    F                *                C                B
  
```


AllWayAvgQ: 0.0 31.8 0.3 0.0 0.0 0.0 0.2 0.2 1.4 0.4 0.4 0.4

 Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.561
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 37 Level Of Service: A

Street Name:	Fremont Ave						Ross Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	1	0

Volume Module:	Fremont Ave			Fremont Ave			Ross Ave			Ross Ave		
Base Vol:	30	849	168	26	988	41	11	32	6	54	40	41
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	33	947	187	29	1102	46	12	36	7	60	45	46
Added Vol:	0	76	0	0	41	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	1023	187	29	1143	46	12	36	7	60	45	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	1023	187	29	1143	46	12	36	7	60	45	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	1023	187	29	1143	46	12	36	7	60	45	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	1023	187	29	1143	46	12	36	7	60	45	46

Saturation Flow Module:	Fremont Ave			Fremont Ave			Ross Ave			Ross Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	1.92	0.08	1.00	0.84	0.16	1.00	1.00	1.00
Final Sat.:	1600	2705	495	1600	3077	123	1600	1347	253	1600	1600	1600

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-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.02 0.38 0.38 0.02 0.37 0.37 0.01 0.03 0.03 0.04 0.03 0.03
Crit Moves:      ****      ****      ****      ****
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #27 Westmont Dr and Valley Blvd
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.717
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     52      Level Of Service:      C
*****
Street Name:      Westmont Dr      Valley Blvd
Approach:          North Bound      South Bound      East Bound      West Bound
Movement:          L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:           Permitted      Permitted      Permitted      Permitted
Rights:            Include      Include      Include      Include
Min. Green:        0    0    0      0    0    0      0    0    0      0    0    0
Y+R:               4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0
Lanes:             0  0  1! 0  0      0  0  1! 0  0      1  0  2  0  1      1  0  2  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:          16    10    11      24    9    14      56 1578  135      8 1040  33
Growth Adj:        1.12 1.12  1.12      1.12 1.12  1.12      1.12 1.12  1.12      1.12 1.12  1.12
Initial Bse:        18    11    12      27    10   16      62 1761  151      9 1160  37
Added Vol:         0    0    0      0    0    0      0   59    0      0   32    0
PasserByVol:       0    0    0      0    0    0      0    0    0      0    0    0
Initial Fut:        18    11    12      27    10   16      62 1820  151      9 1192  37
User Adj:          1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
PHF Adj:           1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
PHF Volume:        18    11    12      27    10   16      62 1820  151      9 1192  37
Reduct Vol:        0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:       18    11    12      27    10   16      62 1820  151      9 1192  37
PCE Adj:           1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
MLF Adj:           1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
FinalVolume:       18    11    12      27    10   16      62 1820  151      9 1192  37
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600      1600 1600  1600      1600 1600  1600      1600 1600  1600
Adjustment:        1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
Lanes:             0.43 0.27  0.30      0.51 0.19  0.30      1.00 2.00  1.00      1.00 2.00  1.00
Final Sat.:        692  432  476      817  306  477      1600 3200  1600      1600 3200  1600

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-----|-----||-----||-----|
Capacity Analysis Module:
Vol/Sat:    0.01 0.03  0.03  0.02 0.03  0.03  0.04 0.57  0.09  0.01 0.37  0.02
Crit Moves:      ****      ****      ****      ****
*****

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Scenario:      Scenario Report
                2028 Cum + Project AM
Command:       2028 Cum + Proj AM
Volume:        2028 AM

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Intersection

Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	16	34	15	2	8	2	6	82	2	6	217	33
Future Vol, veh/h	16	34	15	2	8	2	6	82	2	6	217	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	37	16	2	9	2	7	89	2	7	236	36
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.6	8.4	8.5	9.5
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	7%	0%	32%	0%	20%	0%	3%	0%
Vol Thru, %	93%	0%	68%	0%	80%	0%	97%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	88	2	50	15	10	2	223	33
LT Vol	6	0	16	0	2	0	6	0
Through Vol	82	0	34	0	8	0	217	0
RT Vol	0	2	0	15	0	2	0	33
Lane Flow Rate	96	2	54	16	11	2	242	36
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.133	0.003	0.085	0.021	0.017	0.003	0.327	0.041
Departure Headway (Hd)	5.02	4.283	5.612	4.747	5.624	4.818	4.854	4.139
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	715	836	639	755	637	742	742	867
Service Time	2.741	2.004	3.338	2.472	3.355	2.549	2.571	1.856
HCM Lane V/C Ratio	0.134	0.002	0.085	0.021	0.017	0.003	0.326	0.042
HCM Control Delay	8.5	7	8.9	7.6	8.5	7.6	9.9	7
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.5	0	0.3	0.1	0.1	0	1.4	0.1

Intersection

Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	8	17	8	1	6	8	16	109	2	13	183	13
Future Vol, veh/h	8	17	8	1	6	8	16	109	2	13	183	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	18	9	1	7	9	17	118	2	14	199	14
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.3	7.9	8.7	9.2
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	13%	0%	32%	0%	14%	0%	7%	0%
Vol Thru, %	87%	0%	68%	0%	86%	0%	93%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	125	2	25	8	7	8	196	13
LT Vol	16	0	8	0	1	0	13	0
Through Vol	109	0	17	0	6	0	183	0
RT Vol	0	2	0	8	0	8	0	13
Lane Flow Rate	136	2	27	9	8	9	213	14
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.185	0.003	0.042	0.011	0.012	0.011	0.28	0.016
Departure Headway (Hd)	4.911	4.145	5.598	4.733	5.535	4.759	4.726	3.992
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	734	867	642	759	649	755	750	881
Service Time	2.617	1.851	3.308	2.443	3.246	2.469	2.522	1.787
HCM Lane V/C Ratio	0.185	0.002	0.042	0.012	0.012	0.012	0.284	0.016
HCM Control Delay	8.7	6.9	8.6	7.5	8.3	7.5	9.4	6.9
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.7	0	0.1	0	0	0	1.1	0

Intersection

Intersection Delay, s/veh 101.9

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱			↱	↱
Traffic Vol, veh/h	57	182	405	444	68	15	405	61	23	87	16	223
Future Vol, veh/h	57	182	405	444	68	15	405	61	23	87	16	223
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	62	198	440	483	74	16	440	66	25	95	17	242
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	62.4	259.8	35.6	24.3
HCM LOS	F	F	E	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	66%	24%	0%	87%	0%	84%	0%
Vol Thru, %	0%	25%	76%	0%	13%	0%	16%	0%
Vol Right, %	0%	9%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	243	246	239	405	512	15	103	223
LT Vol	243	162	57	0	444	0	87	0
Through Vol	0	61	182	0	68	0	16	0
RT Vol	0	23	0	405	0	15	0	223
Lane Flow Rate	264	267	260	440	557	16	112	242
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.712	0.704	0.659	1.017	1.506	0.039	0.313	0.603
Departure Headway (Hd)	10.816	10.566	10.179	9.312	10.023	8.837	11.207	10.012
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	338	345	359	392	367	408	322	364
Service Time	8.516	8.266	7.879	7.012	7.723	6.537	8.907	7.712
HCM Lane V/C Ratio	0.781	0.774	0.724	1.122	1.518	0.039	0.348	0.665
HCM Control Delay	36.3	34.9	30.5	81.2	267.1	11.9	18.9	26.8
HCM Lane LOS	E	D	D	F	F	B	C	D
HCM 95th-tile Q	5.2	5.1	4.5	12.6	29.6	0.1	1.3	3.8

Intersection

Intersection Delay, s/veh 156.7

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕	↕			
Traffic Vol, veh/h	2	27	658	127	0	17	0	697	90	0	0	0
Future Vol, veh/h	2	27	658	127	0	17	0	697	90	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	29	715	138	0	18	0	758	98	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	135.2	16.6	201.2
HCM LOS	F	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	7%	0%	88%
Vol Thru, %	100%	0%	93%	0%	0%
Vol Right, %	0%	100%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	697	90	29	658	144
LT Vol	0	0	2	0	127
Through Vol	697	0	27	0	0
RT Vol	0	90	0	658	17
Lane Flow Rate	758	98	32	715	157
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.431	0.166	0.06	1.224	0.336
Departure Headway (Hd)	7.316	6.601	7.898	7.143	9.1
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	500	547	456	515	398
Service Time	5.016	4.301	5.598	4.843	7.1
HCM Lane V/C Ratio	1.516	0.179	0.07	1.388	0.394
HCM Control Delay	225.8	10.6	11.1	140.7	16.6
HCM Lane LOS	F	B	B	F	C
HCM 95th-tile Q	34.2	0.6	0.2	23.8	1.5

HCM 2010 TWSC
4: Date Ave & Orange St

03/06/2018

Intersection

Int Delay, s/veh 4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	25	58	56	8	30	3	60	121	6	7	190	75
Future Vol, veh/h	25	58	56	8	30	3	60	121	6	7	190	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	63	61	9	33	3	65	132	7	8	207	82

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	500	484	207	515	484	132	207	0	0	132	0	0
Stage 1	222	222	-	262	262	-	-	-	-	-	-	-
Stage 2	278	262	-	253	222	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	481	483	833	470	483	917	1364	-	-	1453	-	-
Stage 1	780	720	-	743	691	-	-	-	-	-	-	-
Stage 2	728	691	-	751	720	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	435	457	833	374	457	917	1364	-	-	1453	-	-
Mov Cap-2 Maneuver	435	457	-	374	457	-	-	-	-	-	-	-
Stage 1	743	716	-	708	658	-	-	-	-	-	-	-
Stage 2	657	658	-	631	716	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.9		13.7		2.5		0.2	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1364	-	-	450	833	437	917	1453	-	-
HCM Lane V/C Ratio	0.048	-	-	0.2	0.073	0.095	0.004	0.005	-	-
HCM Control Delay (s)	7.8	-	-	15	9.7	14.1	8.9	7.5	-	-
HCM Lane LOS	A	-	-	C	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.7	0.2	0.3	0	0	-	-

Intersection

Int Delay, s/veh 5.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	104	518	1355	181	67	162
Future Vol, veh/h	104	518	1355	181	67	162
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	113	563	1473	197	73	176

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1670	0	0 2079 835
Stage 1	-	-	- 1571 -
Stage 2	-	-	- 508 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	381	-	- ~ 46 311
Stage 1	-	-	- 157 -
Stage 2	-	-	- 569 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	381	-	- ~ 26 311
Mov Cap-2 Maneuver	-	-	- 107 -
Stage 1	-	-	- 157 -
Stage 2	-	-	- 323 -

Approach	EB	WB	SB
HCM Control Delay, s	3.1	0	48.4
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	381	-	-	-	107	311
HCM Lane V/C Ratio	0.297	-	-	-	0.681	0.566
HCM Control Delay (s)	18.4	-	-	-	91.2	30.7
HCM Lane LOS	C	-	-	-	F	D
HCM 95th %tile Q(veh)	1.2	-	-	-	3.5	3.3

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕	↕	↕	↕	↕
Traffic Vol, veh/h	14	16	76	4	5	2	95	174	17	13	162	61
Future Vol, veh/h	14	16	76	4	5	2	95	174	17	13	162	61
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	17	83	4	5	2	103	189	18	14	176	66

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	602	600	176	650	600	189	176	0	0	189	0	0
Stage 1	204	204	-	396	396	-	-	-	-	-	-	-
Stage 2	398	396	-	254	204	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	412	415	867	382	415	853	1400	-	-	1385	-	-
Stage 1	798	733	-	629	604	-	-	-	-	-	-	-
Stage 2	628	604	-	750	733	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	381	381	867	313	381	853	1400	-	-	1385	-	-
Mov Cap-2 Maneuver	381	381	-	313	381	-	-	-	-	-	-	-
Stage 1	739	726	-	583	560	-	-	-	-	-	-	-
Stage 2	575	560	-	656	726	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.9		14.5		2.6		0.4	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1400	-	-	637 347 853	1385	-	-
HCM Lane V/C Ratio	0.074	-	-	0.181 0.028 0.003	0.01	-	-
HCM Control Delay (s)	7.8	-	-	11.9 15.7 9.2	7.6	-	-
HCM Lane LOS	A	-	-	B C A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.7 0.1 0	0	-	-

Intersection

Intersection Delay, s/veh	12.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	69	78	79	2	18	8	6	198	2	11	313	22
Future Vol, veh/h	69	78	79	2	18	8	6	198	2	11	313	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	75	85	86	2	20	9	7	215	2	12	340	24
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10.9	9.5	11.9	14.8
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	47%	0%	10%	0%	3%	0%
Vol Thru, %	97%	0%	53%	0%	90%	0%	97%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	204	2	147	79	20	8	324	22
LT Vol	6	0	69	0	2	0	11	0
Through Vol	198	0	78	0	18	0	313	0
RT Vol	0	2	0	79	0	8	0	22
Lane Flow Rate	222	2	160	86	22	9	352	24
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.361	0.003	0.288	0.132	0.041	0.014	0.556	0.033
Departure Headway (Hd)	5.869	5.146	6.488	5.541	6.721	5.957	5.688	4.965
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	614	695	554	647	532	600	634	722
Service Time	3.601	2.878	4.221	3.274	4.466	3.702	3.415	2.691
HCM Lane V/C Ratio	0.362	0.003	0.289	0.133	0.041	0.015	0.555	0.033
HCM Control Delay	11.9	7.9	11.8	9.1	9.8	8.8	15.3	7.9
HCM Lane LOS	B	A	B	A	A	A	C	A
HCM 95th-tile Q	1.6	0	1.2	0.5	0.1	0	3.4	0.1

Intersection

Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	12	16	88	7	15	8	6	167	10	16	385	15
Future Vol, veh/h	12	16	88	7	15	8	6	167	10	16	385	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	17	96	8	16	9	7	182	11	17	418	16
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.3	9.3	10.2	16
HCM LOS	A	A	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	43%	0%	32%	0%	4%	0%
Vol Thru, %	97%	0%	57%	0%	68%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	173	10	28	88	22	8	401	15
LT Vol	6	0	12	0	7	0	16	0
Through Vol	167	0	16	0	15	0	385	0
RT Vol	0	10	0	88	0	8	0	15
Lane Flow Rate	188	11	30	96	24	9	436	16
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.283	0.014	0.054	0.146	0.044	0.014	0.627	0.02
Departure Headway (Hd)	5.414	4.69	6.412	5.486	6.621	5.749	5.18	4.456
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	658	755	554	647	544	626	693	796
Service Time	3.196	2.472	4.204	3.278	4.321	3.449	2.947	2.223
HCM Lane V/C Ratio	0.286	0.015	0.054	0.148	0.044	0.014	0.629	0.02
HCM Control Delay	10.4	7.5	9.6	9.2	9.6	8.5	16.3	7.3
HCM Lane LOS	B	A	A	A	A	A	C	A
HCM 95th-tile Q	1.2	0	0.2	0.5	0.1	0	4.4	0.1

Intersection

Intersection Delay, s/veh 51.6

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱			↱	↱
Traffic Vol, veh/h	32	334	268	134	117	2	552	192	109	11	6	45
Future Vol, veh/h	32	334	268	134	117	2	552	192	109	11	6	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	363	291	146	127	2	600	209	118	12	7	49
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1






Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	33.5	27.7	74.9	12.7
HCM LOS	D	D	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	29%	9%	0%	53%	0%	65%	0%
Vol Thru, %	0%	45%	91%	0%	47%	0%	35%	0%
Vol Right, %	0%	26%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	431	422	366	268	251	2	17	45
LT Vol	431	121	32	0	134	0	11	0
Through Vol	0	192	334	0	117	0	6	0
RT Vol	0	109	0	268	0	2	0	45
Lane Flow Rate	468	459	398	291	273	2	18	49
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	1.059	0.968	0.864	0.573	0.663	0.005	0.049	0.115
Departure Headway (Hd)	8.144	7.593	8.04	7.275	9.051	8.051	9.842	8.772
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	445	478	454	498	401	447	366	411
Service Time	5.921	5.369	5.74	4.975	6.751	5.751	7.542	6.472
HCM Lane V/C Ratio	1.052	0.96	0.877	0.584	0.681	0.004	0.049	0.119
HCM Control Delay	88.2	61.4	43.9	19.3	27.8	10.8	13	12.6
HCM Lane LOS	F	F	E	C	D	B	B	B
HCM 95th-tile Q	14.9	12.1	8.8	3.5	4.6	0	0.2	0.4

Intersection

Intersection Delay, s/veh 162

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	102	356	52	0	87	0	816	146	0	0	0
Future Vol, veh/h	4	102	356	52	0	87	0	816	146	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	111	387	57	0	95	0	887	159	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	21	14.5	251.1
HCM LOS	C	B	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	4%	0%	37%
Vol Thru, %	100%	0%	96%	0%	0%
Vol Right, %	0%	100%	0%	100%	63%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	816	146	106	356	139
LT Vol	0	0	4	0	52
Through Vol	816	0	102	0	0
RT Vol	0	146	0	356	87
Lane Flow Rate	887	159	115	387	151
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.597	0.254	0.22	0.663	0.291
Departure Headway (Hd)	6.48	5.77	8.11	7.37	8.18
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	568	627	446	495	443
Service Time	4.18	3.47	5.81	5.07	6.18
HCM Lane V/C Ratio	1.562	0.254	0.258	0.782	0.341
HCM Control Delay	294.2	10.4	13.1	23.4	14.5
HCM Lane LOS	F	B	B	C	B
HCM 95th-tile Q	48.3	1	0.8	4.8	1.2

Intersection												
Int Delay, s/veh	17.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	77	182	181	1	41	7	44	201	3	28	317	50
Future Vol, veh/h	77	182	181	1	41	7	44	201	3	28	317	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	84	198	197	1	45	8	48	218	3	30	345	54
Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	741	719	345	818	719	218	345	0	0	218	0	0
Stage 1	405	405	-	314	314	-	-	-	-	-	-	-
Stage 2	336	314	-	504	405	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	332	354	698	295	354	822	1214	-	-	1352	-	-
Stage 1	622	598	-	697	656	-	-	-	-	-	-	-
Stage 2	678	656	-	550	598	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	282	332	698	107	332	822	1214	-	-	1352	-	-
Mov Cap-2 Maneuver	282	332	-	107	332	-	-	-	-	-	-	-
Stage 1	597	585	-	669	630	-	-	-	-	-	-	-
Stage 2	600	630	-	256	585	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB		SB		SB	
HCM Control Delay, s	42.9		17		1.4		0.5					
HCM LOS	E		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1214	-	-	315	698	316	822	1352	-	-		
HCM Lane V/C Ratio	0.039	-	-	0.894	0.282	0.144	0.009	0.023	-	-		
HCM Control Delay (s)	8.1	-	-	64.4	12.2	18.3	9.4	7.7	-	-		
HCM Lane LOS	A	-	-	F	B	C	A	A	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	8.4	1.2	0.5	0	0.1	-	-		

Intersection

Int Delay, s/veh 45.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	159	835	658	160	239	214
Future Vol, veh/h	159	835	658	160	239	214
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	173	908	715	174	260	233

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	889	0	0 1601 445
Stage 1	-	-	- 802 -
Stage 2	-	-	- 799 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	758	-	- ~ 97 561
Stage 1	-	-	- 402 -
Stage 2	-	-	- 403 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	758	-	- ~ 52 561
Mov Cap-2 Maneuver	-	-	- ~ 150 -
Stage 1	-	-	- 402 -
Stage 2	-	-	- ~ 218 -

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	222.6
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	758	-	-	-	150	561
HCM Lane V/C Ratio	0.228	-	-	-	1.732	0.415
HCM Control Delay (s)	11.1	-	-	-	\$ 407.7	15.9
HCM Lane LOS	B	-	-	-	F	C
HCM 95th %tile Q(veh)	0.9	-	-	-	18.9	2

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	7	8	38	18	15	19	85	212	17	42	431	23
Future Vol, veh/h	7	8	38	18	15	19	85	212	17	42	431	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	9	41	20	16	21	92	230	18	46	468	25

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	983	975	468	1000	975	230	468	0	0	230	0	0
Stage 1	560	560	-	415	415	-	-	-	-	-	-	-
Stage 2	423	415	-	585	560	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	228	251	595	222	251	809	1094	-	-	1338	-	-
Stage 1	513	511	-	615	592	-	-	-	-	-	-	-
Stage 2	609	592	-	497	511	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	191	222	595	183	222	809	1094	-	-	1338	-	-
Mov Cap-2 Maneuver	191	222	-	183	222	-	-	-	-	-	-	-
Stage 1	470	493	-	563	542	-	-	-	-	-	-	-
Stage 2	527	542	-	439	493	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.9	20.6	2.3	0.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1094	-	-	388	199	809	1338
HCM Lane V/C Ratio	0.084	-	-	0.148	0.18	0.026	0.034
HCM Control Delay (s)	8.6	-	-	15.9	27	9.6	7.8
HCM Lane LOS	A	-	-	C	D	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.5	0.6	0.1	0.1

Appendix G – Related Project Trip Generation and Trip Distribution

Wondries
Toyota

Table 7-1
PROJECT TRIP GENERATION [1]

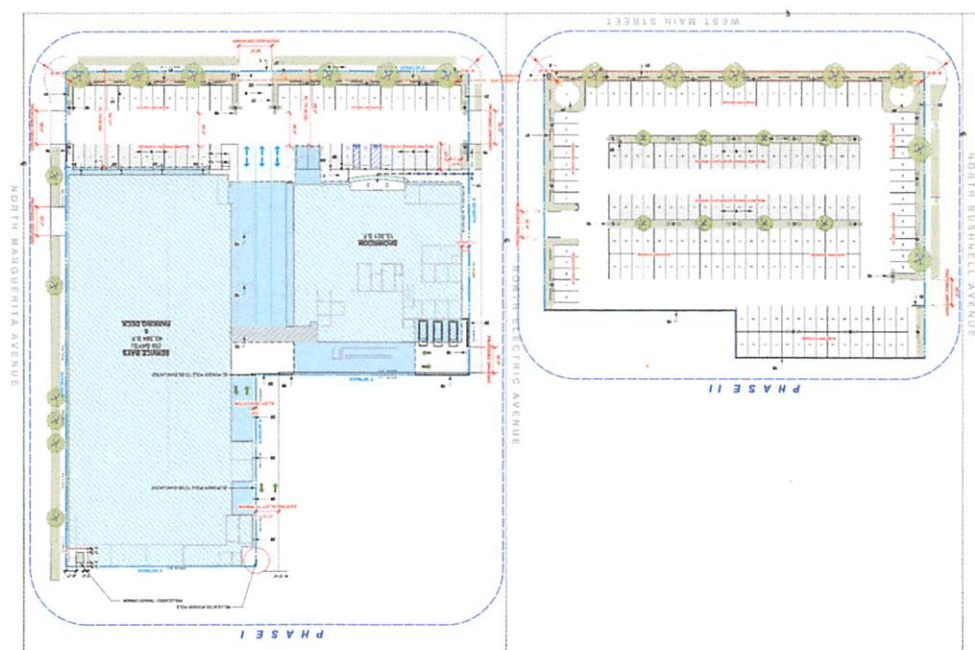
LAND USE	SIZE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
			IN	OUT	TOTAL	IN	OUT	TOTAL
<i>Proposed Project</i>								
Automobile Sales [3]	73,824 GSF	2,384	107	35	142	77	116	193
<i>Existing Use To Be Removed</i>								
Automobile Sales [3]	(27,839) GSF	(900)	(40)	(13)	(53)	(29)	(44)	(73)
NET INCREASE		1,484	67	22	89	48	72	120

[1] Source: ITE "Trip Generation Manual", 9th Edition, 2012.

[2] Trips are one-way traffic movements, entering or leaving.

[3] ITE Land Use Code 841 (Automobile Sales) trip generation average rates.

- Daily Trip Rate: 32.30 trips/1,000 GSF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 1.92 trips/1,000 GSF of floor area; 75% inbound/25% outbound
- PM Peak Hour Trip Rate: 2.62 trips/1,000 GSF of floor area; 40% inbound/60% outbound



SITE PLAN KEYNOTES

- [illegible]



AS1.1

WITNESS SIGNATURE	
	DE TO NAME SIGNATURE
	WITNESS SIGNATURE
	DATE OF SIGNATURE

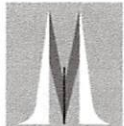
2014-0011

SITE PLAN

Wondries Toyota
1515 WEST MAIN STREET
ALHAMBRA, CA 91801



Whittier
Associates, Inc.

[illegible]

1. PROJECT STUDY SCOPE AND DESCRIPTION

The scope of this traffic study includes a review of the existing traffic and roadway conditions, forecast of project traffic, an assessment of traffic impacts due to the project, and recommendation of mitigating measures, if any, to improve traffic flow and circulation. In addition, the project site plan was reviewed and assessed for internal traffic circulation adequacy.

The project site is presently a vacant lot located in the City of Alhambra. Detailed breakdown of proposed site use is tabulated in the table below:

Site Use	Size
McDonald's with Drive-Thru	3,981 S. F.
Retail	7,423 S. F.
Sit-Down Restaurant	5,200 S. F.
Panera Bread Restaurant (*)	5,065 S. F. (4,200 S.F. indoor seating, 865 S.F. outdoor patio seating)

(*) A total of 5,065 TSF is for the Panera Bread restaurant. Panera Bread consists of 4,2 TSF of indoor seating area and 0.865 TSF of outdoor patio seating area. Mr. Robert Kluger, real estate manager for Panera Bread declared that Panera Bread is a dine-in restaurant and not a fast-food restaurant. All food is served with china and silverware by servers.

The opening year of the project is anticipated to be in the Summer of 2016. Access to the project site is via two driveways on Commonwealth Avenue and one secondary driveway on Date Avenue. A copy of the project site plan is shown in Figure 1.

2. TRANSPORTATION SYSTEMS

A. Street and Highways

Commonwealth Avenue: It is an east-west Secondary Highway. It provides two through traffic lanes in each direction between Fremont Avenue and Palm Avenue. It narrows down to one lane in each direction west of Fremont Avenue and east of Palm Avenue. The intersection of Commonwealth Avenue and Fremont Avenue is controlled by a traffic signal with protected/permissive left-turn signal phases for all intersection approaches. The intersections of Commonwealth Avenue/Date Avenue and Commonwealth Avenue/Palm Avenue are controlled by a 2-phase traffic signal. Curbside parking is prohibited on both sides of the street.

Date Avenue: Date Avenue is a north-south secondary street with one lane in each direction and a continuous 2-way left turn lane. The north leg of Date Avenue is an entrance to a Costco Wholesale Store. Date Avenue serves an industrial use area. Curbside parking is allowed on both sides of the street.

In order to assess the ability of accommodating future traffic from the proposed project, existing peak hour intersection traffic turning movement volume counts were obtained for the following potential project impacted intersections:

- Commonwealth Avenue and Date Avenue
- Commonwealth Avenue and Fremont Avenue
- Commonwealth Avenue and Palm Avenue
- Date Avenue and Orange Avenue

Figure 2 shows the traffic volume counts for A.M. and P.M. peak hour for each of the four study intersections. Exhibit "A" shows the detailed traffic volume counting data. Figure 3 shows the project year opening traffic volumes in Year 2016. These traffic volumes were obtained by applying a 1% annual traffic growth factor to existing conditions for a total of 2% from Year 2014 to Year 2016. Figure 4 shows the existing intersection traffic lane configurations and traffic control for all four study intersections.

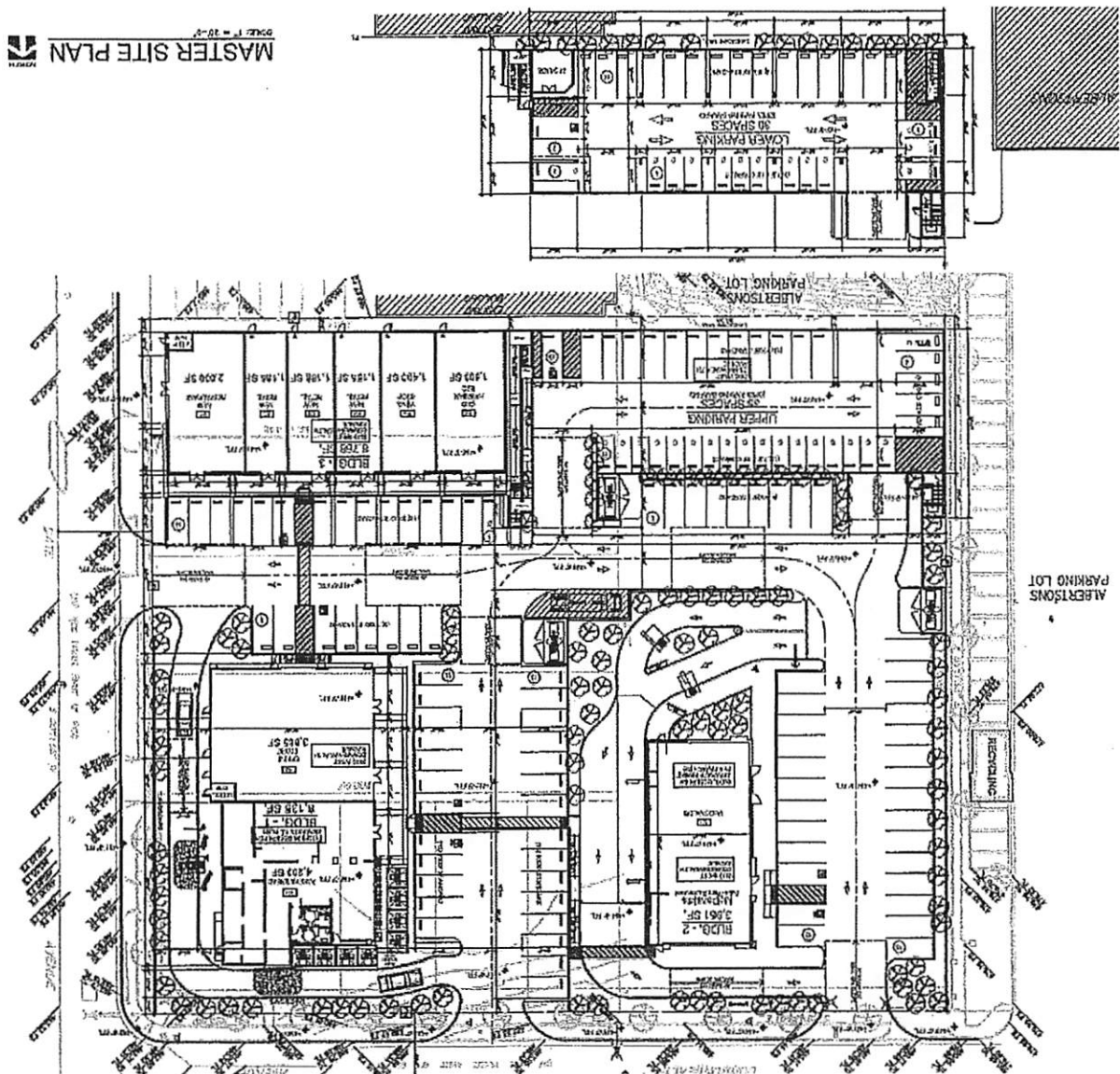


Table 1, below, summarizes traffic generation forecasts on an A.M. peak traffic hour, P.M. peak traffic hour and 24-hour traffic period for the proposed project.

TABLE 1
TRAFFIC GENERATION FORECASTS

Site Use	A.M. Peak Traffic Hour			P.M. Peak Traffic Hour			Daily Traffic
	Total	Inbound	Outbound	Inbound	Outbound	Total	
Generation Rates:							
Fast-Food Restaurant with Drive-Thru Window (Trips per 1,000 square feet)	45.42	23.16	22.26	16.98	15.67	32.65	496.12
High Turnover Sit-Down Restaurant (Trips per 1,000 square feet)	10.81	5.95	4.86	5.91	3.94	9.85	127.15
Special Retail Center (Trips per 1,000 square feet)	20.48	9.83	10.65	2.33	2.96	5.29	47.85
Project Traffic Generated:							
Fast-Food Restaurant with Drive-Thru Window (3.981 TSF)	181	92	89	68	62	130	1,975
High Turnover Sit-Down Restaurant (10.265 TSF)(*)	111	61	50	61	40	101	1,305
Special Retail Center (7.423 TSF)	152(▲)	73	79	17	22	39	355
Total Project Trips	444	226	218	146	124	270	3,635
Less 30% Pass-by Trips(**)	133	68	65	44	37	81	1,090
Net Project Trips	311	158	153	102	87	189	2,545

TSF denotes 1,000 square feet of floor area

(**) Research studies from the ITE Trip Generation Handbook indicated that an average of 34% pass-by trips were accounted for shopping center, 43% pass-by trips for High Turnover Sit-Down Restaurant and 49% pass-by trips for Fast-Food Restaurant with Drive-Thru Window. However, for conservative project trip projection, an average of 30% pass-by trips is applied for all the users of this project.

(▲) Land Use Code 826, Special Retail Center, provide only "Generator" trips instead of "Adjacent Street" trips for A.M. peak hour. The A.M. peak hour project trips based on fitted curve equation was calculated as follows:

$$T = 4.91(x) + 150.59$$

$$= 4.91(7.423) + 150.59 = 152 \text{ Trips.}$$

Source of Trip Generation Rate: Trip Generation, ITE, 9th Edition
 ITE Land Use Code 934 (Fast-Food Restaurant with Drive-Thru Window)
 ITE Land Use Code 932 (High Turnover Sit-Down Restaurant) and
 ITE Land Use Code 826 (Special Retail Center)

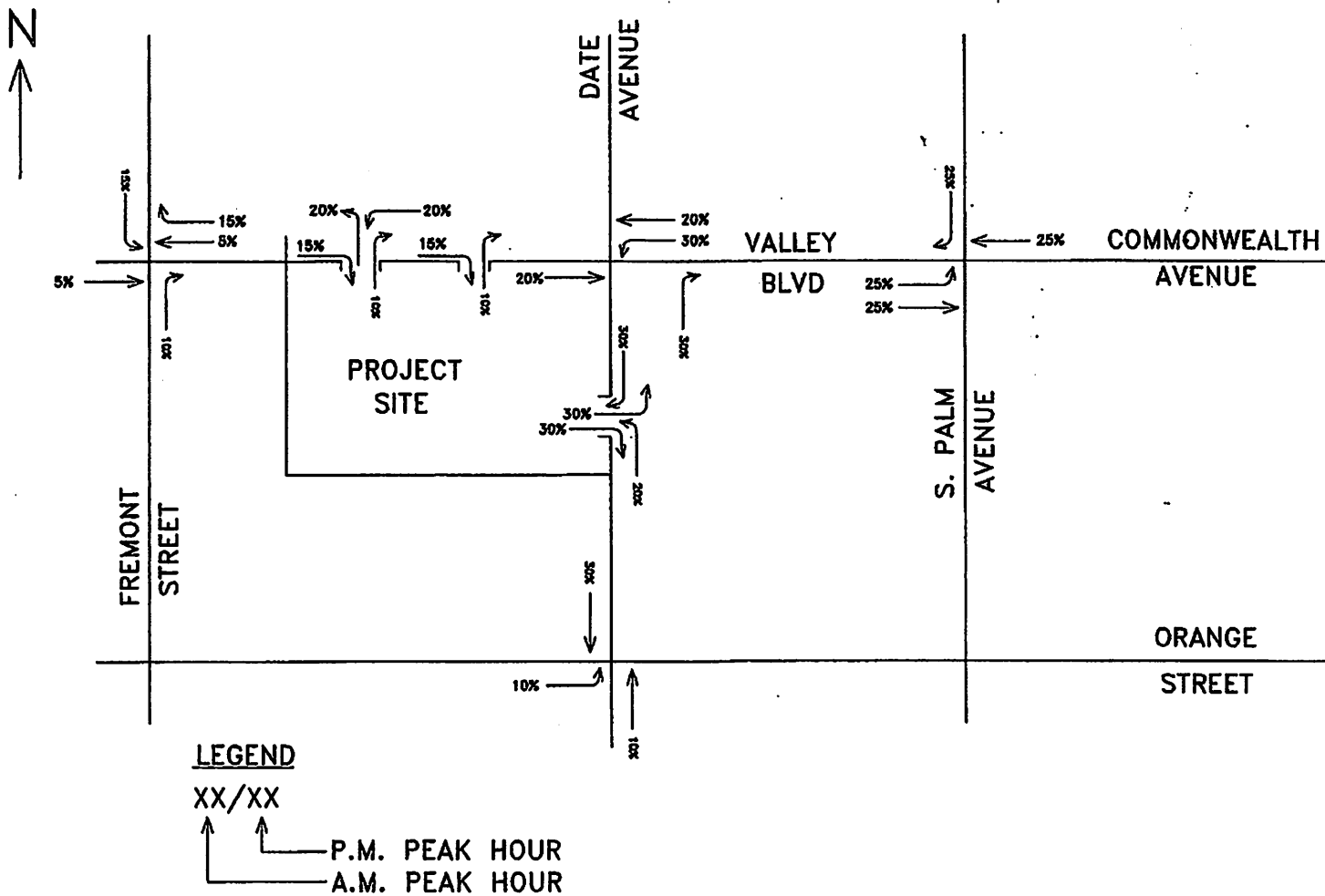


FIGURE 5

PROJECT TRIP DISTRIBUTION

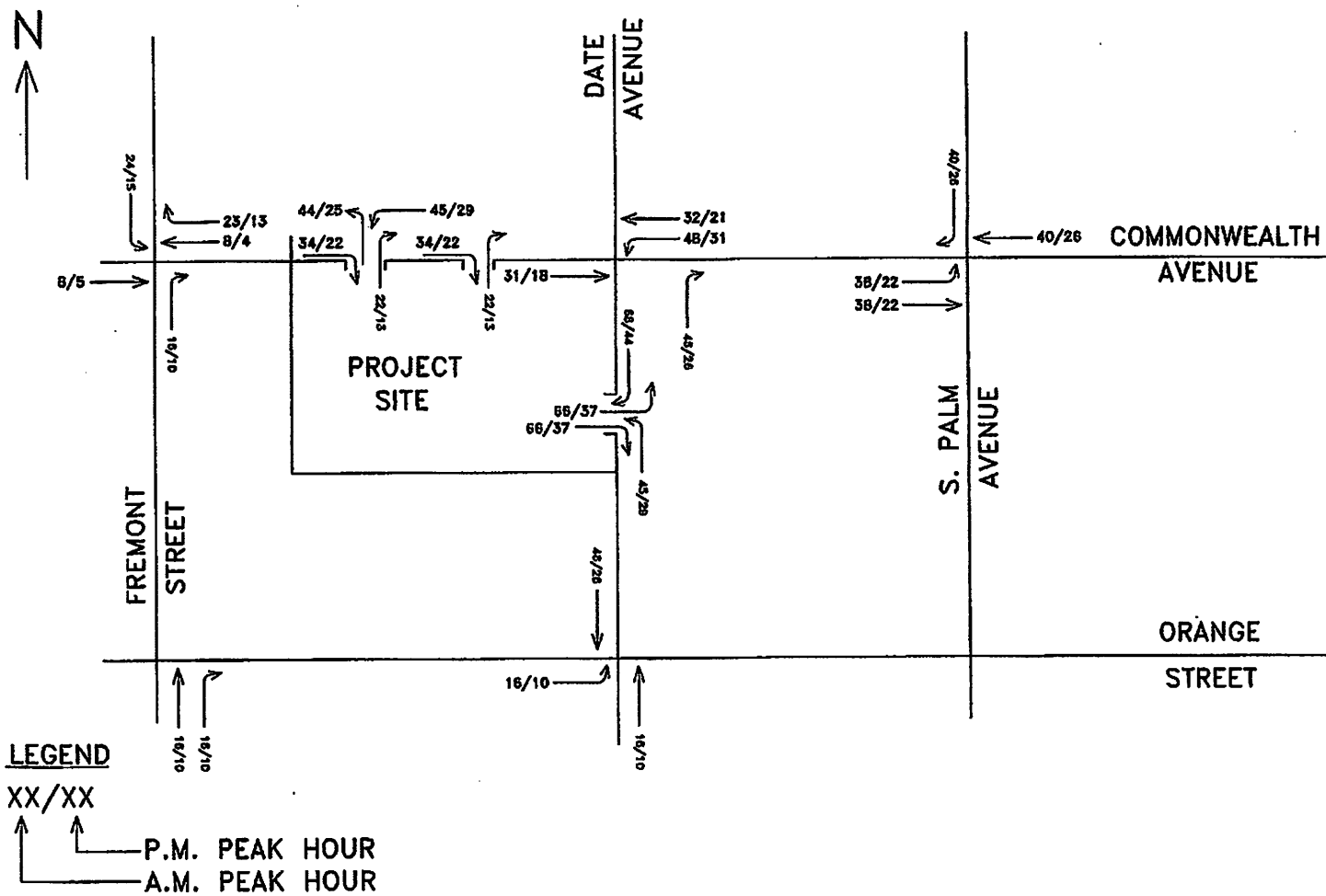


FIGURE 6

PEAK HOUR PROJECT TRIP ASSIGNMENTS

**TABLE 2
SUMMARY OF PROJECT TRIP GENERATION
REVISED DEVELOPMENT PLAN**

Land Use	ITE Code	Unit	Trip Generation Rates						
			Daily	AM Peak Hour			Midday ³ and PM Peak Hour		
				In	Out	Total	In	Out	Total
Single-Family Detached Housing ¹	210	DU	9.52	0.188	0.563	0.750	0.630	0.370	1.000
Residential Townhouse/Condominium ²	N/A	DU	8.00	0.060	0.480	0.540	0.470	0.260	0.730
Land Use	Quantity	Unit	Trip Generation Estimates						
			Daily	AM Peak Hour			Midday and PM Peak Hour		
				In	Out	Total	In	Out	Total
Single-Family Detached Housing	42	DU	400	8	24	32	26	16	42
Residential Townhouse/Condominium	28	DU	224	2	13	15	13	7	20
Total Project Trips			624	10	37	47	39	23	62
Existing Uses - To Remain or to be Removed ⁴									
Single-Family Detached Housing	-5	DU	-48	-1	-3	-4	-3	-2	-5
Townhouse (Triplex)	-3	DU	-24	0	-1	-1	-1	-1	-2
Net New Project Trips			552	9	33	42	35	20	55
¹ Source: Institute of Transportation Engineers (ITE) <u>Trip Generation Manual</u> , 9th Edition ² Source: Los Angeles County Traffic Impact Analysis Report Guidelines ³ Neither trip generation source provides trip generation rates for midday. For a worst-case analysis, the PM trip rates were used for the midday analysis. ⁴ Five single-family homes will remain and one tri-plex unit will be removed. Trips associated with these uses are deducted from the project trip generation estimates to derive net new trips associated with the project.									

Midweek

124

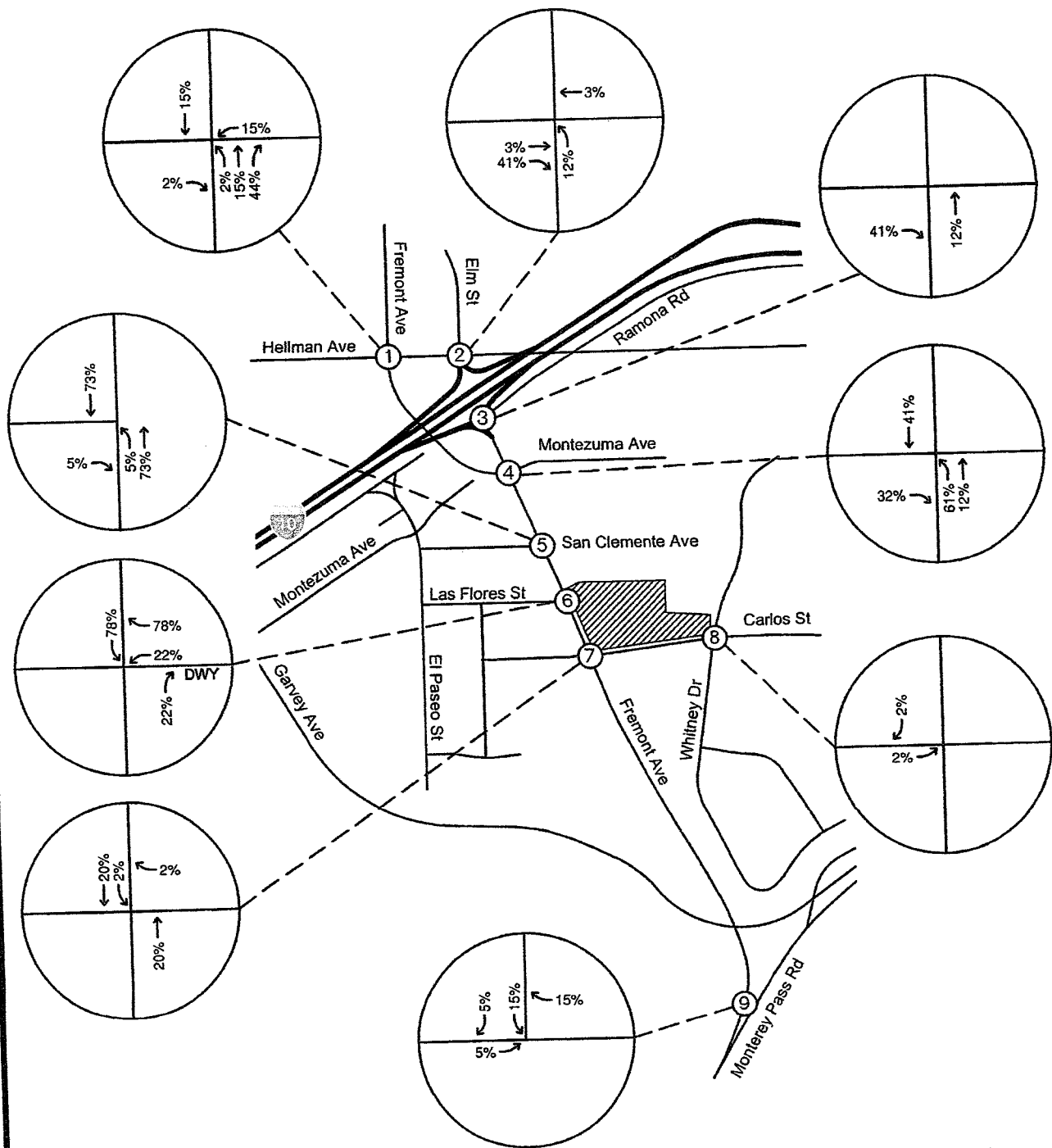
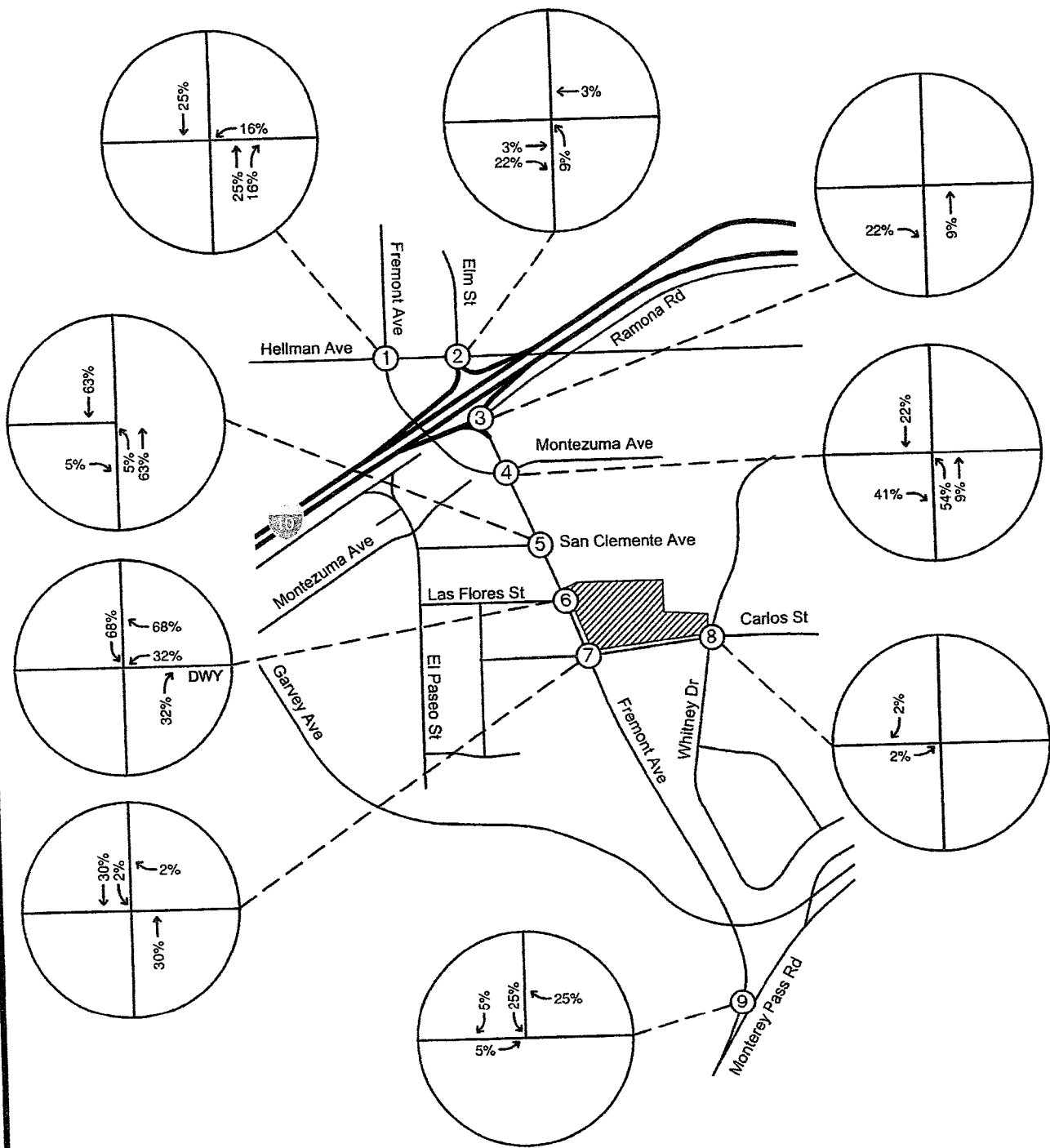


FIGURE 5
WORK-RELATED PROJECT TRIP DISTRIBUTION

*Midweek
2 of 4*



LEGEND:

- (X) Study Intersection
- DWY Future Project Driveway
- XX% Peak Hour Turning Movement Percentages



NOT TO SCALE

FIGURE 6
NON-WORK-RELATED PROJECT TRIP DISTRIBUTION

Midway
384

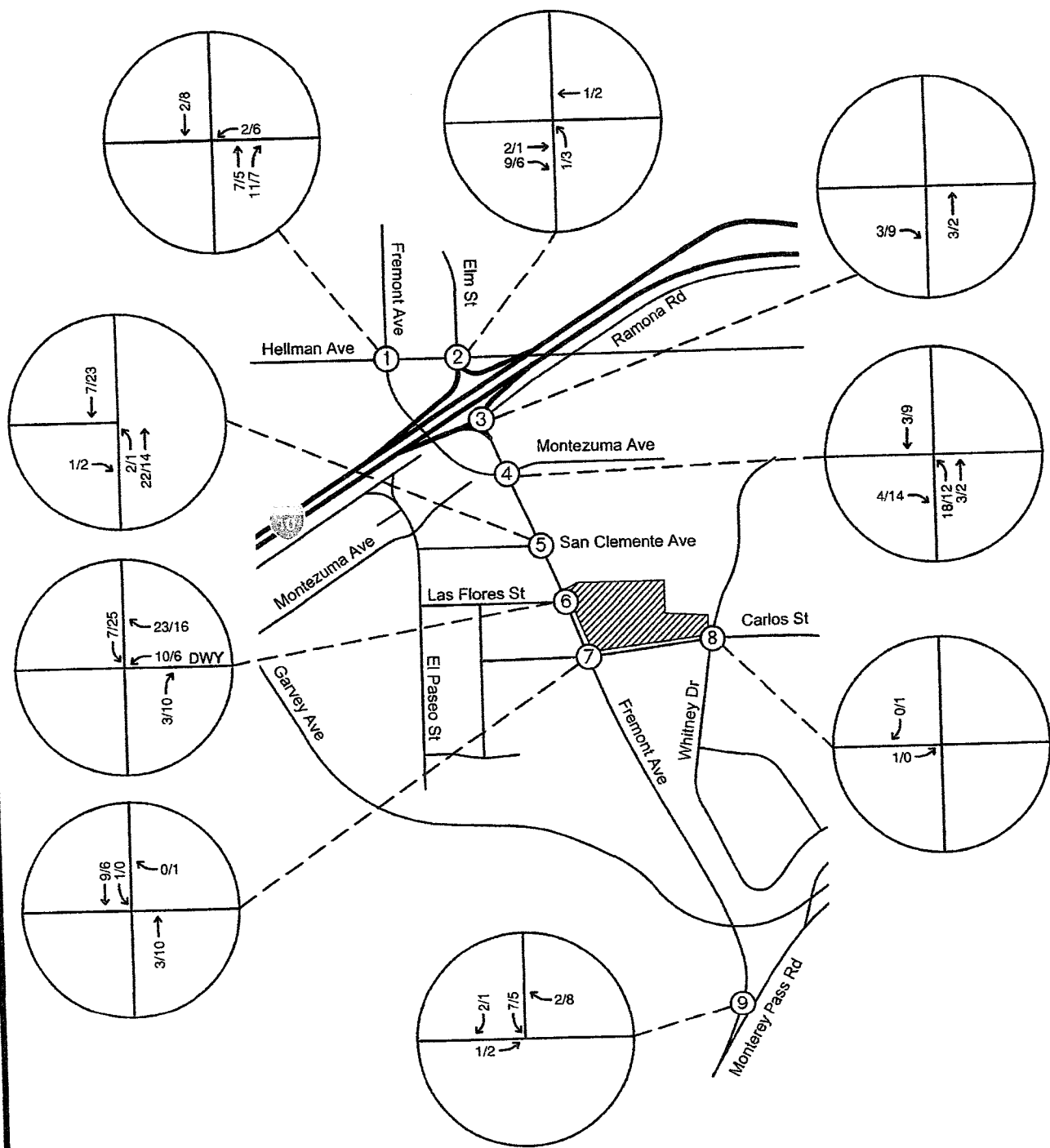


FIGURE 7
PROJECT-RELATED TRAFFIC

Midway
4 of 4

1.0 Introduction

A. Purpose of Report and Study Objectives

The purpose of this traffic impact study is to evaluate the Monterey Park Hotel project from a traffic circulation standpoint and to determine whether the additional traffic generated by the proposed project will have a significant impact on the adjacent roadway network. The proposed development is located within the City of Monterey Park.

Study objectives include:

1. Documentation of Existing traffic conditions in the vicinity of the site.
2. Evaluation of Existing Plus Project traffic conditions.
3. Evaluation of traffic conditions in Opening Year 2015 conditions With and Without Project traffic conditions.
4. Evaluation of traffic conditions in Buildout Year 2035 conditions With and Without Project traffic conditions.
5. Determination of on-site and off-site improvements and system management actions needed to achieve City of Monterey Park level of service requirements.

A scope of work was received from the City of Monterey Park's consulting traffic engineer for this project, and is included in Appendix A.

B. Site Location and Study Area

The proposed project is located on the southwest corner of Atlantic Boulevard and Garvey Avenue, in the City of Monterey Park. Exhibit 1-1 (Location Map) illustrates the site location and traffic analysis study area. The project will occupy a several vacant parcels of land and replace two (2) existing single family homes. The site is

currently zoned for Regional Specialty Center (R-S), with a Planned Development Overlay (P-D), and the southerly parcels of the project are zoned for Medium Density Residential (R-2).

The study area includes the following intersections:

North-South Street	East-West Street
Hitchcock Drive	Garvey Avenue
Marguerita Avenue	Garvey Avenue
Project Access 1	Garvey Avenue
Project Access 2	Mabel Avenue
Atlantic Boulevard	Hellman Avenue
Atlantic Boulevard	Atlantic Time Square Center
Atlantic Boulevard	Emerson Avenue
Atlantic Boulevard	MAR Center
Atlantic Boulevard	Garvey Avenue
Atlantic Boulevard	Project Access 3
Atlantic Boulevard	Mabel Avenue
Atlantic Boulevard	Newmark Avenue

C. Development Project Description

The project will consist of a mixed use development with a 148 room hotel, 98 apartment dwelling units, a 5,421 square foot quality restaurant, and 1,570 square feet of retail space. The project will have the following three (3) access points:

1. Project Access 1 (NS) at Garvey Avenue (EW) – Full access
2. Project Access 2 (NS) at Mabel Avenue (EW) – Right-in/left-out only
3. Atlantic Boulevard (NS) at Project Access 3 (EW) – Right-in/right-out only

TABLE 3-1
Trip Generation Rates¹

WEEKDAY TRIP GENERATION RATES									
Land Use	ITE Code	Units ²	Weekday Peak Hour						Weekday Daily
			AM			PM			
			In	Out	Total	In	Out	Total	
Hotel	310	RM	0.31	0.22	0.53	0.31	0.29	0.60	8.17
Apartments	220	DU	0.10	0.41	0.51	0.40	0.22	0.62	6.65
High Quality Restaurant	931	TSF	0.49	0.32	0.81	5.02	2.47	7.49	89.95
Specialty Retail ³	826	TSF	0.80	0.53	1.33	1.19	1.52	2.71	44.32

SATURDAY TRIP GENERATION RATES						
Land Use	ITE Code	Units²	Saturday Peak Hour⁴			Saturday Daily
			In	Out	Total	
Hotel	310	RM	0.40	0.32	0.72	8.19
Apartments ⁵	220	DU	0.26	0.26	0.52	6.39
High Quality Restaurant	931	TSF	6.38	4.44	10.82	94.36
Specialty Retail ⁶	826	TSF	1.19	1.52	2.71	42.04

¹ Source: Institute of Transportation Engineers (ITE), *Trip Generation, 9th Edition*, 2012

² RM = Rooms
DU = Dwelling Units
TSF = Thousand Square Feet

³ ITE Code 826, Specialty Retail Center, does not have published data for the AM peak hour of the adjacent street. Instead, SANDAG Vehicular Traffic Generation Rates have been used for estimating the AM peak hour traffic.

⁴ Saturday peak hour of the generator is used for Saturday peak hour trip generation, unless otherwise specified.

⁵ ITE does not provide directional distribution for Saturday peak hour trip generation for Apartment land use. 50% entering and 50% exiting is assumed.

⁶ ITE does not provide Saturday peak hour trip generation for Specialty Retail land use. Weekday PM peak hour. trip generation rates are used.

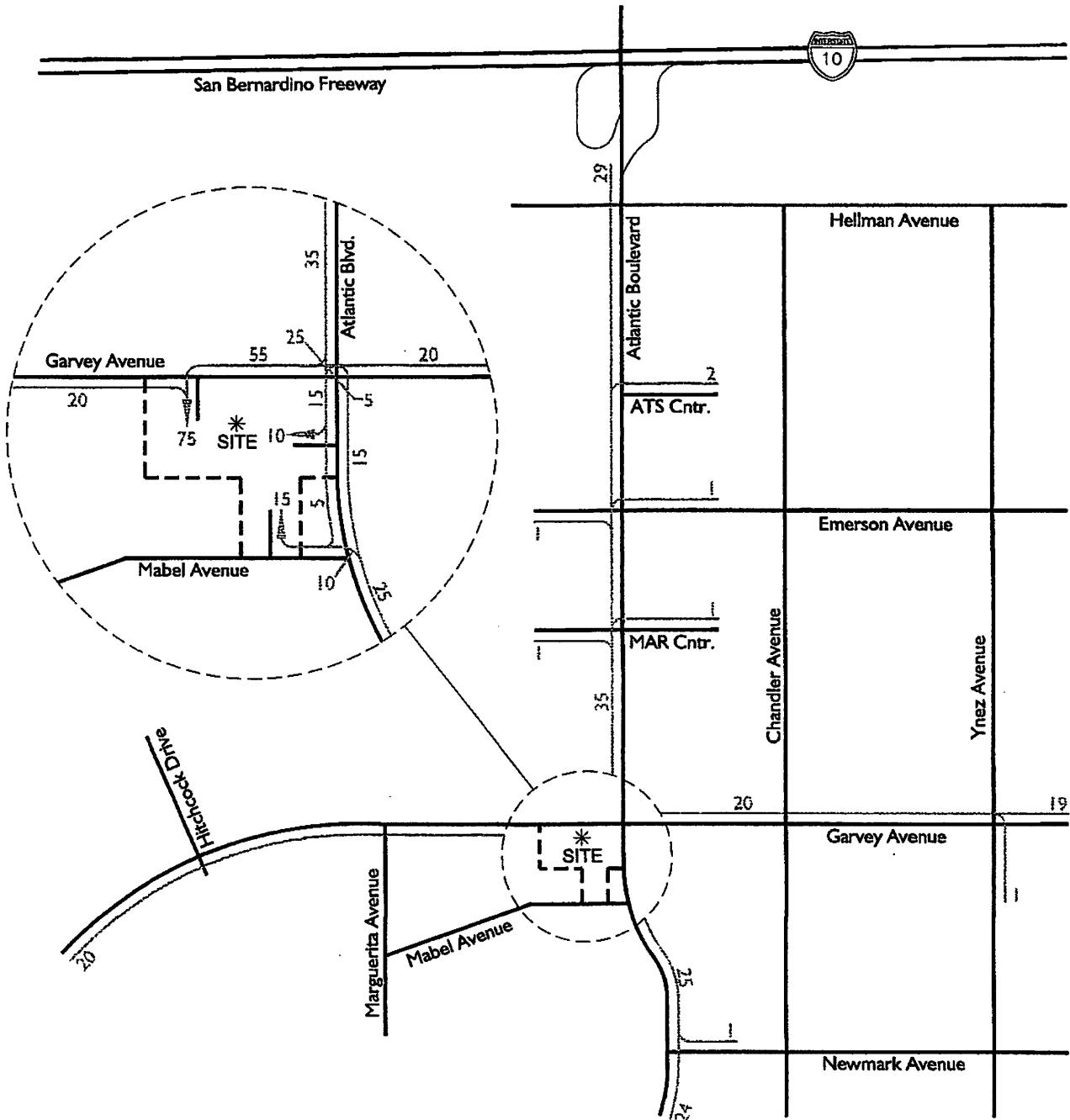
TABLE 3-2
Project Trip Generation

WEEKDAY PROJECT TRIP GENERATION									
Land Use	Quantity	Units ¹	Weekday Peak Hour						Weekday Daily
			AM			PM			
			In	Out	Total	In	Out	Total	
Hotel	148	RM	46	32	78	45	44	89	1,209
Apartments	98	DU	10	40	50	39	21	60	652
Quality Restaurant	5.421	TSF	3	2	5	27	13	40	488
Less 50% Internal Capture Trips			-1	-1	-2	-14	-6	-20	-244
Net Total Quality Restaurant			2	1	3	13	7	20	244
Specialty Retail Center	1.570	TSF	1	1	2	2	2	4	70
Less 50% Internal Capture Trips			0	0	0	-1	-1	-2	-35
Net Total Specialty Retail			1	1	2	1	1	2	35
Net Total Weekday Project Trip Generation (Less Internal Capture Trips)			59	74	133	98	73	171	2,140

SATURDAY PROJECT TRIP GENERATION						
Land Use	Quantity	Units¹	Saturday Peak Hour			Saturday Daily
			In	Out	Total	
Hotel	148	RM	60	47	107	1,212
Apartments	98	DU	25	25	50	626
Quality Restaurant	5.421	TSF	35	24	59	512
<i>Less 50% Internal Capture Trips</i>			-17	-12	-29	-256
Net Total Quality Restaurant			18	12	30	256
Specialty Retail Center	1.570	TSF	2	2	4	66
<i>Less 50% Internal Capture Trips</i>			-1	-1	-2	-33
Net Total Specialty Retail			1	1	2	33
Net Total Saturday Project Trip Generation (Less Internal Capture Trips)			104	85	189	2,127

¹ RM = Rooms
DU = Dwelling Units
TSF = Thousand Square Feet

Exhibit 3-2 Project Inbound Trip Distribution

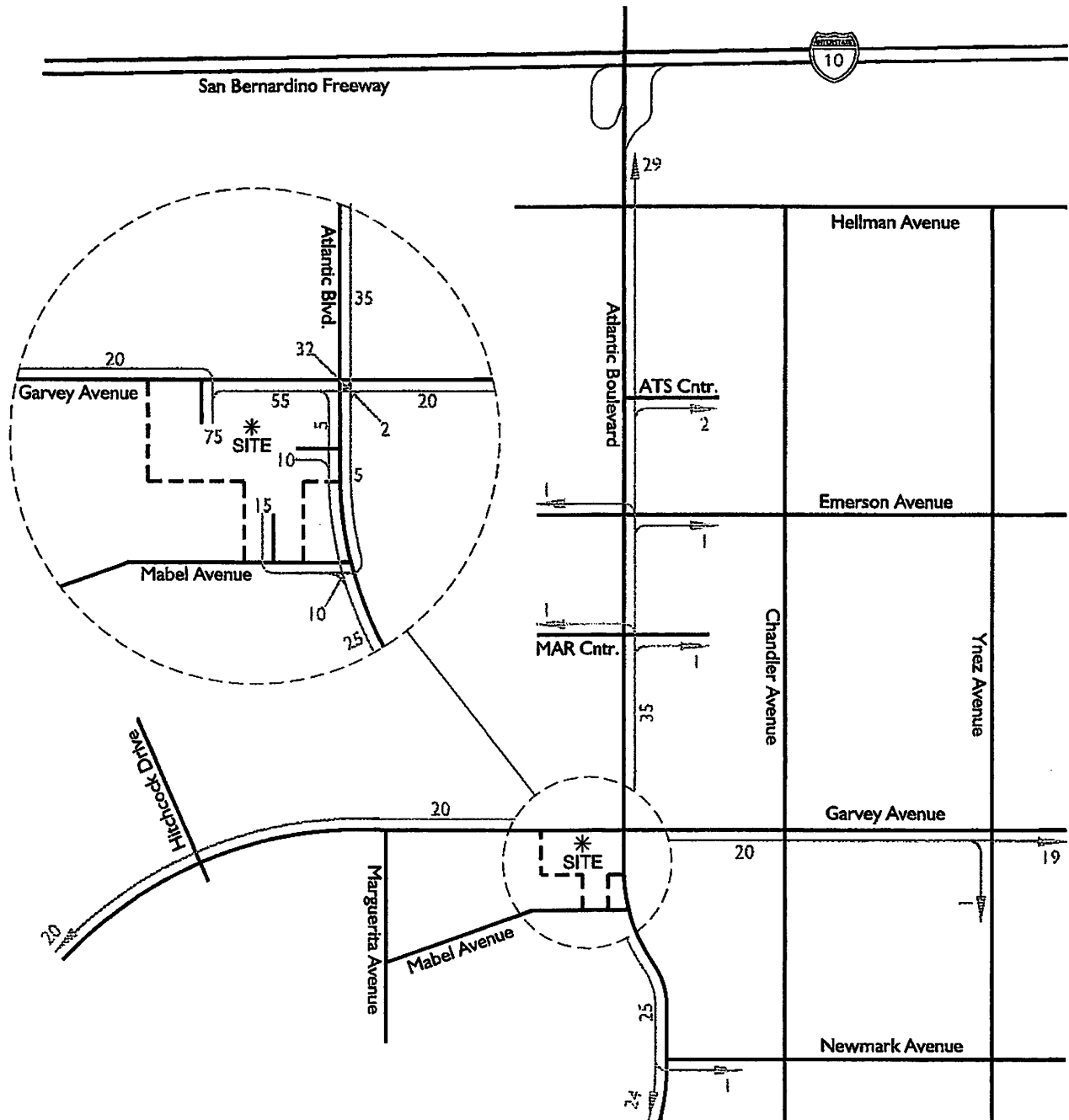


Legend:

10 = Percent to Project



Exhibit 3-1 Project Outbound Trip Distribution



Legend:

10 = Percent from Project

2340-13-01(Ex3-1)

MONTEREY PARK TRAFFIC IMPACT STUDY, City of Monterey Park, California

Executive Summary

The following summarizes the traffic study results, conclusions and recommendations:

Intensity and Trip Generation

- The proposed Project includes a new 187-room hotel facility and 3,428 square feet of restaurant use.
- The proposed Project would generate approximately 1,964 daily weekday trips including 136 trips during the a.m. peak hour and 146 trips during the p.m. peak hour. For Saturday, the proposed Project would generate approximately 2,075 daily trips and 183 mid-day peak hour trips.

Impacts and Mitigation Measures

- Based on the applied City of Monterey Park significant traffic impact criteria, the proposed Project would result in a significant traffic impact at the Atlantic Boulevard and Emerson Avenue study intersections under existing with-Project and future with-Project conditions.
- The recommended mitigation measure includes restriping the northbound approach on Atlantic Boulevard at Emerson Avenue to provide a new dedicated right-turn lane with an overall minimum length of 100 feet (including storage and taper).
- With the implementation of the recommended mitigation measure at the significantly impacted intersection of Atlantic Boulevard at Emerson Avenue, the impact will be reduced to a level of insignificance.
- The proposed Project is not anticipated to cause a significant traffic impact on any CMP arterial monitoring intersections or mainline freeway-monitoring locations.

Project Site Access and Parking

- To accommodate the proposed right-turn lane, the existing roadway striping would be modified. The resulting northbound lane configuration would provide one left-turn lane, two through lanes, and one right-turn lane.
- The proposed mitigation measure would require the removal of four on-street parking spaces along the east side of Atlantic Boulevard, south of Emerson Avenue.
- Inbound vehicle access to the site from southbound Atlantic Boulevard would occur via a southbound left-turn movement from the existing center two-way left-turn lane. Southbound left-turn access to the Project site would be improved by providing a dedicated striped turn lane pocket for the Project driveway.
- The proposed Project would provide 263 parking spaces on-site. Vehicular access to on-site parking will be provided by a two-way driveway on Atlantic Boulevard, at the southwest corner of the site.

I. Introduction

The project under consideration is a proposed hotel project located at 220 North Atlantic Boulevard in the City of Monterey Park. KOA Corporation has been retained to analyze the potential traffic impacts associated with the proposed Project.

1.1 Project Description

The Project site is located on the east side of Atlantic Boulevard, north of Garvey Avenue. The proposed Hotel 220 MPK (Project) would provide a new 187-room hotel facility and 3,428 square feet of restaurant use. The existing site is vacant.

A total of 263 off-street parking spaces will be provided in a subterranean parking garage. Vehicular access to the on-site parking will be provided from Atlantic Boulevard via a two-way entry/exit driveway at the southwest corner of the site.

The Project is anticipated to be completed and occupied by the end of year 2015.

A conceptual layout of the proposed Project site is illustrated on Figure 1. The site plan depicts the proposed site access driveway near the southern boundary of the site, and also depicts the location of an adjacent truck-access driveway located at the existing property to the south.

1.2 Project Study Area

The project study area, as defined through consultation with the City of Monterey Park staff, includes the following 11 study intersections:

1. I-10/Atlantic Boulevard westbound off-ramp, northbound
2. I-10/Atlantic Boulevard westbound off-ramp, southbound
3. I-10/Atlantic Boulevard eastbound off-ramp, northbound
4. I-10/Atlantic Boulevard eastbound off-ramp, southbound
5. Atlantic Boulevard/Hellman Avenue
6. Atlantic Boulevard/Times Square Driveway
7. Atlantic Boulevard/Emerson Avenue
8. Atlantic Boulevard/Mar Center Driveway
9. Atlantic Boulevard/Garvey Avenue
10. Atlantic Boulevard/Newmark Avenue
11. Chandler Avenue/Garvey Avenue

Figure 2 illustrates the locations of the study intersections.

3. Project Traffic

This section defines the traffic that would be generated by the proposed Project in a three-step process including trip generation, trip distribution and trip assignment.

3.1 Project Trip Generation

Project Trip Generation

The Project trip generation estimates were based on trip rates defined by the Institute of Transportation Engineers (ITE) *Trip Generation (9th Edition)*. Trip rates for the Hotel and Restaurant land uses were utilized to calculate the trip generation for the proposed Project uses.

The restaurant use is provided as part of the Project, primarily for the use of hotel patrons and their guests. Non-patrons could utilize the restaurant use, but restaurants are not included in hotel projects to attract outside customers as a primary purpose. Trip generation calculations, however, were included in the analysis for both the hotel rooms and the restaurant as separate uses. This was done to provide a conservative analysis. The basis for hotel trip rates as defined by surveys for the ITE publication, however, are based on all typical uses at a hotel, including meeting rooms, banquet rooms, restaurants, gift shops, etc. The rates acknowledge the other uses but are based on per-room rates to provide a normalizing factor for size of a typical project.

The calculated rates also incorporate typical shuttle and tour bus operations for hotel of various sizes.

The trip rates and the associated Project trip generation forecasts are provided in Table 4. The proposed Project would generate approximately 1,964 daily weekday trips including 136 trips during the a.m. peak hour and 146 trips during the p.m. peak hour. For Saturday, the proposed Project would generate approximately 2,075 daily trips and 183 mid-day peak hour trips.

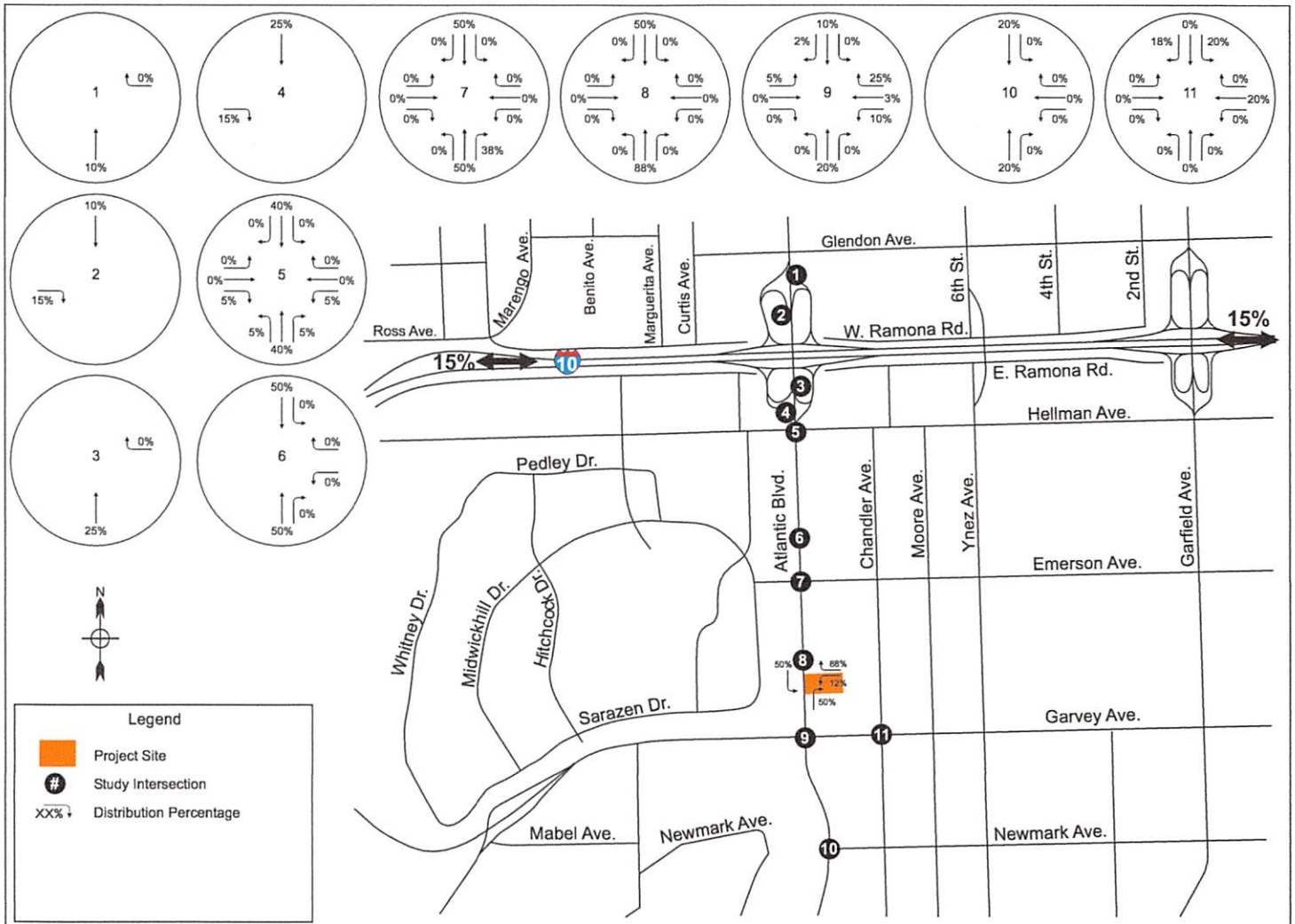
Table 4 - Project Trip Generation

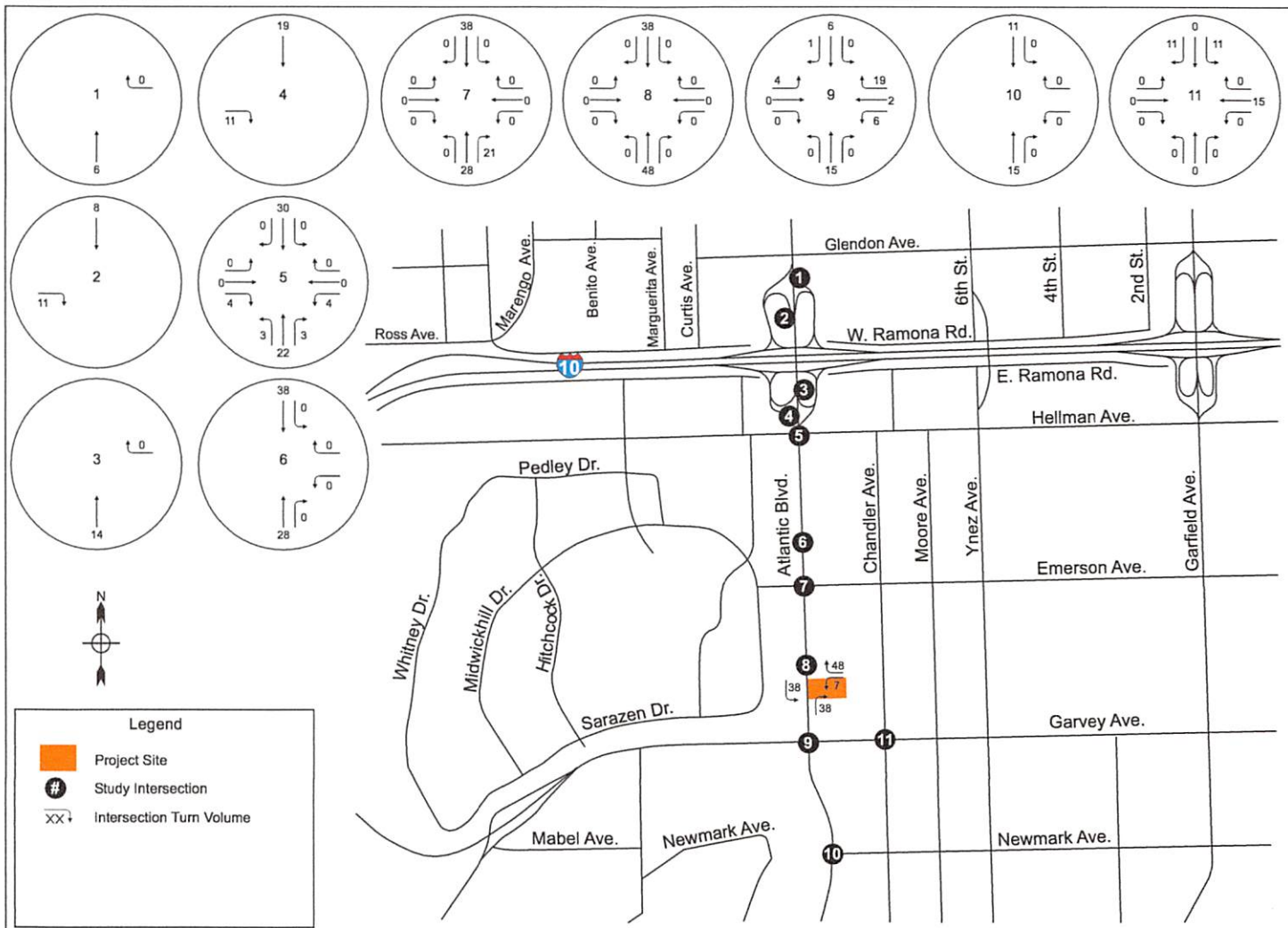
Land Use	Intensity	Units	Daily Total	AM Peak Hour			PM Peak Hour			Daily Total	Midday Peak Hour		
				Total	In	Out	Total	In	Out		Total	In	Out
Trip Generation Rates													
ITE 310 Hotel	-	rooms	8.17	0.53	59%	41%	0.60	51%	49%	8.19	0.72	56%	44%
ITE 932 Restaurant	-	k.s.f.	127.15	10.81	55%	45%	9.85	60%	40%	158.37	14.07	53%	47%
Trip Generation Estimates													
Hotel	187	rooms	1,528	99	58	41	112	57	55	1,532	135	76	59
Restaurant	3,428	k.s.f.	436	37	20	17	34	20	14	543	48	25	23
Total			1,964	136	78	58	146	77	69	2,075	183	101	82

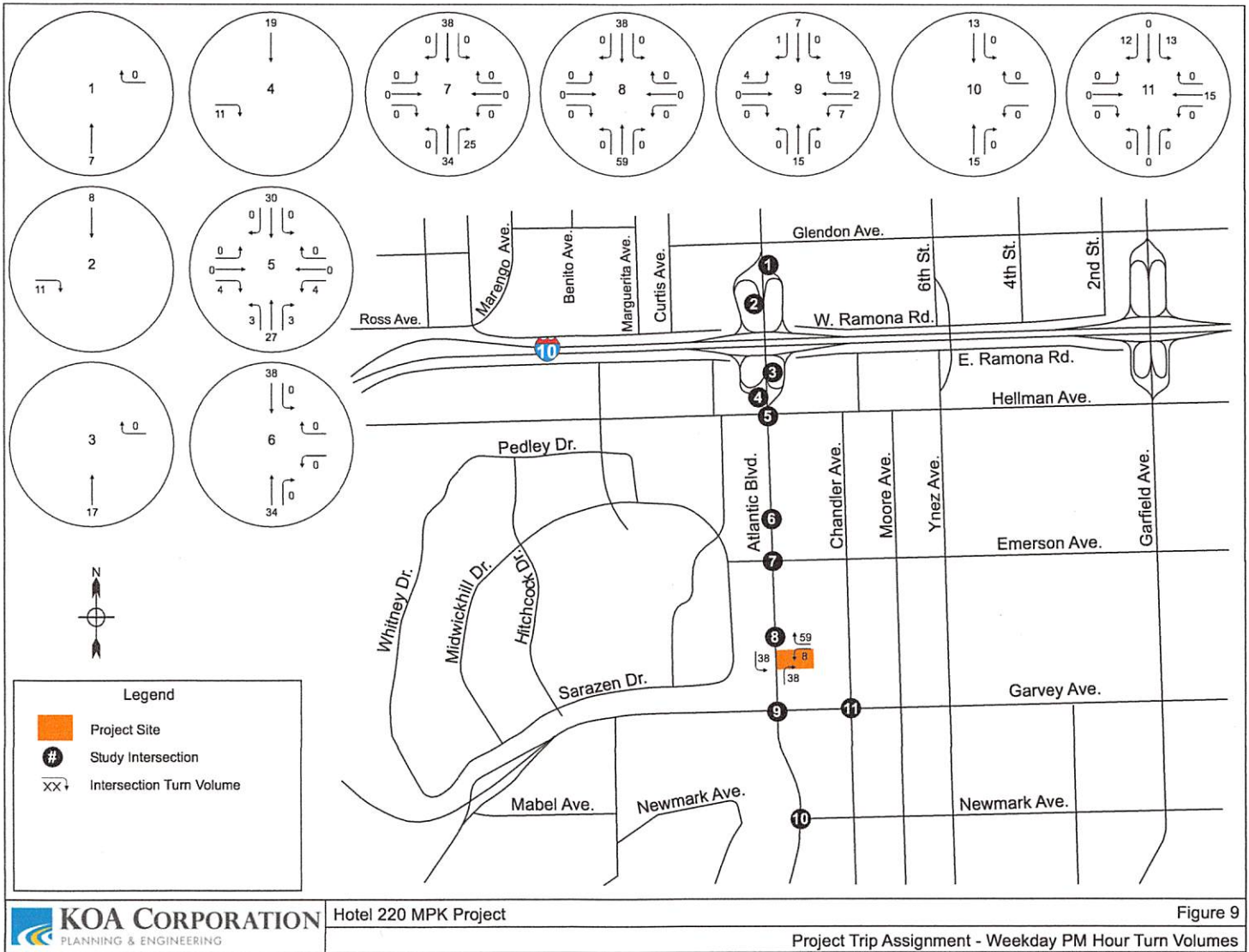
Trip Generation Source: Institute of Transportation Engineers (ITE) "Trip Generation - 9th Edition".

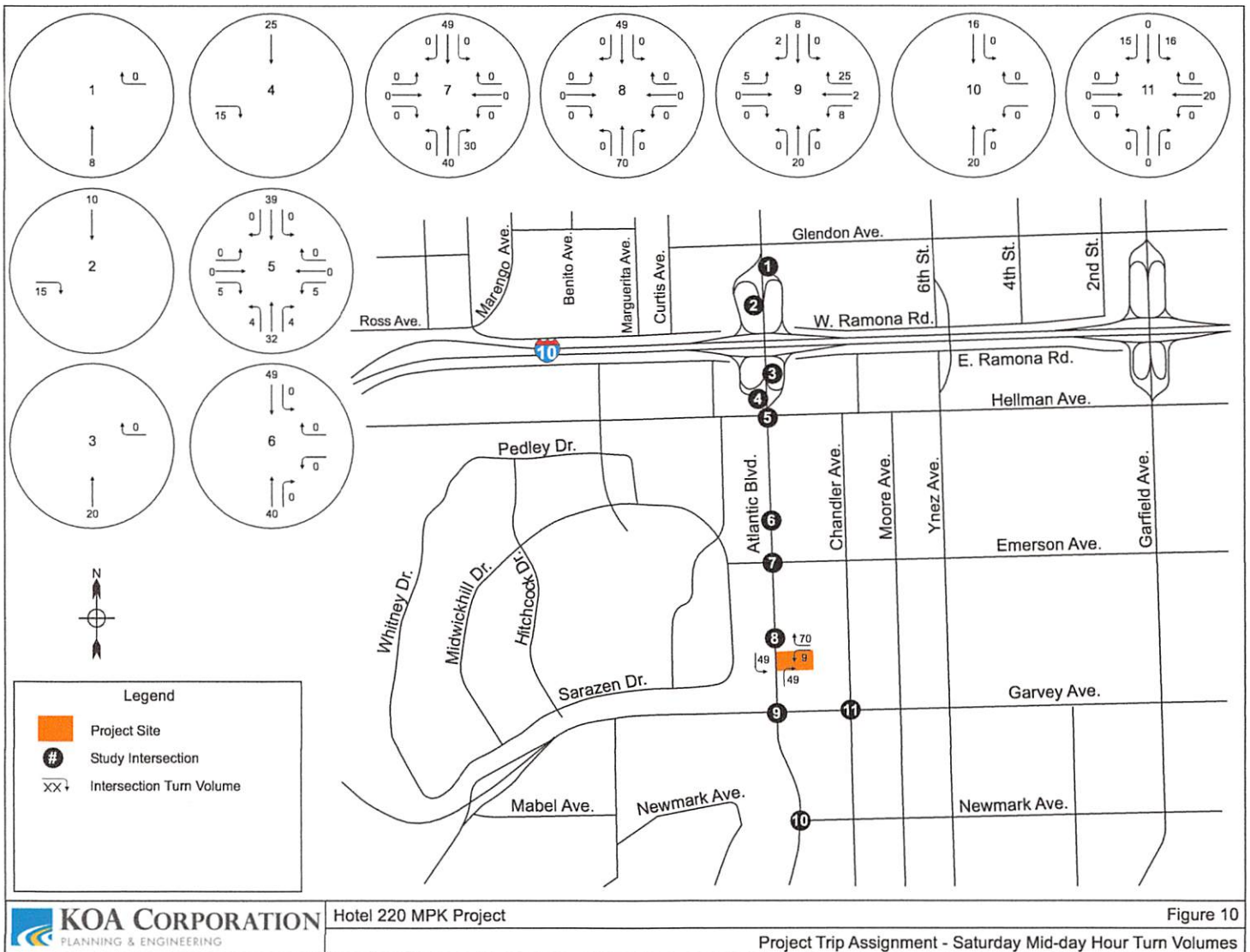
3.2 Project Trip Distribution

Trip distribution is the process of assigning the directions from which traffic will access a Project site. Trip distribution is dependent upon the land use characteristics of the Project, the local roadway network, and the general locations of other land uses to which Project trips would originate or terminate. Figure 7 illustrates the trip distribution percentages at the study intersections that were used for the traffic impact analysis.









Atlantic Gateway Hotel

**Table 3-14
Project Trip Generation**

Land Use (ITE) Code & Measure	Measure	Daily Total	Weekday						Saturday			
			AM Peak Hour			PM Peak Hour			Daily Total	Midday Peak Hour		
			Total	In	Out	Total	In	Out		Total	In	Out
Trip Generation Rates												
310 Hotel (/room)		8.17	0.53	59%	41%	0.60	51%	49%	8.19	0.72	56%	44%
820 Retail (KSF)		42.70	0.96	62%	38%	3.71	48%	52%	49.97	4.82	52%	48%
942 Auto Center (KSF)		20.0	2.25	66%	34%	3.11	48%	52%	23.72	3.56	50%	50%
948 Car Wash (KSF)		900	36	50%	50%	14.12	50%	50%	900	14.12	50%	50%
Proposed Project Trips												
Hotel (288 rooms)		2,353	153	90	63	173	88	85	2,359	207	116	91
Cap. Mkt. Reduction (25%)		(588)	(38)	(23)	(15)	(43)	(22)	(21)	(590)	(52)	(29)	(23)
Hotel Subtotal		1,765	115	67	48	130	66	64	1,769	155	87	69
Retail (6.200 KSF)		265	6	4	2	23	11	12	310	30	16	14
Pass-by Reduction (50%)		(133)	(3)	(2)	(1)	(11)	(5)	(6)	(155)	(15)	(8)	(7)
Retail Subtotal		132	3	2	1	12	6	6	155	15	8	7
Project Subtotal		1,897	118	69	49	142	72	70	1,924	170	95	75
Existing Use Trips												
Auto Repair (4.044 KSF)		(81)	(9)	(6)	(3)	(13)	(6)	(7)	(96)	(14)	(7)	(7)
Car wash (6.86 KSF)		(900)	(36)	(18)	(18)	(97)	(49)	(48)	(900)	(97)	(49)	(48)
Existing Use Total		(981)	(45)	(24)	(21)	(110)	(55)	(55)	(996)	(111)	(56)	(55)
New Net Project Trips												
Total		916	73	45	28	32	17	15	928	59	39	20

The proposed Project would generate approximately 916 net new daily weekday trips including 73 net new trips during the a.m. peak hour and 32 net new trips during the p.m. peak hour. For Saturday, the proposed Project would generate approximately 928 net new daily trips and 59 net new mid-day peak hour trips. Trip distribution is the process of assigning the directions from which traffic will access a Project site. Trip distribution is dependent upon the land use characteristics of the Project, the local roadway network, and the general locations of other land uses to which Project trips would originate or terminate.¹³⁸ Exhibit 3-19 illustrates the trip distribution percentages at the study intersections that were used for the traffic impact analysis. Based on the trip generation and distribution assumptions described above, Project traffic was assigned to the roadway system. Exhibits 3-20 and 3-21 illustrate the Project trips for the weekday a.m. and p.m. peak hours, respectively. Exhibit 3-22 illustrates the Project trips for the Saturday mid-day peak hour. Table 3-15 summarizes the resulting V/C and LOS values at the study intersections for the existing with-Project conditions.

¹³⁸ KOA Corporation. *Traffic Impact Study for Proposed Atlantic Gateway Project, 521-633 North Atlantic Boulevard, Monterey Park*. March 3, 2014 (Revised December 30, 2014).

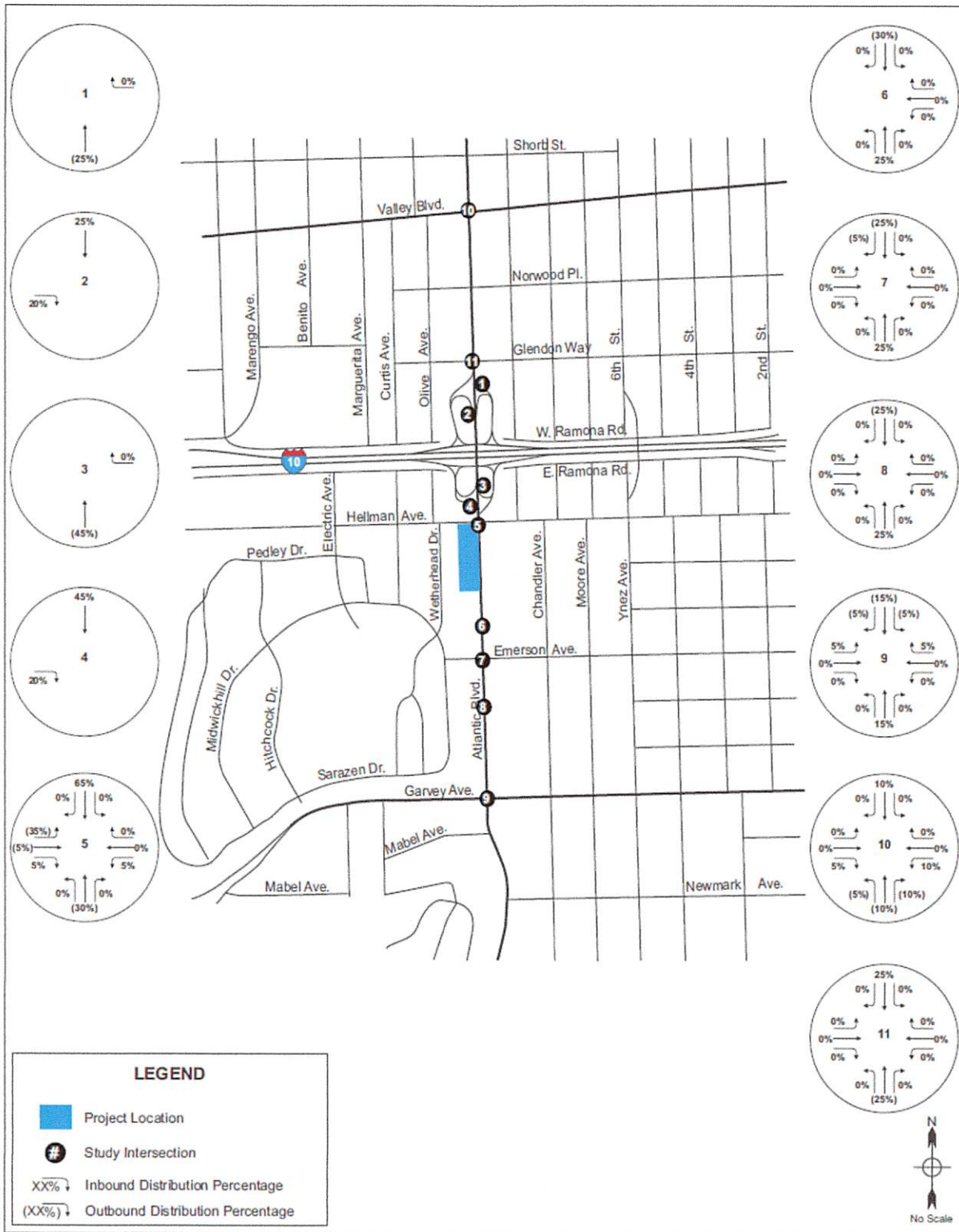


EXHIBIT 3-19
PROJECT TRIP DISTRIBUTION
Source: KOA Corporation

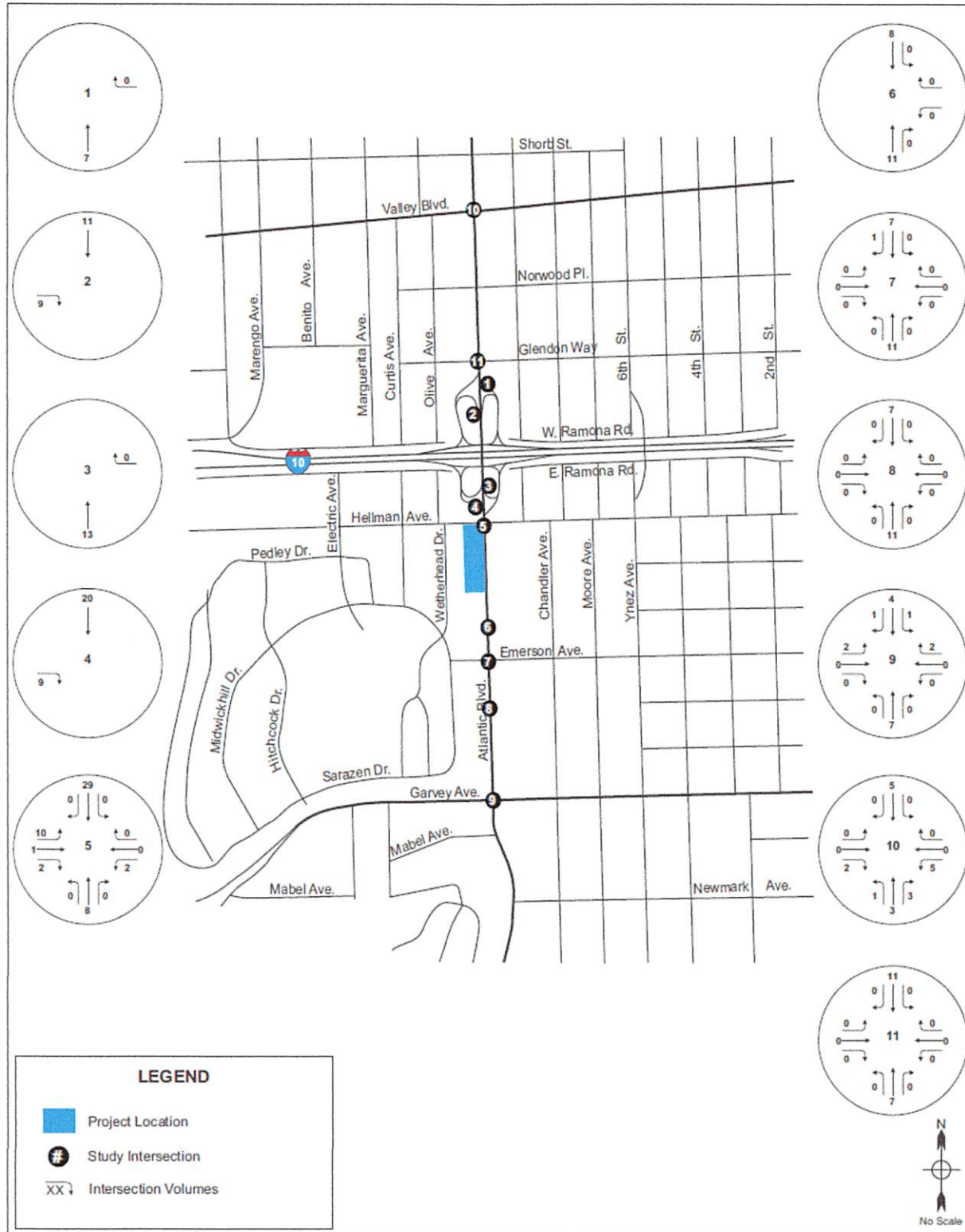
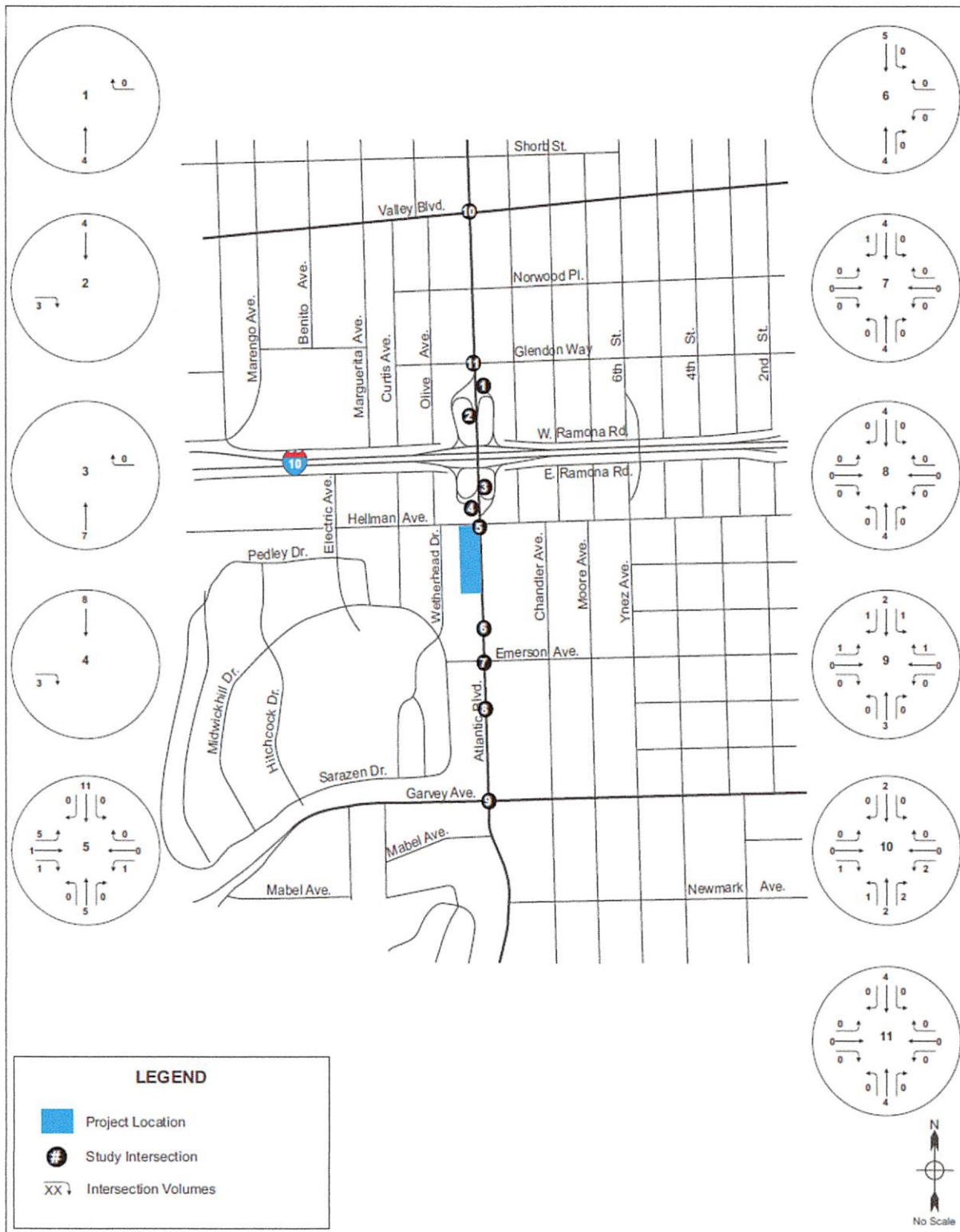


EXHIBIT 3-20
PROJECT TRIP ASSIGNMENT (WEEKDAY AM PEAK HOUR)

Source: KOA Corporation



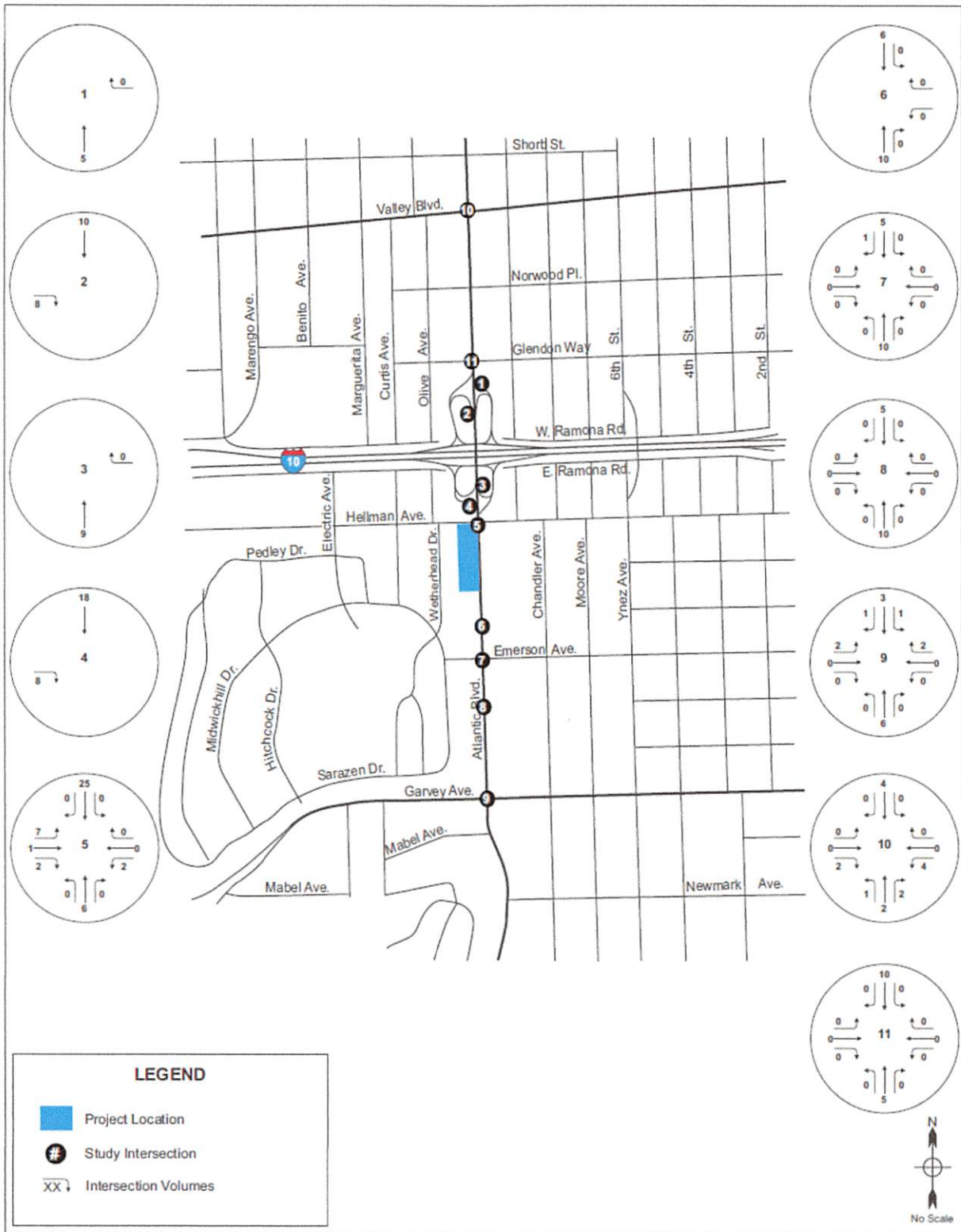


EXHIBIT 3-22
PROJECT TRIP ASSIGNMENT (SATURDAY MID-DAY HOUR)
Source: KOA Corporation

Table 5
Trip Generation of Existing Project Site Land Uses
Planned to be Displaced by the Proposed Project

Location of Existing Traffic Count	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
Driveway 1 (Northerly Driveway on Garfield Ave)	13	10	23	29	26	55	708
Driveway 2 (Southerly Driveway on Garfield Ave)	4	3	7	11	11	22	270
Driveway 3 (Westerly Driveway on Bay State St)	5	4	9	10	19	29	412
Driveway 4 (Easterly Driveway on Bay State St)	7	3	10	8	15	23	254
Driveway 5 (Southerly Driveway on Monterey St)	4	0	4	7	19	26	248
Driveway 6 (Northerly Driveway on Monterey St)	32	33	65	86	83	169	1,554
Existing Project Site Trip Generation	65	53	118	151	173	324	3,446

Source: Traffic counts conducted in January 2014.

AM peak hour occurs at 7:45 a.m. to 8:45 a.m.; PM peak hour occurs 4:15 p.m. to 5:15 p.m.

To calculate trips forecast to be generated by the proposed project, *Institute of Transportation Engineers (ITE)* trip generation rates were utilized. Table 6 summarizes the *ITE* trip generation rates used to calculate the number of trips forecast to be generated by the proposed project.

Table 6
ITE Trip Generation Rates for Proposed Project

Land Use (ITE Code)	Units	AM Peak Hour Trip Rates			PM Peak Hour Trip Rates			Daily Trip Rate
		In	Out	Total	In	Out	Total	
Residential Apartments (220)	du	0.10	0.41	0.51	0.40	0.22	0.62	6.65
Shopping Center (820)	tsf	0.60	0.36	0.96	1.78	1.93	3.71	42.70

Notes: tsf = thousand square feet; du = dwelling unit; Source: 2012 *ITE Trip Generation Manual*, 9th Edition.

Table 7 summarizes the net forecast trip generation of the proposed project utilizing the ITE trip generation rates shown in Table 6, assuming applicable trip adjustment factors per City staff direction, and accounting for the existing trips currently generated by the project site land uses that will be displaced by the proposed project.

Table 7
Forecast Net Trip Generation of Proposed Project

Proposed Project Site Land Use	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
142-tsf Shopping Center	85	51	136	253	274	527	6,063
10% Internal Trip Capture Adjustment	-9	-5	-14	-25	-27	-52	-606
7% Transit Use Adjustment	-6	-4	-10	-18	-19	-37	-424
Retail after Internal Trip Capture & Transit Adjustment	70	42	112	210	228	438	5,033
10% Pass-by Adjustment	-7	-4	-11	-21	-23	-44	-503
<i>Retail Subtotal</i>	63	38	101	189	205	394	4,530
260-du Residential Apartments	26	107	133	104	57	161	1,729
5% Transit Use Adjustment	-1	-5	-6	-5	-3	-8	-86
<i>Residential Condominium Subtotal</i>	25	102	127	99	54	153	1,643
Subtotal	88	140	228	288	259	547	6,173
Existing Project Site*	-65	-53	-118	-151	-173	-324	-3,446
Forecast Net Trip Generation of Proposed Project	23	87	110	137	86	223	2,727

Notes: du = dwelling units; tsf = thousand square feet.

* = Based on traffic counts collected in January 2014.

As shown in Table 7, when accounting for the trips currently generated by the project site, the proposed project is forecast to generate a total of approximately 2,727 net new daily trips, which includes approximately 110 net new a.m. peak hour trips, and approximately 223 net new p.m. peak hour trips.

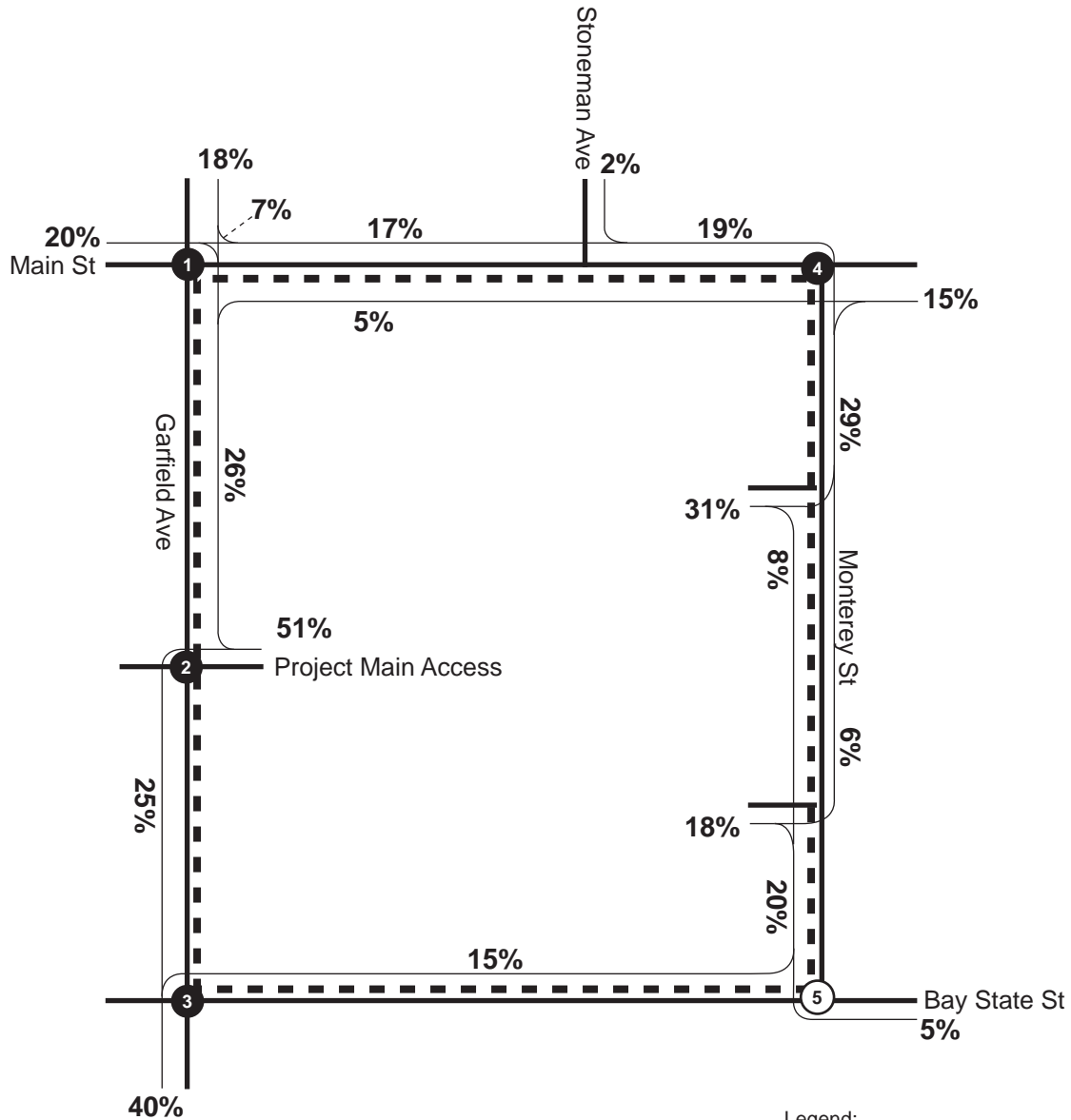
Forecast Project Trip Distribution

Exhibit 7 shows the forecast trip percent distribution of the retail land use component of the proposed project.

Exhibit 8 shows the forecast trip percent distribution of the residential land use component of the proposed project.

Forecast Project Trip Assignment

Exhibit 9 shows the corresponding net trip assignment of project-generated peak hour trips assuming the trip percent distributions shown in Exhibit 7, and Exhibit 8.



Legend:

- Project Site Boundary
- (XX) Stop-Controlled Study Intersection
- (XX) Signalized Study Intersection
- XX% Trip Percent Distribution



Not to Scale



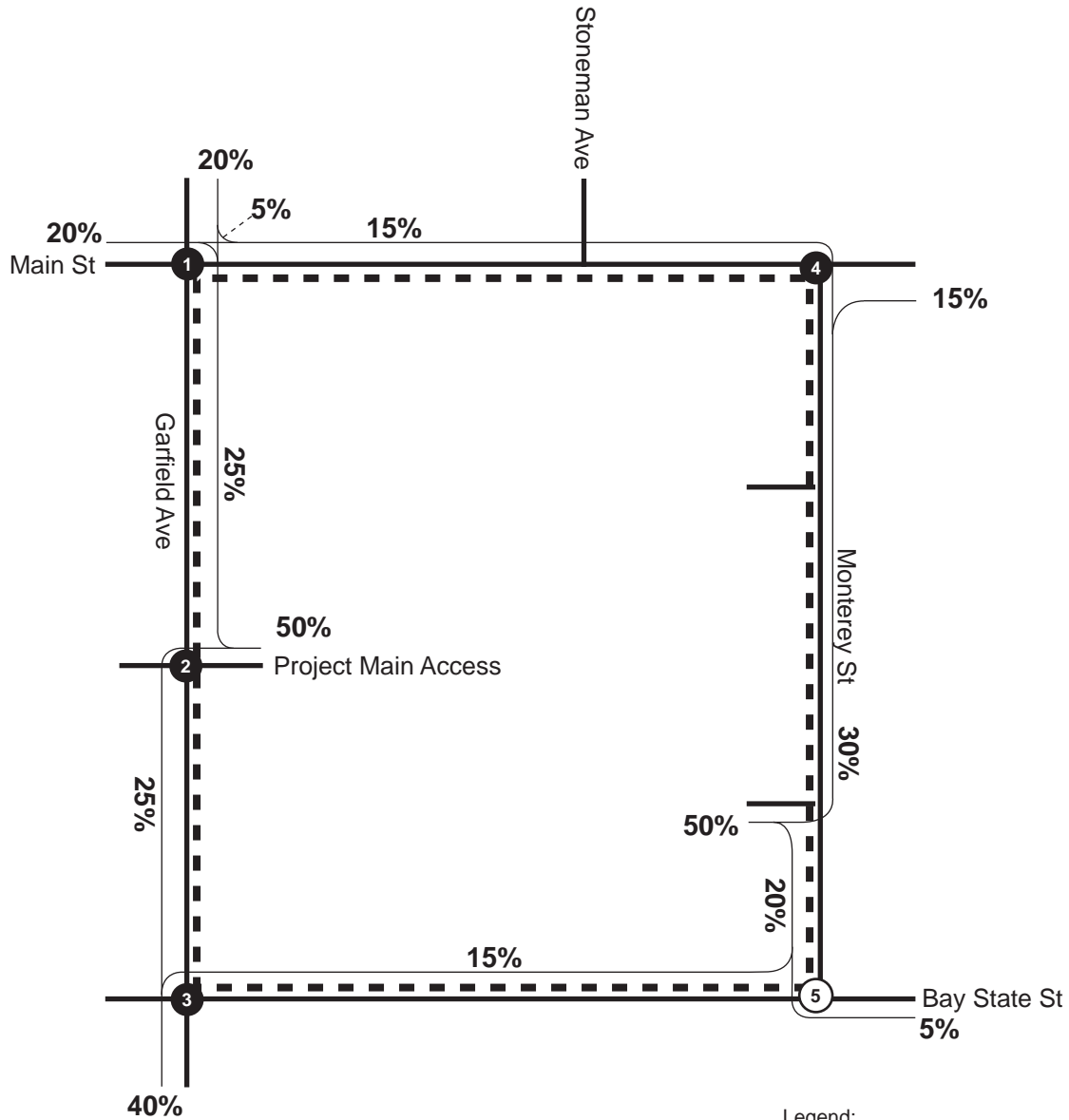
A Baker Company

Forecast Trip Percent Distribution of Proposed Project (Retail Component)

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FEB/2014

Exhibit 7



Not to Scale



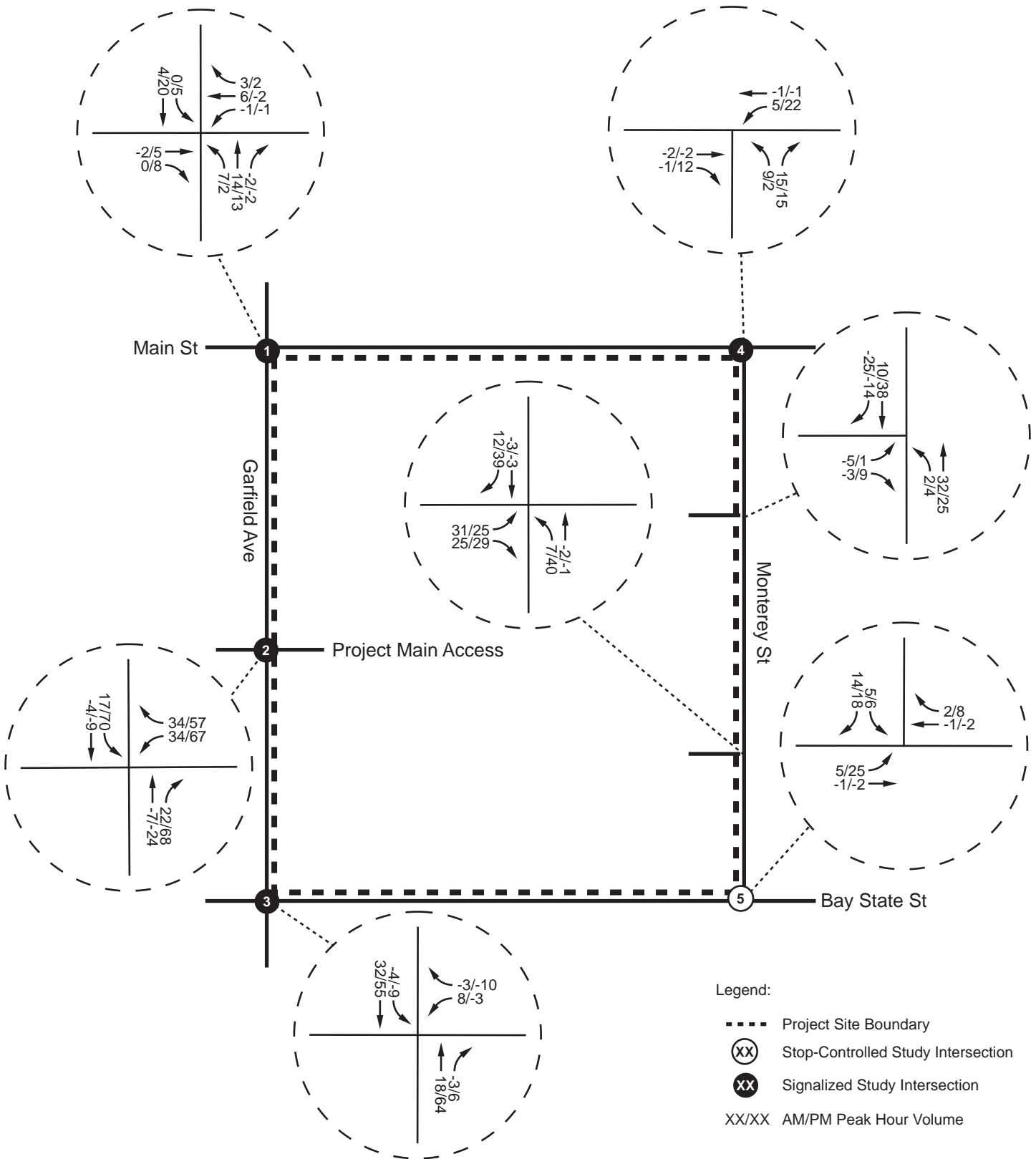
A Baker Company

Forecast Trip Percent Distribution of Proposed Project (Residential Component)

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FEB/2014

Exhibit 8



Not to Scale



A Baker Company

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FEB/2014

Forecast AM & PM Peak Hour Trip Assignment of Proposed Project

Exhibit 9

Appendix H – Intersection Analysis Worksheets – Cumulative (2028) Conditions

Scenario Report

Scenario:	2028 Cum AM
Command:	2028 Cum AM
Volume:	2028 AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Cum AM
Trip Distribution:	Cum + Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Fremont Ave and Mission Rd													
Base	247	1505	225	13	1454	49	69	374	530	397	871	48	5783
Added	0	0	16	0	0	15	16	0	0	15	0	0	62
Total	247	1505	241	13	1454	64	85	374	530	412	871	48	5845
#2 Fremont Ave and 1000 Fremont Ave													
Base	54	1446	131	4	1440	40	26	6	60	4	1	7	3219
Added	0	16	0	0	15	0	0	0	0	0	0	0	31
Total	54	1462	131	4	1455	40	26	6	60	4	1	7	3250
#3 Fremont Ave and Orange St													
Base	2	1254	248	156	1473	2	1	1	0	60	0	59	3257
Added	0	16	0	0	15	0	0	0	0	0	0	0	31
Total	2	1270	248	156	1488	2	1	1	0	60	0	59	3288
#4 Date Ave and Orange St													
Base	54	99	6	7	186	74	20	36	47	8	27	3	566
Added	0	32	0	0	31	0	0	0	0	0	0	0	63
Total	54	131	6	7	217	74	20	36	47	8	27	3	629
#5 Palm Ave and Orange St													
Base	6	66	2	6	214	32	8	20	15	2	6	2	378
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6	66	2	6	214	32	8	20	15	2	6	2	378
#6 Chestnut St and Palm Ave													
Base	16	100	2	13	182	12	1	1	8	1	3	8	348
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	16	100	2	13	182	12	1	1	8	1	3	8	348
#7 Fremont Ave and Poplar Blvd													
Base	100	1156	56	19	1564	17	21	116	73	59	118	20	3319
Added	0	23	0	1	24	0	0	9	0	0	7	4	68
Total	100	1179	56	20	1588	17	21	125	73	59	125	24	3387
#8 Date Ave and Mission Rd													
Base	0	0	0	25	0	87	91	482	0	0	1349	175	2209
Added	0	0	0	15	0	15	16	0	0	0	0	16	62
Total	0	0	0	40	0	102	107	482	0	0	1349	191	2271
#9 Chestnut St and Date Ave													

Base	85	161	9	13	151	59	0	0	0	2	3	2	485
Added	0	32	0	0	31	0	0	0	0	0	0	0	63
Total	85	193	9	13	182	59	0	0	0	2	3	2	548

#10 Fremont Ave and Concord Ave

Base	62	1214	41	4	1540	66	45	13	76	25	16	11	3113
Added	0	16	0	0	15	0	0	0	0	0	0	0	31
Total	62	1230	41	4	1555	66	45	13	76	25	16	11	3144

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#11 Fremont Ave and Montezuma Ave

Base	762	288	45	4	89	667	452	58	683	56	104	11	3219
Added	25	4	0	0	4	7	8	0	9	0	0	0	57
Total	787	292	45	4	93	674	460	58	692	56	104	11	3276

#12 Palm Ave and Commonwealth Ave

Base	20	36	4	44	240	281	67	237	31	15	289	42	1305
Added	0	0	0	0	0	40	38	38	0	0	40	0	156
Total	20	36	4	44	240	321	105	275	31	15	329	42	1461

#13 Date Ave and Commonwealth Ave

Base	27	45	18	52	74	79	76	267	105	132	364	75	1312
Added	0	0	38	0	0	0	0	38	0	40	40	0	156
Total	27	45	56	52	74	79	76	305	105	172	404	75	1468

#14 Fremont Ave and Commonwealth Ave

Base	44	1125	103	191	1456	69	30	150	18	120	173	119	3597
Added	0	0	16	24	0	0	0	0	0	15	0	23	78
Total	44	1125	119	215	1456	69	30	150	18	135	173	142	3675

#15 Fremont Ave and Valley Blvd

Base	46	1021	29	83	898	1420	588	451	31	62	809	206	5644
Added	5	16	4	0	15	0	0	2	1	7	3	0	53
Total	51	1037	33	83	913	1420	588	453	32	69	812	206	5697

#16 Palm Ave and Mission Rd

Base	0	0	0	57	0	138	37	471	0	0	1433	94	2229
Added	0	0	0	0	0	0	0	15	0	0	16	0	31
Total	0	0	0	57	0	138	37	486	0	0	1449	94	2260

#17 Marengo Ave and Valley Blvd

Base	25	131	80	249	182	153	185	467	26	69	1067	210	2843
Added	10	26	0	0	21	0	0	0	7	0	0	0	64
Total	35	157	80	249	203	153	185	467	33	69	1067	210	2907

#18 Atlantic Blvd and Mission Road

Base	172	1185	128	45	1052	274	98	576	75	195	1067	37	4904
Added	0	31	0	0	23	1	3	0	0	0	0	0	58
Total	172	1216	128	45	1075	275	101	576	75	195	1067	37	4962

#19 Marengo Ave and Mission Road

Base	95	426	175	48	562	74	49	392	95	303	1306	83	3608
Added	23	0	3	0	0	0	0	0	20	1	0	0	47
Total	118	426	178	48	562	74	49	392	115	304	1306	83	3655

#20 Marengo Ave and Front St

Base	2	567	3	11	550	399	90	12	8	2	84	38	1767
Added	0	26	0	0	21	0	0	0	0	0	0	0	47
Total	2	593	3	11	571	399	90	12	8	2	84	38	1814

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#21 I-710 NB Ramp and Valley Blvd

Base	673	1	764	4	0	1	0	231	0	0	2428	7	4109
Added	0	0	4	0	0	0	0	0	0	0	8	0	12
Total	673	1	768	4	0	1	0	231	0	0	2436	7	4121

#22 I-710 SB Ramp and Valley Blvd

Base	0	0	0	0	0	0	0	239	725	1777	1339	0	4080
Added	0	0	0	0	0	0	0	0	0	8	0	0	8
Total	0	0	0	0	0	0	0	239	725	1785	1339	0	4088

#23 Fremont Ave and Hellman Ave

Base	158	1042	349	142	788	123	120	124	171	187	254	237	3695
Added	0	18	14	8	15	0	0	0	0	1	0	7	63
Total	158	1060	363	150	803	123	120	124	171	188	254	244	3758

#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Base	399	61	23	87	16	223	57	182	365	444	68	15	1940
Added	8	0	0	0	0	0	0	0	22	0	0	0	30
Total	407	61	23	87	16	223	57	182	387	444	68	15	1970

#25 Fremont Ave and Ramona Road/10 EB ramp

Base	0	697	54	0	0	0	2	27	652	127	0	17	1575
Added	0	0	12	0	0	0	0	0	11	0	0	0	23
Total	0	697	66	0	0	0	2	27	663	127	0	17	1598

#26 Ross Ave and Fremont Ave

Base	29	1124	237	47	967	38	29	55	6	193	197	19	2940
Added	0	25	0	0	23	0	0	0	0	0	0	0	48
Total	29	1149	237	47	990	38	29	55	6	193	197	19	2988

#27 Westmont Dr and Valley Blvd

Base	57	16	8	4	7	41	19	1078	16	3	2272	33	3554
------	----	----	---	---	---	----	----	------	----	---	------	----	------

Added	0	0	0	0	0	0	0	4	0	0	8	0	12
Total	57	16	8	4	7	41	19	1082	16	3	2280	33	3566

#135

Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	16	0	0	15	0	31
Total	0	0	0	0	0	0	0	16	0	0	15	0	31

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Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	247	1505	225	13	1454	49	69	374	530	397	871	48
2 Fremont Ave a	54	1446	131	4	1440	40	26	6	60	4	1	7
3 Fremont Ave a	2	1254	248	156	1473	2	1	1	0	60	0	59
4 Date Ave and	54	99	6	7	186	74	20	36	47	8	27	3
5 Palm Ave and	6	66	2	6	214	32	8	20	15	2	6	2
6 Chestnut St a	16	100	2	13	182	12	1	1	8	1	3	8
7 Fremont Ave a	100	1156	56	19	1564	17	21	116	73	59	118	20
8 Date Ave and	0	0	0	25	0	87	91	482	0	0	1349	175
9 Chestnut St a	85	161	9	13	151	59	0	0	0	2	3	2
10 Fremont Ave a	62	1214	41	4	1540	66	45	13	76	25	16	11
11 Fremont Ave a	762	288	45	4	89	667	452	58	683	56	104	11
12 Palm Ave and	20	36	4	44	240	281	67	237	31	15	289	42
13 Date Ave and	27	45	18	52	74	79	76	267	105	132	364	75
14 Fremont Ave a	44	1125	103	191	1456	69	30	150	18	120	173	119
15 Fremont Ave a	46	1021	29	83	898	1420	588	451	31	62	809	206
16 Palm Ave and	0	0	0	57	0	138	37	471	0	0	1433	94
17 Marengo Ave a	25	131	80	249	182	153	185	467	26	69	1067	210
18 Atlantic Blvd	172	1185	128	45	1052	274	98	576	75	195	1067	37
19 Marengo Ave a	95	426	175	48	562	74	49	392	95	303	1306	83
20 Marengo Ave a	2	567	3	11	550	399	90	12	8	2	84	38
21 I-710 NB Ramp	673	1	764	4	0	1	0	231	0	0	2428	7

22 I-710 SB Ramp	0	0	0	0	0	0	0	239	725	1777	1339	0
23 Fremont Ave a	158	1042	349	142	788	123	120	124	171	187	254	237
24 Elm St and He	399	61	23	87	16	223	57	182	365	444	68	15
25 Fremont Ave a	0	697	54	0	0	0	2	27	652	127	0	17
26 Ross Ave and	29	1124	237	47	967	38	29	55	6	193	197	19
27 Westmont Dr a	57	16	8	4	7	41	19	1078	16	3	2272	33

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Intersection Volume Report
 Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	247	1505	241	13	1454	64	85	374	530	412	871	48
2 Fremont Ave a	54	1462	131	4	1455	40	26	6	60	4	1	7
3 Fremont Ave a	2	1270	248	156	1488	2	1	1	0	60	0	59
4 Date Ave and	54	131	6	7	217	74	20	36	47	8	27	3
5 Palm Ave and	6	66	2	6	214	32	8	20	15	2	6	2
6 Chestnut St a	16	100	2	13	182	12	1	1	8	1	3	8
7 Fremont Ave a	100	1179	56	20	1588	17	21	125	73	59	125	24
8 Date Ave and	0	0	0	40	0	102	107	482	0	0	1349	191
9 Chestnut St a	85	193	9	13	182	59	0	0	0	2	3	2
10 Fremont Ave a	62	1230	41	4	1555	66	45	13	76	25	16	11
11 Fremont Ave a	787	292	45	4	93	674	460	58	692	56	104	11
12 Palm Ave and	20	36	4	44	240	321	105	275	31	15	329	42
13 Date Ave and	27	45	56	52	74	79	76	305	105	172	404	75
14 Fremont Ave a	44	1125	119	215	1456	69	30	150	18	135	173	142
15 Fremont Ave a	51	1037	33	83	913	1420	588	453	32	69	812	206
16 Palm Ave and	0	0	0	57	0	138	37	486	0	0	1449	94
17 Marengo Ave a	35	157	80	249	203	153	185	467	33	69	1067	210
18 Atlantic Blvd	172	1216	128	45	1075	275	101	576	75	195	1067	37
19 Marengo Ave a	118	426	178	48	562	74	49	392	115	304	1306	83
20 Marengo Ave a	2	593	3	11	571	399	90	12	8	2	84	38
21 I-710 NB Ramp	673	1	768	4	0	1	0	231	0	0	2436	7

22 I-710 SB Ramp	0	0	0	0	0	0	0	239	725	1785	1339	0
23 Fremont Ave a	158	1060	363	150	803	123	120	124	171	188	254	244
24 Elm St and He	407	61	23	87	16	223	57	182	387	444	68	15
25 Fremont Ave a	0	697	66	0	0	0	2	27	663	127	0	17
26 Ross Ave and	29	1149	237	47	990	38	29	55	6	193	197	19
27 Westmont Dr a	57	16	8	4	7	41	19	1082	16	3	2280	33

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Impact Analysis Report
 Level Of Service

Intersection	Base Del/ LOS Veh	V/ C	Future Del/ LOS Veh	V/ C	Change in
# 1 Fremont Ave and Mission Rd	F xxxxxx	1.288	F xxxxxx	1.297	+ 0.009 V/C
# 2 Fremont Ave and 1000 Fremont A	B xxxxxx	0.628	B xxxxxx	0.632	+ 0.005 V/C
# 3 Fremont Ave and Orange St	B xxxxxx	0.628	B xxxxxx	0.633	+ 0.005 V/C
# 4 Date Ave and Orange St	B 11.6	0.058	B 11.9	0.061	+ 0.341 D/V
# 5 Palm Ave and Orange St	A 8.7	0.289	A 8.7	0.289	+ 0.000 V/C
# 6 Chestnut St and Palm Ave	A 8.6	0.254	A 8.6	0.254	+ 0.000 V/C
# 7 Fremont Ave and Poplar Blvd	C xxxxxx	0.766	C xxxxxx	0.779	+ 0.013 V/C
# 8 Date Ave and Mission Rd	C 20.5	0.247	C 22.5	0.293	+ 2.001 D/V
# 9 Chestnut St and Date Ave	B 10.9	0.062	B 11.2	0.063	+ 0.279 D/V
# 10 Fremont Ave and Concord Ave	C xxxxxx	0.704	C xxxxxx	0.708	+ 0.005 V/C
# 11 Fremont Ave and Montezuma Ave	B xxxxxx	0.657	B xxxxxx	0.670	+ 0.013 V/C
# 12 Palm Ave and Commonwealth Ave	A xxxxxx	0.420	A xxxxxx	0.482	+ 0.061 V/C

# 13 Date Ave and Commonwealth Ave	A	xxxxx	0.411	A	xxxxx	0.448	+ 0.037	V/C
# 14 Fremont Ave and Commonwealth A	C	xxxxx	0.784	C	xxxxx	0.793	+ 0.009	V/C
# 15 Fremont Ave and Valley Blvd	F	xxxxx	1.029	F	xxxxx	1.033	+ 0.004	V/C
# 16 Palm Ave and Mission Rd	B	xxxxx	0.686	B	xxxxx	0.691	+ 0.005	V/C
# 17 Marengo Ave and Valley Blvd	C	xxxxx	0.786	D	xxxxx	0.802	+ 0.016	V/C
# 18 Atlantic Blvd and Mission Road	E	xxxxx	0.942	E	xxxxx	0.951	+ 0.009	V/C

# 19 Marengo Ave and Mission Road	F	xxxxx	1.021	F	xxxxx	1.036	+ 0.014 V/C
# 20 Marengo Ave and Front St	D	xxxxx	0.805	D	xxxxx	0.818	+ 0.013 V/C
# 21 I-710 NB Ramp and Valley Blvd	C	xxxxx	0.767	C	xxxxx	0.769	+ 0.002 V/C
# 22 I-710 SB Ramp and Valley Blvd	F	xxxxx	1.170	F	xxxxx	1.173	+ 0.003 V/C
# 23 Fremont Ave and Hellman Ave	D	xxxxx	0.858	D	xxxxx	0.873	+ 0.015 V/C
# 24 Elm St and Hellman Ave/Ramona	F	61.0	1.262	F	63.0	1.272	+ 0.010 V/C
# 25 Fremont Ave and Ramona Road/10	F	110.2	1.287	F	112.1	1.287	+ 0.000 V/C

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 26 Ross Ave and Fremont Ave	C	xxxxxx	0.713	C	xxxxxx	0.720	+ 0.008 V/C
# 27 Westmont Dr and Valley Blvd	D	xxxxxx	0.890	D	xxxxxx	0.893	+ 0.003 V/C

```

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #1 Fremont Ave and Mission Rd
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          1.297
Loss Time (sec):      10          Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        180          Level Of Service:          F
*****
Street Name:          Fremont Ave          Mission Rd
Approach:              North Bound          South Bound          East Bound          West Bound
Movement:              L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:               Protected          Protected          Protected          Protected
Rights:                Include          Include          Include          Include
Min. Green:            0    0    0          0    0    0          0    0    0          0    0    0
Y+R:                   4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:                 1  0  1  1  0          1  0  2  0  1          1  0  2  0  1          1  0  1  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:              221 1349    202          12 1303    44          62 335    475    356 781    43
Growth Adj:            1.12 1.12  1.12          1.12 1.12  1.12          1.12 1.12  1.12          1.12 1.12  1.12
Initial Bse:           247 1505    225          13 1454    49          69 374    530    397 871    48
Added Vol:             0    0    16          0    0    15          16    0    0          15    0    0
PasserByVol:          0    0    0          0    0    0          0    0    0          0    0    0
Initial Fut:           247 1505    241          13 1454    64          85 374    530    412 871    48
User Adj:              1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Adj:               1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Volume:            247 1505    241          13 1454    64          85 374    530    412 871    48
Reduct Vol:            0    0    0          0    0    0          0    0    0          0    0    0
Reduced Vol:           247 1505    241          13 1454    64          85 374    530    412 871    48
PCE Adj:               1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
MLF Adj:               1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
FinalVolume:           247 1505    241          13 1454    64          85 374    530    412 871    48
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1600 1600  1600          1600 1600  1600          1600 1600  1600          1600 1600  1600
Adjustment:            1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00

```


Lanes:	1.00	1.72	0.28	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.90	0.10
Final Sat.:	1600	2758	442	1600	3200	1600	1600	3200	1600	1600	3033	167
----- ----- ----- ----- -----												
Capacity Analysis Module:												
Vol/Sat:	0.15	0.55	0.55	0.01	0.45	0.04	0.05	0.12	0.33	0.26	0.29	0.29
Crit Moves:	****			****					****	****		

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #2 Fremont Ave and 1000 Fremont Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.632
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 43 Level Of Service: B

 Street Name: Fremont Ave 1000 Fremont Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 48 1296 117 4 1291 36 23 5 54 4 1 6
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 54 1446 131 4 1440 40 26 6 60 4 1 7
 Added Vol: 0 16 0 0 15 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 54 1462 131 4 1455 40 26 6 60 4 1 7
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 54 1462 131 4 1455 40 26 6 60 4 1 7
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 54 1462 131 4 1455 40 26 6 60 4 1 7
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 54 1462 131 4 1455 40 26 6 60 4 1 7
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.08 0.92 1.00 0.14 0.86
 Final Sat.: 1600 3200 1600 1600 3200 1600 1600 136 1464 1600 229 1371
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.03 0.46 0.08 0.00 0.45 0.03 0.02 0.04 0.04 0.00 0.00 0.00
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #3 Fremont Ave and Orange St

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.633
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 43 Level Of Service: B

 Street Name: Fremont Ave Orange St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 1 1 0 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 2 1124 222 140 1320 2 1 1 0 54 0 53
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 2 1254 248 156 1473 2 1 1 0 60 0 59
 Added Vol: 0 16 0 0 15 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 2 1270 248 156 1488 2 1 1 0 60 0 59
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 2 1270 248 156 1488 2 1 1 0 60 0 59
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 2 1270 248 156 1488 2 1 1 0 60 0 59
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 2 1270 248 156 1488 2 1 1 0 60 0 59
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

```

Lanes:      1.00 2.00  1.00  1.00 1.99  0.01  0.50 0.50  1.00  1.01 xxxx  0.99
Final Sat.: 1600 3200  1600  1600 3195    5   800 800  1600  1615   0 1585
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.00 0.40  0.15  0.10 0.47  0.47  0.00 0.00  0.00  0.04 0.00  0.04
Crit Moves:      ****      ****      ****      ****
*****

```

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-----
Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #4 Date Ave and Orange St
*****
Average Delay (sec/veh):      3.2      Worst Case Level Of Service: B[ 11.9]
*****
Street Name:      Date Ave      Orange St
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      1 0 1 0 1      1 0 1 0 1      0 1 0 0 1      0 1 0 0 1
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol:      48 89 5      6 167 66      18 32 42      7 24 3
Growth Adj:    1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse:    54 99 6      7 186 74      20 36 47      8 27 3
Added Vol:      0 32 0      0 31 0      0 0 0      0 0 0
PasserByVol:    0 0 0      0 0 0      0 0 0      0 0 0
Initial Fut:    54 131 6      7 217 74      20 36 47      8 27 3
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:     54 131 6      7 217 74      20 36 47      8 27 3
Reduct Vol:     0 0 0      0 0 0      0 0 0      0 0 0
FinalVolume:    54 131 6      7 217 74      20 36 47      8 27 3
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:    4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim:    2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:    291 xxxx xxxxx 137 xxxx xxxxx 487 475 217 547 543 131
Potent Cap.:   1282 xxxx xxxxx 1460 xxxx xxxxx 494 492 828 451 450 924
Move Cap.:     1282 xxxx xxxxx 1460 xxxx xxxxx 453 469 828 387 429 924
Total Cap:     xxxx xxxx xxxxx xxxx xxxx xxxxx 598 585 xxxxx 518 539 xxxxx
Volume/Cap:    0.04 xxxx xxxxx 0.00 xxxx xxxxx 0.03 0.06 0.06 0.02 0.05 0.00
-----|-----|-----|-----|
Level Of Service Module:

```

2Way95thQ:	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	0.2	xxxx	xxxx	0.0			
Control Del:	7.9	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	9.6	xxxxx	xxxx	8.9			
LOS by Move:	A	*	*	A	*	*	*	*	A	*	*	A			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	590	xxxx	xxxxx	534	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	0.2	xxxx	xxxxx			

Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 11.7 xxxx xxxxx 12.2 xxxx xxxxx
 Shared LOS: * * * * * B * * B * *
 ApproachDel: xxxxxx xxxxxx 10.8 11.9
 ApproachLOS: * * B B

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Palm Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.289
 Loss Time (sec): 0 Average Delay (sec/veh): 8.7
 Optimal Cycle: 0 Level Of Service: A

Street Name: Palm Ave Orange St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol: 5 59 2 5 192 29 7 18 13 2 5 2

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 6 66 2 6 214 32 8 20 15 2 6 2

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 6 66 2 6 214 32 8 20 15 2 6 2

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 6 66 2 6 214 32 8 20 15 2 6 2

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 6 66 2 6 214 32 8 20 15 2 6 2

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 6 66 2 6 214 32 8 20 15 2 6 2

Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.08 0.92 1.00 0.03 0.97 1.00 0.28 0.72 1.00 0.29 0.71 1.00

Final Sat.: 57 674 859 19 740 892 177 456 744 179 448 736

Capacity Analysis Module:

Vol/Sat: 0.10 0.10 0.00 0.29 0.29 0.04 0.04 0.04 0.02 0.01 0.01 0.00

Crit Moves: **** **** **** ****

Delay/Veh: 8.1 8.1 6.8 9.3 9.3 6.8 8.3 8.3 7.3 8.2 8.2 7.3

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 8.1 8.1 6.8 9.3 9.3 6.8 8.3 8.3 7.3 8.2 8.2 7.3

LOS by Move: A A A A A A A A A A A A

ApproachDel: 8.0 9.0 8.0 8.0

Delay Adj:	1.00		1.00		1.00		1.00		1.00		1.00
ApprAdjDel:	8.0		9.0		8.0		8.0		8.0		8.0
LOS by Appr:	A		A		A		A		A		A
AllWayAvgQ:	0.1	0.1	0.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

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Level of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.254
Loss Time (sec):	0	Average Delay (sec/veh):	8.6
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Chestnut St				Palm Ave															
Approach:	North Bound		South Bound		East Bound		West Bound													
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Rights:	Include				Include				Include				Include							
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol:	14	90	2	12	163	11	1	1	7	1	3	7
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	16	100	2	13	182	12	1	1	8	1	3	8
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	100	2	13	182	12	1	1	8	1	3	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	100	2	13	182	12	1	1	8	1	3	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	100	2	13	182	12	1	1	8	1	3	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	16	100	2	13	182	12	1	1	8	1	3	8

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.13	0.87	1.00	0.07	0.93	1.00	0.50	0.50	1.00	0.25	0.75	1.00
Final Sat.:	101	650	893	53	715	908	310	310	741	158	475	742

Capacity Analysis Module:

Vol/Sat:	0.15	0.15	0.00	0.25	0.25	0.01	0.00	0.00	0.01	0.01	0.01	0.01
Crit Moves:	****			****			****			****		
Delay/Veh:	8.3	8.3	6.7	8.9	8.9	6.7	8.2	8.2	7.3	8.1	8.1	7.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.3	8.3	6.7	8.9	8.9	6.7	8.2	8.2	7.3	8.1	8.1	7.3
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.3			8.8			7.5			7.6		

Delay Adj:	1.00		1.00		1.00		1.00		1.00		1.00
ApprAdjDel:	8.3		8.8		7.5		7.6				
LOS by Appr:	A		A		A		A				
AllWayAvgQ:	0.2	0.2	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.779
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Street Name:	Fremont Ave						Poplar Blvd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted			Permitted			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	90	1036	50	17	1402	15	19	104	65	53	106	18
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	100	1156	56	19	1564	17	21	116	73	59	118	20
Added Vol:	0	23	0	1	24	0	0	9	0	0	7	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	100	1179	56	20	1588	17	21	125	73	59	125	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	100	1179	56	20	1588	17	21	125	73	59	125	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	1179	56	20	1588	17	21	125	73	59	125	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	100	1179	56	20	1588	17	21	125	73	59	125	24

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

```

Lanes:      1.00 1.91  0.09  1.00 1.98  0.02  1.00 1.00  1.00  1.00 1.00  1.00
Final Sat.: 1600 3055  145  1600 3167   33  1600 1600  1600  1600 1600  1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.06 0.39  0.39  0.01 0.50  0.50  0.01 0.08  0.05  0.04 0.08  0.02
Crit Moves: ****          ****          ****          ****
*****

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #8 Date Ave and Mission Rd
*****
Average Delay (sec/veh):      2.2      Worst Case Level Of Service: C[ 22.5]
*****
Street Name:      Date Ave      Mission Rd
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Rights:      Include      Include      Include      Include
Lanes:      0 0 0 0 0      1 0 0 0 1      1 0 2 0 0      0 0 1 1 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol:      0 0 0      22 0 78      82 432 0      0 1209 157
Growth Adj:    1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse:    0 0 0      25 0 87      91 482 0      0 1349 175
Added Vol:      0 0 0      15 0 15      16 0 0      0 0 16
PasserByVol:    0 0 0      0 0 0      0 0 0      0 0 0
Initial Fut:    0 0 0      40 0 102 107 482 0 0 1349 191
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:     0 0 0      40 0 102 107 482 0 0 1349 191
Reduct Vol:     0 0 0      0 0 0      0 0 0      0 0 0
FinalVolume:    0 0 0      40 0 102 107 482 0 0 1349 191
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxxx xxxxx 6.8 xxxxx 6.9 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx
FollowUpTim:xxxxx xxxxx xxxxx 3.5 xxxxx 3.3 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxxx xxxxx xxxxx 1900 xxxxx 770 1540 xxxxx xxxxx xxxxx xxxxx xxxxx
Potent Cap.: xxxxx xxxxx xxxxx 62 xxxxx 348 437 xxxxx xxxxx xxxxx xxxxx xxxxx
Move Cap.: xxxxx xxxxx xxxxx 50 xxxxx 348 437 xxxxx xxxxx xxxxx xxxxx xxxxx
Total Cap: 182 70 xxxxx 184 194 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Volume/Cap: xxxxx xxxxx xxxxx 0.21 xxxxx 0.29 0.25 xxxxx xxxxx xxxxx xxxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:

```


2Way95thQ:	xxxx	xxxx	xxxxx	0.8	xxxx	1.2	1.0	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	29.9	xxxx	19.6	15.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	D	*	C	C	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			

Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
 Shared LOS: * * * * *
 ApproachDel: xxxxxx 22.5 xxxxxx xxxxxx
 ApproachLOS: C *

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: B[11.2]

Street Name: Chestnut St Date Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 1 0 1 1 0 1 0 1 0 0 1! 0 0 0 1 0 0 1

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
 Base Vol: 76 144 8 12 135 53 0 0 0 2 3 2
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 85 161 9 13 151 59 0 0 0 2 3 2
 Added Vol: 0 32 0 0 31 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 85 193 9 13 182 59 0 0 0 2 3 2
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 85 193 9 13 182 59 0 0 0 2 3 2
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 85 193 9 13 182 59 0 0 0 2 3 2

Critical Gap Module:
 Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 6.4 6.5 6.2
 FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
 Cnflct Vol: 241 xxxx xxxxx 202 xxxx xxxxx 578 580 182 600 630 193
 Potent Cap.: 1338 xxxx xxxxx 1382 xxxx xxxxx 430 429 866 467 401 854
 Move Cap.: 1338 xxxx xxxxx 1382 xxxx xxxxx 402 398 866 441 372 854
 Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 539 516 xxxxx 573 494 xxxxx
 Volume/Cap: 0.06 xxxx xxxx 0.01 xxxx xxxx 0.00 0.00 0.00 0.00 0.01 0.00

Level Of Service Module:
 2Way95thQ: 0.2 xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx 0.0
 Control Del: 7.9 xxxx xxxxx 7.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx 9.2
 LOS by Move: A * * A * * * * * * * A
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 0 xxxxx 523 xxxx xxxxx
 SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.0 xxxx xxxxx


```

Lanes:      1.00 2.90 0.10 1.00 1.92 0.08 1.00 1.00 1.00 1.00 0.58 0.42
Final Sat.: 1600 4644 156 1600 3070 130 1600 1600 1600 1600 933 667
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.04 0.26 0.26 0.00 0.51 0.51 0.03 0.01 0.05 0.02 0.02 0.02
Crit Moves: ****          ****          ****
*****

```

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #11 Fremont Ave and Montezuma Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.670
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     47          Level Of Service:      B
*****
Street Name:      Fremont Ave          Montezuma Ave
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|-----|
Control:           Protected          Permitted          Protected          Permitted
Rights:            Include            Ignore            Include            Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             2  0  0  1  0          0  1  1  0  1          2  0  0  1  1          0  0  1! 0  0
-----|-----|-----|-----|-----|
Volume Module:
Base Vol:          683  258  40          4  80  598  405  52  612  50  93  10
Growth Adj:        1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse:       762  288  45          4  89  667  452  58  683  56  104  11
Added Vol:         25   4    0          0   4   7    8   0   9    0   0   0
PasserByVol:       0    0    0          0   0   0    0   0   0    0   0   0
Initial Fut:       787  292  45          4  93  674  460  58  692  56  104  11
User Adj:          1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:           1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:        787  292  45          4  93   0  460  58  692  56  104  11
Reduct Vol:        0    0    0          0   0   0    0   0   0    0   0   0
Reduced Vol:       787  292  45          4  93   0  460  58  692  56  104  11
PCE Adj:           1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:           1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:       787  292  45          4  93   0  460  58  692  56  104  11
-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:        0.90 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00

```

Lanes: 2.00 0.87 0.13 0.09 1.91 1.00 2.00 0.15 1.85 0.33 0.61 0.06
 Final Sat.: 2880 1388 212 146 3054 1600 2880 248 2952 523 973 105
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.27 0.21 0.21 0.00 0.03 0.00 0.16 0.23 0.23 0.03 0.11 0.11
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.482
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 32 Level Of Service: A

Street Name:	Palm Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	2

Volume Module:

Base Vol:	18	32	4	39	215	252	60	212	28	13	259	38
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	20	36	4	44	240	281	67	237	31	15	289	42
Added Vol:	0	0	0	0	0	40	38	38	0	0	40	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	36	4	44	240	321	105	275	31	15	329	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	36	4	44	240	321	105	275	31	15	329	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	36	4	44	240	321	105	275	31	15	329	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	36	4	44	240	321	105	275	31	15	329	42

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.80 0.20 1.00 2.00 1.00
 Final Sat.: 1600 1600 1600 1600 1600 1600 1600 2873 327 1600 3200 1600
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.01 0.02 0.00 0.03 0.15 0.20 0.07 0.10 0.10 0.01 0.10 0.03
 Crit Moves: **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #13 Date Ave and Commonwealth Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.448
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 31 Level Of Service: A

 Street Name: Date Ave Commonwealth Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 1 1 0 1 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 24 40 16 47 66 71 68 239 94 118 326 67
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 27 45 18 52 74 79 76 267 105 132 364 75
 Added Vol: 0 0 38 0 0 0 0 38 0 40 40 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 27 45 56 52 74 79 76 305 105 172 404 75
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 27 45 56 52 74 79 76 305 105 172 404 75
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 27 45 56 52 74 79 76 305 105 172 404 75
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 27 45 56 52 74 79 76 305 105 172 404 75
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.48 0.52 1.00 1.49 0.51 1.00 1.69 0.31
 Final Sat.: 1600 1600 1600 1600 771 829 1600 2381 819 1600 2700 500
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.02 0.03 0.03 0.03 0.10 0.10 0.05 0.13 0.13 0.11 0.15 0.15
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #14 Fremont Ave and Commonwealth Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.793
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 65 Level Of Service: C

 Street Name: Fremont Ave Commonwealth Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 1 0 1 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 39 1008 92 171 1305 62 27 134 16 108 155 107
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 44 1125 103 191 1456 69 30 150 18 120 173 119
 Added Vol: 0 0 16 24 0 0 0 0 0 15 0 23
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 44 1125 119 215 1456 69 30 150 18 135 173 142
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 44 1125 119 215 1456 69 30 150 18 135 173 142
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 44 1125 119 215 1456 69 30 150 18 135 173 142
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 44 1125 119 215 1456 69 30 150 18 135 173 142
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 1.91 0.09 1.00 0.89 0.11 1.00 1.00 1.00
 Final Sat.: 1600 3200 1600 1600 3055 145 1600 1429 171 1600 1600 1600
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.03 0.35 0.07 0.13 0.48 0.48 0.02 0.10 0.10 0.08 0.11 0.09
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #15 Fremont Ave and Valley Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.033
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

 Street Name: Fremont Ave Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 2 2 0 2 0 1 1 0 2 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 41 915 26 74 805 1273 527 404 28 56 725 185
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 46 1021 29 83 898 1420 588 451 31 62 809 206
 Added Vol: 5 16 4 0 15 0 0 2 1 7 3 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 51 1037 33 83 913 1420 588 453 32 69 812 206
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 51 1037 33 83 913 1420 588 453 32 69 812 206
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 51 1037 33 83 913 1420 588 453 32 69 812 206
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 51 1037 33 83 913 1420 588 453 32 69 812 206
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00


```

Lanes:      1.00 1.94 0.06 1.00 2.00 2.00 2.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1600 3101 99 1600 3200 3200 2880 3200 1600 1600 3200 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.03 0.33 0.33 0.05 0.29 0.44 0.20 0.14 0.02 0.04 0.25 0.13
Crit Moves: ****          ****          ****
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #16 Palm Ave and Mission Rd
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.691
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     49          Level Of Service:      B
*****
Street Name:      Palm Ave          Mission Rd
Approach:          North Bound      South Bound      East Bound      West Bound
Movement:          L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:           Protected        Protected        Permitted        Permitted
Rights:            Include          Include          Include          Include
Min. Green:        0    0    0        0    0    0        0    0    0        0    0    0
Y+R:               4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0
Lanes:             0    0    0    0    1    0    0    0    1    1    0    2    0    0    0    0    1    1    0
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol:          0    0    0        51    0    124      33  422    0        0 1284    84
Growth Adj:        1.12 1.12 1.12      1.12 1.12 1.12      1.12 1.12 1.12      1.12 1.12 1.12
Initial Bse:        0    0    0        57    0    138      37  471    0        0 1433    94
Added Vol:          0    0    0        0    0    0        0    15    0        0    16    0
PasserByVol:        0    0    0        0    0    0        0    0    0        0    0    0
Initial Fut:        0    0    0        57    0    138      37  486    0        0 1449    94
User Adj:           1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:            1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Volume:         0    0    0        57    0    138      37  486    0        0 1449    94
Reduct Vol:         0    0    0        0    0    0        0    0    0        0    0    0
Reduced Vol:        0    0    0        57    0    138      37  486    0        0 1449    94
PCE Adj:            1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
MLF Adj:            1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
FinalVolume:        0    0    0        57    0    138      37  486    0        0 1449    94
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600 1600      1600 1600 1600      1600 1600 1600      1600 1600 1600
Adjustment:         1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00

```

Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 1.88 0.12
 Final Sat.: 0 0 0 1600 0 1600 1600 3200 0 0 3006 194
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.09 0.02 0.15 0.00 0.00 0.48 0.48
 Crit Moves: **** *

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #17 Marengo Ave and Valley Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.802
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 67 Level Of Service: D

 Street Name: Marengo Ave Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 0 1 0 1 1 0 2 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 22 117 72 223 163 137 166 419 23 62 956 188
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 25 131 80 249 182 153 185 467 26 69 1067 210
 Added Vol: 10 26 0 0 21 0 0 0 7 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 35 157 80 249 203 153 185 467 33 69 1067 210
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 35 157 80 249 203 153 185 467 33 69 1067 210
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 35 157 80 249 203 153 185 467 33 69 1067 210
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 35 157 80 249 203 153 185 467 33 69 1067 210
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes:	1.00	1.00	1.00	1.00	0.57	0.43	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	912	688	1600	3200	1600	1600	3200	1600
----- ----- ----- ----- -----												
Capacity Analysis Module:												
Vol/Sat:	0.02	0.10	0.05	0.16	0.22	0.22	0.12	0.15	0.02	0.04	0.33	0.13
Crit Moves:	****			****			****			****		

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #18 Atlantic Blvd and Mission Road

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.951
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 135 Level Of Service: E

 Street Name: Atlantic Blvd Mission Road
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 154 1062 115 40 943 246 88 516 67 175 956 33
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 172 1185 128 45 1052 274 98 576 75 195 1067 37
 Added Vol: 0 31 0 0 23 1 3 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 172 1216 128 45 1075 275 101 576 75 195 1067 37
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 172 1216 128 45 1075 275 101 576 75 195 1067 37
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 172 1216 128 45 1075 275 101 576 75 195 1067 37
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 172 1216 128 45 1075 275 101 576 75 195 1067 37
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

```

Lanes:      1.00 1.81  0.19  1.00 2.00  1.00  1.00 2.00  1.00  1.00 1.93  0.07
Final Sat.: 1600 2895  305  1600 3200  1600  1600 3200  1600  1600 3093  107
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.11 0.42  0.42  0.03 0.34  0.17  0.06 0.18  0.05  0.12 0.34  0.34
Crit Moves: ****          ****          ****          ****
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #19 Marengo Ave and Mission Road
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      1.036
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     180          Level Of Service:      F
*****
Street Name:      Marengo Ave          Mission Rd
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|-----|
Control:           Permitted          Permitted          Permitted          Permitted
Rights:            Include            Include            Include            Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             1  0  1  0  1        1  0  0  1  0        1  0  1  1  0        1  0  1  1  0
-----|-----|-----|-----|-----|
Volume Module:
Base Vol:          85  382  157          43  504  66          44  351  85  272 1171  74
Growth Adj:        1.12 1.12  1.12        1.12 1.12  1.12        1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:        95  426  175          48  562  74          49  392  95  303 1306  83
Added Vol:         23    0    3          0    0    0          0    0    20    1    0    0
PasserByVol:        0    0    0          0    0    0          0    0    0    0    0    0
Initial Fut:       118  426  178          48  562  74          49  392  115  304 1306  83
User Adj:          1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:           1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:        118  426  178          48  562  74          49  392  115  304 1306  83
Reduct Vol:         0    0    0          0    0    0          0    0    0    0    0    0
Reduced Vol:       118  426  178          48  562  74          49  392  115  304 1306  83
PCE Adj:           1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:           1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:       118  426  178          48  562  74          49  392  115  304 1306  83
-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600        1600 1600  1600        1600 1600  1600  1600 1600  1600

```

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.00 1.00 1.00 0.88 0.12 1.00 1.55 0.45 1.00 1.88 0.12
 Final Sat.: 1600 1600 1600 1600 1415 185 1600 2474 726 1600 3010 190
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.07 0.27 0.11 0.03 0.40 0.40 0.03 0.16 0.16 0.19 0.43 0.43
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #20 Marengo Ave and Front St

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.818
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 71 Level Of Service: D

 Street Name: Marengo Ave Front St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 0 1 0 0 1 0 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 2 508 3 10 493 358 81 11 7 2 75 34
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 2 567 3 11 550 399 90 12 8 2 84 38
 Added Vol: 0 26 0 0 21 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 2 593 3 11 571 399 90 12 8 2 84 38
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 2 593 3 11 571 399 90 12 8 2 84 38
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 2 593 3 11 571 399 90 12 8 2 84 38
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 2 593 3 11 571 399 90 12 8 2 84 38
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 0.99 0.01 1.00 0.59 0.41 0.88 0.12 1.00 0.03 0.97 1.00
 Final Sat.: 1600 1591 9 1600 941 659 1409 191 1600 42 1558 1600
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.37 0.37 0.01 0.61 0.61 0.06 0.06 0.00 0.00 0.05 0.02
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #21 I-710 NB Ramp and Valley Blvd

 Cycle (sec): 120 Critical Vol./Cap.(X): 0.769
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 64 Level Of Service: C

 Street Name: I-710 NB Ramp Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Split Phase Split Phase Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1! 0 1 0 0 1! 0 0 0 0 2 0 0 0 0 3 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 603 1 685 4 0 1 0 207 0 0 2176 6
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 673 1 764 4 0 1 0 231 0 0 2428 7
 Added Vol: 0 0 4 0 0 0 0 0 0 0 8 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 673 1 768 4 0 1 0 231 0 0 2436 7
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 673 1 768 4 0 1 0 231 0 0 2436 7
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 673 1 768 4 0 1 0 231 0 0 2436 7
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 673 1 768 4 0 1 0 231 0 0 2436 7
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.40 0.01 1.59 0.79 0.01 0.20 0.00 2.00 0.00 0.00 3.99 0.01
 Final Sat.: 2239 4 2557 1280 0 320 0 3200 0 0 6382 18
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.30 0.30 0.30 0.00 0.00 0.00 0.00 0.07 0.00 0.00 0.38 0.38
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #22 I-710 SB Ramp and Valley Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.173
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

 Street Name: I-710 SB Ramp Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 0 0 0 0 0 2 0 1 2 0 0
 -----|-----|-----|-----|-----|
 Volume Module:
 Base Vol: 0 0 0 0 0 0 0 214 650 1593 1200 0
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 0 0 0 0 0 0 0 0 239 725 1777 1339 0
 Added Vol: 0 0 0 0 0 0 0 0 0 0 8 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 0 0 0 0 0 0 239 725 1785 1339 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 0 0 0 0 0 0 239 725 1785 1339 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 0 0 0 0 0 239 725 1785 1339 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 0 0 0 0 0 239 725 1785 1339 0
 -----|-----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

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Sat/Lane:      1600 1600   1600   1600 1600   1600   1600 1600   1600   1600 1600   1600
```


Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.49 0.51 1.00 1.73 0.27 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat.: 1600 2383 817 1600 2776 424 1600 1600 1600 1600 1600 1600
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.10 0.44 0.44 0.09 0.29 0.29 0.08 0.08 0.11 0.12 0.16 0.15
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.272
 Loss Time (sec): 0 Average Delay (sec/veh): 63.0
 Optimal Cycle: 0 Level Of Service: F

 Street Name: Elm St Hellman Ave/Ramona Rd/ 10 WB ramp
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 1 0 1 0 0 0 1 0 0 0 1 0 1 0 0 1
 -----|-----|-----|-----|
 Volume Module:AM Peak
 Base Vol: 358 55 21 78 14 200 51 163 327 398 61 13
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 399 61 23 87 16 223 57 182 365 444 68 15
 Added Vol: 8 0 0 0 0 0 0 0 22 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 407 61 23 87 16 223 57 182 387 444 68 15
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 407 61 23 87 16 223 57 182 387 444 68 15
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 407 61 23 87 16 223 57 182 387 444 68 15
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 407 61 23 87 16 223 57 182 387 444 68 15
 -----|-----|-----|-----|
 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.66 0.25 0.09 0.85 0.15 1.00 0.24 0.76 1.00 0.87 0.13 1.00
 Final Sat.: 1028 -287 36 319 57 427 100 320 466 349 53 448
 -----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat:	0.40-0.21	0.64	0.27	0.27	0.52	0.57	0.57	0.83	1.27	1.27	0.03	
Crit Moves:		****			****			****	****			
Delay/Veh:	26.5	27.1	27.1	15.5	15.5	19.4	21.7	21.7	37.7	166.5	167	10.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.5	27.1	27.1	15.5	15.5	19.4	21.7	21.7	37.7	166.5	167	10.8
LOS by Move:	D	D	D	C	C	C	C	C	E	F	F	B

ApproachDel: 26.3 18.2 31.6 162.2
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 26.3 18.2 31.6 162.2
 LOS by Appr: D C D F
 AllWayAvgQ: 1.6 1.6 1.6 0.4 0.4 1.0 1.2 1.2 3.5 17.3 17.3 0.0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 1.287
 Loss Time (sec): 0 Average Delay (sec/veh): 112.1
 Optimal Cycle: 0 Level Of Service: F

Street Name:	Fremont Ave						Ramona Road/10 EB ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	0	0	0	0	1	0	0	1	0

Volume Module:AM Peak

Base Vol:	0	625	48	0	0	0	2	24	584	114	0	15
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	697	54	0	0	0	2	27	652	127	0	17
Added Vol:	0	0	12	0	0	0	0	0	11	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	697	66	0	0	0	2	27	663	127	0	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	697	66	0	0	0	2	27	663	127	0	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	697	66	0	0	0	2	27	663	127	0	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	697	66	0	0	0	2	27	663	127	0	17

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	0.00	0.00	0.08	0.92	1.00	0.88	xxxx	0.12
Final Sat.:	0	542	605	0	0	0	41	490	596	421	0	55

Capacity Analysis Module:

Vol/Sat:	xxxx	1.29	0.11	xxxx	xxxx	xxxx	0.05	0.05	1.11	0.30	0.00	0.30
Crit Moves:	****			****			****			****		
Delay/Veh:	0.0	163	9.4	0.0	0.0	0.0	9.9	9.9	94.3	13.8	13.8	13.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	163	9.4	0.0	0.0	0.0	9.9	9.9	94.3	13.8	13.8	13.8
LOS by Move:	*	F	A	*	*	*	A	A	F	B	B	B

Note: Queue reported is the number of cars per lane.

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.66 0.34 1.00 1.93 0.07 1.00 0.91 0.09 1.00 1.00 1.00
 Final Sat.: 1600 2654 546 1600 3082 118 1600 1452 148 1600 1600 1600
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.02 0.43 0.43 0.03 0.32 0.32 0.02 0.04 0.04 0.12 0.12 0.01
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #27 Westmont Dr and Valley Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.893
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 96 Level Of Service: D

 Street Name: Westmont Dr Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 2 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 51 14 7 4 6 37 17 966 14 3 2036 30
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 57 16 8 4 7 41 19 1078 16 3 2272 33
 Added Vol: 0 0 0 0 0 0 0 0 4 0 0 8 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 57 16 8 4 7 41 19 1082 16 3 2280 33
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 57 16 8 4 7 41 19 1082 16 3 2280 33
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 57 16 8 4 7 41 19 1082 16 3 2280 33
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 57 16 8 4 7 41 19 1082 16 3 2280 33
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.71	0.19	0.10	0.08	0.13	0.79	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1133	311	156	136	204	1260	1600	3200	1600	1600	3200	1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat:	0.04	0.05	0.05	0.00	0.03	0.03	0.01	0.34	0.01	0.00	0.71	0.02
Crit Moves:	****				****		****				****	

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Scenario Report
Scenario: 2028 Cum PM
Command: 2028 Cum PM
Volume: 2028 PM
Geometry: Existing
Impact Fee: Default Impact Fee
Trip Generation: Cum PM
Trip Distribution: Cum + Project
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

Cum PM

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Fremont Ave and Mission Rd													
Base	215	1551	214	56	1226	60	131	561	481	344	471	50	5360
Added	0	0	10	0	0	9	10	0	0	9	0	0	38
Total	215	1551	224	56	1226	69	141	561	481	353	471	50	5398
#2 Fremont Ave and 1000 Fremont Ave													
Base	60	1626	48	8	1242	67	90	3	77	44	4	28	3297
Added	0	10	0	0	9	0	0	0	0	0	0	0	19
Total	60	1636	48	8	1251	67	90	3	77	44	4	28	3316
#3 Fremont Ave and Orange St													
Base	2	1562	195	114	1061	2	10	6	6	271	2	322	3554
Added	0	10	0	0	9	0	0	0	0	0	0	0	19
Total	2	1572	195	114	1070	2	10	6	6	271	2	322	3573
#4 Date Ave and Orange St													
Base	35	190	3	28	298	46	75	172	173	1	22	7	1049
Added	0	20	0	0	17	0	0	0	0	0	0	0	37
Total	35	210	3	28	315	46	75	172	173	1	22	7	1086
#5 Palm Ave and Orange St													
Base	6	191	2	11	299	15	65	71	79	2	6	8	754
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6	191	2	11	299	15	65	71	79	2	6	8	754
#6 Chestnut St and Palm Ave													
Base	6	163	10	16	377	9	8	8	88	7	1	8	700
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6	163	10	16	377	9	8	8	88	7	1	8	700
#7 Fremont Ave and Poplar Blvd													
Base	170	1565	128	28	963	47	28	131	89	59	132	31	3371
Added	0	13	0	7	15	0	0	12	0	0	12	4	63
Total	170	1578	128	35	978	47	28	143	89	59	144	35	3434
#8 Date Ave and Mission Rd													
Base	0	0	0	218	0	177	94	821	0	0	628	124	2062
Added	0	0	0	9	0	9	10	0	0	0	0	10	38
Total	0	0	0	227	0	186	104	821	0	0	628	134	2100
#9 Chestnut St and Date Ave													

Base	20	199	13	42	416	11	0	0	0	11	2	19	734
Added	0	20	0	0	17	0	0	0	0	0	0	0	37
Total	20	219	13	42	433	11	0	0	0	11	2	19	771

#10 Fremont Ave and Concord Ave

Base	57	1717	126	30	1002	79	88	48	52	84	67	84	3434
Added	0	10	0	0	9	0	0	0	0	0	0	0	19
Total	57	1727	126	30	1011	79	88	48	52	84	67	84	3453

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#11 Fremont Ave and Montezuma Ave

Base	766	494	96	27	46	289	445	186	682	37	77	21	3166
Added	15	2	0	0	14	7	7	0	13	0	0	0	58
Total	781	496	96	27	60	296	452	186	695	37	77	21	3224

#12 Palm Ave and Commonwealth Ave

Base	55	138	22	192	242	272	212	464	78	9	430	107	2221
Added	0	0	0	0	0	26	22	22	0	0	26	0	96
Total	55	138	22	192	242	298	234	486	78	9	456	107	2317

#13 Date Ave and Commonwealth Ave

Base	70	142	64	129	90	161	230	573	108	57	543	128	2296
Added	0	0	22	0	0	0	0	22	0	26	26	0	96
Total	70	142	86	129	90	161	230	595	108	83	569	128	2392

#14 Fremont Ave and Commonwealth Ave

Base	40	1585	289	222	891	28	33	153	16	175	176	266	3875
Added	0	0	10	15	0	0	0	0	0	9	0	13	47
Total	40	1585	299	237	891	28	33	153	16	184	176	279	3922

#15 Fremont Ave and Valley Blvd

Base	31	896	37	208	1072	864	687	1003	28	139	389	344	5698
Added	3	10	8	0	9	0	0	4	5	9	4	0	52
Total	34	906	45	208	1081	864	687	1007	33	148	393	344	5750

#16 Palm Ave and Mission Rd

Base	0	0	0	368	0	123	55	1002	0	0	636	114	2297
Added	0	0	0	0	0	0	0	9	0	0	10	0	19
Total	0	0	0	368	0	123	55	1011	0	0	646	114	2316

#17 Marengo Ave and Valley Blvd

Base	19	177	71	318	224	218	343	970	9	54	621	152	3175
Added	13	21	0	0	20	0	0	0	12	0	0	0	66
Total	32	198	71	318	244	218	343	970	21	54	621	152	3241

#18 Atlantic Blvd and Mission Road

Base	106	1184	153	47	1061	113	146	1077	148	203	628	67	4933
Added	0	27	0	0	34	4	2	0	0	0	0	0	67
Total	106	1211	153	47	1095	117	148	1077	148	203	628	67	5000

#19 Marengo Ave and Mission Road

Base	81	575	251	65	520	51	59	1048	316	78	600	66	3710
Added	19	0	2	0	0	0	0	0	17	4	0	0	42
Total	100	575	253	65	520	51	59	1048	333	82	600	66	3752

#20 Marengo Ave and Front St

Base	3	707	4	26	761	210	167	56	9	2	21	18	1985
Added	0	21	0	0	20	0	0	0	0	0	0	0	41
Total	3	728	4	26	781	210	167	56	9	2	21	18	2026

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#21 I-710 NB Ramp and Valley Blvd

Base	652	0	1381	1	0	2	0	591	0	0	1247	0	3875
Added	0	0	9	0	0	0	0	0	0	0	7	0	16
Total	652	0	1390	1	0	2	0	591	0	0	1254	0	3891

#22 I-710 SB Ramp and Valley Blvd

Base	0	0	0	0	0	0	0	601	813	874	1049	0	3337
Added	0	0	0	0	0	0	0	0	0	7	0	0	7
Total	0	0	0	0	0	0	0	601	813	881	1049	0	3344

#23 Fremont Ave and Hellman Ave

Base	95	826	270	164	907	76	143	193	241	230	202	264	3610
Added	0	14	8	7	16	0	0	0	0	4	0	7	56
Total	95	840	278	171	923	76	143	193	241	234	202	271	3666

#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Base	521	192	109	11	6	45	32	334	249	134	117	2	1752
Added	11	0	0	0	0	0	0	0	15	0	0	0	26
Total	532	192	109	11	6	45	32	334	264	134	117	2	1778

#25 Fremont Ave and Ramona Road/10 EB ramp

Base	0	816	129	0	0	0	4	102	322	52	0	87	1513
Added	0	0	9	0	0	0	0	0	21	0	0	0	30
Total	0	816	138	0	0	0	4	102	343	52	0	87	1543

#26 Ross Ave and Fremont Ave

Base	33	947	187	29	1102	46	12	36	7	60	45	46	2550
Added	0	21	0	0	22	0	0	0	0	0	0	0	43
Total	33	968	187	29	1124	46	12	36	7	60	45	46	2593

#27 Westmont Dr and Valley Blvd

Base	18	11	12	27	10	16	62	1761	151	9	1160	37	3273
Added	0	0	0	0	0	0	0	9	0	0	7	0	16
Total	18	11	12	27	10	16	62	1770	151	9	1167	37	3289

#135													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	10	0	0	9	0	19
Total	0	0	0	0	0	0	0	10	0	0	9	0	19

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Intersection Volume Report
 Base Volume Alternative

Node	Intersection	Northbound			Southbound			Eastbound			Westbound		
		L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1	Fremont Ave a	215	1551	214	56	1226	60	131	561	481	344	471	50
2	Fremont Ave a	60	1626	48	8	1242	67	90	3	77	44	4	28
3	Fremont Ave a	2	1562	195	114	1061	2	10	6	6	271	2	322
4	Date Ave and	35	190	3	28	298	46	75	172	173	1	22	7
5	Palm Ave and	6	191	2	11	299	15	65	71	79	2	6	8
6	Chestnut St a	6	163	10	16	377	9	8	8	88	7	1	8
7	Fremont Ave a	170	1565	128	28	963	47	28	131	89	59	132	31
8	Date Ave and	0	0	0	218	0	177	94	821	0	0	628	124
9	Chestnut St a	20	199	13	42	416	11	0	0	0	11	2	19
10	Fremont Ave a	57	1717	126	30	1002	79	88	48	52	84	67	84
11	Fremont Ave a	766	494	96	27	46	289	445	186	682	37	77	21
12	Palm Ave and	55	138	22	192	242	272	212	464	78	9	430	107
13	Date Ave and	70	142	64	129	90	161	230	573	108	57	543	128
14	Fremont Ave a	40	1585	289	222	891	28	33	153	16	175	176	266
15	Fremont Ave a	31	896	37	208	1072	864	687	1003	28	139	389	344
16	Palm Ave and	0	0	0	368	0	123	55	1002	0	0	636	114
17	Marengo Ave a	19	177	71	318	224	218	343	970	9	54	621	152
18	Atlantic Blvd	106	1184	153	47	1061	113	146	1077	148	203	628	67
19	Marengo Ave a	81	575	251	65	520	51	59	1048	316	78	600	66
20	Marengo Ave a	3	707	4	26	761	210	167	56	9	2	21	18

21 I-710 NB Ramp	652	0	1381	1	0	2	0	591	0	0	1247	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	601	813	874	1049	0
23 Fremont Ave a	95	826	270	164	907	76	143	193	241	230	202	264
24 Elm St and He	521	192	109	11	6	45	32	334	249	134	117	2
25 Fremont Ave a	0	816	129	0	0	0	4	102	322	52	0	87
26 Ross Ave and	33	947	187	29	1102	46	12	36	7	60	45	46
27 Westmont Dr a	18	11	12	27	10	16	62	1761	151	9	1160	37

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Intersection Volume Report
 Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	215	1551	224	56	1226	69	141	561	481	353	471	50
2 Fremont Ave a	60	1636	48	8	1251	67	90	3	77	44	4	28
3 Fremont Ave a	2	1572	195	114	1070	2	10	6	6	271	2	322
4 Date Ave and	35	210	3	28	315	46	75	172	173	1	22	7
5 Palm Ave and	6	191	2	11	299	15	65	71	79	2	6	8
6 Chestnut St a	6	163	10	16	377	9	8	8	88	7	1	8
7 Fremont Ave a	170	1578	128	35	978	47	28	143	89	59	144	35
8 Date Ave and	0	0	0	227	0	186	104	821	0	0	628	134
9 Chestnut St a	20	219	13	42	433	11	0	0	0	11	2	19
10 Fremont Ave a	57	1727	126	30	1011	79	88	48	52	84	67	84
11 Fremont Ave a	781	496	96	27	60	296	452	186	695	37	77	21
12 Palm Ave and	55	138	22	192	242	298	234	486	78	9	456	107
13 Date Ave and	70	142	86	129	90	161	230	595	108	83	569	128
14 Fremont Ave a	40	1585	299	237	891	28	33	153	16	184	176	279
15 Fremont Ave a	34	906	45	208	1081	864	687	1007	33	148	393	344
16 Palm Ave and	0	0	0	368	0	123	55	1011	0	0	646	114
17 Marengo Ave a	32	198	71	318	244	218	343	970	21	54	621	152
18 Atlantic Blvd	106	1211	153	47	1095	117	148	1077	148	203	628	67
19 Marengo Ave a	100	575	253	65	520	51	59	1048	333	82	600	66
20 Marengo Ave a	3	728	4	26	781	210	167	56	9	2	21	18

21 I-710 NB Ramp	652	0	1390	1	0	2	0	591	0	0	1254	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	601	813	881	1049	0
23 Fremont Ave a	95	840	278	171	923	76	143	193	241	234	202	271
24 Elm St and He	532	192	109	11	6	45	32	334	264	134	117	2
25 Fremont Ave a	0	816	138	0	0	0	4	102	343	52	0	87
26 Ross Ave and	33	968	187	29	1124	46	12	36	7	60	45	46
27 Westmont Dr a	18	11	12	27	10	16	62	1770	151	9	1167	37

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Impact Analysis Report
 Level Of Service

Intersection	Base Del/ V/ LOS Veh C	Future Del/ V/ LOS Veh C	Change in
# 1 Fremont Ave and Mission Rd	F xxxxxx 1.202	F xxxxxx 1.211	+ 0.009 V/C
# 2 Fremont Ave and 1000 Fremont A	B xxxxxx 0.690	B xxxxxx 0.693	+ 0.003 V/C
# 3 Fremont Ave and Orange St	D xxxxxx 0.872	D xxxxxx 0.875	+ 0.003 V/C
# 4 Date Ave and Orange St	C 15.1 0.328	C 15.5 0.337	+ 0.471 D/V
# 5 Palm Ave and Orange St	B 11.1 0.474	B 11.1 0.474	+ 0.000 V/C
# 6 Chestnut St and Palm Ave	B 11.6 0.552	B 11.6 0.552	+ 0.000 V/C
# 7 Fremont Ave and Poplar Blvd	C xxxxxx 0.765	C xxxxxx 0.781	+ 0.016 V/C
# 8 Date Ave and Mission Rd	C 18.7 0.528	C 19.9 0.563	+ 1.148 D/V
# 9 Chestnut St and Date Ave	B 10.6 0.031	B 10.7 0.031	+ 0.144 D/V
# 10 Fremont Ave and Concord Ave	B xxxxxx 0.652	B xxxxxx 0.654	+ 0.002 V/C
# 11 Fremont Ave and Montezuma Ave	C xxxxxx 0.740	C xxxxxx 0.745	+ 0.005 V/C
# 12 Palm Ave and Commonwealth Ave	A xxxxxx 0.573	B xxxxxx 0.609	+ 0.036 V/C

# 13 Date Ave and Commonwealth Ave	B	xxxxxx	0.654	B	xxxxxx	0.662	+	0.008	V/C
# 14 Fremont Ave and Commonwealth A	E	xxxxxx	0.949	E	xxxxxx	0.964	+	0.015	V/C
# 15 Fremont Ave and Valley Blvd	E	xxxxxx	0.975	E	xxxxxx	0.980	+	0.006	V/C
# 16 Palm Ave and Mission Rd	B	xxxxxx	0.643	B	xxxxxx	0.646	+	0.003	V/C
# 17 Marengo Ave and Valley Blvd	D	xxxxxx	0.818	D	xxxxxx	0.831	+	0.013	V/C
# 18 Atlantic Blvd and Mission Road	F	xxxxxx	1.010	F	xxxxxx	1.019	+	0.008	V/C

# 19 Marengo Ave and Mission Road	E xxxxx 0.983	F xxxxx 1.002	+ 0.020 V/C
# 20 Marengo Ave and Front St	D xxxxx 0.850	D xxxxx 0.862	+ 0.012 V/C
# 21 I-710 NB Ramp and Valley Blvd	C xxxxx 0.712	C xxxxx 0.716	+ 0.004 V/C
# 22 I-710 SB Ramp and Valley Blvd	E xxxxx 0.912	E xxxxx 0.914	+ 0.002 V/C
# 23 Fremont Ave and Hellman Ave	D xxxxx 0.839	D xxxxx 0.853	+ 0.014 V/C
# 24 Elm St and Hellman Ave/Ramona	D 32.1 0.870	D 33.4 0.885	+ 0.015 V/C
# 25 Fremont Ave and Ramona Road/10	F 111.4 1.370	F 112.6 1.383	+ 0.012 V/C

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 26 Ross Ave and Fremont Ave	A	xxxxxx	0.544	A	xxxxxx	0.551	+ 0.007 V/C
# 27 Westmont Dr and Valley Blvd	B	xxxxxx	0.698	C	xxxxxx	0.701	+ 0.003 V/C


```

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #1 Fremont Ave and Mission Rd
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          1.211
Loss Time (sec):       10          Average Delay (sec/veh):       xxxxxx
Optimal Cycle:         180          Level Of Service:          F
*****
Street Name:          Fremont Ave          Mission Rd
Approach:              North Bound          South Bound          East Bound          West Bound
Movement:              L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:               Protected          Protected          Protected          Protected
Rights:                Include          Include          Include          Include
Min. Green:            0    0    0          0    0    0          0    0    0          0    0    0
Y+R:                   4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:                 1  0  1  1  0          1  0  2  0  1          1  0  2  0  1          1  0  1  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:              193 1390    192          50 1099    54    117  503    431    308  422    45
Growth Adj:            1.12 1.12    1.12          1.12 1.12    1.12    1.12  1.12    1.12    1.12  1.12    1.12
Initial Bse:           215 1551    214          56 1226    60    131  561    481    344  471    50
Added Vol:              0    0    10          0    0    9    10    0    0    9    0    0
PasserByVol:           0    0    0          0    0    0    0    0    0    0    0    0
Initial Fut:           215 1551    224          56 1226    69    141  561    481    353  471    50
User Adj:              1.00 1.00    1.00          1.00 1.00    1.00    1.00  1.00    1.00    1.00  1.00    1.00
PHF Adj:               1.00 1.00    1.00          1.00 1.00    1.00    1.00  1.00    1.00    1.00  1.00    1.00
PHF Volume:            215 1551    224          56 1226    69    141  561    481    353  471    50
Reduct Vol:            0    0    0          0    0    0    0    0    0    0    0    0
Reduced Vol:           215 1551    224          56 1226    69    141  561    481    353  471    50
PCE Adj:               1.00 1.00    1.00          1.00 1.00    1.00    1.00  1.00    1.00    1.00  1.00    1.00
MLF Adj:               1.00 1.00    1.00          1.00 1.00    1.00    1.00  1.00    1.00    1.00  1.00    1.00
FinalVolume:           215 1551    224          56 1226    69    141  561    481    353  471    50
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1600 1600    1600          1600 1600    1600    1600  1600    1600    1600  1600    1600

```

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.75 0.25 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.81 0.19
 Final Sat.: 1600 2796 404 1600 3200 1600 1600 3200 1600 1600 2892 308
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.13 0.55 0.55 0.03 0.38 0.04 0.09 0.18 0.30 0.22 0.16 0.16
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #2 Fremont Ave and 1000 Fremont Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.693
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 49 Level Of Service: B

 Street Name: Fremont Ave 1000 Fremont Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|-----|
 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 1 0 1 0
 -----|-----|-----|-----|-----|
 Volume Module:
 Base Vol: 54 1457 43 7 1113 60 81 3 69 39 4 25
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 60 1626 48 8 1242 67 90 3 77 44 4 28
 Added Vol: 0 10 0 0 9 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 60 1636 48 8 1251 67 90 3 77 44 4 28
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 60 1636 48 8 1251 67 90 3 77 44 4 28
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 60 1636 48 8 1251 67 90 3 77 44 4 28
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 60 1636 48 8 1251 67 90 3 77 44 4 28
 -----|-----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.04 0.96 1.00 0.14 0.86
 Final Sat.: 1600 3200 1600 1600 3200 1600 1600 67 1533 1600 221 1379
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.04 0.51 0.03 0.00 0.39 0.04 0.06 0.05 0.05 0.03 0.02 0.02
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #3 Fremont Ave and Orange St

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.875
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 89 Level Of Service: D

 Street Name: Fremont Ave Orange St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 1 1 0 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 2 1400 175 102 951 2 9 5 5 243 2 289
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 2 1562 195 114 1061 2 10 6 6 271 2 322
 Added Vol: 0 10 0 0 9 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 2 1572 195 114 1070 2 10 6 6 271 2 322
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 2 1572 195 114 1070 2 10 6 6 271 2 322
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 2 1572 195 114 1070 2 10 6 6 271 2 322
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 2 1572 195 114 1070 2 10 6 6 271 2 322
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.00 1.00 1.00 1.99 0.01 0.64 0.36 1.00 1.00 0.01 0.99
 Final Sat.: 1600 3200 1600 1600 3193 7 1029 571 1600 1600 11 1589
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.49 0.12 0.07 0.34 0.34 0.01 0.01 0.00 0.17 0.20 0.20
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #4 Date Ave and Orange St

 Average Delay (sec/veh): 6.8 Worst Case Level Of Service: C[15.5]

 Street Name: Date Ave Orange St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 1 0 1 1 0 1 0 1 0 1 0 0 1 0 1 0 0 1
 -----|-----|-----|-----|
 Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
 Base Vol: 31 170 3 25 267 41 67 154 155 1 20 6
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 35 190 3 28 298 46 75 172 173 1 22 7
 Added Vol: 0 20 0 0 17 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 35 210 3 28 315 46 75 172 173 1 22 7
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 35 210 3 28 315 46 75 172 173 1 22 7
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 35 210 3 28 315 46 75 172 173 1 22 7
 -----|-----|-----|-----|
 Critical Gap Module:
 Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
 FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
 -----|-----|-----|-----|
 Capacity Module:
 Cnflct Vol: 361 xxxx xxxxx 213 xxxx xxxxx 666 653 315 845 695 210
 Potent Cap.: 1209 xxxx xxxxx 1369 xxxx xxxxx 376 389 730 285 368 836
 Move Cap.: 1209 xxxx xxxxx 1369 xxxx xxxxx 342 371 730 134 350 836
 Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 513 510 xxxxx 226 484 xxxxx
 Volume/Cap: 0.03 xxxx xxxx 0.02 xxxx xxxx 0.15 0.34 0.24 0.00 0.05 0.01
 -----|-----|-----|-----|

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	0.9	xxxx	xxxx	0.0
Control Del:	8.1	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	11.5	xxxxx	xxxx	9.3
LOS by Move:	A	*	*	A	*	*	*	*	B	*	*	A
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		LT - LTR - RT			
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	511	xxxx	xxxxx	459	xxxx	xxxxx

```

SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 2.6 xxxx xxxxx 0.2 xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 18.4 xxxx xxxxx 13.3 xxxx xxxxx
Shared LOS: * * * * * C * * B * *
ApproachDel: xxxxxx xxxxxx 15.5 12.4
ApproachLOS: * * C B

```

Note: Queue reported is the number of cars per lane.

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-----
Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)
*****
Intersection #5 Palm Ave and Orange St
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.474
Loss Time (sec):      0          Average Delay (sec/veh):          11.1
Optimal Cycle:        0          Level Of Service:          B
*****
Street Name:          Palm Ave          Orange St
Approach:             North Bound      South Bound      East Bound      West Bound
Movement:             L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:              Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:               Include          Include          Include          Include
Min. Green:           0 0 0 0          0 0 0 0          0 0 0 0          0 0 0 0
Lanes:                0 1 0 0 1          0 1 0 0 1          0 1 0 0 1          0 1 0 0 1
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol:             5 171 2          10 268 13          58 64 71          2 5 7
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse:          6 191 2          11 299 15          65 71 79          2 6 8
Added Vol:            0 0 0          0 0 0          0 0 0          0 0 0
PasserByVol:          0 0 0          0 0 0          0 0 0          0 0 0
Initial Fut:          6 191 2          11 299 15          65 71 79          2 6 8
User Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:           6 191 2          11 299 15          65 71 79          2 6 8
Reduct Vol:           0 0 0          0 0 0          0 0 0          0 0 0
Reduced Vol:          6 191 2          11 299 15          65 71 79          2 6 8
PCE Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:          6 191 2          11 299 15          65 71 79          2 6 8
-----|-----|-----|-----|
Saturation Flow Module:
Adjustment:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:                0.03 0.97 1.00 0.04 0.96 1.00 0.48 0.52 1.00 0.29 0.71 1.00
Final Sat.:           18 618 721          24 631 745          266 293 653          149 373 595
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              0.31 0.31 0.00 0.47 0.47 0.02 0.24 0.24 0.12 0.01 0.01 0.01
Crit Moves:           ****          ****          ****          ****
Delay/Veh:            10.5 10.5 7.5 12.6 12.6 7.4 10.6 10.6 8.5 9.1 9.1 8.2
Delay Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:           10.5 10.5 7.5 12.6 12.6 7.4 10.6 10.6 8.5 9.1 9.1 8.2
LOS by Move:          B B A B B A B B A A A A

```

```

ApproachDel:      10.5          12.4          9.8          8.6
Delay Adj:        1.00          1.00          1.00          1.00
ApprAdjDel:      10.5          12.4          9.8          8.6
LOS by Appr:      B            B            A            A
AllWayAvgQ:    0.4  0.4  0.0  0.8  0.8  0.0  0.3  0.3  0.1  0.0  0.0  0.0
*****

```

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

```

Cycle (sec):      100          Critical Vol./Cap.(X):      0.552
Loss Time (sec):    0          Average Delay (sec/veh):      11.6
Optimal Cycle:      0          Level Of Service:      B
*****

```

```

Street Name:      Chestnut St          Palm Ave
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Stop Sign          Stop Sign          Stop Sign          Stop Sign
Rights:          Include          Include          Include          Include
Min. Green:        0  0  0          0  0  0          0  0  0          0  0  0
Lanes:            0  1  0  0  1          0  1  0  0  1          0  1  0  0  1          0  1  0  0  1
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol:         5  146  9          14  338  8          7  7  79          6  1  7
Growth Adj:       1.12 1.12 1.12      1.12 1.12 1.12      1.12 1.12 1.12      1.12 1.12 1.12
Initial Bse:       6  163  10         16  377  9          8  8  88          7  1  8
Added Vol:         0  0  0          0  0  0          0  0  0          0  0  0
PasserByVol:       0  0  0          0  0  0          0  0  0          0  0  0
Initial Fut:       6  163  10         16  377  9          8  8  88          7  1  8
User Adj:         1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:          1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Volume:        6  163  10         16  377  9          8  8  88          7  1  8
Reduct Vol:        0  0  0          0  0  0          0  0  0          0  0  0
Reduced Vol:       6  163  10         16  377  9          8  8  88          7  1  8
PCE Adj:          1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
MLF Adj:          1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
FinalVolume:       6  163  10         16  377  9          8  8  88          7  1  8
-----|-----|-----|-----|

```

Saturation Flow Module:

```

Adjustment:       1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Lanes:           0.03 0.97 1.00      0.04 0.96 1.00      0.50 0.50 1.00      0.86 0.14 1.00
Final Sat.:       23  658  783         28  683  822         271  271  635         437  73  607
-----|-----|-----|-----|

```

Capacity Analysis Module:

```

Vol/Sat:          0.25 0.25 0.01      0.55 0.55 0.01      0.03 0.03 0.14      0.02 0.02 0.01
Crit Moves:          ****          ****          ****          ****
Delay/Veh:         9.5  9.5  7.2      13.5 13.5  7.0      9.0  9.0  8.7      9.3  9.3  8.1
Delay Adj:         1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
AdjDel/Veh:        9.5  9.5  7.2      13.5 13.5  7.0      9.0  9.0  8.7      9.3  9.3  8.1
LOS by Move:       A  A  A          B  B  A          A  A  A          A  A  A

```


Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.85 0.15 1.00 1.91 0.09 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat.: 1600 2959 241 1600 3054 146 1600 1600 1600 1600 1600 1600
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.11 0.53 0.53 0.02 0.32 0.32 0.02 0.09 0.06 0.04 0.09 0.02
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #8 Date Ave and Mission Rd

 Average Delay (sec/veh): 4.4 Worst Case Level Of Service: C[19.9]

 Street Name: Date Ave Mission Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include Include
 Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 2 0 0 0 0 1 1 0
 -----|-----|-----|-----|
 Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
 Base Vol: 0 0 0 195 0 159 84 736 0 0 563 111
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 0 0 0 218 0 177 94 821 0 0 628 124
 Added Vol: 0 0 0 9 0 9 10 0 0 0 0 10
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 0 227 0 186 104 821 0 0 628 134
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 0 227 0 186 104 821 0 0 628 134
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 0 0 0 227 0 186 104 821 0 0 628 134
 -----|-----|-----|-----|
 Critical Gap Module:
 Critical Gp:xxxxx xxxx xxxxx 6.8 xxxx 6.9 4.1 xxxx xxxxx xxxxxx xxxx xxxxxx
 FollowUpTim:xxxxx xxxx xxxxx 3.5 xxxx 3.3 2.2 xxxx xxxxx xxxxxx xxxx xxxxxx
 -----|-----|-----|-----|
 Capacity Module:
 Cnflct Vol: xxxx xxxx xxxxx 1313 xxxx 381 762 xxxx xxxxx xxxxx xxxx xxxxxx
 Potent Cap.: xxxx xxxx xxxxx 152 xxxx 623 859 xxxx xxxxx xxxxx xxxx xxxxxx
 Move Cap.: xxxx xxxx xxxxx 138 xxxx 623 859 xxxx xxxxx xxxxx xxxx xxxxxx
 Total Cap: 219 256 xxxxx 402 270 xxxxx xxxx xxxx xxxxx xxxxx xxxx xxxxxx
 Volume/Cap: xxxx xxxx xxxxx 0.56 xxxx 0.30 0.12 xxxx xxxx xxxxx xxxx xxxxxx
 -----|-----|-----|-----|

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	3.7	xxxx	1.3	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	25.3	xxxx	13.2	9.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	D	*	B	A	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			

```

SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:      *      *      *      *      *      *      *      *      *      *      *
ApproachDel:    xxxxxx          19.9          xxxxxx          xxxxxx
ApproachLOS:      *              C              *              *

```

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #9 Chestnut St and Date Ave
*****
Average Delay (sec/veh):      1.1      Worst Case Level Of Service: B[ 10.7]
*****
Street Name:      Chestnut St      Date Ave
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      1 0 1 0 1      1 0 1 0 1      0 0 1! 0 0      0 1 0 0 1
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol:      18 178 12      38 373 10      0 0 0      10 2 17
Growth Adj: 1.12 1.12 1.12      1.12 1.12 1.12      1.12 1.12 1.12      1.12 1.12 1.12
Initial Bse: 20 199 13      42 416 11      0 0 0      11 2 19
Added Vol:      0 20 0      0 17 0      0 0 0      0 0 0
PasserByVol: 0 0 0      0 0 0      0 0 0      0 0 0
Initial Fut: 20 219 13      42 433 11      0 0 0      11 2 19
User Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Volume: 20 219 13      42 433 11      0 0 0      11 2 19
Reduct Vol:      0 0 0      0 0 0      0 0 0      0 0 0
FinalVolume: 20 219 13      42 433 11      0 0 0      11 2 19
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx      4.1 xxxx xxxxx      7.1 6.5 6.2      6.4 6.5 6.2
FollowUpTim: 2.2 xxxx xxxxx      2.2 xxxx xxxxx      3.5 4.0 3.3      3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflict Vol: 444 xxxx xxxxx      232 xxxx xxxxx      794 790 433      782 788 219
Potent Cap.: 1127 xxxx xxxxx      1348 xxxx xxxxx      308 325 627      366 326 826
Move Cap.: 1127 xxxx xxxxx      1348 xxxx xxxxx      288 309 627      352 310 826
Total Cap: xxxx xxxx xxxxx      xxxx xxxx xxxxx      455 452 xxxxx      504 444 xxxxx
Volume/Cap: 0.02 xxxx xxxxx      0.03 xxxx xxxxx      0.00 0.00 0.00      0.02 0.01 0.02
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: 0.1 xxxx xxxxx      0.1 xxxx xxxxx      xxxx xxxx xxxxx      xxxx xxxx 0.1
Control Del: 8.3 xxxx xxxxx      7.8 xxxx xxxxx      xxxxx xxxx xxxxx      xxxxx xxxx 9.5
LOS by Move: A * *      A * *      * * *      * * * A
Movement: LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx      xxxx xxxx xxxxx      xxxx 0 xxxxx      493 xxxx xxxxx

```

```

SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.1 xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 12.5 xxxx xxxxx
Shared LOS:      *      *      *      *      *      *      *      *      *      B      *      *
ApproachDel:    xxxxxx          xxxxxx          xxxxxx          10.7
ApproachLOS:      *              *              *              B
*****
Note: Queue reported is the number of cars per lane.
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #10 Fremont Ave and Concord Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.654
Loss Time (sec):   10          Average Delay (sec/veh):    xxxxxx
Optimal Cycle:     45          Level Of Service:      B
*****
Street Name:      Fremont Ave          Concord Ave
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|-----|
Control:           Protected          Protected          Permitted          Permitted
Rights:            Include            Include            Include            Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             1  0  2  1  0        1  0  1  1  0        1  0  1  0  1        1  0  0  1  0
-----|-----|-----|-----|-----|
Volume Module:
Base Vol:          51 1539   113      27 898    71      79 43    47      75 60    75
Growth Adj:        1.12 1.12  1.12    1.12 1.12  1.12    1.12 1.12  1.12    1.12 1.12  1.12
Initial Bse:        57 1717   126      30 1002   79      88 48    52      84 67    84
Added Vol:          0    10    0          0    9    0          0    0    0          0    0    0
PasserByVol:        0    0    0          0    0    0          0    0    0          0    0    0
Initial Fut:        57 1727   126      30 1011   79      88 48    52      84 67    84
User Adj:           1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
PHF Adj:            1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
PHF Volume:         57 1727   126      30 1011   79      88 48    52      84 67    84
Reduct Vol:         0    0    0          0    0    0          0    0    0          0    0    0
Reduced Vol:        57 1727   126      30 1011   79      88 48    52      84 67    84
PCE Adj:            1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
MLF Adj:            1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
FinalVolume:        57 1727   126      30 1011   79      88 48    52      84 67    84
-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600    1600 1600  1600    1600 1600  1600    1600 1600  1600

```

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.80 0.20 1.00 1.85 0.15 1.00 1.00 1.00 1.00 0.44 0.56
 Final Sat.: 1600 4473 327 1600 2967 233 1600 1600 1600 1600 711 889
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.04 0.39 0.39 0.02 0.34 0.34 0.06 0.03 0.03 0.05 0.09 0.09
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #11 Fremont Ave and Montezuma Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.745
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 82 Level Of Service: C

 Street Name: Fremont Ave Montezuma Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Permitted Protected Permitted
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 0 1 0 0 1 1 0 1 2 0 0 1 1 0 0 1! 0 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 687 443 86 24 41 259 399 167 611 33 69 19
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 766 494 96 27 46 289 445 186 682 37 77 21
 Added Vol: 15 2 0 0 14 7 7 0 13 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 781 496 96 27 60 296 452 186 695 37 77 21
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 781 496 96 27 60 0 452 186 695 37 77 21
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 781 496 96 27 60 0 452 186 695 37 77 21
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 781 496 96 27 60 0 452 186 695 37 77 21
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 0.90 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 0.84 0.16 0.62 1.38 1.00 2.00 0.42 1.58 0.27 0.57 0.16
Final Sat.: 2880 1341 259 990 2210 1600 2880 677 2523 436 912 251
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.27 0.37 0.37 0.02 0.03 0.00 0.16 0.28 0.28 0.02 0.08 0.08
Crit Moves: ****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.609
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: B

Street Name: Palm Ave Commonwealth Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol: 49 124 20 172 217 244 190 416 70 8 385 96
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 55 138 22 192 242 272 212 464 78 9 430 107
Added Vol: 0 0 0 0 0 0 22 22 0 0 26 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 55 138 22 192 242 298 234 486 78 9 456 107
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 55 138 22 192 242 298 234 486 78 9 456 107
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 55 138 22 192 242 298 234 486 78 9 456 107
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 55 138 22 192 242 298 234 486 78 9 456 107
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.72 0.28 1.00 2.00 1.00
 Final Sat.: 1600 1600 1600 1600 1600 1600 1600 2757 443 1600 3200 1600
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.03 0.09 0.01 0.12 0.15 0.19 0.15 0.18 0.18 0.01 0.14 0.07
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #13 Date Ave and Commonwealth Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.662
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 46 Level Of Service: B

 Street Name: Date Ave Commonwealth Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 0 1 1 0 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 63 127 57 116 81 144 206 514 97 51 487 115
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 70 142 64 129 90 161 230 573 108 57 543 128
 Added Vol: 0 0 22 0 0 0 0 22 0 26 26 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 70 142 86 129 90 161 230 595 108 83 569 128
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 70 142 86 129 90 161 230 595 108 83 569 128
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 70 142 86 129 90 161 230 595 108 83 569 128
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 70 142 86 129 90 161 230 595 108 83 569 128
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.00 1.00 1.00 0.36 0.64 1.00 1.69 0.31 1.00 1.63 0.37
 Final Sat.: 1600 1600 1600 1600 576 1024 1600 2708 492 1600 2611 589
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.04 0.09 0.05 0.08 0.16 0.16 0.14 0.22 0.22 0.05 0.22 0.22
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #14 Fremont Ave and Commonwealth Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.964
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 147 Level Of Service: E

 Street Name: Fremont Ave Commonwealth Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 1 1 0 1 0 1 0 1 0 1 0 1 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 36 1421 259 199 799 25 30 137 14 157 158 238
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 40 1585 289 222 891 28 33 153 16 175 176 266
 Added Vol: 0 0 10 15 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 40 1585 299 237 891 28 33 153 16 184 176 279
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 40 1585 299 237 891 28 33 153 16 184 176 279
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 40 1585 299 237 891 28 33 153 16 184 176 279
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 40 1585 299 237 891 28 33 153 16 184 176 279
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.00 1.00 1.00 1.94 0.06 1.00 0.91 0.09 1.00 1.00 1.00
 Final Sat.: 1600 3200 1600 1600 3103 97 1600 1452 148 1600 1600 1600
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.03 0.50 0.19 0.15 0.29 0.29 0.02 0.11 0.11 0.12 0.11 0.17
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #15 Fremont Ave and Valley Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.980
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 167 Level Of Service: E

 Street Name: Fremont Ave Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 2 1 1 0 2 0 1
 -----|-----|-----|-----|-----|
 Volume Module:
 Base Vol: 28 803 33 186 961 774 616 899 25 125 349 308
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 31 896 37 208 1072 864 687 1003 28 139 389 344
 Added Vol: 3 10 8 0 9 0 0 4 5 9 4 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 34 906 45 208 1081 864 687 1007 33 148 393 344
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 34 906 45 208 1081 864 687 1007 33 148 393 344
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 34 906 45 208 1081 864 687 1007 33 148 393 344
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 34 906 45 208 1081 864 687 1007 33 148 393 344
 -----|-----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.91 0.09 1.00 2.00 2.00 2.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1600 3049 151 1600 3200 3200 2880 3200 1600 1600 3200 1600
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.02 0.30 0.30 0.13 0.34 0.27 0.24 0.31 0.02 0.09 0.12 0.21
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #16 Palm Ave and Mission Rd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.646
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 44 Level Of Service: B

 Street Name: Palm Ave Mission Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 2 0 0 0 0 1 1 0
 -----|-----|-----|-----|
 Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
 Base Vol: 0 0 0 330 0 110 49 898 0 0 570 102
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 0 0 0 368 0 123 55 1002 0 0 636 114
 Added Vol: 0 0 0 0 0 0 0 9 0 0 10 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 0 368 0 123 55 1011 0 0 646 114
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 0 368 0 123 55 1011 0 0 646 114
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 368 0 123 55 1011 0 0 646 114
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 368 0 123 55 1011 0 0 646 114
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 1.70 0.30
 Final Sat.: 0 0 0 1600 0 1600 1600 3200 0 0 2721 479
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.23 0.00 0.08 0.03 0.32 0.00 0.00 0.24 0.24
 Crit Moves: **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #17 Marengo Ave and Valley Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.831
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 74 Level Of Service: D

 Street Name: Marengo Ave Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 0 1 0 1 0 2 0 1 1 0 2 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 17 159 64 285 201 195 307 869 8 48 557 136
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 19 177 71 318 224 218 343 970 9 54 621 152
 Added Vol: 13 21 0 0 20 0 0 0 12 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 32 198 71 318 244 218 343 970 21 54 621 152
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 32 198 71 318 244 218 343 970 21 54 621 152
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 32 198 71 318 244 218 343 970 21 54 621 152
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 32 198 71 318 244 218 343 970 21 54 621 152
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.00 1.00 1.00 0.53 0.47 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1600 1600 1600 1600 846 754 1600 3200 1600 1600 3200 1600
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.02 0.12 0.04 0.20 0.29 0.29 0.21 0.30 0.01 0.03 0.19 0.09
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #18 Atlantic Blvd and Mission Road

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.019
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

 Street Name: Atlantic Blvd Mission Road
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 95 1061 137 42 951 101 131 965 133 182 563 60
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 106 1184 153 47 1061 113 146 1077 148 203 628 67
 Added Vol: 0 27 0 0 34 4 2 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 106 1211 153 47 1095 117 148 1077 148 203 628 67
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 106 1211 153 47 1095 117 148 1077 148 203 628 67
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 106 1211 153 47 1095 117 148 1077 148 203 628 67
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 106 1211 153 47 1095 117 148 1077 148 203 628 67
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.78 0.22 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.81 0.19
 Final Sat.: 1600 2841 359 1600 3200 1600 1600 3200 1600 1600 2892 308
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.07 0.43 0.43 0.03 0.34 0.07 0.09 0.34 0.09 0.13 0.22 0.22
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #19 Marengo Ave and Mission Road

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.002
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

 Street Name: Marengo Ave Mission Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 0 1 1 0 1 0 1 0 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 73 515 225 58 466 46 53 939 283 70 538 59
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 81 575 251 65 520 51 59 1048 316 78 600 66
 Added Vol: 19 0 2 0 0 0 0 0 0 17 4 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 100 575 253 65 520 51 59 1048 333 82 600 66
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 100 575 253 65 520 51 59 1048 333 82 600 66
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 100 575 253 65 520 51 59 1048 333 82 600 66
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 100 575 253 65 520 51 59 1048 333 82 600 66
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.00 1.00 1.00 0.91 0.09 1.00 1.52 0.48 1.00 1.80 0.20
 Final Sat.: 1600 1600 1600 1600 1456 144 1600 2429 771 1600 2884 316
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.06 0.36 0.16 0.04 0.36 0.36 0.04 0.43 0.43 0.05 0.21 0.21
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #20 Marengo Ave and Front St

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.862
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 84 Level Of Service: D

 Street Name: Marengo Ave Front St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 0 1 0 0 1 0 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 3 634 4 23 682 188 150 50 8 2 19 16
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 3 707 4 26 761 210 167 56 9 2 21 18
 Added Vol: 0 21 0 0 20 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 3 728 4 26 781 210 167 56 9 2 21 18
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 3 728 4 26 781 210 167 56 9 2 21 18
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 3 728 4 26 781 210 167 56 9 2 21 18
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 3 728 4 26 781 210 167 56 9 2 21 18
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 0.99 0.01 1.00 0.79 0.21 0.75 0.25 1.00 0.10 0.90 1.00
 Final Sat.: 1600 1590 10 1600 1261 339 1200 400 1600 152 1448 1600
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.46 0.46 0.02 0.62 0.62 0.10 0.14 0.01 0.00 0.01 0.01
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #21 I-710 NB Ramp and Valley Blvd

 Cycle (sec): 120 Critical Vol./Cap.(X): 0.716
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 54 Level Of Service: C

 Street Name: I-710 NB Ramp Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Split Phase Split Phase Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1! 0 1 0 0 1! 0 0 0 0 2 0 0 0 0 3 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 584 0 1238 1 0 2 0 530 0 0 1118 0
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 652 0 1381 1 0 2 0 591 0 0 1247 0
 Added Vol: 0 0 9 0 0 0 0 0 0 0 7 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 652 0 1390 1 0 2 0 591 0 0 1254 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 652 0 1390 1 0 2 0 591 0 0 1254 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 652 0 1390 1 0 2 0 591 0 0 1254 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 652 0 1390 1 0 2 0 591 0 0 1254 0
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 0.00 2.00 0.33 0.00 0.67 0.00 2.00 0.00 0.00 4.00 0.00
 Final Sat.: 1600 0 3200 533 0 1067 0 3200 0 0 6400 0
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.41 0.00 0.43 0.00 0.00 0.00 0.00 0.18 0.00 0.00 0.20 0.00
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #22 I-710 SB Ramp and Valley Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.914
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 108 Level Of Service: E

 Street Name: I-710 SB Ramp Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 0 0 0 0 0 2 0 1 2 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 0 0 0 0 0 0 0 539 729 783 940 0
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 0 0 0 0 0 0 0 601 813 874 1049 0
 Added Vol: 0 0 0 0 0 0 0 0 0 7 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 0 0 0 0 0 601 813 881 1049 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 0 0 0 0 0 601 813 881 1049 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 0 0 0 0 601 813 881 1049 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 0 0 0 0 601 813 881 1049 0
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00
 Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00
 Final Sat.: 0 0 0 0 0 0 0 0 3200 1600 2880 3200 0
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.19 0.51 0.31 0.33 0.00
 Crit Moves: **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #23 Fremont Ave and Hellman Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.853
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 81 Level Of Service: D

 Street Name: Fremont Ave Hellman Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 1
 -----|-----|-----|-----|-----|
 Volume Module:
 Base Vol: 85 740 242 147 813 68 128 173 216 206 181 237
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 95 826 270 164 907 76 143 193 241 230 202 264
 Added Vol: 0 14 8 7 16 0 0 0 0 4 0 7
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 95 840 278 171 923 76 143 193 241 234 202 271
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 95 840 278 171 923 76 143 193 241 234 202 271
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 95 840 278 171 923 76 143 193 241 234 202 271
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 95 840 278 171 923 76 143 193 241 234 202 271
 -----|-----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.50 0.50 1.00 1.85 0.15 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat.: 1600 2404 796 1600 2957 243 1600 1600 1600 1600 1600 1600
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.06 0.35 0.35 0.11 0.31 0.31 0.09 0.12 0.15 0.15 0.13 0.17
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.885
 Loss Time (sec): 0 Average Delay (sec/veh): 33.4
 Optimal Cycle: 0 Level Of Service: D

 Street Name: Elm St Hellman Ave/Ramona Rd/ 10 WB ramp
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 1 0 1 0 0 0 1 0 0 0 1 0 1 0 0 1
 -----|-----|-----|-----|
 Volume Module:PM Peak
 Base Vol: 467 172 98 10 5 40 29 299 223 120 105 2
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 521 192 109 11 6 45 32 334 249 134 117 2
 Added Vol: 11 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 532 192 109 11 6 45 32 334 264 134 117 2
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 532 192 109 11 6 45 32 334 264 134 117 2
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 532 192 109 11 6 45 32 334 264 134 117 2
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 532 192 109 11 6 45 32 334 264 134 117 2
 -----|-----|-----|-----|
 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.28 0.46 0.26 0.67 0.33 1.00 0.09 0.91 1.00 0.53 0.47 1.00
 Final Sat.: 1070 -254 124 257 129 435 42 433 525 227 199 469
 -----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat:	0.50-0.76	0.88	0.04	0.04	0.10	0.77	0.77	0.50	0.59	0.59	0.00	
Crit Moves:		****			****	****			****			
Delay/Veh:	45.2	44.7	44.7	12.0	12.0	11.4	30.7	30.7	16.0	21.8	21.8	10.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.2	44.7	44.7	12.0	12.0	11.4	30.7	30.7	16.0	21.8	21.8	10.1
LOS by Move:	E	E	E	B	B	B	D	D	C	C	C	B

ApproachDel:	45.2		11.6		24.5		21.7
Delay Adj:	1.00		1.00		1.00		1.00
ApprAdjDel:	45.2		11.6		24.5		21.7
LOS by Appr:	E		B		C		C
AllWayAvgQ:	4.5	4.5	4.5	0.0	0.0	0.1	2.7
	2.7	0.9	1.3	1.3	0.0		

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	1.383
Loss Time (sec):	0	Average Delay (sec/veh):	112.6
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Fremont Ave			Ramona Road/10 EB ramp		
Approach:	North Bound			South Bound		
	East Bound			West Bound		
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign			Stop Sign		
Rights:	Include			Include		
Min. Green:	0	0	0	0	0	0
Lanes:	0	0	1	0	0	1

Volume Module:PM Peak												
Base Vol:	0	731	116	0	0	0	4	91	289	47	0	78
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	816	129	0	0	0	4	102	322	52	0	87
Added Vol:	0	0	9	0	0	0	0	0	21	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	816	138	0	0	0	4	102	343	52	0	87
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	816	138	0	0	0	4	102	343	52	0	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	816	138	0	0	0	4	102	343	52	0	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	816	138	0	0	0	4	102	343	52	0	87

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	0.00	0.00	0.04	0.96	1.00	0.38	0.00	0.62
Final Sat.:	0	590	655	0	0	0	22	506	591	198	0	328

Capacity Analysis Module:												
Vol/Sat:	xxxx	1.38	0.21	xxxx	xxxx	xxxx	0.20	0.20	0.58	0.27	xxxx	0.27
Crit Moves:	****			****			****			****		
Delay/Veh:	0.0	201	9.5	0.0	0.0	0.0	11.2	11.2	16.7	12.2	0.0	12.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	201	9.5	0.0	0.0	0.0	11.2	11.2	16.7	12.2	0.0	12.2
LOS by Move:	*	F	A	*	*	*	B	B	C	B	*	B

Note: Queue reported is the number of cars per lane.

[illegible]

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.68 0.32 1.00 1.92 0.08 1.00 0.84 0.16 1.00 1.00 1.00
 Final Sat.: 1600 2681 519 1600 3075 125 1600 1347 253 1600 1600 1600
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.02 0.36 0.36 0.02 0.37 0.37 0.01 0.03 0.03 0.04 0.03 0.03
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #27 Westmont Dr and Valley Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.701
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 50 Level Of Service: C

 Street Name: Westmont Dr Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 2 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 16 10 11 24 9 14 56 1578 135 8 1040 33
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 18 11 12 27 10 16 62 1761 151 9 1160 37
 Added Vol: 0 0 0 0 0 0 0 0 9 0 0 7 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 18 11 12 27 10 16 62 1770 151 9 1167 37
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 18 11 12 27 10 16 62 1770 151 9 1167 37
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 18 11 12 27 10 16 62 1770 151 9 1167 37
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 18 11 12 27 10 16 62 1770 151 9 1167 37
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.43	0.27	0.30	0.51	0.19	0.30	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	692	432	476	817	306	477	1600	3200	1600	1600	3200	1600

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat:	0.01	0.03	0.03	0.02	0.03	0.03	0.04	0.55	0.09	0.01	0.36	0.02
Crit Moves:	****			****			****			****		

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Intersection

Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	8	20	15	2	6	2	6	66	2	6	214	32
Future Vol, veh/h	8	20	15	2	6	2	6	66	2	6	214	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	22	16	2	7	2	7	72	2	7	233	35
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.2	8.1	8.2	9.3
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	8%	0%	29%	0%	25%	0%	3%	0%
Vol Thru, %	92%	0%	71%	0%	75%	0%	97%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	72	2	28	15	8	2	220	32
LT Vol	6	0	8	0	2	0	6	0
Through Vol	66	0	20	0	6	0	214	0
RT Vol	0	2	0	15	0	2	0	32
Lane Flow Rate	78	2	30	16	9	2	239	35
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.107	0.003	0.047	0.021	0.013	0.003	0.311	0.038
Departure Headway (Hd)	4.94	4.196	5.533	4.686	5.558	4.728	4.686	3.971
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	729	857	650	768	647	760	758	888
Service Time	2.647	1.903	3.239	2.391	3.266	2.436	2.472	1.758
HCM Lane V/C Ratio	0.107	0.002	0.046	0.021	0.014	0.003	0.315	0.039
HCM Control Delay	8.2	6.9	8.5	7.5	8.3	7.5	9.6	6.9
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0	0.1	0.1	0	0	1.3	0.1

Intersection

Intersection Delay, s/veh 8.8

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	1	1	8	1	3	8	16	100	2	13	182	12
Future Vol, veh/h	1	1	8	1	3	8	16	100	2	13	182	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	9	1	3	9	17	109	2	14	198	13
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	7.6	7.7	8.5	9.1
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	14%	0%	50%	0%	25%	0%	7%	0%
Vol Thru, %	86%	0%	50%	0%	75%	0%	93%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	116	2	2	8	4	8	195	12
LT Vol	16	0	1	0	1	0	13	0
Through Vol	100	0	1	0	3	0	182	0
RT Vol	0	2	0	8	0	8	0	12
Lane Flow Rate	126	2	2	9	4	9	212	13
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.167	0.002	0.003	0.011	0.007	0.011	0.275	0.014
Departure Headway (Hd)	4.755	3.985	5.648	4.692	5.519	4.69	4.671	3.937
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	748	888	637	767	652	768	765	903
Service Time	2.525	1.754	3.349	2.393	3.219	2.39	2.421	1.687
HCM Lane V/C Ratio	0.168	0.002	0.003	0.012	0.006	0.012	0.277	0.014
HCM Control Delay	8.5	6.8	8.4	7.4	8.3	7.4	9.2	6.7
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.6	0	0	0	0	0	1.1	0

Intersection

Intersection Delay, s/veh 102.9

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕	↕	↕			↕	↕
Traffic Vol, veh/h	57	182	387	444	68	15	407	61	23	87	16	223
Future Vol, veh/h	57	182	387	444	68	15	407	61	23	87	16	223
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	62	198	421	483	74	16	442	66	25	95	17	242
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	54.8	271.3	35.6	24.2
HCM LOS	F	F	E	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	66%	24%	0%	87%	0%	84%	0%
Vol Thru, %	0%	25%	76%	0%	13%	0%	16%	0%
Vol Right, %	0%	9%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	244	247	239	387	512	15	103	223
LT Vol	244	163	57	0	444	0	87	0
Through Vol	0	61	182	0	68	0	16	0
RT Vol	0	23	0	387	0	15	0	223
Lane Flow Rate	265	268	260	421	557	16	112	242
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.713	0.703	0.659	0.971	1.534	0.04	0.312	0.6
Departure Headway (Hd)	10.83	10.58	10.217	9.35	9.926	8.74	11.225	10.029
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	337	343	356	391	367	410	322	364
Service Time	8.53	8.28	7.917	7.05	7.678	6.491	8.925	7.729
HCM Lane V/C Ratio	0.786	0.781	0.73	1.077	1.518	0.039	0.348	0.665
HCM Control Delay	36.4	34.8	30.6	69.8	278.9	11.9	18.9	26.7
HCM Lane LOS	E	D	D	F	F	B	C	D
HCM 95th-tile Q	5.2	5.1	4.5	11.2	30.8	0.1	1.3	3.7

Intersection

Intersection Delay, s/veh 159.6

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕	↕			
Traffic Vol, veh/h	2	27	663	127	0	17	0	697	66	0	0	0
Future Vol, veh/h	2	27	663	127	0	17	0	697	66	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	29	721	138	0	18	0	758	72	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	136.8	16.7	207.2
HCM LOS	F	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	7%	0%	88%
Vol Thru, %	100%	0%	93%	0%	0%
Vol Right, %	0%	100%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	697	66	29	663	144
LT Vol	0	0	2	0	127
Through Vol	697	0	27	0	0
RT Vol	0	66	0	663	17
Lane Flow Rate	758	72	32	721	157
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.431	0.122	0.06	1.228	0.336
Departure Headway (Hd)	7.322	6.607	7.902	7.147	9.154
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	500	546	456	512	396
Service Time	5.022	4.307	5.602	4.847	7.154
HCM Lane V/C Ratio	1.516	0.132	0.07	1.408	0.396
HCM Control Delay	225.8	10.2	11.1	142.3	16.7
HCM Lane LOS	F	B	B	F	C
HCM 95th-tile Q	34.2	0.4	0.2	24	1.5

HCM 2010 TWSC
4: Date Ave & Orange St

03/15/2018

Intersection

Int Delay, s/veh 3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	20	36	47	8	27	3	54	131	6	7	217	74
Future Vol, veh/h	20	36	47	8	27	3	54	131	6	7	217	74
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	39	51	9	29	3	59	142	7	8	236	80

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	525	511	236	531	511	142	236	0	0	142	0	0
Stage 1	251	251	-	260	260	-	-	-	-	-	-	-
Stage 2	274	260	-	271	251	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	463	466	803	459	466	906	1331	-	-	1441	-	-
Stage 1	753	699	-	745	693	-	-	-	-	-	-	-
Stage 2	732	693	-	735	699	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	422	443	803	386	443	906	1331	-	-	1441	-	-
Mov Cap-2 Maneuver	422	443	-	386	443	-	-	-	-	-	-	-
Stage 1	720	695	-	712	662	-	-	-	-	-	-	-
Stage 2	666	662	-	646	695	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.4		13.8		2.2		0.2	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1331	-	-	435	803	429	906	1441	-	-
HCM Lane V/C Ratio	0.044	-	-	0.14	0.064	0.089	0.004	0.005	-	-
HCM Control Delay (s)	7.8	-	-	14.6	9.8	14.2	9	7.5	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.2	0.3	0	0	-	-

Intersection

Int Delay, s/veh 3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	107	482	1349	191	40	102
Future Vol, veh/h	107	482	1349	191	40	102
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	116	524	1466	208	43	111

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1674	0	0 2065 837
Stage 1	-	-	- 1570 -
Stage 2	-	-	- 495 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	379	-	- 47 310
Stage 1	-	-	- 157 -
Stage 2	-	-	- 578 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	379	-	- ~ 27 310
Mov Cap-2 Maneuver	-	-	- 108 -
Stage 1	-	-	- 157 -
Stage 2	-	-	- 328 -

Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	33.1
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	379	-	-	-	108	310
HCM Lane V/C Ratio	0.307	-	-	-	0.403	0.358
HCM Control Delay (s)	18.6	-	-	-	59.2	22.9
HCM Lane LOS	C	-	-	-	F	C
HCM 95th %tile Q(veh)	1.3	-	-	-	1.7	1.6

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	0	0	0	2	3	2	85	193	9	13	182	59
Future Vol, veh/h	0	0	0	2	3	2	85	193	9	13	182	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	2	3	2	92	210	10	14	198	64

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	622	621	198	621	621	210	198	0	0	210	0	0
Stage 1	226	226	-	395	395	-	-	-	-	-	-	-
Stage 2	396	395	-	226	226	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	399	403	843	400	403	830	1375	-	-	1361	-	-
Stage 1	777	717	-	630	605	-	-	-	-	-	-	-
Stage 2	629	605	-	777	717	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	372	372	843	377	372	830	1375	-	-	1361	-	-
Mov Cap-2 Maneuver	372	372	-	377	372	-	-	-	-	-	-	-
Stage 1	725	710	-	588	565	-	-	-	-	-	-	-
Stage 2	582	565	-	769	710	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	13.2	2.3	0.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1375	-	-	- 374 830	1361	-	-
HCM Lane V/C Ratio	0.067	-	-	- 0.015 0.003	0.01	-	-
HCM Control Delay (s)	7.8	-	-	0 14.8 9.3	7.7	-	-
HCM Lane LOS	A	-	-	A B A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	- 0 0	0	-	-

Intersection

Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	65	71	79	2	6	8	6	191	2	11	299	15
Future Vol, veh/h	65	71	79	2	6	8	6	191	2	11	299	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	71	77	86	2	7	9	7	208	2	12	325	16
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10.4	9.1	11.4	14
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	48%	0%	25%	0%	4%	0%
Vol Thru, %	97%	0%	52%	0%	75%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	197	2	136	79	8	8	310	15
LT Vol	6	0	65	0	2	0	11	0
Through Vol	191	0	71	0	6	0	299	0
RT Vol	0	2	0	79	0	8	0	15
Lane Flow Rate	214	2	148	86	9	9	337	16
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.341	0.003	0.261	0.129	0.016	0.014	0.523	0.022
Departure Headway (Hd)	5.732	5.009	6.365	5.415	6.655	5.816	5.592	4.868
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	630	716	565	663	538	615	650	740
Service Time	3.452	2.729	4.094	3.144	4.395	3.555	3.292	2.568
HCM Lane V/C Ratio	0.34	0.003	0.262	0.13	0.017	0.015	0.518	0.022
HCM Control Delay	11.4	7.7	11.3	8.9	9.5	8.6	14.3	7.7
HCM Lane LOS	B	A	B	A	A	A	B	A
HCM 95th-tile Q	1.5	0	1	0.4	0	0	3	0.1

Intersection

Intersection Delay, s/veh	12.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	8	8	88	7	1	8	6	163	10	16	377	9
Future Vol, veh/h	8	8	88	7	1	8	6	163	10	16	377	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	9	96	8	1	9	7	177	11	17	410	10
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.1	9	9.9	15.1
HCM LOS	A	A	A	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	4%	0%	50%	0%	88%	0%	4%	0%
Vol Thru, %	96%	0%	50%	0%	12%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	169	10	16	88	8	8	393	9
LT Vol	6	0	8	0	7	0	16	0
Through Vol	163	0	8	0	1	0	377	0
RT Vol	0	10	0	88	0	8	0	9
Lane Flow Rate	184	11	17	96	9	9	427	10
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.27	0.014	0.031	0.144	0.016	0.013	0.603	0.012
Departure Headway (Hd)	5.294	4.571	6.364	5.403	6.709	5.556	5.083	4.36
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	676	778	560	659	530	638	709	817
Service Time	3.054	2.331	4.133	3.172	4.5	3.346	2.832	2.108
HCM Lane V/C Ratio	0.272	0.014	0.03	0.146	0.017	0.014	0.602	0.012
HCM Control Delay	10	7.4	9.3	9.1	9.6	8.4	15.3	7.2
HCM Lane LOS	A	A	A	A	A	A	C	A
HCM 95th-tile Q	1.1	0	0.1	0.5	0	0	4.1	0

Intersection

Intersection Delay, s/veh 50.5

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱			↱	↱
Traffic Vol, veh/h	32	334	264	134	117	2	532	192	109	11	6	45
Future Vol, veh/h	32	334	264	134	117	2	532	192	109	11	6	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	363	287	146	127	2	578	209	118	12	7	49
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	34.6	28.3	72	12.8
HCM LOS	D	D	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	27%	9%	0%	53%	0%	65%	0%
Vol Thru, %	0%	47%	91%	0%	47%	0%	35%	0%
Vol Right, %	0%	26%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	420	413	366	264	251	2	17	45
LT Vol	420	112	32	0	134	0	11	0
Through Vol	0	192	334	0	117	0	6	0
RT Vol	0	109	0	264	0	2	0	45
Lane Flow Rate	457	449	398	287	273	2	18	49
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	1.047	0.957	0.876	0.571	0.672	0.005	0.05	0.117
Departure Headway (Hd)	8.247	7.682	8.045	7.279	9.051	8.05	9.861	8.79
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	443	476	454	499	401	447	365	410
Service Time	5.947	5.382	5.745	4.979	6.751	5.75	7.561	6.49
HCM Lane V/C Ratio	1.032	0.943	0.877	0.575	0.681	0.004	0.049	0.12
HCM Control Delay	84.7	59	45.7	19.2	28.4	10.8	13.1	12.7
HCM Lane LOS	F	F	E	C	D	B	B	B
HCM 95th-tile Q	14.4	11.8	9.1	3.5	4.8	0	0.2	0.4

Intersection

Intersection Delay, s/veh 161.4

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱			↱	↱			
Traffic Vol, veh/h	4	102	343	52	0	87	0	816	138	0	0	0
Future Vol, veh/h	4	102	343	52	0	87	0	816	138	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	111	373	57	0	95	0	887	150	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	20	14.5	249.3
HCM LOS	C	B	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	4%	0%	37%
Vol Thru, %	100%	0%	96%	0%	0%
Vol Right, %	0%	100%	0%	100%	63%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	816	138	106	343	139
LT Vol	0	0	4	0	52
Through Vol	816	0	102	0	0
RT Vol	0	138	0	343	87
Lane Flow Rate	887	150	115	373	151
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.587	0.239	0.22	0.638	0.291
Departure Headway (Hd)	6.442	5.733	8.096	7.357	8.154
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	577	630	446	496	444
Service Time	4.142	3.433	5.796	5.057	6.154
HCM Lane V/C Ratio	1.537	0.238	0.258	0.752	0.34
HCM Control Delay	289.7	10.2	13.1	22.1	14.5
HCM Lane LOS	F	B	B	C	B
HCM 95th-tile Q	47.9	0.9	0.8	4.4	1.2

HCM 2010 TWSC
4: Date Ave & Orange St

03/15/2018

Intersection

Int Delay, s/veh 14

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	75	172	173	1	22	7	35	210	3	28	315	46
Future Vol, veh/h	75	172	173	1	22	7	35	210	3	28	315	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	82	187	188	1	24	8	38	228	3	30	342	50

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	719	707	342	801	707	228	342	0	0	228	0	0
Stage 1	403	403	-	304	304	-	-	-	-	-	-	-
Stage 2	316	304	-	497	403	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	344	360	701	303	360	811	1217	-	-	1340	-	-
Stage 1	624	600	-	705	663	-	-	-	-	-	-	-
Stage 2	695	663	-	555	600	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	310	341	701	121	341	811	1217	-	-	1340	-	-
Mov Cap-2 Maneuver	310	341	-	121	341	-	-	-	-	-	-	-
Stage 1	605	587	-	683	642	-	-	-	-	-	-	-
Stage 2	642	642	-	271	587	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	34	15.6	1.1	0.6
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1217	-	-	331	701	316	811	1340	-	-
HCM Lane V/C Ratio	0.031	-	-	0.811	0.268	0.079	0.009	0.023	-	-
HCM Control Delay (s)	8.1	-	-	49.4	12	17.4	9.5	7.7	-	-
HCM Lane LOS	A	-	-	E	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	6.9	1.1	0.3	0	0.1	-	-

HCM 2010 TWSC
8: Mission Road & Date Ave

03/15/2018

Intersection

Int Delay, s/veh 18.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	104	821	628	134	227	186
Future Vol, veh/h	104	821	628	134	227	186
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	113	892	683	146	247	202

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	828	0	0 1427 414
Stage 1	-	-	- 755 -
Stage 2	-	-	- 672 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	799	-	- ~ 126 587
Stage 1	-	-	- 425 -
Stage 2	-	-	- 469 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	799	-	- ~ 91 587
Mov Cap-2 Maneuver	-	-	- ~ 213 -
Stage 1	-	-	- 425 -
Stage 2	-	-	- 338 -

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	93.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	799	-	-	-	213	587
HCM Lane V/C Ratio	0.141	-	-	-	1.158	0.344
HCM Control Delay (s)	10.2	-	-	-	157.9	14.3
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.5	-	-	-	12	1.5

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	0	0	0	11	2	19	20	219	13	42	433	11
Future Vol, veh/h	0	0	0	11	2	19	20	219	13	42	433	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	12	2	21	22	238	14	46	471	12

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	845	844	471	844	844	238	471	0	0	238	0	0
Stage 1	562	562	-	282	282	-	-	-	-	-	-	-
Stage 2	283	282	-	562	562	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	283	300	593	283	300	801	1091	-	-	1329	-	-
Stage 1	512	510	-	725	678	-	-	-	-	-	-	-
Stage 2	724	678	-	512	510	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	263	284	593	271	284	801	1091	-	-	1329	-	-
Mov Cap-2 Maneuver	263	284	-	271	284	-	-	-	-	-	-	-
Stage 1	502	492	-	710	664	-	-	-	-	-	-	-
Stage 2	689	664	-	494	492	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	13.4	0.7	0.7
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1091	-	-	- 273 801 1329	-	-	-
HCM Lane V/C Ratio	0.02	-	-	- 0.052 0.026 0.034	-	-	-
HCM Control Delay (s)	8.4	-	-	0 18.9 9.6 7.8	-	-	-
HCM Lane LOS	A	-	-	A C A A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	- 0.2 0.1 0.1	-	-	-

Appendix I – Intersection Analysis Worksheets – Cumulative (2028) Plus Project Conditions

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-----|-----||-----||-----|
Capacity Analysis Module:
Vol/Sat:    0.01 0.03  0.03  0.02 0.03  0.03  0.04 0.57  0.09  0.01 0.37  0.02
Crit Moves:      ****      ****      ****      ****
*****

```

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Scenario:      Scenario Report
                2028 Cum + Project AM
Command:       2028 Cum + Proj AM
Volume:        2028 AM

```

Geometry: Existing
Impact Fee: Default Impact Fee
Trip Generation: 2028 Cum + Project AM
Trip Distribution: Cum + Project
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

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Turning Movement Report
Cum AM + Project 2028 AM

Volume	Northbound	Southbound	Eastbound	Westbound	Total
Type	Left Thru Right	Left Thru Right	Left Thru Right	Left Thru Right	Volume

#1 Fremont Ave and Mission Rd

Base	247	1505	225	13	1454	49	69	374	530	397	871	48	5783
Added	0	10	31	1	71	29	18	3	0	107	18	9	297
Total	247	1515	256	14	1525	78	87	377	530	504	889	57	6080

#2 Fremont Ave and 1000 Fremont Ave

Base	54	1446	131	4	1440	40	26	6	60	4	1	7	3219
Added	0	31	5	4	67	0	0	0	0	35	0	22	164
Total	54	1477	136	8	1507	40	26	6	60	39	1	29	3383

#3 Fremont Ave and Orange St

Base	2	1254	248	156	1473	2	1	1	0	60	0	59	3257
Added	0	40	13	5	19	0	0	0	0	51	0	34	162
Total	2	1294	261	161	1492	2	1	1	0	111	0	93	3419

#4 Date Ave and Orange St

Base	54	99	6	7	186	74	20	36	47	8	27	3	566
Added	6	53	0	0	34	1	5	22	9	0	3	0	133
Total	60	152	6	7	220	75	25	58	56	8	30	3	699

#5 Palm Ave and Orange St

Base	6	66	2	6	214	32	8	20	15	2	6	2	378
Added	0	16	0	0	3	1	8	14	0	0	2	0	44
Total	6	82	2	6	217	33	16	34	15	2	8	2	422

#6 Chestnut St and Palm Ave

Base	16	100	2	13	182	12	1	1	8	1	3	8	348
Added	0	9	0	0	1	1	7	16	0	0	3	0	37
Total	16	109	2	13	183	13	8	17	8	1	6	8	385

#7 Fremont Ave and Poplar Blvd

Base	100	1156	56	19	1564	17	21	116	73	59	118	20	3319
Added	16	63	16	1	30	0	0	9	2	2	7	4	150
Total	116	1219	72	20	1594	17	21	125	75	61	125	24	3469

#8 Date Ave and Mission Rd

Base	0	0	0	25	0	87	91	482	0	0	1349	175	2209
Added	0	0	0	57	0	91	29	36	0	0	6	22	241
Total	0	0	0	82	0	178	120	518	0	0	1355	197	2450

#9 Chestnut St and Date Ave

Base	85	161	9	13	151	59	0	0	0	2	3	2	485
Added	10	45	8	0	42	2	14	16	76	2	2	0	217
Total	95	206	17	13	193	61	14	16	76	4	5	2	702

#10 Fremont Ave and Concord Ave													
Base	62	1214	41	4	1540	66	45	13	76	25	16	11	3113
Added	0	74	0	0	24	0	0	0	0	0	0	0	98
Total	62	1288	41	4	1564	66	45	13	76	25	16	11	3211

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#11 Fremont Ave and Montezuma Ave													
Base	762	288	45	4	89	667	452	58	683	56	104	11	3219
Added	27	4	0	0	4	13	44	0	21	0	0	0	113
Total	789	292	45	4	93	680	496	58	704	56	104	11	3332

#12 Palm Ave and Commonwealth Ave													
Base	20	36	4	44	240	281	67	237	31	15	289	42	1305
Added	0	24	0	0	4	41	50	38	0	0	40	0	197
Total	20	60	4	44	244	322	117	275	31	15	329	42	1502

#13 Date Ave and Commonwealth Ave													
Base	27	45	18	52	74	79	76	267	105	132	364	75	1312
Added	14	0	50	0	0	0	0	38	2	41	40	0	185
Total	41	45	68	52	74	79	76	305	107	173	404	75	1497

#14 Fremont Ave and Commonwealth Ave													
Base	44	1125	103	191	1456	69	30	150	18	120	173	119	3597
Added	0	58	16	26	9	0	0	0	0	15	0	37	161
Total	44	1183	119	217	1465	69	30	150	18	135	173	156	3758

#15 Fremont Ave and Valley Blvd													
Base	46	1021	29	83	898	1420	588	451	31	62	809	206	5644
Added	5	29	4	5	104	69	11	2	1	7	3	1	241
Total	51	1050	33	88	1002	1489	599	453	32	69	812	207	5885

#16 Palm Ave and Mission Rd													
Base	0	0	0	57	0	138	37	471	0	0	1433	94	2229
Added	0	0	0	0	0	1	9	83	0	0	26	0	119
Total	0	0	0	57	0	139	46	554	0	0	1459	94	2348

#17 Marengo Ave and Valley Blvd													
Base	25	131	80	249	182	153	185	467	26	69	1067	210	2843
Added	10	27	0	11	29	0	0	5	7	0	1	2	92
Total	35	158	80	260	211	153	185	472	33	69	1068	212	2935

#18 Atlantic Blvd and Mission Road													
Base	172	1185	128	45	1052	274	98	576	75	195	1067	37	4904
Added	0	31	0	0	23	1	3	32	0	0	5	0	95
Total	172	1216	128	45	1075	275	101	608	75	195	1072	37	4999

#19 Marengo Ave and Mission Road													
Base	95	426	175	48	562	74	49	392	95	303	1306	83	3608
Added	25	0	3	0	0	1	7	32	38	1	5	0	112
Total	120	426	178	48	562	75	56	424	133	304	1311	83	3720

#20 Marengo Ave and Front St													
Base	2	567	3	11	550	399	90	12	8	2	84	38	1767
Added	0	29	0	0	40	0	0	0	0	0	0	0	69
Total	2	596	3	11	590	399	90	12	8	2	84	38	1836

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#21 I-710 NB Ramp and Valley Blvd													
Base	673	1	764	4	0	1	0	231	0	0	2428	7	4109
Added	0	0	14	0	0	0	0	0	0	0	77	0	91
Total	673	1	778	4	0	1	0	231	0	0	2505	7	4200

#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	239	725	1777	1339	0	4080
Added	0	0	0	0	0	0	0	0	0	77	0	0	77
Total	0	0	0	0	0	0	0	239	725	1854	1339	0	4157

#23 Fremont Ave and Hellman Ave													
Base	158	1042	349	142	788	123	120	124	171	187	254	237	3695
Added	0	26	14	48	64	0	0	0	0	1	0	13	166
Total	158	1068	363	190	852	123	120	124	171	188	254	250	3861

#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	399	61	23	87	16	223	57	182	365	444	68	15	1940
Added	14	0	0	0	0	0	0	0	62	0	0	0	76
Total	413	61	23	87	16	223	57	182	427	444	68	15	2016

#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	697	54	0	0	0	2	27	652	127	0	17	1575
Added	0	0	48	0	0	0	0	0	17	0	0	0	65
Total	0	697	102	0	0	0	2	27	669	127	0	17	1640

#26 Ross Ave and Fremont Ave													
Base	29	1124	237	47	967	38	29	55	6	193	197	19	2940
Added	0	39	0	0	112	0	0	0	0	0	0	0	151
Total	29	1163	237	47	1079	38	29	55	6	193	197	19	3091

#27 Westmont Dr and Valley Blvd													
Base	57	16	8	4	7	41	19	1078	16	3	2272	33	3554
Added	0	0	0	0	0	0	0	14	0	0	77	0	91
Total	57	16	8	4	7	41	19	1092	16	3	2349	33	3645

#135

Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	36	0	44	6	29	0	0	91	6	212
Total	0	0	0	36	0	44	6	29	0	0	91	6	212

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Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	247	1505	225	13	1454	49	69	374	530	397	871	48
2 Fremont Ave a	54	1446	131	4	1440	40	26	6	60	4	1	7
3 Fremont Ave a	2	1254	248	156	1473	2	1	1	0	60	0	59
4 Date Ave and	54	99	6	7	186	74	20	36	47	8	27	3
5 Palm Ave and	6	66	2	6	214	32	8	20	15	2	6	2
6 Chestnut St a	16	100	2	13	182	12	1	1	8	1	3	8
7 Fremont Ave a	100	1156	56	19	1564	17	21	116	73	59	118	20
8 Date Ave and	0	0	0	25	0	87	91	482	0	0	1349	175
9 Chestnut St a	85	161	9	13	151	59	0	0	0	2	3	2
10 Fremont Ave a	62	1214	41	4	1540	66	45	13	76	25	16	11
11 Fremont Ave a	762	288	45	4	89	667	452	58	683	56	104	11
12 Palm Ave and	20	36	4	44	240	281	67	237	31	15	289	42
13 Date Ave and	27	45	18	52	74	79	76	267	105	132	364	75
14 Fremont Ave a	44	1125	103	191	1456	69	30	150	18	120	173	119
15 Fremont Ave a	46	1021	29	83	898	1420	588	451	31	62	809	206
16 Palm Ave and	0	0	0	57	0	138	37	471	0	0	1433	94
17 Marengo Ave a	25	131	80	249	182	153	185	467	26	69	1067	210
18 Atlantic Blvd	172	1185	128	45	1052	274	98	576	75	195	1067	37
19 Marengo Ave a	95	426	175	48	562	74	49	392	95	303	1306	83
20 Marengo Ave a	2	567	3	11	550	399	90	12	8	2	84	38
21 I-710 NB Ramp	673	1	764	4	0	1	0	231	0	0	2428	7
22 I-710 SB Ramp	0	0	0	0	0	0	0	239	725	1777	1339	0
23 Fremont Ave a	158	1042	349	142	788	123	120	124	171	187	254	237

24 Elm St and He	399	61	23	87	16	223	57	182	365	444	68	15
25 Fremont Ave a	0	697	54	0	0	0	2	27	652	127	0	17
26 Ross Ave and	29	1124	237	47	967	38	29	55	6	193	197	19
27 Westmont Dr a	57	16	8	4	7	41	19	1078	16	3	2272	33

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Intersection Volume Report
 Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	247	1515	256	14	1525	78	87	377	530	504	889	57
2 Fremont Ave a	54	1477	136	8	1507	40	26	6	60	39	1	29
3 Fremont Ave a	2	1294	261	161	1492	2	1	1	0	111	0	93
4 Date Ave and	60	152	6	7	220	75	25	58	56	8	30	3
5 Palm Ave and	6	82	2	6	217	33	16	34	15	2	8	2
6 Chestnut St a	16	109	2	13	183	13	8	17	8	1	6	8
7 Fremont Ave a	116	1219	72	20	1594	17	21	125	75	61	125	24
8 Date Ave and	0	0	0	82	0	178	120	518	0	0	1355	197
9 Chestnut St a	95	206	17	13	193	61	14	16	76	4	5	2
10 Fremont Ave a	62	1288	41	4	1564	66	45	13	76	25	16	11
11 Fremont Ave a	789	292	45	4	93	680	496	58	704	56	104	11
12 Palm Ave and	20	60	4	44	244	322	117	275	31	15	329	42
13 Date Ave and	41	45	68	52	74	79	76	305	107	173	404	75
14 Fremont Ave a	44	1183	119	217	1465	69	30	150	18	135	173	156
15 Fremont Ave a	51	1050	33	88	1002	1489	599	453	32	69	812	207
16 Palm Ave and	0	0	0	57	0	139	46	554	0	0	1459	94
17 Marengo Ave a	35	158	80	260	211	153	185	472	33	69	1068	212
18 Atlantic Blvd	172	1216	128	45	1075	275	101	608	75	195	1072	37
19 Marengo Ave a	120	426	178	48	562	75	56	424	133	304	1311	83
20 Marengo Ave a	2	596	3	11	590	399	90	12	8	2	84	38
21 I-710 NB Ramp	673	1	778	4	0	1	0	231	0	0	2505	7
22 I-710 SB Ramp	0	0	0	0	0	0	0	239	725	1854	1339	0
23 Fremont Ave a	158	1068	363	190	852	123	120	124	171	188	254	250

24 Elm St and He	413	61	23	87	16	223	57	182	427	444	68	15
25 Fremont Ave a	0	697	102	0	0	0	2	27	669	127	0	17
26 Ross Ave and	29	1163	237	47	1079	38	29	55	6	193	197	19
27 Westmont Dr a	57	16	8	4	7	41	19	1092	16	3	2349	33

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Impact Analysis Report
 Level Of Service

Intersection	Base Del/ LOS Veh	V/ C	Future Del/ LOS Veh	V/ C	Change in
# 1 Fremont Ave and Mission Rd	F xxxxxx	1.288	F xxxxxx	1.377	+ 0.089 V/C
# 2 Fremont Ave and 1000 Fremont A	B xxxxxx	0.628	B xxxxxx	0.670	+ 0.043 V/C
# 3 Fremont Ave and Orange St	B xxxxxx	0.628	B xxxxxx	0.670	+ 0.042 V/C
# 4 Date Ave and Orange St	B 11.6	0.058	B 12.3	0.102	+ 0.719 D/V
# 5 Palm Ave and Orange St	A 8.7	0.289	A 8.8	0.299	+ 0.010 V/C
# 6 Chestnut St and Palm Ave	A 8.6	0.254	A 8.7	0.261	+ 0.007 V/C
# 7 Fremont Ave and Poplar Blvd	C xxxxxx	0.766	C xxxxxx	0.793	+ 0.026 V/C
# 8 Date Ave and Mission Rd	C 20.5	0.247	D 30.9	0.517	+10.412 D/V
# 9 Chestnut St and Date Ave	B 10.9	0.062	B 12.3	0.089	+ 1.374 D/V
# 10 Fremont Ave and Concord Ave	C xxxxxx	0.704	C xxxxxx	0.711	+ 0.008 V/C
# 11 Fremont Ave and Montezuma Ave	B xxxxxx	0.657	B xxxxxx	0.683	+ 0.026 V/C
# 12 Palm Ave and Commonwealth Ave	A xxxxxx	0.420	A xxxxxx	0.490	+ 0.069 V/C
# 13 Date Ave and Commonwealth Ave	A xxxxxx	0.411	A xxxxxx	0.458	+ 0.047 V/C

# 14 Fremont Ave and Commonwealth A	C	xxxxxx	0.784	C	xxxxxx	0.794	+ 0.011	V/C
# 15 Fremont Ave and Valley Blvd	F	xxxxxx	1.029	F	xxxxxx	1.059	+ 0.029	V/C
# 16 Palm Ave and Mission Rd	B	xxxxxx	0.686	C	xxxxxx	0.701	+ 0.014	V/C
# 17 Marengo Ave and Valley Blvd	C	xxxxxx	0.786	D	xxxxxx	0.810	+ 0.024	V/C
# 18 Atlantic Blvd and Mission Road	E	xxxxxx	0.942	E	xxxxxx	0.953	+ 0.011	V/C
# 19 Marengo Ave and Mission Road	F	xxxxxx	1.021	F	xxxxxx	1.044	+ 0.022	V/C
# 20 Marengo Ave and Front St	D	xxxxxx	0.805	D	xxxxxx	0.830	+ 0.025	V/C
# 21 I-710 NB Ramp and Valley Blvd	C	xxxxxx	0.767	C	xxxxxx	0.782	+ 0.015	V/C

# 22 I-710 SB Ramp and Valley Blvd	F	xxxxx	1.170	F	xxxxx	1.197	+	0.027	V/C
# 23 Fremont Ave and Hellman Ave	D	xxxxx	0.858	E	xxxxx	0.900	+	0.042	V/C
# 24 Elm St and Hellman Ave/Ramona	F	61.0	1.262	F	67.1	1.287	+	0.026	V/C
# 25 Fremont Ave and Ramona Road/10	F	110.2	1.287	F	112.3	1.287	+	0.000	V/C

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Intersection	Base		Future		Change
	Del/	V/	Del/	V/	in

	LOS Veh	C	LOS Veh	C
# 26 Ross Ave and Fremont Ave	C xxxxx	0.713	C xxxxx	0.725 + 0.012 V/C
# 27 Westmont Dr and Valley Blvd	D xxxxx	0.890	E xxxxx	0.914 + 0.024 V/C

```

*****
Cycle (sec):          100                Critical Vol./Cap.(X):          1.377
Loss Time (sec):      10                Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        180                Level Of Service:              F
*****

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Street Name:          Fremont Ave                Mission Rd
Approach:              North Bound                South Bound                East Bound                West Bound
Movement:             L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|
Control:              Protected                Protected                Protected                Protected
Rights:               Include                Include                Include                Include
Min. Green:           0    0    0                0    0    0                0    0    0                0    0    0
Y+R:                  4.0  4.0  4.0                4.0  4.0  4.0                4.0  4.0  4.0                4.0  4.0  4.0
Lanes:                1  0  1  1  0                1  0  2  0  1                1  0  2  0  1                1  0  1  1  0
-----|-----|-----|-----|

```

```

Volume Module:
Base Vol:             221 1349    202    12 1303    44    62 335    475    356 781    43
Growth Adj:           1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:          247 1505    225    13 1454    49    69 374    530    397 871    48
Added Vol:            0    10    31    1    71    29    18    3    0    107 18    9
PasserByVol:          0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:          247 1515    256    14 1525    78    87 377    530    504 889    57
User Adj:             1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:           247 1515    256    14 1525    78    87 377    530    504 889    57
Reduct Vol:           0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:          247 1515    256    14 1525    78    87 377    530    504 889    57
PCE Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:          247 1515    256    14 1525    78    87 377    530    504 889    57
-----|-----|-----|-----|

```

```

Saturation Flow Module:
Sat/Lane:             1600 1600    1600 1600 1600  1600 1600  1600  1600 1600  1600
Adjustment:           1.00 1.00  1.00  1.00 1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:                1.00 1.71  0.29  1.00 2.00  1.00  1.00 2.00  1.00  1.00 1.88  0.12
Final Sat.:           1600 2737    463 1600 3200  1600 1600 3200  1600 1600 3007  193

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.15 0.55  0.55  0.01 0.48  0.05  0.05 0.12  0.33  0.32 0.30  0.30
Crit Moves:  ****                ****  ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #2 Fremont Ave and 1000 Fremont Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.670
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     47          Level Of Service:      B
*****
Street Name:      Fremont Ave          1000 Fremont Ave
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Protected          Protected          Permitted          Permitted
Rights:           Include          Include          Include          Include
Min. Green:       0    0    0          0    0    0          0    0    0          0    0    0
Y+R:             4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:           1  0  2  0  1          1  0  2  0  1          1  0  0  1  0          1  0  0  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:         48 1296  117          4 1291  36          23   5  54          4   1   6
Growth Adj:       1.12 1.12  1.12          1.12 1.12  1.12          1.12 1.12  1.12          1.12 1.12  1.12
Initial Bse:      54 1446  131          4 1440  40          26   6  60          4   1   7
Added Vol:        0   31   5          4   67   0          0   0   0          35   0  22
PasserByVol:      0   0   0          0   0   0          0   0   0          0   0   0
Initial Fut:      54 1477  136          8 1507  40          26   6  60          39   1  29
User Adj:         1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Volume:       54 1477  136          8 1507  40          26   6  60          39   1  29
Reduct Vol:       0   0   0          0   0   0          0   0   0          0   0   0
Reduced Vol:      54 1477  136          8 1507  40          26   6  60          39   1  29
PCE Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
FinalVolume:      54 1477  136          8 1507  40          26   6  60          39   1  29
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600          1600 1600  1600          1600 1600  1600          1600 1600  1600
Adjustment:       1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
Lanes:           1.00 2.00  1.00          1.00 2.00  1.00          1.00 0.08  0.92          1.00 0.04  0.96
Final Sat.:       1600 3200  1600          1600 3200  1600          1600  136 1464          1600   60 1540

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.03 0.46  0.08  0.01 0.47  0.03  0.02 0.04  0.04  0.02 0.02  0.02
Crit Moves:  ****              ****              ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #3 Fremont Ave and Orange St
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.670
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     47          Level Of Service:      B
*****
Street Name:      Fremont Ave          Orange St
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Protected          Protected          Split Phase          Split Phase
Rights:            Include            Include            Include            Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             1  0  2  0  1          1  0  1  1  0          0  1  0  0  1          1  0  1! 0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:          2 1124    222    140 1320    2    1    1    0    54    0    53
Growth Adj:        1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:        2 1254    248    156 1473    2    1    1    0    60    0    59
Added Vol:          0   40    13     5   19    0    0    0    0    51    0    34
PasserByVol:        0    0    0     0    0    0    0    0    0    0    0    0
Initial Fut:        2 1294    261    161 1492    2    1    1    0    111   0    93
User Adj:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:         2 1294    261    161 1492    2    1    1    0    111   0    93
Reduct Vol:         0    0    0     0    0    0    0    0    0    0    0    0
Reduced Vol:        2 1294    261    161 1492    2    1    1    0    111   0    93
PCE Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:        2 1294    261    161 1492    2    1    1    0    111   0    93
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:         1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:             1.00 2.00  1.00  1.00 1.99  0.01  0.50 0.50  1.00  1.09 0.00  0.91
Final Sat.:         1600 3200  1600  1600 3195    5    800 800  1600  1742   0  1458

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.00 0.40 0.16 0.10 0.47 0.47 0.00 0.00 0.00 0.06 0.00 0.06
Crit Moves:      ****      ****      ****
*****

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-----
Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #4 Date Ave and Orange St
*****
Average Delay (sec/veh):      3.7      Worst Case Level Of Service: B[ 12.3]
*****
Street Name:      Date Ave      Orange St
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      1 0 1 0 1      1 0 1 0 1      0 1 0 0 1      0 1 0 0 1
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol:      48 89 5 6 167 66 18 32 42 7 24 3
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 54 99 6 7 186 74 20 36 47 8 27 3
Added Vol: 6 53 0 0 34 1 5 22 9 0 3 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 60 152 6 7 220 75 25 58 56 8 30 3
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 60 152 6 7 220 75 25 58 56 8 30 3
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 60 152 6 7 220 75 25 58 56 8 30 3
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 295 xxxx xxxxx 158 xxxx xxxxx 524 511 220 599 580 152
Potent Cap.: 1278 xxxx xxxxx 1434 xxxx xxxxx 467 469 824 416 429 899
Move Cap.: 1278 xxxx xxxxx 1434 xxxx xxxxx 422 445 824 336 407 899
Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 571 567 xxxxx 474 524 xxxxx
Volume/Cap: 0.05 xxxx xxxx 0.00 xxxx xxxx 0.04 0.10 0.07 0.02 0.06 0.00
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: 0.1 xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx 0.2 xxxx xxxx 0.0
Control Del: 8.0 xxxx xxxxx 7.5 xxxx xxxxx xxxxx xxxx 9.7 xxxxx xxxx 9.0

```

LOS by Move:	A	*	*	A	*	*	*	*	A	*	*	A			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	568	xxxx	xxxxx	512	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.5	xxxx	xxxxx	0.2	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	12.4	xxxx	xxxxx	12.6	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	B	*	*	B	*	*			

ApproachDel: xxxxxx xxxxxx 11.3 12.3
 ApproachLOS: * * B B

 Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #5 Palm Ave and Orange St

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.299
 Loss Time (sec): 0 Average Delay (sec/veh): 8.8
 Optimal Cycle: 0 Level Of Service: A

 Street Name: Palm Ave Orange St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1
 -----|-----|-----|-----|
 Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
 Base Vol: 5 59 2 5 192 29 7 18 13 2 5 2
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 6 66 2 6 214 32 8 20 15 2 6 2
 Added Vol: 0 16 0 0 3 1 8 14 0 0 2 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 6 82 2 6 217 33 16 34 15 2 8 2
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 6 82 2 6 217 33 16 34 15 2 8 2
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 6 82 2 6 217 33 16 34 15 2 8 2
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 6 82 2 6 217 33 16 34 15 2 8 2
 -----|-----|-----|-----|
 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.06 0.94 1.00 0.03 0.97 1.00 0.32 0.68 1.00 0.23 0.77 1.00
 Final Sat.: 46 672 840 19 725 869 198 427 733 141 478 720
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.12 0.12 0.00 0.30 0.30 0.04 0.08 0.08 0.02 0.02 0.02 0.00
 Crit Moves: **** **** ****
 Delay/Veh: 8.3 8.3 6.9 9.5 9.5 6.9 8.6 8.6 7.4 8.3 8.3 7.4
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 8.3 8.3 6.9 9.5 9.5 6.9 8.6 8.6 7.4 8.3 8.3 7.4
 LOS by Move: A A A A A A A A A A A A
 ApproachDel: 8.3 9.2 8.3 8.1
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 8.3 9.2 8.3 8.1

LOS by Appr: A A A A
AllWayAvgQ: 0.1 0.1 0.0 0.4 0.4 0.0 0.1 0.1 0.0 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.261
Loss Time (sec): 0 Average Delay (sec/veh): 8.7
Optimal Cycle: 0 Level Of Service: A

Street Name: Chestnut St Palm Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|-----|
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1
-----|-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol: 14 90 2 12 163 11 1 1 7 1 3 7
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 16 100 2 13 182 12 1 1 8 1 3 8
Added Vol: 0 9 0 0 1 1 7 16 0 0 3 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 16 109 2 13 183 13 8 17 8 1 6 8
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 16 109 2 13 183 13 8 17 8 1 6 8
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 16 109 2 13 183 13 8 17 8 1 6 8
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 16 109 2 13 183 13 8 17 8 1 6 8
-----|-----|-----|-----|-----|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.12 0.88 1.00 0.07 0.93 1.00 0.32 0.68 1.00 0.15 0.85 1.00
Final Sat.: 92 644 870 51 700 884 201 424 734 94 536 729
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.17 0.17 0.00 0.26 0.26 0.02 0.04 0.04 0.01 0.01 0.01 0.01
Crit Moves: **** **** **** ****
Delay/Veh: 8.5 8.5 6.8 9.1 9.1 6.8 8.4 8.4 7.3 8.2 8.2 7.4
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 8.5 8.5 6.8 9.1 9.1 6.8 8.4 8.4 7.3 8.2 8.2 7.4
LOS by Move: A A A A A A A A A A A A
ApproachDel: 8.5 9.0 8.1 7.7
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 8.5 9.0 8.1 7.7

LOS by Appr: A A A A
 AllWayAvgQ: 0.2 0.2 0.0 0.3 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0

 Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #7 Fremont Ave and Poplar Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.793
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 65 Level Of Service: C

 Street Name: Fremont Ave Poplar Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 1 0 1 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 90 1036 50 17 1402 15 19 104 65 53 106 18
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 100 1156 56 19 1564 17 21 116 73 59 118 20
 Added Vol: 16 63 16 1 30 0 0 9 2 2 7 4
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 116 1219 72 20 1594 17 21 125 75 61 125 24
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 116 1219 72 20 1594 17 21 125 75 61 125 24
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 116 1219 72 20 1594 17 21 125 75 61 125 24
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 116 1219 72 20 1594 17 21 125 75 61 125 24
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.89 0.11 1.00 1.98 0.02 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat.: 1600 3022 178 1600 3167 33 1600 1600 1600 1600 1600 1600

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.07 0.40  0.40  0.01 0.50  0.50  0.01 0.08  0.05  0.04 0.08  0.02
Crit Moves:  ****                ****                ****
*****

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #8 Date Ave and Mission Rd
*****
Average Delay (sec/veh):      4.1      Worst Case Level Of Service: D[ 30.9]
*****
Street Name:      Date Ave      Mission Rd
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Rights:      Include      Include      Include      Include
Lanes:      0 0 0 0 0      1 0 0 0 1      1 0 2 0 0      0 0 1 1 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol:      0 0 0      22 0 78      82 432 0      0 1209 157
Growth Adj:  1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse:  0 0 0      25 0 87      91 482 0      0 1349 175
Added Vol:    0 0 0      57 0 91      29 36 0      0 6 22
PasserByVol:  0 0 0      0 0 0      0 0 0      0 0 0
Initial Fut:  0 0 0      82 0 178      120 518 0      0 1355 197
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   0 0 0      82 0 178      120 518 0      0 1355 197
Reduct Vol:   0 0 0      0 0 0      0 0 0      0 0 0
FinalVolume:  0 0 0      82 0 178      120 518 0      0 1355 197
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 6.8 xxxx 6.9 4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 3.5 xxxx 3.3 2.2 xxxx xxxxx xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:  xxxx xxxx xxxxx 1953 xxxx 776 1552 xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 57 xxxx 344 433 xxxx xxxxx xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx 45 xxxx 344 433 xxxx xxxxx xxxx xxxx xxxxx
Total Cap:   78 55 xxxxx 182 191 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx xxxxx 0.45 xxxx 0.52 0.28 xxxx xxxx xxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx 2.3 xxxx 3.1 1.1 xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx 40.6 xxxx 26.5 16.5 xxxx xxxxx xxxxx xxxx xxxxx

```

LOS by Move:	*	*	*	E	*	D	C	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxxx	xxxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			

ApproachDel: xxxxxx 30.9 xxxxxx xxxxxx
 ApproachLOS: * D * *

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 3.1 Worst Case Level Of Service: B[12.3]

Street Name:	Chestnut St						Date Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign					
Rights:	Include			Include			Include			Include					
Lanes:	1	0	1	0	1	1	0	1	0	1	0	0	1	0	0
	1	0	1	0	1	1	0	1	0	1	0	0	1	0	0

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol:	76	144	8	12	135	53	0	0	0	2	3	2
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	85	161	9	13	151	59	0	0	0	2	3	2
Added Vol:	10	45	8	0	42	2	14	16	76	2	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	95	206	17	13	193	61	14	16	76	4	5	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	95	206	17	13	193	61	14	16	76	4	5	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	95	206	17	13	193	61	14	16	76	4	5	2

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	254	xxxx	xxxxx	223	xxxx	xxxxx	627	632	193	691	676	206
Potent Cap.:	1323	xxxx	xxxxx	1358	xxxx	xxxxx	399	400	854	361	378	840
Move Cap.:	1323	xxxx	xxxxx	1358	xxxx	xxxxx	369	368	854	299	347	840
Total Cap:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	508	491	xxxxx	449	472	xxxxx
Volume/Cap:	0.07	xxxx	xxxx	0.01	xxxx	xxxx	0.03	0.03	0.09	0.01	0.01	0.00

Level Of Service Module:

2Way95thQ:	0.2	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0			
Control Del:	7.9	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxxx	xxxx	9.3			
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	A			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	711	xxxxx	461	xxxx	xxxxx			
SharedQueue:	xxxxxx	xxxx	xxxxx	xxxxxx	xxxx	xxxxx	xxxxxx	0.5	xxxxx	0.1	xxxx	xxxxx			
Shrd ConDel:	xxxxxx	xxxx	xxxxx	xxxxxx	xxxx	xxxxx	xxxxxx	11.0	xxxxx	13.0	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	B	*	B	*	*			

```

ApproachDel:      xxxxxx          xxxxxx          11.0          12.3
ApproachLOS:      *              *              B              B
*****
Note: Queue reported is the number of cars per lane.
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #10 Fremont Ave and Concord Ave
*****
Cycle (sec):      100              Critical Vol./Cap.(X):      0.711
Loss Time (sec):   10              Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     51              Level Of Service:      C
*****
Street Name:      Fremont Ave              Concord Ave
Approach:          North Bound              South Bound              East Bound              West Bound
Movement:          L - T - R              L - T - R              L - T - R              L - T - R
-----|-----|-----|-----|
Control:           Protected              Protected              Permitted              Permitted
Rights:            Include              Include              Include              Include
Min. Green:        0    0    0              0    0    0              0    0    0              0    0    0
Y+R:               4.0  4.0  4.0              4.0  4.0  4.0              4.0  4.0  4.0              4.0  4.0  4.0
Lanes:             1  0  2  1  0              1  0  1  1  0              1  0  1  0  1              1  0  0  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:          56 1088    37    4 1380    59    40  12    68    22  14    10
Growth Adj:        1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:        62 1214    41    4 1540    66    45  13    76    25  16    11
Added Vol:          0    74    0    0    24    0    0    0    0    0    0    0
PasserByVol:        0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:        62 1288    41    4 1564    66    45  13    76    25  16    11
User Adj:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:         62 1288    41    4 1564    66    45  13    76    25  16    11
Reduct Vol:         0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:        62 1288    41    4 1564    66    45  13    76    25  16    11
PCE Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:        62 1288    41    4 1564    66    45  13    76    25  16    11
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:         1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:             1.00 2.91  0.09  1.00 1.92  0.08  1.00 1.00  1.00  1.00 0.58  0.42
Final Sat.:         1600 4651  149  1600 3071  129  1600 1600  1600  1600 933   667

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.04 0.28  0.28  0.00 0.51  0.51  0.03 0.01  0.05  0.02 0.02  0.02
Crit Moves:  ****                      ****          ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #11 Fremont Ave and Montezuma Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.683
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     48          Level Of Service:      B
*****
Street Name:      Fremont Ave          Montezuma Ave
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Protected          Permitted          Protected          Permitted
Rights:           Include           Ignore           Include           Include
Min. Green:       0    0    0          0    0    0          0    0    0          0    0    0
Y+R:              4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:            2  0  0  1  0          0  1  1  0  1          2  0  0  1  1          0  0  1! 0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:         683  258  40          4  80  598  405  52  612  50  93  10
Growth Adj:       1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:      762  288  45          4  89  667  452  58  683  56 104  11
Added Vol:        27   4   0          0   4  13   44   0  21   0   0   0
PasserByVol:      0   0   0          0   0   0   0   0   0   0   0   0
Initial Fut:      789  292  45          4  93  680  496  58  704  56 104  11
User Adj:         1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:       789  292  45          4  93   0  496  58  704  56 104  11
Reduct Vol:       0   0   0          0   0   0   0   0   0   0   0   0
Reduced Vol:      789  292  45          4  93   0  496  58  704  56 104  11
PCE Adj:          1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:      789  292  45          4  93   0  496  58  704  56 104  11
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600  1600 1600  1600 1600 1600  1600 1600 1600  1600
Adjustment:       0.90 1.00  1.00  1.00 1.00  1.00 0.90 1.00  1.00  1.00 1.00  1.00
Lanes:           2.00 0.87  0.13  0.09 1.91  1.00 2.00 0.15  1.85  0.33 0.61  0.06
Final Sat.:      2880 1388  212  146 3054  1600 2880 244  2956  523 973  105

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.27 0.21  0.21  0.00 0.03  0.00  0.17 0.24  0.24  0.03 0.11  0.11
Crit Moves:  ****                ****                ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #12 Palm Ave and Commonwealth Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.490
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     33          Level Of Service:      A
*****
Street Name:      Palm Ave          Commonwealth Ave
Approach:          North Bound      South Bound      East Bound      West Bound
Movement:          L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:           Permitted        Permitted        Permitted        Permitted
Rights:            Include          Include          Include          Include
Min. Green:        0    0    0        0    0    0        0    0    0        0    0    0
Y+R:               4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0
Lanes:             1  0  1  0  1      1  0  1  0  1      1  0  1  1  0      1  0  2  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:          18    32    4        39  215  252      60  212  28      13  259  38
Growth Adj:        1.12 1.12  1.12      1.12 1.12  1.12      1.12 1.12  1.12      1.12 1.12  1.12
Initial Bse:        20    36    4        44  240  281      67  237  31      15  289  42
Added Vol:          0    24    0        0    4    41      50  38    0        0    40    0
PasserByVol:        0    0    0        0    0    0        0    0    0        0    0    0
Initial Fut:        20    60    4        44  244  322      117 275  31      15  329  42
User Adj:           1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
PHF Adj:            1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
PHF Volume:         20    60    4        44  244  322      117 275  31      15  329  42
Reduct Vol:         0    0    0        0    0    0        0    0    0        0    0    0
Reduced Vol:        20    60    4        44  244  322      117 275  31      15  329  42
PCE Adj:            1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
MLF Adj:            1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
FinalVolume:        20    60    4        44  244  322      117 275  31      15  329  42
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600      1600 1600  1600      1600 1600  1600      1600 1600  1600
Adjustment:         1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
Lanes:             1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.80  0.20      1.00 2.00  1.00
Final Sat.:         1600 1600  1600      1600 1600  1600      1600 2873  327      1600 3200  1600

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.01 0.04  0.00  0.03 0.15  0.20  0.07 0.10  0.10  0.01 0.10  0.03
Crit Moves:  ****                      ****  ****                      ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #13 Date Ave and Commonwealth Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.458
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     31          Level Of Service:      A
*****
Street Name:      Date Ave          Commonwealth Ave
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:          Permitted        Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:       0    0    0        0    0    0        0    0    0        0    0    0
Y+R:              4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0
Lanes:            1  0  1  0  1      1  0  0  1  0      1  0  1  1  0      1  0  1  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:         24    40    16      47    66    71      68  239    94    118  326    67
Growth Adj:       1.12  1.12  1.12    1.12  1.12  1.12    1.12  1.12  1.12    1.12  1.12  1.12
Initial Bse:      27    45    18      52    74    79      76  267   105   132  364    75
Added Vol:        14     0    50       0     0     0       0   38     2    41   40     0
PasserByVol:      0     0     0       0     0     0       0   0     0     0   0     0
Initial Fut:      41    45    68      52    74    79      76  305   107   173  404    75
User Adj:         1.00  1.00  1.00    1.00  1.00  1.00    1.00  1.00  1.00    1.00  1.00  1.00
PHF Adj:          1.00  1.00  1.00    1.00  1.00  1.00    1.00  1.00  1.00    1.00  1.00  1.00
PHF Volume:       41    45    68      52    74    79      76  305   107   173  404    75
Reduct Vol:       0     0     0       0     0     0       0   0     0     0   0     0
Reduced Vol:      41    45    68      52    74    79      76  305   107   173  404    75
PCE Adj:          1.00  1.00  1.00    1.00  1.00  1.00    1.00  1.00  1.00    1.00  1.00  1.00
MLF Adj:          1.00  1.00  1.00    1.00  1.00  1.00    1.00  1.00  1.00    1.00  1.00  1.00
FinalVolume:      41    45    68      52    74    79      76  305   107   173  404    75
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600    1600 1600  1600    1600 1600  1600    1600 1600  1600
Adjustment:       1.00  1.00  1.00    1.00  1.00  1.00    1.00  1.00  1.00    1.00  1.00  1.00
Lanes:            1.00  1.00  1.00    1.00 0.48  0.52    1.00 1.48  0.52    1.00 1.69  0.31
Final Sat.:       1600 1600  1600    1600 771   829    1600 2369   831    1600 2700   500

```



```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.03 0.03  0.04  0.03 0.10  0.05 0.13  0.13  0.11 0.15  0.15
Crit Moves:  ****              ****              ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #14 Fremont Ave and Commonwealth Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.794
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     65          Level Of Service:      C
*****
Street Name:      Fremont Ave          Commonwealth Ave
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Protected          Protected          Protected          Protected
Rights:            Include            Include            Include            Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             1  0  2  0  1        1  0  1  1  0        1  0  0  1  0        1  0  1  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:          39 1008    92    171 1305    62    27 134    16    108 155    107
Growth Adj:        1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:        44 1125   103    191 1456    69    30 150    18    120 173    119
Added Vol:          0   58    16     26   9     0     0   0     0     15   0     37
PasserByVol:        0   0     0     0   0     0     0   0     0     0   0     0
Initial Fut:        44 1183   119    217 1465    69    30 150    18    135 173    156
User Adj:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:         44 1183   119    217 1465    69    30 150    18    135 173    156
Reduct Vol:         0   0     0     0   0     0     0   0     0     0   0     0
Reduced Vol:        44 1183   119    217 1465    69    30 150    18    135 173    156
PCE Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:        44 1183   119    217 1465    69    30 150    18    135 173    156
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600  1600 1600  1600 1600  1600  1600 1600  1600
Adjustment:         1.00 1.00  1.00  1.00 1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:             1.00 2.00  1.00  1.00 1.91  0.09 1.00  0.89  0.11  1.00 1.00  1.00
Final Sat.:         1600 3200  1600  1600 3056   144 1600 1429   171 1600 1600  1600

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.03 0.37 0.07 0.14 0.48 0.48 0.02 0.10 0.10 0.08 0.11 0.10
Crit Moves:      ****      ****      ****      ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #15 Fremont Ave and Valley Blvd
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      1.059
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     180      Level Of Service:      F
*****
Street Name:      Fremont Ave      Valley Blvd
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Protected      Protected      Protected      Protected
Rights:      Include      Include      Include      Include
Min. Green:      0 0 0      0 0 0      0 0 0      0 0 0
Y+R:      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0
Lanes:      1 0 1 1 0      1 0 2 0 2      2 0 2 0 1      1 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:      41 915 26 74 805 1273 527 404 28 56 725 185
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 46 1021 29 83 898 1420 588 451 31 62 809 206
Added Vol: 5 29 4 5 104 69 11 2 1 7 3 1
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 51 1050 33 88 1002 1489 599 453 32 69 812 207
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 51 1050 33 88 1002 1489 599 453 32 69 812 207
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 51 1050 33 88 1002 1489 599 453 32 69 812 207
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 51 1050 33 88 1002 1489 599 453 32 69 812 207
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.94 0.06 1.00 2.00 2.00 2.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1600 3102 98 1600 3200 3200 2880 3200 1600 1600 3200 1600

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.03 0.34  0.34  0.05 0.31  0.47  0.21 0.14  0.02  0.04 0.25  0.13
Crit Moves:  ****                      ****  ****                      ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #16 Palm Ave and Mission Rd
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.701
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     50          Level Of Service:      C
*****
Street Name:      Palm Ave          Mission Rd
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:          Protected        Protected        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:       0    0    0        0    0    0        0    0    0        0    0    0
Y+R:             4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0
Lanes:           0  0  0  0  0      1  0  0  0  1      1  0  2  0  0      0  0  1  1  0
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol:         0    0    0        51    0  124      33  422    0        0 1284    84
Growth Adj:       1.12 1.12  1.12    1.12 1.12  1.12    1.12 1.12  1.12    1.12 1.12  1.12
Initial Bse:      0    0    0        57    0  138      37  471    0        0 1433    94
Added Vol:        0    0    0         0    0    1         9   83    0        0   26    0
PasserByVol:      0    0    0         0    0    0         0    0    0        0    0    0
Initial Fut:      0    0    0        57    0  139      46  554    0        0 1459    94
User Adj:         1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
PHF Volume:       0    0    0        57    0  139      46  554    0        0 1459    94
Reduct Vol:       0    0    0         0    0    0         0    0    0        0    0    0
Reduced Vol:      0    0    0        57    0  139      46  554    0        0 1459    94
PCE Adj:          1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
FinalVolume:      0    0    0        57    0  139      46  554    0        0 1459    94
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600    1600 1600  1600    1600 1600  1600    1600 1600  1600
Adjustment:       1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
Lanes:           0.00 0.00  0.00    1.00 0.00  1.00    1.00 2.00  0.00    0.00 1.88  0.12
Final Sat.:       0    0    0    1600    0  1600    1600 3200    0        0 3007  193

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00  0.00  0.04 0.00  0.09  0.03 0.17  0.00  0.00 0.49  0.49
Crit Moves:
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #17 Marengo Ave and Valley Blvd
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.810
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     69      Level Of Service:      D
*****
Street Name:      Marengo Ave      Valley Blvd
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:          Protected      Protected      Protected      Protected
Rights:           Include      Include      Include      Include
Min. Green:       0    0    0      0    0    0      0    0    0      0    0    0
Y+R:             4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0
Lanes:           1  0  1  0  1    1  0  0  1  0    1  0  2  0  1    1  0  2  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:         22  117   72   223  163   137   166  419   23   62  956   188
Growth Adj:       1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:      25  131   80   249  182   153   185  467   26   69 1067   210
Added Vol:        10   27    0    11   29    0     0   5     7    0   1     2
PasserByVol:      0    0    0     0   0     0     0   0     0    0   0     0
Initial Fut:      35  158   80   260  211   153   185  472   33   69 1068   212
User Adj:         1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:       35  158   80   260  211   153   185  472   33   69 1068   212
Reduct Vol:       0    0    0     0   0     0     0   0     0    0   0     0
Reduced Vol:      35  158   80   260  211   153   185  472   33   69 1068   212
PCE Adj:          1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:      35  158   80   260  211   153   185  472   33   69 1068   212
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:       1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:           1.00 1.00  1.00  1.00 0.58  0.42  1.00 2.00  1.00  1.00 2.00  1.00
Final Sat.:       1600 1600  1600  1600 928   672  1600 3200  1600  1600 3200  1600

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.02 0.10 0.05 0.16 0.23 0.23 0.12 0.15 0.02 0.04 0.33 0.13
Crit Moves:      ****      ****      ****      ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #18 Atlantic Blvd and Mission Road
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.953
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     136      Level Of Service:      E
*****
Street Name:      Atlantic Blvd      Mission Road
Approach:          North Bound      South Bound      East Bound      West Bound
Movement:          L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:           Protected      Protected      Protected      Protected
Rights:            Include      Include      Include      Include
Min. Green:        0    0    0      0    0    0      0    0    0      0    0    0
Y+R:               4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0
Lanes:             1  0  1  1  0      1  0  2  0  1      1  0  2  0  1      1  0  1  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:          154 1062 115      40 943 246      88 516 67 175 956 33
Growth Adj:        1.12 1.12 1.12      1.12 1.12 1.12      1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse:       172 1185 128      45 1052 274      98 576 75 195 1067 37
Added Vol:         0  31  0      0  23  1      3  32  0  0  5  0
PasserByVol:       0  0  0      0  0  0      0  0  0  0  0  0
Initial Fut:       172 1216 128      45 1075 275      101 608 75 195 1072 37
User Adj:          1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:           1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:        172 1216 128      45 1075 275      101 608 75 195 1072 37
Reduct Vol:        0  0  0      0  0  0      0  0  0  0  0  0
Reduced Vol:       172 1216 128      45 1075 275      101 608 75 195 1072 37
PCE Adj:           1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:           1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:       172 1216 128      45 1075 275      101 608 75 195 1072 37
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600 1600      1600 1600 1600      1600 1600 1600 1600 1600 1600
Adjustment:        1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00 1.00 1.00 1.00
Lanes:             1.00 1.81 0.19      1.00 2.00 1.00      1.00 2.00 1.00 1.00 1.93 0.07
Final Sat.:        1600 2895 305      1600 3200 1600      1600 3200 1600 1600 3094 106

```

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-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.11 0.42  0.42  0.03 0.34  0.17  0.06 0.19  0.05  0.12 0.35  0.35
Crit Moves:  ****                ****                ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #19 Marengo Ave and Mission Road
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      1.044
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     180          Level Of Service:      F
*****
Street Name:      Marengo Ave          Mission Rd
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:          Permitted            Permitted            Permitted            Permitted
Rights:           Include              Include              Include              Include
Min. Green:       0    0    0            0    0    0            0    0    0            0    0    0
Y+R:              4.0  4.0  4.0            4.0  4.0  4.0            4.0  4.0  4.0            4.0  4.0  4.0
Lanes:            1  0  1  0  1            1  0  0  1  0            1  0  1  1  0            1  0  1  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:         85  382  157            43  504  66            44  351  85  272 1171  74
Growth Adj:       1.12 1.12  1.12            1.12 1.12  1.12            1.12 1.12  1.12 1.12 1.12  1.12
Initial Bse:      95  426  175            48  562  74            49  392  95  303 1306  83
Added Vol:        25   0    3             0   0    1             7   32  38    1   5    0
PasserByVol:      0   0    0             0   0    0             0   0    0     0   0    0
Initial Fut:     120  426  178            48  562  75            56  424  133  304 1311  83
User Adj:         1.00 1.00  1.00            1.00 1.00  1.00            1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00            1.00 1.00  1.00            1.00 1.00  1.00 1.00 1.00  1.00
PHF Volume:       120  426  178            48  562  75            56  424  133  304 1311  83
Reduct Vol:       0   0    0             0   0    0             0   0    0     0   0    0
Reduced Vol:     120  426  178            48  562  75            56  424  133  304 1311  83
PCE Adj:          1.00 1.00  1.00            1.00 1.00  1.00            1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00            1.00 1.00  1.00            1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:     120  426  178            48  562  75            56  424  133  304 1311  83
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600            1600 1600  1600            1600 1600  1600 1600 1600  1600
Adjustment:       1.00 1.00  1.00            1.00 1.00  1.00            1.00 1.00  1.00 1.00 1.00  1.00
Lanes:            1.00 1.00  1.00            1.00 0.88  0.12            1.00 1.52  0.48 1.00 1.88  0.12
Final Sat.:       1600 1600  1600            1600 1413  187            1600 2436  764 1600 3010  190

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.07 0.27  0.11  0.03 0.40  0.40  0.04 0.17  0.17  0.19 0.44  0.44
Crit Moves:  ****                ****                ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #20 Marengo Ave and Front St
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.830
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     74          Level Of Service:      D
*****
Street Name:      Marengo Ave          Front St
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Permitted          Permitted          Permitted          Permitted
Rights:           Include            Include            Include            Include
Min. Green:       0    0    0          0    0    0          0    0    0          0    0    0
Y+R:              4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:            1  0  0  1  0          1  0  0  1  0          0  1  0  0  1          0  1  0  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:         2  508          3  10  493  358          81  11    7    2  75  34
Growth Adj:       1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:      2  567          3  11  550  399          90  12    8    2  84  38
Added Vol:        0   29          0   0  40    0          0   0    0    0   0    0
PasserByVol:      0   0          0   0    0          0   0    0    0   0    0
Initial Fut:      2  596          3  11  590  399          90  12    8    2  84  38
User Adj:         1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:       2  596          3  11  590  399          90  12    8    2  84  38
Reduct Vol:       0   0          0   0    0          0   0    0    0   0    0
Reduced Vol:      2  596          3  11  590  399          90  12    8    2  84  38
PCE Adj:          1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:      2  596          3  11  590  399          90  12    8    2  84  38
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:       1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:            1.00 0.99  0.01  1.00 0.60  0.40  0.88 0.12  1.00  0.03 0.97  1.00
Final Sat.:       1600 1591          9  1600  954  646  1409  191  1600    42 1558  1600

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-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.00 0.37  0.37  0.01 0.62  0.62  0.06 0.06  0.00  0.00 0.05  0.02
Crit Moves:  ****                ****                ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #21 I-710 NB Ramp and Valley Blvd
*****
Cycle (sec):      120          Critical Vol./Cap.(X):      0.782
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     66          Level Of Service:      C
*****
Street Name:      I-710 NB Ramp          Valley Blvd
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Split Phase          Split Phase          Permitted          Permitted
Rights:           Include          Include          Include          Include
Min. Green:       0    0    0          0    0    0          0    0    0          0    0    0
Y+R:             4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:           1  0  1! 0  1          0  0  1! 0  0          0  0  2  0  0          0  0  3  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:        603    1    685          4    0    1          0  207    0          0  2176    6
Growth Adj:     1.12  1.12  1.12          1.12  1.12  1.12          1.12  1.12  1.12          1.12  1.12  1.12
Initial Bse:     673    1    764          4    0    1          0  231    0          0  2428    7
Added Vol:       0    0    14          0    0    0          0    0    0          0    77    0
PasserByVol:    0    0    0          0    0    0          0    0    0          0    0    0
Initial Fut:     673    1    778          4    0    1          0  231    0          0  2505    7
User Adj:       1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00
PHF Adj:        1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00
PHF Volume:     673    1    778          4    0    1          0  231    0          0  2505    7
Reduct Vol:     0    0    0          0    0    0          0    0    0          0    0    0
Reduced Vol:    673    1    778          4    0    1          0  231    0          0  2505    7
PCE Adj:       1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00
MLF Adj:       1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00
FinalVolume:    673    1    778          4    0    1          0  231    0          0  2505    7
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:       1600  1600  1600          1600  1600  1600          1600  1600  1600          1600  1600  1600
Adjustment:     1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00          1.00  1.00  1.00
Lanes:         1.39  0.01  1.60          0.79  0.01  0.20          0.00  2.00  0.00          0.00  3.99  0.01
Final Sat.:    2224    4  2572          1280    0  320          0  3200    0          0  6383    17

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-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.30 0.30 0.30 0.00 0.00 0.00 0.07 0.00 0.00 0.39 0.39
Crit Moves:  ****          ****          ****          ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #22 I-710 SB Ramp and Valley Blvd
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      1.197
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     180          Level Of Service:      F
*****
Street Name:      I-710 SB Ramp          Valley Blvd
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Protected          Protected          Protected          Protected
Rights:            Include            Include            Include            Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             0  0  0  0  0          0  0  0  0  0          0  0  2  0  1          2  0  2  0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:          0    0    0          0    0    0          0  214  650  1593 1200    0
Growth Adj:        1.12 1.12  1.12        1.12 1.12  1.12        1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:        0    0    0          0    0    0          0  239  725  1777 1339    0
Added Vol:          0    0    0          0    0    0          0    0    0          77    0    0
PasserByVol:        0    0    0          0    0    0          0    0    0          0    0    0
Initial Fut:        0    0    0          0    0    0          0  239  725  1854 1339    0
User Adj:           1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:            1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:         0    0    0          0    0    0          0  239  725  1854 1339    0
Reduct Vol:         0    0    0          0    0    0          0    0    0          0    0    0
Reduced Vol:        0    0    0          0    0    0          0  239  725  1854 1339    0
PCE Adj:            1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:            1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:        0    0    0          0    0    0          0  239  725  1854 1339    0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600        1600 1600  1600        1600 1600  1600  1600 1600  1600
Adjustment:         1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00  0.90 1.00  1.00
Lanes:             0.00 0.00  0.00        0.00 0.00  0.00        0.00 2.00  1.00  2.00 2.00  0.00
Final Sat.:         0    0    0          0    0    0          0 3200  1600  2880 3200    0

```

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-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00  0.00  0.00 0.00  0.00 0.00 0.07  0.45  0.64 0.42  0.00
Crit Moves:
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #23 Fremont Ave and Hellman Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.900
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     100          Level Of Service:      E
*****
Street Name:      Fremont Ave          Hellman Ave
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Protected           Protected           Protected           Protected
Rights:            Include             Include             Include             Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             1  0  1  1  0        1  0  1  1  0        1  0  1  0  1        1  0  1  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:          142  934   313   127  706   110   108  111   153   168  228   212
Growth Adj:        1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:       158 1042   349   142  788   123   120  124   171   187  254   237
Added Vol:         0   26   14    48   64    0     0   0   0     1   0   13
PasserByVol:       0   0   0     0   0    0     0   0   0     0   0   0
Initial Fut:       158 1068   363   190  852   123   120  124   171   188  254   250
User Adj:          1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:        158 1068   363   190  852   123   120  124   171   188  254   250
Reduct Vol:        0   0   0     0   0    0     0   0   0     0   0   0
Reduced Vol:       158 1068   363   190  852   123   120  124   171   188  254   250
PCE Adj:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:       158 1068   363   190  852   123   120  124   171   188  254   250
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:            1.00 1.49  0.51  1.00 1.75  0.25  1.00 1.00  1.00  1.00 1.00  1.00
Final Sat.:        1600 2388   812  1600 2797   403  1600 1600  1600  1600 1600  1600

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.10 0.45 0.45 0.12 0.30 0.30 0.08 0.08 0.11 0.12 0.16 0.16
Crit Moves:      ****      ****      ****      ****
*****

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)
*****
Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      1.287
Loss Time (sec):    0      Average Delay (sec/veh):      67.1
Optimal Cycle:      0      Level Of Service:      F
*****
Street Name:      Elm St      Hellman Ave/Ramona Rd/ 10 WB ramp
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Stop Sign      Stop Sign      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Min. Green:      0 0 0      0 0 0      0 0 0      0 0 0
Lanes:      1 0 1 0 0      0 1 0 0 1      0 1 0 0 1      0 1 0 0 1
-----|-----|-----|-----|
Volume Module:AM Peak
Base Vol:      358 55 21 78 14 200 51 163 327 398 61 13
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 399 61 23 87 16 223 57 182 365 444 68 15
Added Vol: 14 0 0 0 0 0 0 0 62 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 413 61 23 87 16 223 57 182 427 444 68 15
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 413 61 23 87 16 223 57 182 427 444 68 15
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 413 61 23 87 16 223 57 182 427 444 68 15
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 413 61 23 87 16 223 57 182 427 444 68 15
-----|-----|-----|-----|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.66 0.25 0.09 0.85 0.15 1.00 0.24 0.76 1.00 0.87 0.13 1.00
Final Sat.: 1022 -286 36 316 57 423 100 320 465 345 53 442
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.40-0.21 0.66 0.28 0.28 0.53 0.57 0.57 0.92 1.29 1.29 0.03
Crit Moves:      ****      ****      ****      ****

```

Delay/Veh:	27.4	28.0	28.0	15.7	15.7	19.7	21.9	21.9	51.1	173.0	173	10.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.4	28.0	28.0	15.7	15.7	19.7	21.9	21.9	51.1	173.0	173	10.9
LOS by Move:	D	D	D	C	C	C	C	C	F	F	F	B
ApproachDel:		27.2			18.5			40.6			168.5	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		27.2			18.5			40.6			168.5	

LOS by Appr: D C E F
 AllWayAvgQ: 1.7 1.7 1.7 0.4 0.4 1.0 1.2 1.2 5.3 17.8 17.8 0.0

 Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.287
 Loss Time (sec): 0 Average Delay (sec/veh): 112.3
 Optimal Cycle: 0 Level Of Service: F

 Street Name: Fremont Ave Ramona Road/10 EB ramp
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 0 1 0 1 0 0 0 0 0 0 1 0 0 1 0 0 1! 0 0

 Volume Module:AM Peak
 Base Vol: 0 625 48 0 0 0 2 24 584 114 0 15
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 0 697 54 0 0 0 2 27 652 127 0 17
 Added Vol: 0 0 48 0 0 0 0 0 17 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 697 102 0 0 0 2 27 669 127 0 17
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 697 102 0 0 0 2 27 669 127 0 17
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 697 102 0 0 0 2 27 669 127 0 17
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 697 102 0 0 0 2 27 669 127 0 17

 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 1.00 1.00 0.00 0.00 0.00 0.08 0.92 1.00 0.88 xxxx 0.12
 Final Sat.: 0 542 605 0 0 0 41 487 592 421 0 55

 Capacity Analysis Module:
 Vol/Sat: xxxx 1.29 0.17 xxxx xxxx xxxx 0.06 0.06 1.13 0.30 0.00 0.30
 Crit Moves: **** **** ****
 Delay/Veh: 0.0 163 9.8 0.0 0.0 0.0 9.9 9.9 100.3 13.8 13.8 13.8
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 163 9.8 0.0 0.0 0.0 9.9 9.9 100.3 13.8 13.8 13.8
 LOS by Move: * F A * * * A A F B B B
 ApproachDel: 143.8 xxxxxxx 96.6 13.8
 Delay Adj: 1.00 xxxxxxx 1.00 1.00
 ApprAdjDel: 143.8 xxxxxxx 96.6 13.8

LOS by Appr: F * F B
 AllWayAvgQ: 0.0 23.2 0.2 0.0 0.0 0.0 0.1 0.1 15.1 0.4 0.4 0.4

 Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #26 Ross Ave and Fremont Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.725
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 53 Level Of Service: C

 Street Name: Fremont Ave Ross Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|-----|
 Control: Permitted Permitted Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 0 1 0 1 0 1 0 1
 -----|-----|-----|-----|-----|
 Volume Module:
 Base Vol: 26 1007 212 42 867 34 26 49 5 173 177 17
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 29 1124 237 47 967 38 29 55 6 193 197 19
 Added Vol: 0 39 0 0 112 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 29 1163 237 47 1079 38 29 55 6 193 197 19
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 29 1163 237 47 1079 38 29 55 6 193 197 19
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 29 1163 237 47 1079 38 29 55 6 193 197 19
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 29 1163 237 47 1079 38 29 55 6 193 197 19
 -----|-----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.66 0.34 1.00 1.93 0.07 1.00 0.91 0.09 1.00 1.00 1.00
 Final Sat.: 1600 2659 541 1600 3091 109 1600 1452 148 1600 1600 1600

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.02 0.44 0.44 0.03 0.35 0.35 0.02 0.04 0.04 0.12 0.12 0.01
Crit Moves:      ****      ****      ****      ****
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #27 Westmont Dr and Valley Blvd
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.914
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     108      Level Of Service:      E
*****
Street Name:      Westmont Dr      Valley Blvd
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Permitted      Permitted      Permitted      Permitted
Rights:      Include      Include      Include      Include
Min. Green:      0 0 0      0 0 0      0 0 0      0 0 0
Y+R:      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0
Lanes:      0 0 1! 0 0      0 0 1! 0 0      1 0 2 0 1      1 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:      51 14 7      4 6 37      17 966 14      3 2036 30
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 57 16 8      4 7 41      19 1078 16      3 2272 33
Added Vol: 0 0 0      0 0 0      0 14 0      0 77 0
PasserByVol: 0 0 0      0 0 0      0 0 0      0 0 0
Initial Fut: 57 16 8      4 7 41      19 1092 16      3 2349 33
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 57 16 8      4 7 41      19 1092 16      3 2349 33
Reduct Vol: 0 0 0      0 0 0      0 0 0      0 0 0
Reduced Vol: 57 16 8      4 7 41      19 1092 16      3 2349 33
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 57 16 8      4 7 41      19 1092 16      3 2349 33
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.71 0.19 0.10 0.08 0.13 0.79 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1133 311 156 136 204 1260 1600 3200 1600 1600 3200 1600

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-----|-----||-----||-----|
Capacity Analysis Module:
Vol/Sat:    0.04 0.05  0.05  0.00 0.03  0.03  0.01 0.34  0.01  0.00 0.73  0.02
Crit Moves:  ****              ****              ****
*****

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-----
Scenario:                Scenario Report
                        2028 Cum + Project PM
Command:                 2028 Cum + Proj PM

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Volume: 2028 PM
Geometry: Existing
Impact Fee: Default Impact Fee
Trip Generation: 2028 Cum + Project PM
Trip Distribution: Cum + Project
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

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Turning Movement Report
Cum PM + Project 2028 PM

Volume	Northbound	Southbound	Eastbound	Westbound	Total
Type	Left Thru Right	Left Thru Right	Left Thru Right	Left Thru Right	Volume

#1 Fremont Ave and Mission Rd

Base	215	1551	214	56	1226	60	131	561	481	344	471	50	5360
Added	0	60	89	8	32	15	22	16	0	51	8	3	304
Total	215	1611	303	64	1258	75	153	577	481	395	479	53	5664

#2 Fremont Ave and 1000 Fremont Ave

Base	60	1626	48	8	1242	67	90	3	77	44	4	28	3297
Added	0	56	29	18	41	0	0	0	0	14	0	9	167
Total	60	1682	77	26	1283	67	90	3	77	58	4	37	3464

#3 Fremont Ave and Orange St

Base	2	1562	195	114	1061	2	10	6	6	271	2	322	3554
Added	0	20	46	29	29	0	0	0	0	30	0	17	171
Total	2	1582	241	143	1090	2	10	6	6	301	2	339	3725

#4 Date Ave and Orange St

Base	35	190	3	28	298	46	75	172	173	1	22	7	1049
Added	9	31	0	0	36	4	2	10	8	0	19	0	119
Total	44	221	3	28	334	50	77	182	181	1	41	7	1168

#5 Palm Ave and Orange St

Base	6	191	2	11	299	15	65	71	79	2	6	8	754
Added	0	7	0	0	14	7	4	7	0	0	12	0	51
Total	6	198	2	11	313	22	69	78	79	2	18	8	805

#6 Chestnut St and Palm Ave

Base	6	163	10	16	377	9	8	8	88	7	1	8	700
Added	0	4	0	0	8	6	4	8	0	0	14	0	44
Total	6	167	10	16	385	15	12	16	88	7	15	8	744

#7 Fremont Ave and Poplar Blvd

Base	170	1565	128	28	963	47	28	131	89	59	132	31	3371
Added	7	32	7	7	50	0	0	12	14	14	12	4	159
Total	177	1597	135	35	1013	47	28	143	103	73	144	35	3530

#8 Date Ave and Mission Rd

Base	0	0	0	218	0	177	94	821	0	0	628	124	2062
Added	0	0	0	29	0	46	75	14	0	0	30	46	240
Total	0	0	0	247	0	223	169	835	0	0	658	170	2302

#9 Chestnut St and Date Ave

Base	20	199	13	42	416	11	0	0	0	11	2	19	734
Added	65	33	4	0	32	12	7	8	38	7	13	0	219

Total	85	232	17	42	448	23	7	8	38	18	15	19	953
-------	----	-----	----	----	-----	----	---	---	----	----	----	----	-----

#10 Fremont Ave and Concord Ave

Base	57	1717	126	30	1002	79	88	48	52	84	67	84	3434
Added	0	37	0	0	58	0	0	0	0	0	0	0	95
Total	57	1754	126	30	1060	79	88	48	52	84	67	84	3529

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#11 Fremont Ave and Montezuma Ave

Base	766	494	96	27	46	289	445	186	682	37	77	21	3166
Added	26	2	0	0	14	42	24	0	19	0	0	0	127
Total	792	496	96	27	60	331	469	186	701	37	77	21	3293

#12 Palm Ave and Commonwealth Ave

Base	55	138	22	192	242	272	212	464	78	9	430	107	2221
Added	0	11	0	0	21	36	28	22	0	0	26	0	144
Total	55	149	22	192	263	308	240	486	78	9	456	107	2365

#13 Date Ave and Commonwealth Ave

Base	70	142	64	129	90	161	230	573	108	57	543	128	2296
Added	7	0	28	0	0	0	0	22	12	36	26	0	131
Total	77	142	92	129	90	161	230	595	120	93	569	128	2427

#14 Fremont Ave and Commonwealth Ave

Base	40	1585	289	222	891	28	33	153	16	175	176	266	3875
Added	0	26	10	28	50	0	0	0	0	9	0	20	143
Total	40	1611	299	250	941	28	33	153	16	184	176	286	4018

#15 Fremont Ave and Valley Blvd

Base	31	896	37	208	1072	864	687	1003	28	139	389	344	5698
Added	3	86	8	2	50	32	59	4	5	9	4	5	267
Total	34	982	45	210	1122	896	746	1007	33	148	393	349	5965

#16 Palm Ave and Mission Rd

Base	0	0	0	368	0	123	55	1002	0	0	636	114	2297
Added	0	0	0	0	0	8	4	40	0	0	68	0	120
Total	0	0	0	368	0	131	59	1042	0	0	704	114	2417

#17 Marengo Ave and Valley Blvd

Base	19	177	71	318	224	218	343	970	9	54	621	152	3175
Added	13	28	0	5	24	0	0	2	12	0	5	9	98
Total	32	205	71	323	248	218	343	972	21	54	626	161	3273

#18 Atlantic Blvd and Mission Road

Base	106	1184	153	47	1061	113	146	1077	148	203	628	67	4933
Added	0	27	0	0	34	4	2	15	0	0	28	0	110
Total	106	1211	153	47	1095	117	148	1092	148	203	656	67	5043

#19 Marengo Ave and Mission Road

Base	81	575	251	65	520	51	59	1048	316	78	600	66	3710
Added	35	0	2	0	0	6	3	15	26	4	28	0	119

Total	116	575	253	65	520	57	62	1063	342	82	628	66	3829
-------	-----	-----	-----	----	-----	----	----	------	-----	----	-----	----	------

#20 Marengo Ave and Front St

Base	3	707	4	26	761	210	167	56	9	2	21	18	1985
Added	0	37	0	0	29	0	0	0	0	0	0	0	66
Total	3	744	4	26	790	210	167	56	9	2	21	18	2051

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#21 I-710 NB Ramp and Valley Blvd

Base	652	0	1381	1	0	2	0	591	0	0	1247	0	3875
Added	0	0	68	0	0	0	0	0	0	0	39	0	107
Total	652	0	1449	1	0	2	0	591	0	0	1286	0	3982

#22 I-710 SB Ramp and Valley Blvd

Base	0	0	0	0	0	0	0	601	813	874	1049	0	3337
Added	0	0	0	0	0	0	0	0	0	39	0	0	39
Total	0	0	0	0	0	0	0	601	813	913	1049	0	3376

#23 Fremont Ave and Hellman Ave

Base	95	826	270	164	907	76	143	193	241	230	202	264	3610
Added	0	59	8	25	38	0	0	0	0	4	0	38	172
Total	95	885	278	189	945	76	143	193	241	234	202	302	3782

#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Base	521	192	109	11	6	45	32	334	249	134	117	2	1752
Added	42	0	0	0	0	0	0	0	34	0	0	0	76
Total	563	192	109	11	6	45	32	334	283	134	117	2	1828

#25 Fremont Ave and Ramona Road/10 EB ramp

Base	0	816	129	0	0	0	4	102	322	52	0	87	1513
Added	0	0	26	0	0	0	0	0	56	0	0	0	82
Total	0	816	155	0	0	0	4	102	378	52	0	87	1595

#26 Ross Ave and Fremont Ave

Base	33	947	187	29	1102	46	12	36	7	60	45	46	2550
Added	0	97	0	0	63	0	0	0	0	0	0	0	160
Total	33	1044	187	29	1165	46	12	36	7	60	45	46	2710

#27 Westmont Dr and Valley Blvd

Base	18	11	12	27	10	16	62	1761	151	9	1160	37	3273
Added	0	0	0	0	0	0	0	68	0	0	39	0	107
Total	18	11	12	27	10	16	62	1829	151	9	1199	37	3380

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Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	215	1551	214	56	1226	60	131	561	481	344	471	50
2 Fremont Ave a	60	1626	48	8	1242	67	90	3	77	44	4	28
3 Fremont Ave a	2	1562	195	114	1061	2	10	6	6	271	2	322
4 Date Ave and	35	190	3	28	298	46	75	172	173	1	22	7
5 Palm Ave and	6	191	2	11	299	15	65	71	79	2	6	8
6 Chestnut St a	6	163	10	16	377	9	8	8	88	7	1	8
7 Fremont Ave a	170	1565	128	28	963	47	28	131	89	59	132	31
8 Date Ave and	0	0	0	218	0	177	94	821	0	0	628	124
9 Chestnut St a	20	199	13	42	416	11	0	0	0	11	2	19
10 Fremont Ave a	57	1717	126	30	1002	79	88	48	52	84	67	84
11 Fremont Ave a	766	494	96	27	46	289	445	186	682	37	77	21
12 Palm Ave and	55	138	22	192	242	272	212	464	78	9	430	107
13 Date Ave and	70	142	64	129	90	161	230	573	108	57	543	128
14 Fremont Ave a	40	1585	289	222	891	28	33	153	16	175	176	266
15 Fremont Ave a	31	896	37	208	1072	864	687	1003	28	139	389	344
16 Palm Ave and	0	0	0	368	0	123	55	1002	0	0	636	114
17 Marengo Ave a	19	177	71	318	224	218	343	970	9	54	621	152
18 Atlantic Blvd	106	1184	153	47	1061	113	146	1077	148	203	628	67
19 Marengo Ave a	81	575	251	65	520	51	59	1048	316	78	600	66
20 Marengo Ave a	3	707	4	26	761	210	167	56	9	2	21	18
21 I-710 NB Ramp	652	0	1381	1	0	2	0	591	0	0	1247	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	601	813	874	1049	0
23 Fremont Ave a	95	826	270	164	907	76	143	193	241	230	202	264

24 Elm St and He	521	192	109	11	6	45	32	334	249	134	117	2
25 Fremont Ave a	0	816	129	0	0	0	4	102	322	52	0	87
26 Ross Ave and	33	947	187	29	1102	46	12	36	7	60	45	46
27 Westmont Dr a	18	11	12	27	10	16	62	1761	151	9	1160	37

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Intersection Volume Report
 Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	215	1611	303	64	1258	75	153	577	481	395	479	53
2 Fremont Ave a	60	1682	77	26	1283	67	90	3	77	58	4	37
3 Fremont Ave a	2	1582	241	143	1090	2	10	6	6	301	2	339
4 Date Ave and	44	221	3	28	334	50	77	182	181	1	41	7
5 Palm Ave and	6	198	2	11	313	22	69	78	79	2	18	8
6 Chestnut St a	6	167	10	16	385	15	12	16	88	7	15	8
7 Fremont Ave a	177	1597	135	35	1013	47	28	143	103	73	144	35
8 Date Ave and	0	0	0	247	0	223	169	835	0	0	658	170
9 Chestnut St a	85	232	17	42	448	23	7	8	38	18	15	19
10 Fremont Ave a	57	1754	126	30	1060	79	88	48	52	84	67	84
11 Fremont Ave a	792	496	96	27	60	331	469	186	701	37	77	21
12 Palm Ave and	55	149	22	192	263	308	240	486	78	9	456	107
13 Date Ave and	77	142	92	129	90	161	230	595	120	93	569	128
14 Fremont Ave a	40	1611	299	250	941	28	33	153	16	184	176	286
15 Fremont Ave a	34	982	45	210	1122	896	746	1007	33	148	393	349
16 Palm Ave and	0	0	0	368	0	131	59	1042	0	0	704	114
17 Marengo Ave a	32	205	71	323	248	218	343	972	21	54	626	161
18 Atlantic Blvd	106	1211	153	47	1095	117	148	1092	148	203	656	67
19 Marengo Ave a	116	575	253	65	520	57	62	1063	342	82	628	66
20 Marengo Ave a	3	744	4	26	790	210	167	56	9	2	21	18
21 I-710 NB Ramp	652	0	1449	1	0	2	0	591	0	0	1286	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	601	813	913	1049	0
23 Fremont Ave a	95	885	278	189	945	76	143	193	241	234	202	302

24 Elm St and He	563	192	109	11	6	45	32	334	283	134	117	2
25 Fremont Ave a	0	816	155	0	0	0	4	102	378	52	0	87
26 Ross Ave and	33	1044	187	29	1165	46	12	36	7	60	45	46
27 Westmont Dr a	18	11	12	27	10	16	62	1829	151	9	1199	37

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Impact Analysis Report
 Level Of Service

Intersection	Base Del/ LOS Veh	V/ C	Future Del/ LOS Veh	V/ C	Change in
# 1 Fremont Ave and Mission Rd	F xxxxxx	1.202	F xxxxxx	1.285	+ 0.083 V/C
# 2 Fremont Ave and 1000 Fremont A	B xxxxxx	0.690	C xxxxxx	0.724	+ 0.034 V/C
# 3 Fremont Ave and Orange St	D xxxxxx	0.872	E xxxxxx	0.907	+ 0.035 V/C
# 4 Date Ave and Orange St	C 15.1	0.328	C 16.9	0.370	+ 1.827 D/V
# 5 Palm Ave and Orange St	B 11.1	0.474	B 11.5	0.504	+ 0.030 V/C
# 6 Chestnut St and Palm Ave	B 11.6	0.552	B 11.9	0.574	+ 0.022 V/C
# 7 Fremont Ave and Poplar Blvd	C xxxxxx	0.765	C xxxxxx	0.798	+ 0.033 V/C
# 8 Date Ave and Mission Rd	C 18.7	0.528	D 32.2	0.756	+13.473 D/V
# 9 Chestnut St and Date Ave	B 10.6	0.031	B 14.0	0.077	+ 3.402 D/V
# 10 Fremont Ave and Concord Ave	B xxxxxx	0.652	B xxxxxx	0.660	+ 0.008 V/C
# 11 Fremont Ave and Montezuma Ave	C xxxxxx	0.740	C xxxxxx	0.747	+ 0.007 V/C
# 12 Palm Ave and Commonwealth Ave	A xxxxxx	0.573	B xxxxxx	0.619	+ 0.046 V/C
# 13 Date Ave and Commonwealth Ave	B xxxxxx	0.654	B xxxxxx	0.667	+ 0.013 V/C

# 14 Fremont Ave and Commonwealth A	E xxxxx 0.949	E xxxxx 0.980	+ 0.031 V/C
# 15 Fremont Ave and Valley Blvd	E xxxxx 0.975	F xxxxx 1.029	+ 0.054 V/C
# 16 Palm Ave and Mission Rd	B xxxxx 0.643	B xxxxx 0.656	+ 0.013 V/C
# 17 Marengo Ave and Valley Blvd	D xxxxx 0.818	D xxxxx 0.840	+ 0.022 V/C
# 18 Atlantic Blvd and Mission Road	F xxxxx 1.010	F xxxxx 1.023	+ 0.013 V/C
# 19 Marengo Ave and Mission Road	E xxxxx 0.983	F xxxxx 1.024	+ 0.041 V/C
# 20 Marengo Ave and Front St	D xxxxx 0.850	D xxxxx 0.868	+ 0.018 V/C

# 21 I-710 NB Ramp and Valley Blvd	C	xxxxx	0.712	C	xxxxx	0.739	+	0.027	V/C
# 22 I-710 SB Ramp and Valley Blvd	E	xxxxx	0.912	E	xxxxx	0.925	+	0.014	V/C
# 23 Fremont Ave and Hellman Ave	D	xxxxx	0.839	D	xxxxx	0.878	+	0.039	V/C
# 24 Elm St and Hellman Ave/Ramona	D	32.1	0.870	E	37.1	0.924	+	0.054	V/C
# 25 Fremont Ave and Ramona Road/10	F	111.4	1.370	F	114.5	1.403	+	0.032	V/C

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Intersection	Base		Future		Change
	Del/	V/	Del/	V/	in

	LOS Veh	C	LOS Veh	C	
# 26 Ross Ave and Fremont Ave	A xxxxx	0.544	A xxxxx	0.564	+ 0.020 V/C
# 27 Westmont Dr and Valley Blvd	B xxxxx	0.698	C xxxxx	0.720	+ 0.021 V/C

 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #1 Fremont Ave and Mission Rd

```

*****
Cycle (sec):          100                Critical Vol./Cap.(X):          1.285
Loss Time (sec):      10                Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        180                Level Of Service:              F
*****

Street Name:          Fremont Ave                Mission Rd
Approach:              North Bound                South Bound                East Bound                West Bound
Movement:              L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|
Control:               Protected                Protected                Protected                Protected
Rights:                Include                Include                Include                Include
Min. Green:            0      0      0                0      0      0                0      0      0                0      0      0
Y+R:                   4.0    4.0    4.0                4.0    4.0    4.0                4.0    4.0    4.0                4.0    4.0    4.0
Lanes:                 1    0    1    1    0                1    0    2    0    1                1    0    2    0    1                1    0    1    1    0
-----|-----|-----|-----|
Volume Module:
Base Vol:              193 1390    192                50 1099    54                117 503    431                308 422    45
Growth Adj:            1.12 1.12    1.12                1.12 1.12    1.12                1.12 1.12    1.12                1.12 1.12    1.12
Initial Bse:           215 1551    214                56 1226    60                131 561    481                344 471    50
Added Vol:              0      60      89                8      32      15                22      16      0                51      8      3
PasserByVol:           0      0      0                0      0      0                0      0      0                0      0      0
Initial Fut:           215 1611    303                64 1258    75                153 577    481                395 479    53
User Adj:              1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00
PHF Adj:               1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00
PHF Volume:            215 1611    303                64 1258    75                153 577    481                395 479    53
Reduct Vol:            0      0      0                0      0      0                0      0      0                0      0      0
Reduced Vol:           215 1611    303                64 1258    75                153 577    481                395 479    53
PCE Adj:               1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00
MLF Adj:               1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00
FinalVolume:           215 1611    303                64 1258    75                153 577    481                395 479    53
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1600 1600    1600                1600 1600    1600                1600 1600    1600                1600 1600    1600
Adjustment:            1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00                1.00 1.00    1.00
Lanes:                1.00 1.68    0.32                1.00 2.00    1.00                1.00 2.00    1.00                1.00 1.80    0.20
Final Sat.:            1600 2693    507                1600 3200    1600                1600 3200    1600                1600 2880    320

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-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.13 0.60 0.60 0.04 0.39 0.05 0.10 0.18 0.30 0.25 0.17 0.17
Crit Moves:      ****      ****      ****      ****
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #2 Fremont Ave and 1000 Fremont Ave
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.724
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     53      Level Of Service:      C
*****
Street Name:      Fremont Ave      1000 Fremont Ave
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Protected      Protected      Permitted      Permitted
Rights:      Include      Include      Include      Include
Min. Green:      0 0 0      0 0 0      0 0 0      0 0 0
Y+R:      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0
Lanes:      1 0 2 0 1      1 0 2 0 1      1 0 0 1 0      1 0 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      54 1457 43      7 1113 60      81 3 69      39 4 25
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 60 1626 48      8 1242 67      90 3 77      44 4 28
Added Vol: 0 56 29      18 41 0      0 0 0      14 0 9
PasserByVol: 0 0 0      0 0 0      0 0 0      0 0 0
Initial Fut: 60 1682 77      26 1283 67      90 3 77      58 4 37
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 60 1682 77      26 1283 67      90 3 77      58 4 37
Reduct Vol: 0 0 0      0 0 0      0 0 0      0 0 0
Reduced Vol: 60 1682 77      26 1283 67      90 3 77      58 4 37
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 60 1682 77      26 1283 67      90 3 77      58 4 37
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.04 0.96 1.00 0.11 0.89
Final Sat.: 1600 3200 1600 1600 3200 1600 1600 67 1533 1600 173 1427

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Capacity Analysis Module:
Vol/Sat:    0.04 0.53 0.05 0.02 0.40 0.04 0.06 0.05 0.05 0.04 0.03 0.03
Crit Moves:    ****      ****      ****      ****
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #3 Fremont Ave and Orange St
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.907
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     104      Level Of Service:      E
*****
Street Name:      Fremont Ave      Orange St
Approach:          North Bound      South Bound      East Bound      West Bound
Movement:          L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:           Protected      Protected      Split Phase      Split Phase
Rights:            Include      Include      Include      Include
Min. Green:        0 0 0      0 0 0      0 0 0      0 0 0
Y+R:              4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0
Lanes:             1 0 2 0 1      1 0 1 1 0      0 1 0 0 1      1 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:          2 1400 175 102 951 2 9 5 5 243 2 289
Growth Adj:        1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse:        2 1562 195 114 1061 2 10 6 6 271 2 322
Added Vol:          0 20 46 29 29 0 0 0 0 30 0 17
PasserByVol:        0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:        2 1582 241 143 1090 2 10 6 6 301 2 339
User Adj:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:         2 1582 241 143 1090 2 10 6 6 301 2 339
Reduct Vol:         0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:        2 1582 241 143 1090 2 10 6 6 301 2 339
PCE Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:        2 1582 241 143 1090 2 10 6 6 301 2 339
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:             1.00 2.00 1.00 1.00 1.99 0.01 0.64 0.36 1.00 1.00 0.01 0.99
Final Sat.:         1600 3200 1600 1600 3193 7 1029 571 1600 1600 10 1590

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-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.00 0.49 0.15  0.09 0.34  0.34  0.01 0.01  0.00  0.19 0.21  0.21
Crit Moves:      ****      ****      ****      ****
*****

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #4 Date Ave and Orange St
*****
Average Delay (sec/veh):      7.4      Worst Case Level Of Service: C[ 16.9]
*****
Street Name:      Date Ave      Orange St
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      1 0 1 0 1      1 0 1 0 1      0 1 0 0 1      0 1 0 0 1
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol:      31 170 3 25 267 41 67 154 155 1 20 6
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 35 190 3 28 298 46 75 172 173 1 22 7
Added Vol: 9 31 0 0 36 4 2 10 8 0 19 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 44 221 3 28 334 50 77 182 181 1 41 7
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 44 221 3 28 334 50 77 182 181 1 41 7
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 44 221 3 28 334 50 77 182 181 1 41 7
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 384 xxxx xxxxx 224 xxxx xxxxx 723 701 334 904 747 221
Potent Cap.: 1186 xxxx xxxxx 1357 xxxx xxxxx 344 365 713 260 344 824
Move Cap.: 1186 xxxx xxxxx 1357 xxxx xxxxx 295 345 713 109 324 824
Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 475 491 xxxxx 195 461 xxxxx
Volume/Cap: 0.04 xxxx xxxx 0.02 xxxx xxxx 0.16 0.37 0.25 0.01 0.09 0.01
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: 0.1 xxxx xxxxx 0.1 xxxx xxxxx xxxx xxxx 1.0 xxxx xxxx 0.0
Control Del: 8.2 xxxx xxxxx 7.7 xxxx xxxxx xxxxx xxxx 11.8 xxxxx xxxx 9.4

```

LOS by Move:	A	*	*	A	*	*	*	*	B	*	*	A			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	486	xxxx	xxxxx	445	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.1	xxxx	xxxxx	0.3	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	20.5	xxxx	xxxxx	13.9	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	C	*	*	B	*	*			

ApproachDel: xxxxxx xxxxxx 16.9 13.3
 ApproachLOS: * * C B

 Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #5 Palm Ave and Orange St

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.504
 Loss Time (sec): 0 Average Delay (sec/veh): 11.5
 Optimal Cycle: 0 Level Of Service: B

 Street Name: Palm Ave Orange St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1
 -----|-----|-----|-----|
 Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
 Base Vol: 5 171 2 10 268 13 58 64 71 2 5 7
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 6 191 2 11 299 15 65 71 79 2 6 8
 Added Vol: 0 7 0 0 14 7 4 7 0 0 12 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 6 198 2 11 313 22 69 78 79 2 18 8
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 6 198 2 11 313 22 69 78 79 2 18 8
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 6 198 2 11 313 22 69 78 79 2 18 8
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 6 198 2 11 313 22 69 78 79 2 18 8
 -----|-----|-----|-----|
 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.03 0.97 1.00 0.03 0.97 1.00 0.47 0.53 1.00 0.11 0.89 1.00
 Final Sat.: 17 605 703 22 621 731 257 293 639 58 460 582
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.33 0.33 0.00 0.50 0.50 0.03 0.27 0.27 0.12 0.04 0.04 0.01
 Crit Moves: **** **** ****
 Delay/Veh: 10.9 10.9 7.6 13.3 13.3 7.6 11.0 11.0 8.6 9.2 9.2 8.3
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 10.9 10.9 7.6 13.3 13.3 7.6 11.0 11.0 8.6 9.2 9.2 8.3
 LOS by Move: B B A B B A B B A A A A
 ApproachDel: 10.8 13.0 10.2 9.0
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 10.8 13.0 10.2 9.0

LOS by Appr: B B B A
AllWayAvgQ: 0.4 0.4 0.0 0.9 0.9 0.0 0.3 0.3 0.1 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.574
Loss Time (sec): 0 Average Delay (sec/veh): 11.9
Optimal Cycle: 0 Level Of Service: B

Street Name: Chestnut St Palm Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|-----|
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1
-----|-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol: 5 146 9 14 338 8 7 7 79 6 1 7
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 6 163 10 16 377 9 8 8 88 7 1 8
Added Vol: 0 4 0 0 8 6 4 8 0 0 14 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 6 167 10 16 385 15 12 16 88 7 15 8
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 6 167 10 16 385 15 12 16 88 7 15 8
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 6 167 10 16 385 15 12 16 88 7 15 8
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 6 167 10 16 385 15 12 16 88 7 15 8
-----|-----|-----|-----|-----|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.03 0.97 1.00 0.04 0.96 1.00 0.43 0.57 1.00 0.31 0.69 1.00
Final Sat.: 21 641 759 27 670 803 230 308 624 161 363 598
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.26 0.26 0.01 0.57 0.57 0.02 0.05 0.05 0.14 0.04 0.04 0.01
Crit Moves: **** **** **** ****
Delay/Veh: 9.8 9.8 7.3 14.2 14.2 7.2 9.2 9.2 8.8 9.2 9.2 8.2
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 9.8 9.8 7.3 14.2 14.2 7.2 9.2 9.2 8.8 9.2 9.2 8.2
LOS by Move: A A A B B A A A A A A A
ApproachDel: 9.6 14.0 8.9 8.9
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 9.6 14.0 8.9 8.9

LOS by Appr: A B A A
AllWayAvgQ: 0.3 0.3 0.0 1.2 1.2 0.0 0.0 0.0 0.1 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.798
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 66 Level Of Service: C

Street Name: Fremont Ave Poplar Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|-----|
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 1 0 1 0 1
-----|-----|-----|-----|-----|
Volume Module:
Base Vol: 152 1403 115 25 863 42 25 117 80 53 118 28
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 170 1565 128 28 963 47 28 131 89 59 132 31
Added Vol: 7 32 7 7 50 0 0 12 14 14 12 4
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 177 1597 135 35 1013 47 28 143 103 73 144 35
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 177 1597 135 35 1013 47 28 143 103 73 144 35
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 177 1597 135 35 1013 47 28 143 103 73 144 35
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 177 1597 135 35 1013 47 28 143 103 73 144 35
-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.84 0.16 1.00 1.91 0.09 1.00 1.00 1.00 1.00 1.00 1.00
Final Sat.: 1600 2950 250 1600 3058 142 1600 1600 1600 1600 1600 1600

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.11 0.54 0.54 0.02 0.33 0.33 0.02 0.09 0.06 0.05 0.09 0.02
Crit Moves:      ****      ****      ****      ****
*****

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #8 Date Ave and Mission Rd
*****
Average Delay (sec/veh):      7.4      Worst Case Level Of Service: D[ 32.2]
*****
Street Name:      Date Ave      Mission Rd
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Rights:      Include      Include      Include      Include
Lanes:      0 0 0 0 0      1 0 0 0 1      1 0 2 0 0      0 0 1 1 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol:      0 0 0      195 0 159      84 736 0      0 563 111
Growth Adj:    1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse:    0 0 0      218 0 177      94 821 0      0 628 124
Added Vol:      0 0 0      29 0 46      75 14 0      0 30 46
PasserByVol:    0 0 0      0 0 0      0 0 0 0      0 0 0
Initial Fut:    0 0 0      247 0 223      169 835 0      0 658 170
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:      0 0 0      247 0 223      169 835 0      0 658 170
Reduct Vol:      0 0 0      0 0 0      0 0 0 0      0 0 0
FinalVolume:    0 0 0      247 0 223      169 835 0      0 658 170
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxxx xxxxxx 6.8 xxxxx 6.9 4.1 xxxxx xxxxxx xxxxxx xxxxx xxxxxx
FollowUpTim:xxxxxx xxxxx xxxxxx 3.5 xxxxx 3.3 2.2 xxxxx xxxxxx xxxxxx xxxxx xxxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxxx xxxxx xxxxxx 1498 xxxxx 414 828 xxxxx xxxxxx xxxxx xxxxx xxxxxx
Potent Cap.: xxxxx xxxxx xxxxxx 115 xxxxx 593 812 xxxxx xxxxxx xxxxx xxxxx xxxxxx
Move Cap.: xxxxx xxxxx xxxxxx 97 xxxxx 593 812 xxxxx xxxxxx xxxxx xxxxx xxxxxx
Total Cap: 160 189 xxxxxx 326 209 xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
Volume/Cap: xxxxx xxxxx xxxxx 0.76 xxxxx 0.38 0.21 xxxxx xxxxx xxxxx xxxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxxx xxxxx xxxxxx 7.8 xxxxx 1.8 0.8 xxxxx xxxxxx xxxxx xxxxx xxxxxx
Control Del:xxxxxx xxxxx xxxxxx 48.0 xxxxx 14.7 10.6 xxxxx xxxxxx xxxxxx xxxxx xxxxxx

```

LOS by Move:	*	*	*	E	*	B	B	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxxx	xxxxx	xxxxx	xxxxxx	xxxx	xxxxx	xxxxxx	xxxx	xxxxx	xxxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			

ApproachDel: xxxxxx 32.2 xxxxxx xxxxxx
 ApproachLOS: * D * *

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: B[14.0]

Street Name:	Chestnut St						Date Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign					
Rights:	Include			Include			Include			Include					
Lanes:	1	0	1	0	1	1	0	1	0	1	0	0	1	0	0

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak

Base Vol:	18	178	12	38	373	10	0	0	0	10	2	17
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	20	199	13	42	416	11	0	0	0	11	2	19
Added Vol:	65	33	4	0	32	12	7	8	38	7	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	85	232	17	42	448	23	7	8	38	18	15	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	85	232	17	42	448	23	7	8	38	18	15	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	85	232	17	42	448	23	7	8	38	18	15	19

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	471	xxxx	xxxxx	249	xxxx	xxxxx	961	952	448	969	958	232
Potent Cap.:	1101	xxxx	xxxxx	1328	xxxx	xxxxx	238	261	615	235	259	813
Move Cap.:	1101	xxxx	xxxxx	1328	xxxx	xxxxx	203	234	615	197	232	813
Total Cap:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	383	395	xxxxx	332	364	xxxxx
Volume/Cap:	0.08	xxxx	xxxx	0.03	xxxx	xxxx	0.02	0.02	0.06	0.05	0.04	0.02

Level Of Service Module:

2Way95thQ:	0.3	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.1			
Control Del:	8.5	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.5			
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	A			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	528	xxxxx	346	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.3	xxxxx	0.3	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	12.6	xxxxx	16.5	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	B	*	C	*	*			

```

ApproachDel:      xxxxxx          xxxxxx          12.6          14.0
ApproachLOS:      *              *              B              B
*****
Note: Queue reported is the number of cars per lane.
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #10 Fremont Ave and Concord Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.660
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     45          Level Of Service:      B
*****
Street Name:      Fremont Ave          Concord Ave
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Protected          Protected          Permitted          Permitted
Rights:            Include            Include            Include            Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             1  0  2  1  0          1  0  1  1  0          1  0  1  0  1          1  0  0  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:          51 1539  113          27  898   71          79  43   47          75  60   75
Growth Adj:  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:   57 1717  126          30 1002   79          88  48   52          84  67   84
Added Vol:      0   37   0          0   58   0          0   0   0          0   0   0
PasserByVol:    0   0   0          0   0   0          0   0   0          0   0   0
Initial Fut:    57 1754  126          30 1060   79          88  48   52          84  67   84
User Adj:       1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     57 1754  126          30 1060   79          88  48   52          84  67   84
Reduct Vol:      0   0   0          0   0   0          0   0   0          0   0   0
Reduced Vol:    57 1754  126          30 1060   79          88  48   52          84  67   84
PCE Adj:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    57 1754  126          30 1060   79          88  48   52          84  67   84
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:        1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:      1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:           1.00 2.80  0.20  1.00 1.86  0.14  1.00 1.00  1.00  1.00 0.44  0.56
Final Sat.:      1600 4478  322  1600 2977  223  1600 1600  1600  1600 711  889

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.04 0.39 0.39 0.02 0.36 0.36 0.06 0.03 0.03 0.05 0.09 0.09
Crit Moves:      ****      ****      ****      ****
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #11 Fremont Ave and Montezuma Ave
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.747
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     83      Level Of Service:      C
*****
Street Name:      Fremont Ave      Montezuma Ave
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Protected      Permitted      Protected      Permitted
Rights:      Include      Ignore      Include      Include
Min. Green:      0      0      0      0      0      0      0      0      0      0
Y+R:      4.0      4.0      4.0      4.0      4.0      4.0      4.0      4.0      4.0      4.0
Lanes:      2      0      0      1      0      0      1      1      0      0      1!      0      0
-----|-----|-----|-----|
Volume Module:
Base Vol:      687      443      86      24      41      259      399      167      611      33      69      19
Growth Adj:      1.12      1.12      1.12      1.12      1.12      1.12      1.12      1.12      1.12      1.12      1.12      1.12
Initial Bse:      766      494      96      27      46      289      445      186      682      37      77      21
Added Vol:      26      2      0      0      14      42      24      0      19      0      0      0
PasserByVol:      0      0      0      0      0      0      0      0      0      0      0      0
Initial Fut:      792      496      96      27      60      331      469      186      701      37      77      21
User Adj:      1.00      1.00      1.00      1.00      1.00      0.00      1.00      1.00      1.00      1.00      1.00      1.00
PHF Adj:      1.00      1.00      1.00      1.00      1.00      0.00      1.00      1.00      1.00      1.00      1.00      1.00
PHF Volume:      792      496      96      27      60      0      469      186      701      37      77      21
Reduct Vol:      0      0      0      0      0      0      0      0      0      0      0      0
Reduced Vol:      792      496      96      27      60      0      469      186      701      37      77      21
PCE Adj:      1.00      1.00      1.00      1.00      1.00      0.00      1.00      1.00      1.00      1.00      1.00      1.00
MLF Adj:      1.00      1.00      1.00      1.00      1.00      0.00      1.00      1.00      1.00      1.00      1.00      1.00
FinalVolume:      792      496      96      27      60      0      469      186      701      37      77      21
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1600      1600      1600      1600      1600      1600      1600      1600      1600      1600      1600      1600
Adjustment:      0.90      1.00      1.00      1.00      1.00      1.00      0.90      1.00      1.00      1.00      1.00      1.00
Lanes:      2.00      0.84      0.16      0.62      1.38      1.00      2.00      0.42      1.58      0.27      0.57      0.16
Final Sat.:      2880      1341      259      990      2210      1600      2880      672      2528      436      912      251

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-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.28 0.37 0.37 0.02 0.03 0.00 0.16 0.28 0.28 0.02 0.08 0.08
Crit Moves:      ****                      ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #12 Palm Ave and Commonwealth Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.619
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     42          Level Of Service:      B
*****
Street Name:      Palm Ave          Commonwealth Ave
Approach:          North Bound      South Bound      East Bound      West Bound
Movement:          L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:           Permitted        Permitted        Permitted        Permitted
Rights:            Include          Include          Include          Include
Min. Green:        0    0    0        0    0    0        0    0    0        0    0    0
Y+R:               4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0
Lanes:             1  0  1  0  1      1  0  1  0  1      1  0  1  1  0      1  0  2  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:          49  124    20    172  217    244    190  416    70     8  385    96
Growth Adj:        1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:        55  138    22    192  242    272    212  464    78     9  430   107
Added Vol:          0   11     0     0   21    36     28  22     0     0   26     0
PasserByVol:        0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:        55  149    22    192  263    308    240  486    78     9  456   107
User Adj:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:         55  149    22    192  263    308    240  486    78     9  456   107
Reduct Vol:         0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:        55  149    22    192  263    308    240  486    78     9  456   107
PCE Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:        55  149    22    192  263    308    240  486    78     9  456   107
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:         1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:             1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.72  0.28  1.00 2.00  1.00
Final Sat.:        1600 1600  1600  1600 1600  1600  1600 2757  443  1600 3200  1600

```



```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.03 0.09  0.01  0.12 0.16  0.19  0.15 0.18  0.18  0.01 0.14  0.07
Crit Moves:  ****                      ****      ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #13 Date Ave and Commonwealth Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.667
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     46          Level Of Service:      B
*****
Street Name:      Date Ave          Commonwealth Ave
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:          Permitted        Permitted        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:       0    0    0        0    0    0        0    0    0        0    0    0
Y+R:             4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0
Lanes:           1  0  1  0  1      1  0  0  1  0      1  0  1  1  0      1  0  1  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:         63  127   57   116  81   144   206  514   97   51  487  115
Growth Adj:       1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:      70  142   64   129  90   161   230  573  108   57  543  128
Added Vol:        7    0   28    0    0    0    0   22   12   36   26    0
PasserByVol:      0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:      77  142   92   129  90   161   230  595  120   93  569  128
User Adj:         1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:       77  142   92   129  90   161   230  595  120   93  569  128
Reduct Vol:       0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:      77  142   92   129  90   161   230  595  120   93  569  128
PCE Adj:          1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:      77  142   92   129  90   161   230  595  120   93  569  128
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:       1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:           1.00 1.00  1.00  1.00 0.36  0.64  1.00 1.66  0.34  1.00 1.63  0.37
Final Sat.:       1600 1600  1600  1600 576  1024  1600 2662  538  1600 2611  589

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-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.05 0.09  0.06  0.08 0.16  0.14 0.22  0.22  0.06 0.22  0.22
Crit Moves:  ****                ****                ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #14 Fremont Ave and Commonwealth Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.980
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     167          Level Of Service:      E
*****
Street Name:      Fremont Ave          Commonwealth Ave
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Protected          Protected          Protected          Protected
Rights:           Include            Include            Include            Include
Min. Green:       0    0    0          0    0    0          0    0    0          0    0    0
Y+R:              4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:            1  0  2  0  1          1  0  1  1  0          1  0  0  1  0          1  0  1  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:         36 1421    259    199 799    25    30 137    14    157 158    238
Growth Adj:       1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:      40 1585    289    222 891    28    33 153    16    175 176    266
Added Vol:        0   26    10     28  50     0     0  0     0     9  0     20
PasserByVol:      0   0     0     0  0     0     0  0     0     0  0     0
Initial Fut:      40 1611    299    250 941    28    33 153    16    184 176    286
User Adj:         1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:       40 1611    299    250 941    28    33 153    16    184 176    286
Reduct Vol:       0   0     0     0  0     0     0  0     0     0  0     0
Reduced Vol:      40 1611    299    250 941    28    33 153    16    184 176    286
PCE Adj:          1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:      40 1611    299    250 941    28    33 153    16    184 176    286
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:       1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:            1.00 2.00  1.00  1.00 1.94  0.06  1.00 0.91  0.09  1.00 1.00  1.00
Final Sat.:       1600 3200  1600  1600 3108    92  1600 1452  148  1600 1600  1600

```

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-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.03 0.50 0.19  0.16 0.30  0.30  0.02 0.11  0.11  0.12 0.11  0.18
Crit Moves:      ****          ****          ****          ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #15 Fremont Ave and Valley Blvd
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      1.029
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:    180          Level Of Service:      F
*****
Street Name:      Fremont Ave          Valley Blvd
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:          Protected            Protected            Protected            Protected
Rights:           Include              Include              Include              Include
Min. Green:       0    0    0            0    0    0            0    0    0            0    0    0
Y+R:              4.0  4.0  4.0            4.0  4.0  4.0            4.0  4.0  4.0            4.0  4.0  4.0
Lanes:            1  0  1  1  0            1  0  2  0  2            2  0  2  0  1            1  0  2  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:         28  803    33    186  961    774    616  899    25    125  349    308
Growth Adj:       1.12 1.12  1.12    1.12 1.12  1.12    1.12 1.12  1.12    1.12 1.12  1.12
Initial Bse:      31  896    37    208 1072    864    687 1003    28    139  389    344
Added Vol:        3   86     8       2   50    32     59   4     5       9   4     5
PasserByVol:      0    0     0       0    0     0       0    0     0       0    0     0
Initial Fut:      34  982    45    210 1122    896    746 1007    33    148  393    349
User Adj:         1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
PHF Volume:       34  982    45    210 1122    896    746 1007    33    148  393    349
Reduct Vol:       0    0     0       0    0     0       0    0     0       0    0     0
Reduced Vol:      34  982    45    210 1122    896    746 1007    33    148  393    349
PCE Adj:          1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
FinalVolume:      34  982    45    210 1122    896    746 1007    33    148  393    349
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600    1600 1600  1600    1600 1600  1600    1600 1600  1600
Adjustment:       1.00 1.00  1.00    1.00 1.00  1.00    0.90 1.00  1.00    1.00 1.00  1.00
Lanes:           1.00 1.91  0.09    1.00 2.00  2.00    2.00 2.00  1.00    1.00 2.00  1.00
Final Sat.:      1600 3060   140    1600 3200  3200    2880 3200  1600    1600 3200  1600

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```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.02 0.32 0.32 0.13 0.35 0.28 0.26 0.31 0.02 0.09 0.12 0.22
Crit Moves:    ****          ****          ****          ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #16 Palm Ave and Mission Rd
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.656
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     45          Level Of Service:      B
*****
Street Name:      Palm Ave          Mission Rd
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:          Protected        Protected        Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:       0    0    0        0    0    0        0    0    0        0    0    0
Y+R:             4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0
Lanes:           0  0  0  0  0      1  0  0  0  1      1  0  2  0  0      0  0  1  1  0
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol:         0    0    0        330    0    110      49  898    0        0  570    102
Growth Adj:      1.12 1.12  1.12      1.12 1.12  1.12      1.12 1.12  1.12      1.12 1.12  1.12
Initial Bse:      0    0    0        368    0    123      55 1002    0        0  636    114
Added Vol:        0    0    0          0    0    8         4  40     0        0  68     0
PasserByVol:      0    0    0          0    0    0         0  0     0        0  0     0
Initial Fut:      0    0    0        368    0    131      59 1042    0        0  704    114
User Adj:         1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
PHF Volume:       0    0    0        368    0    131      59 1042    0        0  704    114
Reduct Vol:       0    0    0          0    0    0         0  0     0        0  0     0
Reduced Vol:      0    0    0        368    0    131      59 1042    0        0  704    114
PCE Adj:         1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
FinalVolume:      0    0    0        368    0    131      59 1042    0        0  704    114
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600      1600 1600  1600      1600 1600  1600      1600 1600  1600
Adjustment:       1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
Lanes:           0.00 0.00  0.00      1.00 0.00  1.00      1.00 2.00  0.00      0.00 1.72  0.28
Final Sat.:       0    0    0        1600    0  1600      1600 3200    0        0 2755  445

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00  0.00  0.23 0.00  0.08  0.04 0.33  0.00  0.00 0.26  0.26
Crit Moves:          ****          ****          ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #17 Marengo Ave and Valley Blvd
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.840
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     77          Level Of Service:      D
*****
Street Name:      Marengo Ave          Valley Blvd
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Protected          Protected          Protected          Protected
Rights:           Include          Include          Include          Include
Min. Green:       0    0    0          0    0    0          0    0    0          0    0    0
Y+R:             4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:           1  0  1  0  1          1  0  0  1  0          1  0  2  0  1          1  0  2  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:        17  159    64    285  201    195    307  869     8    48  557   136
Growth Adj:     1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:     19  177    71    318  224    218    343  970     9    54  621   152
Added Vol:       13   28     0     5   24     0     0   2    12     0   5     9
PasserByVol:     0    0     0     0   0     0     0   0     0     0   0     0
Initial Fut:     32  205    71    323  248    218    343  972    21    54  626   161
User Adj:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:         1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:      32  205    71    323  248    218    343  972    21    54  626   161
Reduct Vol:      0    0     0     0   0     0     0   0     0     0   0     0
Reduced Vol:     32  205    71    323  248    218    343  972    21    54  626   161
PCE Adj:         1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:         1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:     32  205    71    323  248    218    343  972    21    54  626   161
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:        1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:      1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:           1.00 1.00  1.00  1.00 0.53  0.47  1.00 2.00  1.00  1.00 2.00  1.00
Final Sat.:      1600 1600  1600  1600 853   747  1600 3200  1600  1600 3200  1600

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-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.02 0.13 0.04 0.20 0.29 0.29 0.21 0.30 0.01 0.03 0.20 0.10
Crit Moves:      ****      ****      ****      ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #18 Atlantic Blvd and Mission Road
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      1.023
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     180      Level Of Service:      F
*****
Street Name:      Atlantic Blvd      Mission Road
Approach:          North Bound      South Bound      East Bound      West Bound
Movement:          L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:           Protected      Protected      Protected      Protected
Rights:            Include      Include      Include      Include
Min. Green:        0    0    0      0    0    0      0    0    0      0    0    0
Y+R:              4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0
Lanes:            1  0  1  1  0      1  0  2  0  1      1  0  2  0  1      1  0  1  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:          95 1061  137      42 951  101      131 965  133      182 563  60
Growth Adj:        1.12 1.12  1.12      1.12 1.12  1.12      1.12 1.12  1.12      1.12 1.12  1.12
Initial Bse:       106 1184  153      47 1061  113      146 1077  148      203 628  67
Added Vol:         0   27   0        0   34   4        2   15   0        0   28   0
PasserByVol:       0   0   0        0   0   0        0   0   0        0   0   0
Initial Fut:       106 1211  153      47 1095  117      148 1092  148      203 656  67
User Adj:          1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
PHF Adj:           1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
PHF Volume:        106 1211  153      47 1095  117      148 1092  148      203 656  67
Reduct Vol:        0   0   0        0   0   0        0   0   0        0   0   0
Reduced Vol:       106 1211  153      47 1095  117      148 1092  148      203 656  67
PCE Adj:           1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
MLF Adj:           1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
FinalVolume:       106 1211  153      47 1095  117      148 1092  148      203 656  67
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600      1600 1600  1600      1600 1600  1600      1600 1600  1600
Adjustment:        1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
Lanes:            1.00 1.78  0.22      1.00 2.00  1.00      1.00 2.00  1.00      1.00 1.81  0.19
Final Sat.:        1600 2841  359      1600 3200  1600      1600 3200  1600      1600 2904  296

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.07 0.43 0.43 0.03 0.34 0.07 0.09 0.34 0.09 0.13 0.23 0.23
Crit Moves:      ****      ****      ****      ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #19 Marengo Ave and Mission Road
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      1.024
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     180      Level Of Service:      F
*****
Street Name:      Marengo Ave      Mission Rd
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Permitted      Permitted      Permitted      Permitted
Rights:      Include      Include      Include      Include
Min. Green:      0      0      0      0      0      0      0      0      0      0      0      0
Y+R:      4.0      4.0      4.0      4.0      4.0      4.0      4.0      4.0      4.0      4.0      4.0      4.0
Lanes:      1      0      1      0      1      1      0      1      1      1      0      1      0
-----|-----|-----|-----|
Volume Module:
Base Vol:      73      515      225      58      466      46      53      939      283      70      538      59
Growth Adj:      1.12      1.12      1.12      1.12      1.12      1.12      1.12      1.12      1.12      1.12      1.12      1.12
Initial Bse:      81      575      251      65      520      51      59      1048      316      78      600      66
Added Vol:      35      0      2      0      0      6      3      15      26      4      28      0
PasserByVol:      0      0      0      0      0      0      0      0      0      0      0      0
Initial Fut:      116      575      253      65      520      57      62      1063      342      82      628      66
User Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
PHF Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
PHF Volume:      116      575      253      65      520      57      62      1063      342      82      628      66
Reduct Vol:      0      0      0      0      0      0      0      0      0      0      0      0
Reduced Vol:      116      575      253      65      520      57      62      1063      342      82      628      66
PCE Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
MLF Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
FinalVolume:      116      575      253      65      520      57      62      1063      342      82      628      66
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1600      1600      1600      1600      1600      1600      1600      1600      1600      1600      1600      1600
Adjustment:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
Lanes:      1.00      1.00      1.00      1.00      0.90      0.10      1.00      1.51      0.49      1.00      1.81      0.19
Final Sat.:      1600      1600      1600      1600      1441      159      1600      2421      779      1600      2897      303

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.07 0.36  0.16  0.04 0.36  0.36  0.04 0.44  0.44  0.05 0.22  0.22
Crit Moves:  ****                ****                ****
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #20 Marengo Ave and Front St
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.868
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     86          Level Of Service:      D
*****
Street Name:      Marengo Ave          Front St
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Permitted          Permitted          Permitted          Permitted
Rights:            Include            Include            Include            Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             1  0  0  1  0        1  0  0  1  0        0  1  0  0  1        0  1  0  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:          3  634          4  23  682  188  150  50    8    2  19  16
Growth Adj:        1.12 1.12  1.12  1.12 1.12  1.12 1.12 1.12  1.12 1.12 1.12  1.12 1.12 1.12
Initial Bse:        3  707          4  26  761  210  167  56    9    2  21  18
Added Vol:          0   37    0    0   29    0    0   0    0    0   0   0    0
PasserByVol:        0   0    0    0   0    0    0   0   0    0   0   0    0
Initial Fut:        3  744          4  26  790  210  167  56    9    2  21  18
User Adj:           1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:            1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:         3  744          4  26  790  210  167  56    9    2  21  18
Reduct Vol:         0   0    0    0   0    0    0   0   0    0   0   0    0
Reduced Vol:        3  744          4  26  790  210  167  56    9    2  21  18
PCE Adj:            1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:            1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:        3  744          4  26  790  210  167  56    9    2  21  18
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600  1600 1600  1600 1600 1600  1600 1600 1600  1600
Adjustment:         1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Lanes:             1.00 0.99  0.01  1.00 0.79  0.21 0.75 0.25  1.00 0.10 0.90  1.00
Final Sat.:         1600 1590    10  1600 1264  336 1200  400  1600  152 1448  1600

```



```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.00 0.47  0.47  0.02 0.62  0.62  0.10 0.14  0.01  0.00 0.01  0.01
Crit Moves:  ****                ****                ****
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #21 I-710 NB Ramp and Valley Blvd
*****
Cycle (sec):      120          Critical Vol./Cap.(X):      0.739
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     58          Level Of Service:      C
*****
Street Name:      I-710 NB Ramp          Valley Blvd
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Split Phase          Split Phase          Permitted          Permitted
Rights:           Include          Include          Include          Include
Min. Green:       0    0    0          0    0    0          0    0    0          0    0    0
Y+R:              4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:            1  0  1! 0  1          0  0  1! 0  0          0  0  2  0  0          0  0  3  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:         584    0  1238          1    0    2          0  530    0          0 1118    0
Growth Adj:       1.12 1.12  1.12          1.12 1.12  1.12          1.12 1.12  1.12          1.12 1.12  1.12
Initial Bse:      652    0  1381          1    0    2          0  591    0          0 1247    0
Added Vol:        0    0    68          0    0    0          0    0    0          0    39    0
PasserByVol:     0    0    0          0    0    0          0    0    0          0    0    0
Initial Fut:     652    0  1449          1    0    2          0  591    0          0 1286    0
User Adj:         1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Volume:       652    0  1449          1    0    2          0  591    0          0 1286    0
Reduct Vol:       0    0    0          0    0    0          0    0    0          0    0    0
Reduced Vol:     652    0  1449          1    0    2          0  591    0          0 1286    0
PCE Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
FinalVolume:     652    0  1449          1    0    2          0  591    0          0 1286    0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600          1600 1600  1600          1600 1600  1600          1600 1600  1600
Adjustment:       1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
Lanes:           1.00 0.00  2.00          0.33 0.00  0.67          0.00 2.00  0.00          0.00 4.00  0.00
Final Sat.:       1600    0  3200          533    0 1067          0 3200    0          0 6400    0

```

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-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.41 0.00 0.45 0.00 0.00 0.00 0.18 0.00 0.00 0.20 0.00
Crit Moves:      ***      ***      ***      ***
*****

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #22 I-710 SB Ramp and Valley Blvd
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.925
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     114      Level Of Service:      E
*****
Street Name:      I-710 SB Ramp      Valley Blvd
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:          Protected      Protected      Protected      Protected
Rights:           Include      Include      Include      Include
Min. Green:       0    0    0      0    0    0      0    0    0      0    0    0
Y+R:             4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0
Lanes:           0  0  0  0  0    0  0  0  0  0      0  0  2  0  1    2  0  2  0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:         0    0    0      0    0    0      0  539  729    783  940    0
Growth Adj:      1.12 1.12  1.12    1.12 1.12  1.12    1.12 1.12  1.12    1.12 1.12  1.12
Initial Bse:      0    0    0      0    0    0      0  601  813    874 1049    0
Added Vol:        0    0    0      0    0    0      0    0    0      39    0    0
PasserByVol:      0    0    0      0    0    0      0    0    0      0    0    0
Initial Fut:      0    0    0      0    0    0      0  601  813    913 1049    0
User Adj:         1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
PHF Volume:       0    0    0      0    0    0      0  601  813    913 1049    0
Reduct Vol:       0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:      0    0    0      0    0    0      0  601  813    913 1049    0
PCE Adj:          1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00
FinalVolume:      0    0    0      0    0    0      0  601  813    913 1049    0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600    1600 1600  1600    1600 1600  1600    1600 1600  1600
Adjustment:       1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00    0.90 1.00  1.00
Lanes:           0.00 0.00  0.00    0.00 0.00  0.00    0.00 2.00  1.00    2.00 2.00  0.00
Final Sat.:       0    0    0      0    0    0      0 3200  1600    2880 3200    0

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.00 0.00  0.00  0.00 0.00  0.00 0.00 0.19  0.51  0.32 0.33  0.00
Crit Moves:
*****

```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #23 Fremont Ave and Hellman Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.878
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     90          Level Of Service:      D
*****
Street Name:      Fremont Ave          Hellman Ave
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:          Protected            Protected            Protected            Protected
Rights:           Include              Include              Include              Include
Min. Green:       0    0    0            0    0    0            0    0    0            0    0    0
Y+R:              4.0  4.0  4.0            4.0  4.0  4.0            4.0  4.0  4.0            4.0  4.0  4.0
Lanes:            1  0  1  1  0            1  0  1  1  0            1  0  1  0  1            1  0  1  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:         85  740  242  147  813  68  128  173  216  206  181  237
Growth Adj:       1.12 1.12  1.12  1.12 1.12  1.12 1.12 1.12  1.12 1.12 1.12  1.12
Initial Bse:      95  826  270  164  907  76  143  193  241  230  202  264
Added Vol:        0   59   8   25  38   0   0   0   0   4   0   38
PasserByVol:     0   0   0   0   0   0   0   0   0   0   0   0
Initial Fut:     95  885  278  189  945  76  143  193  241  234  202  302
User Adj:        1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:         1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Volume:      95  885  278  189  945  76  143  193  241  234  202  302
Reduct Vol:       0   0   0   0   0   0   0   0   0   0   0   0
Reduced Vol:     95  885  278  189  945  76  143  193  241  234  202  302
PCE Adj:         1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:         1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:     95  885  278  189  945  76  143  193  241  234  202  302
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:        1600 1600  1600  1600 1600  1600 1600 1600  1600 1600 1600  1600
Adjustment:      1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Lanes:           1.00 1.52  0.48  1.00 1.85  0.15 1.00 1.00  1.00 1.00 1.00  1.00
Final Sat.:      1600 2435  765  1600 2962  238 1600 1600  1600 1600 1600  1600

```

```

-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.06 0.36 0.36 0.12 0.32 0.32 0.09 0.12 0.15 0.15 0.13 0.19
Crit Moves:      ****      ****      ****      ****
*****

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-----
Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)
*****
Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.924
Loss Time (sec):    0      Average Delay (sec/veh):      37.1
Optimal Cycle:      0      Level Of Service:      E
*****
Street Name:      Elm St      Hellman Ave/Ramona Rd/ 10 WB ramp
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Stop Sign      Stop Sign      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Min. Green:      0 0 0      0 0 0      0 0 0      0 0 0
Lanes:      1 0 1! 0 0      0 1 0 0 1      0 1 0 0 1      0 1 0 0 1
-----|-----|-----|-----|
Volume Module:PM Peak
Base Vol:      467 172 98 10 5 40 29 299 223 120 105 2
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 521 192 109 11 6 45 32 334 249 134 117 2
Added Vol: 42 0 0 0 0 0 0 0 0 34 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 563 192 109 11 6 45 32 334 283 134 117 2
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 563 192 109 11 6 45 32 334 283 134 117 2
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 563 192 109 11 6 45 32 334 283 134 117 2
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 563 192 109 11 6 45 32 334 283 134 117 2
-----|-----|-----|-----|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.31 0.44 0.25 0.67 0.33 1.00 0.09 0.91 1.00 0.53 0.47 1.00
Final Sat.: 1076 -260 118 256 128 432 42 431 522 224 196 465
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.52-0.74 0.92 0.04 0.04 0.10 0.77 0.77 0.54 0.60 0.60 0.00
Crit Moves:      ****      ****      ****      ****

```

Delay/Veh:	52.1	51.8	51.8	12.1	12.1	11.5	31.3	31.3	17.1	22.3	22.3	10.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.1	51.8	51.8	12.1	12.1	11.5	31.3	31.3	17.1	22.3	22.3	10.2
LOS by Move:	F	F	F	B	B	B	D	D	C	C	C	B
ApproachDel:		52.2			11.7			25.1			22.2	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		52.2			11.7			25.1			22.2	

LOS by Appr: F B D C
AllWayAvgQ: 5.4 5.4 5.4 0.0 0.0 0.1 2.8 2.8 1.1 1.3 1.3 0.0

Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 1.403
Loss Time (sec): 0 Average Delay (sec/veh): 114.5
Optimal Cycle: 0 Level Of Service: F

Street Name: Fremont Ave Ramona Road/10 EB ramp
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|-----|
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 1 0 0 0 0 0 0 1 0 0 1 0 0 1! 0 0
-----|-----|-----|-----|-----|
Volume Module:PM Peak
Base Vol: 0 731 116 0 0 0 4 91 289 47 0 78
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 0 816 129 0 0 0 4 102 322 52 0 87
Added Vol: 0 0 26 0 0 0 0 0 56 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 816 155 0 0 0 4 102 378 52 0 87
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 816 155 0 0 0 4 102 378 52 0 87
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 816 155 0 0 0 4 102 378 52 0 87
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 816 155 0 0 0 4 102 378 52 0 87
-----|-----|-----|-----|-----|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 1.00 1.00 0.00 0.00 0.00 0.04 0.96 1.00 0.38 0.00 0.62
Final Sat.: 0 581 645 0 0 0 22 504 589 196 0 325
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: xxxx 1.40 0.24 xxxx xxxx xxxx 0.20 0.20 0.64 0.27 xxxx 0.27
Crit Moves: **** **** ****
Delay/Veh: 0.0 210 9.9 0.0 0.0 0.0 11.2 11.2 18.9 12.3 0.0 12.3
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 210 9.9 0.0 0.0 0.0 11.2 11.2 18.9 12.3 0.0 12.3
LOS by Move: * F A * * * B B C B * B
ApproachDel: 177.6 xxxxxxx 17.2 12.3
Delay Adj: 1.00 xxxxxxx 1.00 1.00
ApprAdjDel: 177.6 xxxxxxx 17.2 12.3


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-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.02 0.38  0.38  0.02 0.38  0.38  0.01 0.03  0.03  0.04 0.03  0.03
Crit Moves:  ****              ****              ****
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #27 Westmont Dr and Valley Blvd
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.720
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     53          Level Of Service:      C
*****
Street Name:      Westmont Dr          Valley Blvd
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:          Permitted            Permitted            Permitted            Permitted
Rights:           Include              Include              Include              Include
Min. Green:       0    0    0            0    0    0            0    0    0            0    0    0
Y+R:              4.0  4.0  4.0            4.0  4.0  4.0            4.0  4.0  4.0            4.0  4.0  4.0
Lanes:            0  0  1! 0  0            0  0  1! 0  0            1  0  2  0  1            1  0  2  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:         16    10    11          24    9    14          56 1578  135          8 1040  33
Growth Adj:       1.12 1.12  1.12          1.12 1.12  1.12          1.12 1.12  1.12          1.12 1.12  1.12
Initial Bse:      18    11    12          27    10   16          62 1761  151          9 1160  37
Added Vol:        0    0    0            0    0    0            0   68    0            0   39    0
PasserByVol:      0    0    0            0    0    0            0    0    0            0    0    0
Initial Fut:      18    11    12          27    10   16          62 1829  151          9 1199  37
User Adj:         1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Volume:       18    11    12          27    10   16          62 1829  151          9 1199  37
Reduct Vol:       0    0    0            0    0    0            0    0    0            0    0    0
Reduced Vol:      18    11    12          27    10   16          62 1829  151          9 1199  37
PCE Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
FinalVolume:      18    11    12          27    10   16          62 1829  151          9 1199  37
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600          1600 1600  1600          1600 1600  1600          1600 1600  1600
Adjustment:       1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
Lanes:            0.43 0.27  0.30          0.51 0.19  0.30          1.00 2.00  1.00          1.00 2.00  1.00
Final Sat.:       692  432  476          817  306  477          1600 3200  1600          1600 3200  1600

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-----|-----||-----||-----|
Capacity Analysis Module:
Vol/Sat:    0.01 0.03  0.03  0.02 0.03  0.03  0.04 0.57  0.09  0.01 0.37  0.02
Crit Moves:      ****          ****          ****          ****
*****

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Scenario:                Scenario Report
                        2018 Existing + Proj AM

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Intersection

Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗	↘		↗	↘		↗	↘		↗	↘
Traffic Vol, veh/h	16	34	15	2	8	2	6	82	2	6	217	33
Future Vol, veh/h	16	34	15	2	8	2	6	82	2	6	217	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	37	16	2	9	2	7	89	2	7	236	36
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.6	8.4	8.5	9.5
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	7%	0%	32%	0%	20%	0%	3%	0%
Vol Thru, %	93%	0%	68%	0%	80%	0%	97%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	88	2	50	15	10	2	223	33
LT Vol	6	0	16	0	2	0	6	0
Through Vol	82	0	34	0	8	0	217	0
RT Vol	0	2	0	15	0	2	0	33
Lane Flow Rate	96	2	54	16	11	2	242	36
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.133	0.003	0.085	0.021	0.017	0.003	0.327	0.041
Departure Headway (Hd)	5.02	4.283	5.612	4.747	5.624	4.818	4.854	4.139
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	715	836	639	755	637	742	742	867
Service Time	2.741	2.004	3.338	2.472	3.355	2.549	2.571	1.856
HCM Lane V/C Ratio	0.134	0.002	0.085	0.021	0.017	0.003	0.326	0.042
HCM Control Delay	8.5	7	8.9	7.6	8.5	7.6	9.9	7
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.5	0	0.3	0.1	0.1	0	1.4	0.1

Intersection

Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	8	17	8	1	6	8	16	109	2	13	183	13
Future Vol, veh/h	8	17	8	1	6	8	16	109	2	13	183	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	18	9	1	7	9	17	118	2	14	199	14
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.3	7.9	8.7	9.2
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	13%	0%	32%	0%	14%	0%	7%	0%
Vol Thru, %	87%	0%	68%	0%	86%	0%	93%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	125	2	25	8	7	8	196	13
LT Vol	16	0	8	0	1	0	13	0
Through Vol	109	0	17	0	6	0	183	0
RT Vol	0	2	0	8	0	8	0	13
Lane Flow Rate	136	2	27	9	8	9	213	14
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.185	0.003	0.042	0.011	0.012	0.011	0.28	0.016
Departure Headway (Hd)	4.911	4.145	5.598	4.733	5.535	4.759	4.726	3.992
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	734	867	642	759	649	755	750	881
Service Time	2.617	1.851	3.308	2.443	3.246	2.469	2.522	1.787
HCM Lane V/C Ratio	0.185	0.002	0.042	0.012	0.012	0.012	0.284	0.016
HCM Control Delay	8.7	6.9	8.6	7.5	8.3	7.5	9.4	6.9
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.7	0	0.1	0	0	0	1.1	0

Intersection

Intersection Delay, s/veh 106.7

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕	↕	↕			↕	↕
Traffic Vol, veh/h	57	182	427	444	68	15	413	61	23	87	16	223
Future Vol, veh/h	57	182	427	444	68	15	413	61	23	87	16	223
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	62	198	464	483	74	16	449	66	25	95	17	242
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	74.2	265.4	36.2	24.3
HCM LOS	F	F	E	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	66%	24%	0%	87%	0%	84%	0%
Vol Thru, %	0%	24%	76%	0%	13%	0%	16%	0%
Vol Right, %	0%	9%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	248	249	239	427	512	15	103	223
LT Vol	248	165	57	0	444	0	87	0
Through Vol	0	61	182	0	68	0	16	0
RT Vol	0	23	0	427	0	15	0	223
Lane Flow Rate	269	271	260	464	557	16	112	242
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.721	0.708	0.662	1.076	1.519	0.039	0.311	0.599
Departure Headway (Hd)	10.859	10.612	10.2	9.333	10.081	8.894	11.274	10.078
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	337	344	356	395	367	405	321	361
Service Time	8.559	8.312	7.9	7.033	7.781	6.594	8.974	7.778
HCM Lane V/C Ratio	0.798	0.788	0.73	1.175	1.518	0.04	0.349	0.67
HCM Control Delay	37.2	35.3	30.8	98.5	272.8	12	19	26.8
HCM Lane LOS	E	E	D	F	F	B	C	D
HCM 95th-tile Q	5.3	5.1	4.5	14.4	30	0.1	1.3	3.7

Intersection

Intersection Delay, s/veh 159.3

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕	↕			
Traffic Vol, veh/h	2	27	669	127	0	17	0	697	102	0	0	0
Future Vol, veh/h	2	27	669	127	0	17	0	697	102	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	29	727	138	0	18	0	758	111	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	143.9	16.6	198.5
HCM LOS	F	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	7%	0%	88%
Vol Thru, %	100%	0%	93%	0%	0%
Vol Right, %	0%	100%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	697	102	29	669	144
LT Vol	0	0	2	0	127
Through Vol	697	0	27	0	0
RT Vol	0	102	0	669	17
Lane Flow Rate	758	111	32	727	157
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.431	0.188	0.06	1.247	0.336
Departure Headway (Hd)	7.354	6.639	7.896	7.141	9.108
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	500	544	456	516	398
Service Time	5.054	4.339	5.596	4.841	7.108
HCM Lane V/C Ratio	1.516	0.204	0.07	1.409	0.394
HCM Control Delay	225.9	10.9	11.1	149.7	16.6
HCM Lane LOS	F	B	B	F	C
HCM 95th-tile Q	34.1	0.7	0.2	25	1.5

HCM 2010 TWSC

4: Date Ave & Orange St

03/15/2018

Intersection

Int Delay, s/veh 4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	25	58	56	8	30	3	60	152	6	7	220	75
Future Vol, veh/h	25	58	56	8	30	3	60	152	6	7	220	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	63	61	9	33	3	65	165	7	8	239	82

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	566	550	239	582	550	165	239	0	0	165	0	0
Stage 1	254	254	-	296	296	-	-	-	-	-	-	-
Stage 2	312	296	-	286	254	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	435	443	800	424	443	879	1328	-	-	1413	-	-
Stage 1	750	697	-	712	668	-	-	-	-	-	-	-
Stage 2	699	668	-	721	697	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	391	419	800	332	419	879	1328	-	-	1413	-	-
Mov Cap-2 Maneuver	391	419	-	332	419	-	-	-	-	-	-	-
Stage 1	713	693	-	677	635	-	-	-	-	-	-	-
Stage 2	628	635	-	602	693	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.7		14.7		2.2		0.2	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1328	-	-	410	800	397	879	1413	-	-
HCM Lane V/C Ratio	0.049	-	-	0.22	0.076	0.104	0.004	0.005	-	-
HCM Control Delay (s)	7.9	-	-	16.2	9.9	15.1	9.1	7.6	-	-
HCM Lane LOS	A	-	-	C	A	C	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.8	0.2	0.3	0	0	-	-

Intersection

Int Delay, s/veh 8.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	120	518	1355	197	82	178
Future Vol, veh/h	120	518	1355	197	82	178
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	130	563	1473	214	89	193

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1687	0	0 2122 843
Stage 1	-	-	- 1580 -
Stage 2	-	-	- 542 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	375	-	- ~ 43 307
Stage 1	-	-	- 155 -
Stage 2	-	-	- 547 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	375	-	- ~ 21 307
Mov Cap-2 Maneuver	-	-	- 99 -
Stage 1	-	-	- 155 -
Stage 2	-	-	- 271 -

Approach	EB	WB	SB
HCM Control Delay, s	3.7	0	68.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	375	-	-	-	99	307
HCM Lane V/C Ratio	0.348	-	-	-	0.9	0.63
HCM Control Delay (s)	19.6	-	-	-	142.4	34.8
HCM Lane LOS	C	-	-	-	F	D
HCM 95th %tile Q(veh)	1.5	-	-	-	5.2	4

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕	↕	↕	↕	↕
Traffic Vol, veh/h	14	16	76	4	5	2	95	206	17	13	193	61
Future Vol, veh/h	14	16	76	4	5	2	95	206	17	13	193	61
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	17	83	4	5	2	103	224	18	14	210	66

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	671	668	210	718	668	224	210	0	0	224	0	0
Stage 1	238	238	-	430	430	-	-	-	-	-	-	-
Stage 2	433	430	-	288	238	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	370	379	830	344	379	815	1361	-	-	1345	-	-
Stage 1	765	708	-	603	583	-	-	-	-	-	-	-
Stage 2	601	583	-	720	708	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	341	347	830	279	347	815	1361	-	-	1345	-	-
Mov Cap-2 Maneuver	341	347	-	279	347	-	-	-	-	-	-	-
Stage 1	707	701	-	557	539	-	-	-	-	-	-	-
Stage 2	548	539	-	626	701	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	15.5	2.3	0.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1361	-	-	593 313 815	1345	-	-
HCM Lane V/C Ratio	0.076	-	-	0.194 0.031 0.003	0.011	-	-
HCM Control Delay (s)	7.9	-	-	12.5 16.9 9.4	7.7	-	-
HCM Lane LOS	A	-	-	B C A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.7 0.1 0	0	-	-

Intersection

Intersection Delay, s/veh	12.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	69	78	79	2	18	8	6	198	2	11	313	22
Future Vol, veh/h	69	78	79	2	18	8	6	198	2	11	313	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	75	85	86	2	20	9	7	215	2	12	340	24
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10.9	9.5	11.9	14.8
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	47%	0%	10%	0%	3%	0%
Vol Thru, %	97%	0%	53%	0%	90%	0%	97%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	204	2	147	79	20	8	324	22
LT Vol	6	0	69	0	2	0	11	0
Through Vol	198	0	78	0	18	0	313	0
RT Vol	0	2	0	79	0	8	0	22
Lane Flow Rate	222	2	160	86	22	9	352	24
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.361	0.003	0.288	0.132	0.041	0.014	0.556	0.033
Departure Headway (Hd)	5.869	5.146	6.488	5.541	6.721	5.957	5.688	4.965
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	614	695	554	647	532	600	634	722
Service Time	3.601	2.878	4.221	3.274	4.466	3.702	3.415	2.691
HCM Lane V/C Ratio	0.362	0.003	0.289	0.133	0.041	0.015	0.555	0.033
HCM Control Delay	11.9	7.9	11.8	9.1	9.8	8.8	15.3	7.9
HCM Lane LOS	B	A	B	A	A	A	C	A
HCM 95th-tile Q	1.6	0	1.2	0.5	0.1	0	3.4	0.1

Intersection

Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	12	16	88	7	15	8	6	167	10	16	385	15
Future Vol, veh/h	12	16	88	7	15	8	6	167	10	16	385	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	17	96	8	16	9	7	182	11	17	418	16
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.3	9.3	10.2	16
HCM LOS	A	A	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	43%	0%	32%	0%	4%	0%
Vol Thru, %	97%	0%	57%	0%	68%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	173	10	28	88	22	8	401	15
LT Vol	6	0	12	0	7	0	16	0
Through Vol	167	0	16	0	15	0	385	0
RT Vol	0	10	0	88	0	8	0	15
Lane Flow Rate	188	11	30	96	24	9	436	16
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.283	0.014	0.054	0.146	0.044	0.014	0.627	0.02
Departure Headway (Hd)	5.414	4.69	6.412	5.486	6.621	5.749	5.18	4.456
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	658	755	554	647	544	626	693	796
Service Time	3.196	2.472	4.204	3.278	4.321	3.449	2.947	2.223
HCM Lane V/C Ratio	0.286	0.015	0.054	0.148	0.044	0.014	0.629	0.02
HCM Control Delay	10.4	7.5	9.6	9.2	9.6	8.5	16.3	7.3
HCM Lane LOS	B	A	A	A	A	A	C	A
HCM 95th-tile Q	1.2	0	0.2	0.5	0.1	0	4.4	0.1

Intersection

Intersection Delay, s/veh 53.9

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱			↱	↱
Traffic Vol, veh/h	32	334	283	134	117	2	563	192	109	11	6	45
Future Vol, veh/h	32	334	283	134	117	2	563	192	109	11	6	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	363	308	146	127	2	612	209	118	12	7	49
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	33.9	28.2	79.5	12.8
HCM LOS	D	D	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	30%	9%	0%	53%	0%	65%	0%
Vol Thru, %	0%	45%	91%	0%	47%	0%	35%	0%
Vol Right, %	0%	25%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	434	430	366	283	251	2	17	45
LT Vol	434	129	32	0	134	0	11	0
Through Vol	0	192	334	0	117	0	6	0
RT Vol	0	109	0	283	0	2	0	45
Lane Flow Rate	471	468	398	308	273	2	18	49
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	1.07	0.992	0.866	0.606	0.667	0.005	0.049	0.116
Departure Headway (Hd)	8.171	7.63	8.055	7.29	9.111	8.111	9.888	8.817
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	443	473	454	498	398	444	364	409
Service Time	5.947	5.405	5.755	4.99	6.811	5.811	7.588	6.517
HCM Lane V/C Ratio	1.063	0.989	0.877	0.618	0.686	0.005	0.049	0.12
HCM Control Delay	91.7	67.3	44.2	20.6	28.3	10.9	13.1	12.7
HCM Lane LOS	F	F	E	C	D	B	B	B
HCM 95th-tile Q	15.3	13	8.9	4	4.7	0	0.2	0.4

Intersection

Intersection Delay, s/veh 163.7

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱↲			↱	↱			
Traffic Vol, veh/h	4	102	378	52	0	87	0	816	155	0	0	0
Future Vol, veh/h	4	102	378	52	0	87	0	816	155	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	111	411	57	0	95	0	887	168	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	23.2	14.6	255
HCM LOS	C	B	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	4%	0%	37%
Vol Thru, %	100%	0%	96%	0%	0%
Vol Right, %	0%	100%	0%	100%	63%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	816	155	106	378	139
LT Vol	0	0	4	0	52
Through Vol	816	0	102	0	0
RT Vol	0	155	0	378	87
Lane Flow Rate	887	168	115	411	151
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.613	0.273	0.221	0.706	0.293
Departure Headway (Hd)	6.548	5.838	8.135	7.395	8.232
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	559	620	445	493	440
Service Time	4.248	3.538	5.835	5.095	6.232
HCM Lane V/C Ratio	1.587	0.271	0.258	0.834	0.343
HCM Control Delay	301.4	10.7	13.1	26	14.6
HCM Lane LOS	F	B	B	D	B
HCM 95th-tile Q	48.9	1.1	0.8	5.5	1.2

HCM 2010 TWSC
4: Date Ave & Orange St

03/15/2018

Intersection

Int Delay, s/veh 20.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	77	182	181	1	41	7	44	221	3	28	334	50
Future Vol, veh/h	77	182	181	1	41	7	44	221	3	28	334	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	84	198	197	1	45	8	48	240	3	30	363	54

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	782	760	363	859	760	240	363	0	0	240	0	0
Stage 1	424	424	-	336	336	-	-	-	-	-	-	-
Stage 2	358	336	-	523	424	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	312	336	682	277	336	799	1196	-	-	1327	-	-
Stage 1	608	587	-	678	642	-	-	-	-	-	-	-
Stage 2	660	642	-	537	587	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	263	315	682	94	315	799	1196	-	-	1327	-	-
Mov Cap-2 Maneuver	263	315	-	94	315	-	-	-	-	-	-	-
Stage 1	584	574	-	651	616	-	-	-	-	-	-	-
Stage 2	582	616	-	245	574	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	50.7		17.9		1.3		0.5	
HCM LOS	F		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1196	-	-	298	682	298	799	1327	-	-
HCM Lane V/C Ratio	0.04	-	-	0.945	0.288	0.153	0.01	0.023	-	-
HCM Control Delay (s)	8.1	-	-	77.4	12.4	19.3	9.5	7.8	-	-
HCM Lane LOS	A	-	-	F	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	9.3	1.2	0.5	0	0.1	-	-

Intersection

Int Delay, s/veh 55.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	169	835	658	170	247	223
Future Vol, veh/h	169	835	658	170	247	223
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	184	908	715	185	268	242

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	900	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	751	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	751	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	266.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	751	-	-	-	140	556
HCM Lane V/C Ratio	0.245	-	-	-	1.918	0.436
HCM Control Delay (s)	11.3	-	-	-	491.8	16.4
HCM Lane LOS	B	-	-	-	F	C
HCM 95th %tile Q(veh)	1	-	-	-	20.9	2.2

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕	↕	↕	↕	↕
Traffic Vol, veh/h	7	8	38	18	15	19	85	232	17	42	448	23
Future Vol, veh/h	7	8	38	18	15	19	85	232	17	42	448	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	9	41	20	16	21	92	252	18	46	487	25

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	1023	1015	487	1040	1015	252	487	0	0	252	0	0
Stage 1	578	578	-	437	437	-	-	-	-	-	-	-
Stage 2	445	437	-	603	578	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	214	238	581	208	238	787	1076	-	-	1313	-	-
Stage 1	501	501	-	598	579	-	-	-	-	-	-	-
Stage 2	592	579	-	486	501	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	179	210	581	170	210	787	1076	-	-	1313	-	-
Mov Cap-2 Maneuver	179	210	-	170	210	-	-	-	-	-	-	-
Stage 1	458	483	-	547	529	-	-	-	-	-	-	-
Stage 2	511	529	-	428	483	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.4	21.9	2.2	0.6
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1076	-	-	372 186 787	1313	-	-
HCM Lane V/C Ratio	0.086	-	-	0.155 0.193 0.026	0.035	-	-
HCM Control Delay (s)	8.7	-	-	16.4 28.9 9.7	7.8	-	-
HCM Lane LOS	A	-	-	C D A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.5 0.7 0.1	0.1	-	-

Appendix J – Intersection Analysis Worksheets – Ambient (2024) Conditions

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

	Scenario Report
Scenario:	2024 Ambient Growth AM
Command:	2024 Ambient Growth AM
Volume:	2024 AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	None
Trip Distribution:	None
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 AM Peak Hour

Turning Movement Report
 None

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Fremont Ave and Mission Rd													
Base	237	1446	217	13	1397	47	66	359	509	382	837	46	5557
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	237	1446	217	13	1397	47	66	359	509	382	837	46	5557
#2 Fremont Ave and 1000 Fremont Ave													
Base	51	1389	125	4	1384	39	25	5	58	4	1	6	3093
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	51	1389	125	4	1384	39	25	5	58	4	1	6	3093
#3 Fremont Ave and Orange St													
Base	2	1205	238	150	1415	2	1	1	0	58	0	57	3129
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	1205	238	150	1415	2	1	1	0	58	0	57	3129
#4 Date Ave and Orange St													
Base	51	95	5	6	179	71	19	34	45	8	26	3	544
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	51	95	5	6	179	71	19	34	45	8	26	3	544
#5 Palm Ave and Orange St													
Base	5	63	2	5	206	31	8	19	14	2	5	2	363
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	63	2	5	206	31	8	19	14	2	5	2	363
#6 Chestnut St and Palm Ave													
Base	15	96	2	13	175	12	1	1	8	1	3	8	334
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	15	96	2	13	175	12	1	1	8	1	3	8	334
#7 Fremont Ave and Poplar Blvd													
Base	96	1111	54	18	1503	16	20	111	70	57	114	19	3189
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	96	1111	54	18	1503	16	20	111	70	57	114	19	3189
#8 Date Ave and Mission Rd													
Base	0	0	0	24	0	84	88	463	0	0	1296	168	2123
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	24	0	84	88	463	0	0	1296	168	2123
#9 Chestnut St and Date Ave													
Base	81	154	9	13	145	57	0	0	0	2	3	2	466
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	81	154	9	13	145	57	0	0	0	2	3	2	466

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 AM Peak Hour

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#10 Fremont Ave and Concord Ave													
Base	60	1166	40	4	1479	63	43	13	73	24	15	11	2991
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	60	1166	40	4	1479	63	43	13	73	24	15	11	2991
#11 Fremont Ave and Montezuma Ave													
Base	732	277	43	4	86	641	434	56	656	54	100	11	3093
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	732	277	43	4	86	641	434	56	656	54	100	11	3093
#12 Palm Ave and Commonwealth Ave													
Base	19	34	4	42	231	270	64	227	30	14	278	41	1254
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	19	34	4	42	231	270	64	227	30	14	278	41	1254
#13 Date Ave and Commonwealth Ave													
Base	26	43	17	50	71	76	73	256	101	127	350	72	1261
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	26	43	17	50	71	76	73	256	101	127	350	72	1261
#14 Fremont Ave and Commonwealth Ave													
Base	42	1081	99	183	1399	66	29	144	17	116	166	115	3456
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	42	1081	99	183	1399	66	29	144	17	116	166	115	3456
#15 Fremont Ave and Valley Blvd													
Base	44	981	28	79	863	1365	565	433	30	60	777	198	5424
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	44	981	28	79	863	1365	565	433	30	60	777	198	5424
#16 Palm Ave and Mission Rd													
Base	0	0	0	55	0	133	35	452	0	0	1377	90	2142
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	55	0	133	35	452	0	0	1377	90	2142
#17 Marengo Ave and Valley Blvd													
Base	24	125	77	239	175	147	178	449	25	66	1025	202	2732
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	24	125	77	239	175	147	178	449	25	66	1025	202	2732
#18 Atlantic Blvd and Mission Road													
Base	165	1139	123	43	1011	264	94	553	72	188	1025	35	4712
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	165	1139	123	43	1011	264	94	553	72	188	1025	35	4712

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 AM Peak Hour

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#19 Marengo Ave and Mission Road													
Base	91	410	168	46	540	71	47	376	91	292	1255	79	3467
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	91	410	168	46	540	71	47	376	91	292	1255	79	3467
#20 Marengo Ave and Front St													
Base	2	545	3	11	529	384	87	12	8	2	80	36	1698
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	545	3	11	529	384	87	12	8	2	80	36	1698
#21 I-710 NB Ramp and Valley Blvd													
Base	646	1	734	4	0	1	0	222	0	0	2333	6	3949
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	646	1	734	4	0	1	0	222	0	0	2333	6	3949
#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	229	697	1708	1287	0	3921
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	229	697	1708	1287	0	3921
#23 Fremont Ave and Hellman Ave													
Base	152	1001	336	136	757	118	116	119	164	180	244	227	3551
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	152	1001	336	136	757	118	116	119	164	180	244	227	3551
#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	384	59	23	84	15	214	55	175	351	427	65	14	1864
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	384	59	23	84	15	214	55	175	351	427	65	14	1864
#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	670	51	0	0	0	2	26	626	122	0	16	1514
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	670	51	0	0	0	2	26	626	122	0	16	1514
#26 Ross Ave and Fremont Ave													
Base	28	1080	227	45	930	36	28	53	5	185	190	18	2825
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	28	1080	227	45	930	36	28	53	5	185	190	18	2825
#27 Westmont Dr and Valley Blvd													
Base	55	15	8	4	6	40	18	1036	15	3	2183	32	3415
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	55	15	8	4	6	40	18	1036	15	3	2183	32	3415

[illegible]

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 AM Peak Hour

Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	237	1446	217	13	1397	47	66	359	509	382	837	46
2 Fremont Ave a	51	1389	125	4	1384	39	25	5	58	4	1	6
3 Fremont Ave a	2	1205	238	150	1415	2	1	1	0	58	0	57
4 Date Ave and	51	95	5	6	179	71	19	34	45	8	26	3
5 Palm Ave and	5	63	2	5	206	31	8	19	14	2	5	2
6 Chestnut St a	15	96	2	13	175	12	1	1	8	1	3	8
7 Fremont Ave a	96	1111	54	18	1503	16	20	111	70	57	114	19
8 Date Ave and	0	0	0	24	0	84	88	463	0	0	1296	168
9 Chestnut St a	81	154	9	13	145	57	0	0	0	2	3	2
10 Fremont Ave a	60	1166	40	4	1479	63	43	13	73	24	15	11
11 Fremont Ave a	732	277	43	4	86	641	434	56	656	54	100	11
12 Palm Ave and	19	34	4	42	231	270	64	227	30	14	278	41
13 Date Ave and	26	43	17	50	71	76	73	256	101	127	350	72
14 Fremont Ave a	42	1081	99	183	1399	66	29	144	17	116	166	115
15 Fremont Ave a	44	981	28	79	863	1365	565	433	30	60	777	198
16 Palm Ave and	0	0	0	55	0	133	35	452	0	0	1377	90
17 Marengo Ave a	24	125	77	239	175	147	178	449	25	66	1025	202
18 Atlantic Blvd	165	1139	123	43	1011	264	94	553	72	188	1025	35
19 Marengo Ave a	91	410	168	46	540	71	47	376	91	292	1255	79
20 Marengo Ave a	2	545	3	11	529	384	87	12	8	2	80	36
21 I-710 NB Ramp	646	1	734	4	0	1	0	222	0	0	2333	6
22 I-710 SB Ramp	0	0	0	0	0	0	0	229	697	1708	1287	0
23 Fremont Ave a	152	1001	336	136	757	118	116	119	164	180	244	227
24 Elm St and He	384	59	23	84	15	214	55	175	351	427	65	14
25 Fremont Ave a	0	670	51	0	0	0	2	26	626	122	0	16
26 Ross Ave and	28	1080	227	45	930	36	28	53	5	185	190	18
27 Westmont Dr a	55	15	8	4	6	40	18	1036	15	3	2183	32

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 AM Peak Hour

Intersection Volume Report
 Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	237	1446	217	13	1397	47	66	359	509	382	837	46
2 Fremont Ave a	51	1389	125	4	1384	39	25	5	58	4	1	6
3 Fremont Ave a	2	1205	238	150	1415	2	1	1	0	58	0	57
4 Date Ave and	51	95	5	6	179	71	19	34	45	8	26	3
5 Palm Ave and	5	63	2	5	206	31	8	19	14	2	5	2
6 Chestnut St a	15	96	2	13	175	12	1	1	8	1	3	8
7 Fremont Ave a	96	1111	54	18	1503	16	20	111	70	57	114	19
8 Date Ave and	0	0	0	24	0	84	88	463	0	0	1296	168
9 Chestnut St a	81	154	9	13	145	57	0	0	0	2	3	2
10 Fremont Ave a	60	1166	40	4	1479	63	43	13	73	24	15	11
11 Fremont Ave a	732	277	43	4	86	641	434	56	656	54	100	11
12 Palm Ave and	19	34	4	42	231	270	64	227	30	14	278	41
13 Date Ave and	26	43	17	50	71	76	73	256	101	127	350	72
14 Fremont Ave a	42	1081	99	183	1399	66	29	144	17	116	166	115
15 Fremont Ave a	44	981	28	79	863	1365	565	433	30	60	777	198
16 Palm Ave and	0	0	0	55	0	133	35	452	0	0	1377	90
17 Marengo Ave a	24	125	77	239	175	147	178	449	25	66	1025	202
18 Atlantic Blvd	165	1139	123	43	1011	264	94	553	72	188	1025	35
19 Marengo Ave a	91	410	168	46	540	71	47	376	91	292	1255	79
20 Marengo Ave a	2	545	3	11	529	384	87	12	8	2	80	36
21 I-710 NB Ramp	646	1	734	4	0	1	0	222	0	0	2333	6
22 I-710 SB Ramp	0	0	0	0	0	0	0	229	697	1708	1287	0
23 Fremont Ave a	152	1001	336	136	757	118	116	119	164	180	244	227
24 Elm St and He	384	59	23	84	15	214	55	175	351	427	65	14
25 Fremont Ave a	0	670	51	0	0	0	2	26	626	122	0	16
26 Ross Ave and	28	1080	227	45	930	36	28	53	5	185	190	18
27 Westmont Dr a	55	15	8	4	6	40	18	1036	15	3	2183	32

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 AM Peak Hour

Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 1 Fremont Ave and Mission Rd	F xxxxxx	1.241	F xxxxxx	1.241	+ 0.000 V/C
# 2 Fremont Ave and 1000 Fremont A	B xxxxxx	0.607	B xxxxxx	0.607	+ 0.000 V/C
# 3 Fremont Ave and Orange St	B xxxxxx	0.608	B xxxxxx	0.608	+ 0.000 V/C
# 4 Date Ave and Orange St	B 11.4	0.055	B 11.4	0.055	+ 0.000 D/V
# 5 Palm Ave and Orange St	A 8.6	0.278	A 8.6	0.278	+ 0.000 V/C
# 6 Chestnut St and Palm Ave	A 8.5	0.244	A 8.5	0.244	+ 0.000 V/C
# 7 Fremont Ave and Poplar Blvd	C xxxxxx	0.740	C xxxxxx	0.740	+ 0.000 V/C
# 8 Date Ave and Mission Rd	C 19.4	0.227	C 19.4	0.227	+ 0.000 D/V
# 9 Chestnut St and Date Ave	B 10.8	0.059	B 10.8	0.059	+ 0.000 D/V
# 10 Fremont Ave and Concord Ave	B xxxxxx	0.680	B xxxxxx	0.680	+ 0.000 V/C
# 11 Fremont Ave and Montezuma Ave	B xxxxxx	0.636	B xxxxxx	0.636	+ 0.000 V/C
# 12 Palm Ave and Commonwealth Ave	A xxxxxx	0.408	A xxxxxx	0.408	+ 0.000 V/C
# 13 Date Ave and Commonwealth Ave	A xxxxxx	0.399	A xxxxxx	0.399	+ 0.000 V/C
# 14 Fremont Ave and Commonwealth A	C xxxxxx	0.757	C xxxxxx	0.757	+ 0.000 V/C
# 15 Fremont Ave and Valley Blvd	E xxxxxx	0.993	E xxxxxx	0.993	+ 0.000 V/C
# 16 Palm Ave and Mission Rd	B xxxxxx	0.664	B xxxxxx	0.664	+ 0.000 V/C
# 17 Marengo Ave and Valley Blvd	C xxxxxx	0.759	C xxxxxx	0.759	+ 0.000 V/C
# 18 Atlantic Blvd and Mission Road	E xxxxxx	0.909	E xxxxxx	0.909	+ 0.000 V/C
# 19 Marengo Ave and Mission Road	E xxxxxx	0.985	E xxxxxx	0.985	+ 0.000 V/C
# 20 Marengo Ave and Front St	C xxxxxx	0.777	C xxxxxx	0.777	+ 0.000 V/C
# 21 I-710 NB Ramp and Valley Blvd	C xxxxxx	0.740	C xxxxxx	0.740	+ 0.000 V/C
# 22 I-710 SB Ramp and Valley Blvd	F xxxxxx	1.129	F xxxxxx	1.129	+ 0.000 V/C

23 Fremont Ave and Hellman Ave D xxxxx 0.828 D xxxxx 0.828 + 0.000 V/C

 Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 AM Peak Hour

Intersection	Base			Future			Change in
	LOS	Veh	C	LOS	Veh	C	
# 24 Elm St and Hellman Ave/Ramona	F	52.4	1.191	F	52.4	1.191	+ 0.000 V/C
# 25 Fremont Ave and Ramona Road/10	F	95.0	1.234	F	95.0	1.234	+ 0.000 V/C
# 26 Ross Ave and Fremont Ave	B	xxxxxx	0.689	B	xxxxxx	0.689	+ 0.000 V/C
# 27 Westmont Dr and Valley Blvd	D	xxxxxx	0.859	D	xxxxxx	0.859	+ 0.000 V/C

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Fremont Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.241
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

Street Name:	Fremont Ave						Mission Rd						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1	0

Volume Module:

Base Vol:	221	1349	202	12	1303	44	62	335	475	356	781	43
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	237	1446	217	13	1397	47	66	359	509	382	837	46
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	237	1446	217	13	1397	47	66	359	509	382	837	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	237	1446	217	13	1397	47	66	359	509	382	837	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	237	1446	217	13	1397	47	66	359	509	382	837	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	237	1446	217	13	1397	47	66	359	509	382	837	46

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.74	0.26	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.90	0.10
Final Sat.:	1600	2783	417	1600	3200	1600	1600	3200	1600	1600	3033	167

Capacity Analysis Module:

Vol/Sat:	0.15	0.52	0.52	0.01	0.44	0.03	0.04	0.11	0.32	0.24	0.28	0.28
Crit Moves:	****			****			****		****	****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.607

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 41 Level Of Service: B

Street Name:	Fremont Ave						1000 Fremont Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	0	1	0	1	0

Volume Module:

Base Vol:	48	1296	117	4	1291	36	23	5	54	4	1	6
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	51	1389	125	4	1384	39	25	5	58	4	1	6
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	51	1389	125	4	1384	39	25	5	58	4	1	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	51	1389	125	4	1384	39	25	5	58	4	1	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	1389	125	4	1384	39	25	5	58	4	1	6
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	51	1389	125	4	1384	39	25	5	58	4	1	6

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.08	0.92	1.00	0.14	0.86
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	136	1464	1600	229	1371

Capacity Analysis Module:

Vol/Sat:	0.03	0.43	0.08	0.00	0.43	0.02	0.02	0.04	0.04	0.00	0.00	0.00
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.608

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 41 Level Of Service: B

Street Name:	Fremont Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	0	1	0	0

Volume Module:

Base Vol:	2	1124	222	140	1320	2	1	1	0	54	0	53
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	2	1205	238	150	1415	2	1	1	0	58	0	57
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	1205	238	150	1415	2	1	1	0	58	0	57
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1205	238	150	1415	2	1	1	0	58	0	57
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1205	238	150	1415	2	1	1	0	58	0	57
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	1205	238	150	1415	2	1	1	0	58	0	57

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.50	0.50	1.00	1.01	xxxx	0.99
Final Sat.:	1600	3200	1600	1600	3195	5	800	800	1600	1615	0	1585

Capacity Analysis Module:

Vol/Sat:	0.00	0.38	0.15	0.09	0.44	0.44	0.00	0.00	0.00	0.04	0.00	0.04
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Date Ave and Orange St

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: B[11.4]

Street Name: Date Ave Orange St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 0 1 1 0 1 0 0 1 0 1 0 0 1

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol: 48 89 5 6 167 66 18 32 42 7 24 3
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 51 95 5 6 179 71 19 34 45 8 26 3
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 51 95 5 6 179 71 19 34 45 8 26 3
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 51 95 5 6 179 71 19 34 45 8 26 3
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 51 95 5 6 179 71 19 34 45 8 26 3

Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
Cnflct Vol: 250 xxxx xxxxx 101 xxxx xxxxx 407 396 179 465 461 95
Potent Cap.: 1328 xxxx xxxxx 1504 xxxx xxxxx 558 544 869 511 500 967
Move Cap.: 1328 xxxx xxxxx 1504 xxxx xxxxx 516 521 869 445 479 967
Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 643 620 xxxxx 561 574 xxxxx
Volume/Cap: 0.04 xxxx xxxx 0.00 xxxx xxxx 0.03 0.06 0.05 0.01 0.04 0.00

Level Of Service Module:
2Way95thQ: 0.1 xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx 0.2 xxxx xxxx 0.0
Control Del: 7.8 xxxx xxxxx 7.4 xxxx xxxxx xxxxx xxxx 9.4 xxxxx xxxx 8.7
LOS by Move: A * * A * * * * A * * A
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx 628 xxxx xxxxx 571 xxxx xxxxx
SharedQueue:xxxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.3 xxxx xxxxx 0.2 xxxx xxxxx
Shrd ConDel:xxxxxx xxxx xxxxx xxxxx xxxx xxxxx 11.3 xxxx xxxxx 11.7 xxxx xxxxx

Shared LOS:	*	*	*	*	*	*	B	*	*	B	*	*
ApproachDel:	xxxxxx			xxxxxx			10.4			11.4		
ApproachLOS:	*			*			B			B		

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Palm Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.278

Loss Time (sec): 0 Average Delay (sec/veh): 8.6

Optimal Cycle: 0 Level Of Service: A

Street Name: Palm Ave Orange St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1

-----|-----|-----|-----|-----|

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol: 5 59 2 5 192 29 7 18 13 2 5 2

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 5 63 2 5 206 31 8 19 14 2 5 2

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 5 63 2 5 206 31 8 19 14 2 5 2

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 5 63 2 5 206 31 8 19 14 2 5 2

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 5 63 2 5 206 31 8 19 14 2 5 2

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 5 63 2 5 206 31 8 19 14 2 5 2

-----|-----|-----|-----|-----|

Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.08 0.92 1.00 0.03 0.97 1.00 0.28 0.72 1.00 0.29 0.71 1.00

Final Sat.: 57 677 864 19 741 894 179 460 750 181 451 743

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.09 0.09 0.00 0.28 0.28 0.03 0.04 0.04 0.02 0.01 0.01 0.00

Crit Moves: **** **** **** ****

Delay/Veh: 8.0 8.0 6.8 9.2 9.2 6.8 8.3 8.3 7.3 8.2 8.2 7.3

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 8.0 8.0 6.8 9.2 9.2 6.8 8.3 8.3 7.3 8.2 8.2 7.3

LOS by Move: A A A A A A A A A A A A

ApproachDel: 8.0 8.9 8.0 8.0

Delay Adj: 1.00 1.00 1.00

ApprAdjDel: 8.0 8.9 8.0 8.0

LOS by Appr: A A A A

AllWayAvgQ: 0.1 0.1 0.0 0.4 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 AM Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #6 Chestnut St and Palm Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.244
 Loss Time (sec): 0 Average Delay (sec/veh): 8.5
 Optimal Cycle: 0 Level Of Service: A

Street Name:	Chestnut St						Palm Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	0	1	0	1	0	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	AM Peak
Base Vol:	14	90	2	12	163	11
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	15	96	2	13	175	12
Added Vol:	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	15	96	2	13	175	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	15	96	2	13	175	12
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	15	96	2	13	175	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	15	96	2	13	175	12

Saturation Flow Module:	Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.13	0.87	1.00	0.07	0.93	1.00	0.50	0.50	1.00	0.25	0.75
Final Sat.:	101	651	895	53	716	909	312	312	747	159	478

Capacity Analysis Module:	Vol/Sat:	0.15	0.15	0.00	0.24	0.24	0.01	0.00	0.00	0.01	0.01	0.01
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Delay/Veh:	8.3	8.3	6.7	8.9	8.9	6.7	8.2	8.2	7.3	8.1	8.1	7.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.3	8.3	6.7	8.9	8.9	6.7	8.2	8.2	7.3	8.1	8.1	7.3

LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.2			8.7			7.5			7.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.2			8.7			7.5			7.6		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.2	0.2	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.740
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Fremont Ave					Poplar Blvd									
Approach:	North Bound		South Bound			East Bound		West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted					Permitted					Permitted				
Rights:	Include					Include					Include				
Min. Green:	0		0		0	0		0		0	0		0		0
Y+R:	4.0		4.0		4.0	4.0		4.0		4.0	4.0		4.0		4.0
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	1	0	1

Volume Module:												
Base Vol:	90	1036	50	17	1402	15	19	104	65	53	106	18
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	96	1111	54	18	1503	16	20	111	70	57	114	19
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	96	1111	54	18	1503	16	20	111	70	57	114	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	96	1111	54	18	1503	16	20	111	70	57	114	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	96	1111	54	18	1503	16	20	111	70	57	114	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	96	1111	54	18	1503	16	20	111	70	57	114	19

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.91	0.09	1.00	1.98	0.02	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	3053	147	1600	3166	34	1600	1600	1600	1600	1600	1600

```
Capacity Analysis Module:
Vol/Sat:      0.06 0.36 0.36 0.01 0.47 0.47 0.01 0.07 0.04 0.04 0.07 0.01
Crit Moves:   ****                ****                ****                ****
```

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Date Ave and Mission Rd

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: C[19.4]

Street Name: Date Ave Mission Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 2 0 0 0 0 1 1 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol: 0 0 0 22 0 78 82 432 0 0 1209 157
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 0 0 0 24 0 84 88 463 0 0 1296 168
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 24 0 84 88 463 0 0 1296 168
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 24 0 84 88 463 0 0 1296 168
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 24 0 84 88 463 0 0 1296 168
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxxx xxxxxx 6.8 xxxxx 6.9 4.1 xxxxx xxxxxx xxxxxx xxxxx xxxxxx
FollowUpTim:xxxxxx xxxxx xxxxxx 3.5 xxxxx 3.3 2.2 xxxxx xxxxxx xxxxxx xxxxx xxxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxxx xxxxx xxxxxx 1788 xxxxx 732 1464 xxxxx xxxxxx xxxxx xxxxx xxxxxx
Potent Cap.: xxxxx xxxxx xxxxxx 74 xxxxx 368 467 xxxxx xxxxxx xxxxx xxxxx xxxxxx
Move Cap.: xxxxx xxxxx xxxxxx 63 xxxxx 368 467 xxxxx xxxxxx xxxxx xxxxx xxxxxx
Total Cap: 238 105 xxxxxx 199 210 xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
Volume/Cap: xxxxx xxxxx xxxxx 0.12 xxxxx 0.23 0.19 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxxx xxxxx xxxxxx 0.4 xxxxx 0.9 0.7 xxxxx xxxxxx xxxxx xxxxx xxxxxx
Control Del:xxxxxx xxxxx xxxxxx 25.5 xxxxx 17.7 14.5 xxxxx xxxxxx xxxxxx xxxxx xxxxxx
LOS by Move: * * * D * C B * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
SharedQueue:xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Shrd ConDel:xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx

```
Shared LOS:      *      *      *      *      *      *      *      *      *      *      *
ApproachDel:     xxxxxx          19.4          xxxxxx          xxxxxx
ApproachLOS:      *                      C                      *
*****
Note: Queue reported is the number of cars per lane.
```


Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: B[10.8]

Street Name:	Chestnut St						Date Ave							
Approach:	North Bound			South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign				
Rights:	Include			Include			Include			Include				
Lanes:	1	0	1	0	1	1	0	1	0	0	1	0	0	1

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol:	76	144	8	12	135	53	0	0	0	2	3	2
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	81	154	9	13	145	57	0	0	0	2	3	2
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	81	154	9	13	145	57	0	0	0	2	3	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	81	154	9	13	145	57	0	0	0	2	3	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	81	154	9	13	145	57	0	0	0	2	3	2

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflict Vol:	202	xxxx	xxxxxx	163	xxxx	xxxxxx	495	496	145	516	545	154
Potent Cap.:	1382	xxxx	xxxxxx	1428	xxxx	xxxxxx	488	478	908	523	449	897
Move Cap.:	1382	xxxx	xxxxxx	1428	xxxx	xxxxxx	459	446	908	496	418	897
Total Cap:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	580	549	xxxxxx	613	528	xxxxxx
Volume/Cap:	0.06	xxxx	xxxx	0.01	xxxx	xxxx	0.00	0.00	0.00	0.00	0.01	0.00

Level Of Service Module:

2Way95thQ:	0.2	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	0.0
Control Del:	7.8	xxxx	xxxxxx	7.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.0
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	A
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	0	xxxxxx	559	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	11.5	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	B	*	*
ApproachDel:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	10.8	xxxxxxx	xxxxxxx
ApproachLOS:	*	*	*	*	*	*	*	*	*	B	*	*

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Fremont Ave and Concord Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.680

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 48 Level Of Service: B

Street Name:	Fremont Ave						Concord Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	-	T	-	R		L	-	T	-	R	
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0		1	0	1	0	1	0

Volume Module:

Base Vol:	56	1088	37	4	1380	59	40	12	68	22	14	10
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	60	1166	40	4	1479	63	43	13	73	24	15	11
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	1166	40	4	1479	63	43	13	73	24	15	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	1166	40	4	1479	63	43	13	73	24	15	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	1166	40	4	1479	63	43	13	73	24	15	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60	1166	40	4	1479	63	43	13	73	24	15	11

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.90	0.10	1.00	1.92	0.08	1.00	1.00	1.00	1.00	0.58	0.42
Final Sat.:	1600	4642	158	1600	3069	131	1600	1600	1600	1600	933	667

Capacity Analysis Module:

Vol/Sat:	0.04	0.25	0.25	0.00	0.48	0.48	0.03	0.01	0.05	0.01	0.02	0.02
Crit Moves:	****			****			****		****	****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.636

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 43 Level Of Service: B

Street Name:	Fremont Ave						Montezuma Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	1	0	1	2	0	0	1	0	0

Volume Module:

Base Vol:	683	258	40	4	80	598	405	52	612	50	93	10
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	732	277	43	4	86	641	434	56	656	54	100	11
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	732	277	43	4	86	641	434	56	656	54	100	11
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	732	277	43	4	86	0	434	56	656	54	100	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	732	277	43	4	86	0	434	56	656	54	100	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	732	277	43	4	86	0	434	56	656	54	100	11

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.87	0.13	0.10	1.90	1.00	2.00	0.16	1.84	0.33	0.61	0.06
Final Sat.:	2880	1385	215	152	3048	1600	2880	251	2949	523	973	105

Capacity Analysis Module:

Vol/Sat:	0.25	0.20	0.20	0.00	0.03	0.00	0.15	0.22	0.22	0.03	0.10	0.10
Crit Moves:	****				****		****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.408

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 29 Level Of Service: A

Street Name:	Palm Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	0	2	0

Volume Module:

Base Vol:	18	32	4	39	215	252	60	212	28	13	259	38
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	19	34	4	42	231	270	64	227	30	14	278	41
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	34	4	42	231	270	64	227	30	14	278	41
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	34	4	42	231	270	64	227	30	14	278	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	34	4	42	231	270	64	227	30	14	278	41
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	19	34	4	42	231	270	64	227	30	14	278	41

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.77	0.23	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2827	373	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.01	0.02	0.00	0.03	0.14	0.17	0.04	0.08	0.08	0.01	0.09	0.03
Crit Moves:	****					****	****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.399

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 29 Level Of Service: A

Street Name:	Date Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	-	T	-	R		L	-	T	-	R	
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1		1	0	1	1	0	

Volume Module:

Base Vol:	24	40	16	47	66	71	68	239	94	118	326	67
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	26	43	17	50	71	76	73	256	101	127	350	72
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	26	43	17	50	71	76	73	256	101	127	350	72
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	26	43	17	50	71	76	73	256	101	127	350	72
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	43	17	50	71	76	73	256	101	127	350	72
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	43	17	50	71	76	73	256	101	127	350	72

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.48	0.52	1.00	1.44	0.56	1.00	1.66	0.34
Final Sat.:	1600	1600	1600	1600	771	829	1600	2297	903	1600	2654	546

Capacity Analysis Module:

Vol/Sat:	0.02	0.03	0.01	0.03	0.09	0.09	0.05	0.11	0.11	0.08	0.13	0.13
Crit Moves:	****				****			****		****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.757

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 58 Level Of Service: C

Street Name:	Fremont Ave					Commonwealth Ave														
Approach:	North Bound		South Bound			East Bound		West Bound												
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R					
-----	-----				-----				-----				-----							
Control:	Protected					Protected					Protected					Protected				
Rights:	Include					Include					Include					Include				
Min. Green:	0		0		0	0		0		0	0		0		0	0		0		0
Y+R:	4.0		4.0		4.0	4.0		4.0		4.0	4.0		4.0		4.0	4.0		4.0		4.0
Lanes:	1	0	2	0	1	1	0	1	1	0	1	0	0	1	0	1	0	1	0	1
-----	-----				-----				-----				-----				-----			

Volume Module:

Base Vol:	39	1008	92	171	1305	62	27	134	16	108	155	107
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	42	1081	99	183	1399	66	29	144	17	116	166	115
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	42	1081	99	183	1399	66	29	144	17	116	166	115
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	42	1081	99	183	1399	66	29	144	17	116	166	115
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	1081	99	183	1399	66	29	144	17	116	166	115
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	42	1081	99	183	1399	66	29	144	17	116	166	115

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.91	0.09	1.00	0.89	0.11	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3055	145	1600	1429	171	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.34	0.06	0.11	0.46	0.46	0.02	0.10	0.10	0.07	0.10	0.07
Crit Moves:	****				****			****		****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Fremont Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.993

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: E

Street Name:	Fremont Ave						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	2	2	0	2	1	0	2

Volume Module:

Base Vol:	41	915	26	74	805	1273	527	404	28	56	725	185
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	44	981	28	79	863	1365	565	433	30	60	777	198
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	981	28	79	863	1365	565	433	30	60	777	198
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	44	981	28	79	863	1365	565	433	30	60	777	198
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	981	28	79	863	1365	565	433	30	60	777	198
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	44	981	28	79	863	1365	565	433	30	60	777	198

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.94	0.06	1.00	2.00	2.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3112	88	1600	3200	3200	2880	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.32	0.32	0.05	0.27	0.43	0.20	0.14	0.02	0.04	0.24	0.12
Crit Moves:	****					****	****				****	

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.664

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 46 Level Of Service: B

Street Name:	Palm Ave						Mission Rd												
Approach:	North Bound			South Bound			East Bound			West Bound									
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R				
-----	-----			-----			-----			-----									
Control:	Protected			Protected			Permitted			Permitted									
Rights:	Include			Include			Include			Include									
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0						
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0						
Lanes:	0	0	0	0	0	1	0	0	0	1	0	2	0	0	0	0	1	1	0

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol:	0	0	0	51	0	124	33	422	0	0	1284	84
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	0	0	55	0	133	35	452	0	0	1377	90
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	55	0	133	35	452	0	0	1377	90
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	55	0	133	35	452	0	0	1377	90
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	55	0	133	35	452	0	0	1377	90
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	55	0	133	35	452	0	0	1377	90

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.88	0.12
Final Sat.:	0	0	0	1600	0	1600	1600	3200	0	0	3004	196

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.08	0.02	0.14	0.00	0.00	0.46	0.46
Crit Moves:				****			****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.759

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 59 Level Of Service: C

Street Name:	Marengo Ave								Valley Blvd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
-----	-----				-----				-----				-----			
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0		0		0	0		0		0	0		0		0	
Y+R:	4.0		4.0		4.0	4.0		4.0		4.0	4.0		4.0		4.0	
Lanes:	1	0	1	0	1	1	0	0	1	0	1	0	2	0	1	
-----	-----				-----				-----				-----			

Volume Module:

Base Vol:	22	117	72	223	163	137	166	419	23	62	956	188
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	24	125	77	239	175	147	178	449	25	66	1025	202
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	125	77	239	175	147	178	449	25	66	1025	202
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	24	125	77	239	175	147	178	449	25	66	1025	202
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	125	77	239	175	147	178	449	25	66	1025	202
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	24	125	77	239	175	147	178	449	25	66	1025	202

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.54	0.46	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	869	731	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.01	0.08	0.05	0.15	0.20	0.20	0.11	0.14	0.02	0.04	0.32	0.13
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.909

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 105 Level Of Service: E

Street Name: Atlantic Blvd Mission Road

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 1 0

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Volume Module:

Base Vol: 154 1062 115 40 943 246 88 516 67 175 956 33

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 165 1139 123 43 1011 264 94 553 72 188 1025 35

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 165 1139 123 43 1011 264 94 553 72 188 1025 35

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 165 1139 123 43 1011 264 94 553 72 188 1025 35

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 165 1139 123 43 1011 264 94 553 72 188 1025 35

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 165 1139 123 43 1011 264 94 553 72 188 1025 35

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.80 0.20 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.93 0.07

Final Sat.: 1600 2887 313 1600 3200 1600 1600 3200 1600 1600 3093 107

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Capacity Analysis Module:

Vol/Sat: 0.10 0.39 0.39 0.03 0.32 0.16 0.06 0.17 0.04 0.12 0.33 0.33

Crit Moves: **** **** **** ****

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.985

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 175 Level Of Service: E

Street Name:	Marengo Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	0

Volume Module:

Base Vol:	85	382	157	43	504	66	44	351	85	272	1171	74
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	91	410	168	46	540	71	47	376	91	292	1255	79
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	410	168	46	540	71	47	376	91	292	1255	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	410	168	46	540	71	47	376	91	292	1255	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	410	168	46	540	71	47	376	91	292	1255	79
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	410	168	46	540	71	47	376	91	292	1255	79

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.88	0.12	1.00	1.61	0.39	1.00	1.88	0.12
Final Sat.:	1600	1600	1600	1600	1415	185	1600	2576	624	1600	3010	190

Capacity Analysis Module:

Vol/Sat:	0.06	0.26	0.11	0.03	0.38	0.38	0.03	0.15	0.15	0.18	0.42	0.42
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #20 Marengo Ave and Front St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.777

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 62 Level Of Service: C

Street Name:	Marengo Ave						Front St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	0	1	0	0	1	0

Volume Module:

Base Vol:	2	508	3	10	493	358	81	11	7	2	75	34
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	2	545	3	11	529	384	87	12	8	2	80	36
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	545	3	11	529	384	87	12	8	2	80	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	545	3	11	529	384	87	12	8	2	80	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	545	3	11	529	384	87	12	8	2	80	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	545	3	11	529	384	87	12	8	2	80	36

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.99	0.01	1.00	0.58	0.42	0.88	0.12	1.00	0.03	0.97	1.00
Final Sat.:	1600	1591	9	1600	927	673	1409	191	1600	42	1558	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.34	0.34	0.01	0.57	0.57	0.05	0.06	0.00	0.00	0.05	0.02
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #21 I-710 NB Ramp and Valley Blvd

Cycle (sec): 120 Critical Vol./Cap.(X): 0.740

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 58 Level Of Service: C

Street Name:	I-710 NB Ramp						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	2	0	0	0

Volume Module:

Base Vol:	603	1	685	4	0	1	0	207	0	0	2176	6
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	646	1	734	4	0	1	0	222	0	0	2333	6
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	646	1	734	4	0	1	0	222	0	0	2333	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	646	1	734	4	0	1	0	222	0	0	2333	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	646	1	734	4	0	1	0	222	0	0	2333	6
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	646	1	734	4	0	1	0	222	0	0	2333	6

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.40	0.01	1.59	0.80	0.00	0.20	0.00	2.00	0.00	0.00	3.99	0.01
Final Sat.:	2245	4	2551	1280	0	320	0	3200	0	0	6382	18

Capacity Analysis Module:

Vol/Sat:	0.29	0.29	0.29	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.37	0.37
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.129

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: I-710 SB Ramp Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 0 0 0 2 0 1 2 0 2 0 0

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Volume Module:

Base Vol: 0 0 0 0 0 0 0 0 214 650 1593 1200 0

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 0 0 0 0 0 0 0 0 229 697 1708 1287 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 0 0 0 0 0 229 697 1708 1287 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 0 0 0 0 0 229 697 1708 1287 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 0 0 0 0 0 229 697 1708 1287 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 0 0 0 0 0 0 0 229 697 1708 1287 0

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00

Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00

Final Sat.: 0 0 0 0 0 0 0 0 3200 1600 2880 3200 0

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Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.07 0.44 0.59 0.40 0.00

Crit Moves: **** *

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.828

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 74 Level Of Service: D

Street Name:	Fremont Ave						Hellman Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
-----	-----			-----			-----			-----					
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	1		

Volume Module:

Base Vol:	142	934	313	127	706	110	108	111	153	168	228	212
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	152	1001	336	136	757	118	116	119	164	180	244	227
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	152	1001	336	136	757	118	116	119	164	180	244	227
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	152	1001	336	136	757	118	116	119	164	180	244	227
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	152	1001	336	136	757	118	116	119	164	180	244	227
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	152	1001	336	136	757	118	116	119	164	180	244	227

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.50	0.50	1.00	1.73	0.27	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2397	803	1600	2769	431	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.10	0.42	0.42	0.09	0.27	0.27	0.07	0.07	0.10	0.11	0.15	0.14
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 AM Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.191

Loss Time (sec): 0 Average Delay (sec/veh): 52.4

Optimal Cycle: 0 Level Of Service: F

Street Name: Elm St Hellman Ave/Ramona Rd/ 10 WB ramp

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 1 0 0 0 1 0 1 0 0 1

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Volume Module:AM Peak

Base Vol: 358 55 21 78 14 200 51 163 327 398 61 13

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 384 59 23 84 15 214 55 175 351 427 65 14

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 384 59 23 84 15 214 55 175 351 427 65 14

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 384 59 23 84 15 214 55 175 351 427 65 14

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 384 59 23 84 15 214 55 175 351 427 65 14

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 384 59 23 84 15 214 55 175 351 427 65 14

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.65 0.25 0.10 0.85 0.15 1.00 0.24 0.76 1.00 0.87 0.13 1.00

Final Sat.: 1039 -289 38 324 58 434 102 325 472 358 55 463

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Capacity Analysis Module:

Vol/Sat: 0.37-0.20 0.60 0.26 0.26 0.49 0.54 0.54 0.74 1.19 1.19 0.03

Crit Moves: **** **** **** ****

Delay/Veh: 24.0 24.5 24.5 15.1 15.1 18.2 20.3 20.3 28.6 134.8 135 10.5

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 24.0 24.5 24.5 15.1 15.1 18.2 20.3 20.3 28.6 134.8 135 10.5

LOS by Move: C C C C C C C C D F F B

ApproachDel: 23.8 17.2 25.3 131.4

Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	23.8			17.2			25.3			131.4		
LOS by Appr:		C			C			D		F		
AllWayAvgQ:	1.4	1.4	1.4	0.3	0.3	0.9	1.1	1.1	2.4	14.2	14.2	0.0

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Note: Queue reported is the number of cars per lane.

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	0.00	0.00	0.08	0.92	1.00	0.88	0.00	0.12
Final Sat.:	0	543	606	0	0	0	41	492	599	421	0	55

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Capacity Analysis Module:

Vol/Sat:	xxxx	1.23	0.08	xxxx	xxxx	xxxx	0.05	0.05	1.05	0.29	xxxx	0.29
Crit Moves:	****									****		
Delay/Veh:	0.0	142	9.2	0.0	0.0	0.0	9.8	9.8	73.2	13.6	0.0	13.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	142	9.2	0.0	0.0	0.0	9.8	9.8	73.2	13.6	0.0	13.6
LOS by Move:	*	F	A	*	*	*	A	A	F	B	*	B
ApproachDel:	132.8			xxxxxx			70.5				13.6	
Delay Adj:	1.00			xxxxxx			1.00				1.00	
ApprAdjDel:	132.8			xxxxxx			70.5				13.6	
LOS by Appr:	F			*			F				B	
AllWayAvgQ:	0.0	20.1	0.1	0.0	0.0	0.0	0.1	0.1	10.7	0.4	0.4	0.4

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Note: Queue reported is the number of cars per lane.

FinalVolume:	28	1080	227	45	930	36	28	53	5	185	190	18
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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.65	0.35	1.00	1.92	0.08	1.00	0.91	0.09	1.00	1.00	1.00
Final Sat.:	1600	2643	557	1600	3079	121	1600	1452	148	1600	1600	1600

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Capacity Analysis Module:

Vol/Sat:	0.02	0.41	0.41	0.03	0.30	0.30	0.02	0.04	0.04	0.12	0.12	0.01
Crit Moves:		****		****				****		****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Westmont Dr and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.859

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 83 Level Of Service: D

Street Name:	Westmont Dr						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	0	0	0	1	0	2	0	1	1

Volume Module:

Base Vol:	51	14	7	4	6	37	17	966	14	3	2036	30
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	55	15	8	4	6	40	18	1036	15	3	2183	32
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	15	8	4	6	40	18	1036	15	3	2183	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	15	8	4	6	40	18	1036	15	3	2183	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	15	8	4	6	40	18	1036	15	3	2183	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	15	8	4	6	40	18	1036	15	3	2183	32

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.71	0.19	0.10	0.08	0.13	0.79	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1133	311	156	136	204	1260	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.05	0.05	0.00	0.03	0.03	0.01	0.32	0.01	0.00	0.68	0.02
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Scenario Report

Scenario:	2024 Ambient Growth PM
Command:	2024 Ambient Growth PM
Volume:	2024 PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	None
Trip Distribution:	None
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Base	5	157	10	15	362	9	8	8	85	6	1	8	672
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	157	10	15	362	9	8	8	85	6	1	8	672

#7 Fremont Ave and Poplar Blvd

Base	163	1504	123	27	925	45	27	125	86	57	127	30	3239
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	163	1504	123	27	925	45	27	125	86	57	127	30	3239

#8 Date Ave and Mission Rd

Base	0	0	0	209	0	170	90	789	0	0	604	119	1981
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	209	0	170	90	789	0	0	604	119	1981

#9 Chestnut St and Date Ave

Base	19	191	13	41	400	11	0	0	0	11	2	18	705
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	19	191	13	41	400	11	0	0	0	11	2	18	705

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 PM Peak Hour

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#10 Fremont Ave and Concord Ave													
Base	55	1650	121	29	963	76	85	46	50	80	64	80	3300
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	55	1650	121	29	963	76	85	46	50	80	64	80	3300
#11 Fremont Ave and Montezuma Ave													
Base	737	475	92	26	44	278	428	179	655	35	74	20	3043
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	737	475	92	26	44	278	428	179	655	35	74	20	3043
#12 Palm Ave and Commonwealth Ave													
Base	53	133	21	184	233	262	204	446	75	9	413	103	2135
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	53	133	21	184	233	262	204	446	75	9	413	103	2135
#13 Date Ave and Commonwealth Ave													
Base	68	136	61	124	87	154	221	551	104	55	522	123	2206
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	68	136	61	124	87	154	221	551	104	55	522	123	2206
#14 Fremont Ave and Commonwealth Ave													
Base	39	1523	278	213	857	27	32	147	15	168	169	255	3723
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	39	1523	278	213	857	27	32	147	15	168	169	255	3723
#15 Fremont Ave and Valley Blvd													
Base	30	861	35	199	1030	830	660	964	27	134	374	330	5475
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	30	861	35	199	1030	830	660	964	27	134	374	330	5475
#16 Palm Ave and Mission Rd													
Base	0	0	0	354	0	118	53	963	0	0	611	109	2207
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	354	0	118	53	963	0	0	611	109	2207
#17 Marengo Ave and Valley Blvd													
Base	18	170	69	306	215	209	329	932	9	51	597	146	3051
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	18	170	69	306	215	209	329	932	9	51	597	146	3051
#18 Atlantic Blvd and Mission Road													
Base	102	1137	147	45	1020	108	140	1035	143	195	604	64	4740
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	102	1137	147	45	1020	108	140	1035	143	195	604	64	4740

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 PM Peak Hour

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#19 Marengo Ave and Mission Road													
Base	78	552	241	62	500	49	57	1007	303	75	577	63	3565
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	78	552	241	62	500	49	57	1007	303	75	577	63	3565
#20 Marengo Ave and Front St													
Base	3	680	4	25	731	202	161	54	9	2	20	17	1907
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	680	4	25	731	202	161	54	9	2	20	17	1907
#21 I-710 NB Ramp and Valley Blvd													
Base	626	0	1327	1	0	2	0	568	0	0	1199	0	3723
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	626	0	1327	1	0	2	0	568	0	0	1199	0	3723
#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	578	782	839	1008	0	3207
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	578	782	839	1008	0	3207
#23 Fremont Ave and Hellman Ave													
Base	91	793	259	158	872	73	137	185	232	221	194	254	3469
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	91	793	259	158	872	73	137	185	232	221	194	254	3469
#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	501	184	105	11	5	43	31	321	239	129	113	2	1683
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	501	184	105	11	5	43	31	321	239	129	113	2	1683
#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	784	124	0	0	0	4	98	310	50	0	84	1454
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	784	124	0	0	0	4	98	310	50	0	84	1454
#26 Ross Ave and Fremont Ave													
Base	32	910	180	28	1059	44	12	34	6	58	43	44	2451
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	32	910	180	28	1059	44	12	34	6	58	43	44	2451
#27 Westmont Dr and Valley Blvd													
Base	17	11	12	26	10	15	60	1692	145	9	1115	35	3146
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	17	11	12	26	10	15	60	1692	145	9	1115	35	3146

[illegible]

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 PM Peak Hour

Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	207	1490	206	54	1178	58	125	539	462	330	452	48
2 Fremont Ave a	58	1562	46	8	1193	64	87	3	74	42	4	27
3 Fremont Ave a	2	1501	188	109	1020	2	10	5	5	261	2	310
4 Date Ave and	33	182	3	27	286	44	72	165	166	1	21	6
5 Palm Ave and	5	183	2	11	287	14	62	69	76	2	5	8
6 Chestnut St a	5	157	10	15	362	9	8	8	85	6	1	8
7 Fremont Ave a	163	1504	123	27	925	45	27	125	86	57	127	30
8 Date Ave and	0	0	0	209	0	170	90	789	0	0	604	119
9 Chestnut St a	19	191	13	41	400	11	0	0	0	11	2	18
10 Fremont Ave a	55	1650	121	29	963	76	85	46	50	80	64	80
11 Fremont Ave a	737	475	92	26	44	278	428	179	655	35	74	20
12 Palm Ave and	53	133	21	184	233	262	204	446	75	9	413	103
13 Date Ave and	68	136	61	124	87	154	221	551	104	55	522	123
14 Fremont Ave a	39	1523	278	213	857	27	32	147	15	168	169	255
15 Fremont Ave a	30	861	35	199	1030	830	660	964	27	134	374	330
16 Palm Ave and	0	0	0	354	0	118	53	963	0	0	611	109
17 Marengo Ave a	18	170	69	306	215	209	329	932	9	51	597	146
18 Atlantic Blvd	102	1137	147	45	1020	108	140	1035	143	195	604	64
19 Marengo Ave a	78	552	241	62	500	49	57	1007	303	75	577	63
20 Marengo Ave a	3	680	4	25	731	202	161	54	9	2	20	17
21 I-710 NB Ramp	626	0	1327	1	0	2	0	568	0	0	1199	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	578	782	839	1008	0
23 Fremont Ave a	91	793	259	158	872	73	137	185	232	221	194	254

24 Elm St and He	501	184	105	11	5	43	31	321	239	129	113	2
25 Fremont Ave a	0	784	124	0	0	0	4	98	310	50	0	84
26 Ross Ave and	32	910	180	28	1059	44	12	34	6	58	43	44
27 Westmont Dr a	17	11	12	26	10	15	60	1692	145	9	1115	35

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 PM Peak Hour

Intersection Volume Report
 Future Volume Alternative

Node	Intersection	Northbound			Southbound			Eastbound			Westbound		
		L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1	Fremont Ave a	207	1490	206	54	1178	58	125	539	462	330	452	48
2	Fremont Ave a	58	1562	46	8	1193	64	87	3	74	42	4	27
3	Fremont Ave a	2	1501	188	109	1020	2	10	5	5	261	2	310
4	Date Ave and	33	182	3	27	286	44	72	165	166	1	21	6
5	Palm Ave and	5	183	2	11	287	14	62	69	76	2	5	8
6	Chestnut St a	5	157	10	15	362	9	8	8	85	6	1	8
7	Fremont Ave a	163	1504	123	27	925	45	27	125	86	57	127	30
8	Date Ave and	0	0	0	209	0	170	90	789	0	0	604	119
9	Chestnut St a	19	191	13	41	400	11	0	0	0	11	2	18
10	Fremont Ave a	55	1650	121	29	963	76	85	46	50	80	64	80
11	Fremont Ave a	737	475	92	26	44	278	428	179	655	35	74	20
12	Palm Ave and	53	133	21	184	233	262	204	446	75	9	413	103
13	Date Ave and	68	136	61	124	87	154	221	551	104	55	522	123
14	Fremont Ave a	39	1523	278	213	857	27	32	147	15	168	169	255
15	Fremont Ave a	30	861	35	199	1030	830	660	964	27	134	374	330
16	Palm Ave and	0	0	0	354	0	118	53	963	0	0	611	109
17	Marengo Ave a	18	170	69	306	215	209	329	932	9	51	597	146
18	Atlantic Blvd	102	1137	147	45	1020	108	140	1035	143	195	604	64
19	Marengo Ave a	78	552	241	62	500	49	57	1007	303	75	577	63
20	Marengo Ave a	3	680	4	25	731	202	161	54	9	2	20	17
21	I-710 NB Ramp	626	0	1327	1	0	2	0	568	0	0	1199	0
22	I-710 SB Ramp	0	0	0	0	0	0	0	578	782	839	1008	0
23	Fremont Ave a	91	793	259	158	872	73	137	185	232	221	194	254
24	Elm St and He	501	184	105	11	5	43	31	321	239	129	113	2
25	Fremont Ave a	0	784	124	0	0	0	4	98	310	50	0	84
26	Ross Ave and	32	910	180	28	1059	44	12	34	6	58	43	44
27	Westmont Dr a	17	11	12	26	10	15	60	1692	145	9	1115	35

 Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 PM Peak Hour

Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Fremont Ave and Mission Rd	F	xxxxxx 1.159	F	xxxxxx 1.159	+ 0.000 V/C
# 2 Fremont Ave and 1000 Fremont A	B	xxxxxx 0.667	B	xxxxxx 0.667	+ 0.000 V/C
# 3 Fremont Ave and Orange St	D	xxxxxx 0.842	D	xxxxxx 0.842	+ 0.000 V/C
# 4 Date Ave and Orange St	B	14.5 0.309	B	14.5 0.309	+ 0.000 D/V
# 5 Palm Ave and Orange St	B	10.8 0.451	B	10.8 0.451	+ 0.000 V/C
# 6 Chestnut St and Palm Ave	B	11.2 0.527	B	11.2 0.527	+ 0.000 V/C
# 7 Fremont Ave and Poplar Blvd	C	xxxxxx 0.739	C	xxxxxx 0.739	+ 0.000 V/C
# 8 Date Ave and Mission Rd	C	17.5 0.489	C	17.5 0.489	+ 0.000 D/V
# 9 Chestnut St and Date Ave	B	10.5 0.030	B	10.5 0.030	+ 0.000 D/V
# 10 Fremont Ave and Concord Ave	B	xxxxxx 0.630	B	xxxxxx 0.630	+ 0.000 V/C
# 11 Fremont Ave and Montezuma Ave	C	xxxxxx 0.715	C	xxxxxx 0.715	+ 0.000 V/C
# 12 Palm Ave and Commonwealth Ave	A	xxxxxx 0.555	A	xxxxxx 0.555	+ 0.000 V/C
# 13 Date Ave and Commonwealth Ave	B	xxxxxx 0.633	B	xxxxxx 0.633	+ 0.000 V/C
# 14 Fremont Ave and Commonwealth A	E	xxxxxx 0.916	E	xxxxxx 0.916	+ 0.000 V/C
# 15 Fremont Ave and Valley Blvd	E	xxxxxx 0.940	E	xxxxxx 0.940	+ 0.000 V/C

# 16 Palm Ave and Mission Rd	B xxxxx 0.622	B xxxxx 0.622	+ 0.000 V/C
# 17 Marengo Ave and Valley Blvd	C xxxxx 0.790	C xxxxx 0.790	+ 0.000 V/C
# 18 Atlantic Blvd and Mission Road	E xxxxx 0.975	E xxxxx 0.975	+ 0.000 V/C
# 19 Marengo Ave and Mission Road	E xxxxx 0.948	E xxxxx 0.948	+ 0.000 V/C
# 20 Marengo Ave and Front St	D xxxxx 0.820	D xxxxx 0.820	+ 0.000 V/C
# 21 I-710 NB Ramp and Valley Blvd	B xxxxx 0.687	B xxxxx 0.687	+ 0.000 V/C
# 22 I-710 SB Ramp and Valley Blvd	D xxxxx 0.880	D xxxxx 0.880	+ 0.000 V/C
# 23 Fremont Ave and Hellman Ave	D xxxxx 0.810	D xxxxx 0.810	+ 0.000 V/C

 Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 PM Peak Hour

Intersection	Base			Future			Change in
	LOS	Veh	C	LOS	Veh	C	
# 24 Elm St and Hellman Ave/Ramona	D	28.2	0.826	D	28.2	0.826	+ 0.000 V/C
# 25 Fremont Ave and Ramona Road/10	F	96.4	1.305	F	96.4	1.305	+ 0.000 V/C
# 26 Ross Ave and Fremont Ave	A	xxxxxx	0.526	A	xxxxxx	0.526	+ 0.000 V/C
# 27 Westmont Dr and Valley Blvd	B	xxxxxx	0.675	B	xxxxxx	0.675	+ 0.000 V/C

PHF Volume:	207	1490	206	54	1178	58	125	539	462	330	452	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	207	1490	206	54	1178	58	125	539	462	330	452	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	207	1490	206	54	1178	58	125	539	462	330	452	48

-----|-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.76	0.24	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.81	0.19
Final Sat.:	1600	2812	388	1600	3200	1600	1600	3200	1600	1600	2892	308

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat:	0.13	0.53	0.53	0.03	0.37	0.04	0.08	0.17	0.29	0.21	0.16	0.16
Crit Moves:	****			****					****	****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.667

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 46 Level Of Service: B

Street Name:	Fremont Ave								1000 Fremont Ave							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
-----	-----				-----				-----				-----			
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	0	1	0	
-----	-----				-----				-----				-----			

Volume Module:

Base Vol:	54	1457	43	7	1113	60	81	3	69	39	4	25
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	58	1562	46	8	1193	64	87	3	74	42	4	27
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	58	1562	46	8	1193	64	87	3	74	42	4	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	58	1562	46	8	1193	64	87	3	74	42	4	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	1562	46	8	1193	64	87	3	74	42	4	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	58	1562	46	8	1193	64	87	3	74	42	4	27

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.04	0.96	1.00	0.14	0.86
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	67	1533	1600	221	1379

Capacity Analysis Module:

Vol/Sat:	0.04	0.49	0.03	0.00	0.37	0.04	0.05	0.05	0.05	0.03	0.02	0.02
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.842

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 77 Level Of Service: D

Street Name:	Fremont Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	2	1400	175	102	951	2	9	5	5	243	2	289
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	2	1501	188	109	1020	2	10	5	5	261	2	310
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	1501	188	109	1020	2	10	5	5	261	2	310
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1501	188	109	1020	2	10	5	5	261	2	310
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1501	188	109	1020	2	10	5	5	261	2	310
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	1501	188	109	1020	2	10	5	5	261	2	310

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.64	0.36	1.00	1.00	0.01	0.99
Final Sat.:	1600	3200	1600	1600	3193	7	1029	571	1600	1600	11	1589

Capacity Analysis Module:

Vol/Sat:	0.00	0.47	0.12	0.07	0.32	0.32	0.01	0.01	0.00	0.16	0.19	0.19
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Date Ave and Orange St

Average Delay (sec/veh): 6.6 Worst Case Level Of Service: B[14.5]

Street Name:	Date Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	1	1	0	1	0	1	0	1

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	PM Peak						
Base Vol:	31	170	3	25	267	41	67	154	155	1	20	6
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	33	182	3	27	286	44	72	165	166	1	21	6
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	182	3	27	286	44	72	165	166	1	21	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	182	3	27	286	44	72	165	166	1	21	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	33	182	3	27	286	44	72	165	166	1	21	6

Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:												
Cnflict Vol:	330	xxxx	xxxxxx	185	xxxx	xxxxxx	604	592	286	776	633	182
Potent Cap.:	1241	xxxx	xxxxxx	1401	xxxx	xxxxxx	413	422	758	317	400	865
Move Cap.:	1241	xxxx	xxxxxx	1401	xxxx	xxxxxx	379	403	758	163	382	865
Total Cap:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	543	534	xxxxxx	254	507	xxxxxx
Volume/Cap:	0.03	xxxx	xxxx	0.02	xxxx	xxxx	0.13	0.31	0.22	0.00	0.04	0.01

Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxx	xxxx	0.8	xxxx	xxxx	0.0
Control Del:	8.0	xxxx	xxxxxx	7.6	xxxx	xxxxxx	xxxxxx	xxxx	11.1	xxxxxx	xxxx	9.2
LOS by Move:	A	*	*	A	*	*	*	*	B	*	*	A
Movement:	LT - LTR - RT	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	537	xxxx	xxxxxx	484	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	16.9	xxxx	xxxxxx	12.8	xxxx	xxxxxx

Shared LOS: * * * * * * C * * B * *
ApproachDel: xxxxxx xxxxxx 14.5 12.0
ApproachLOS: * * B B

Note: Queue reported is the number of cars per lane.

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2024 Ambient Growth PM Wed Apr 11, 2018 10:39:45 Page 10-1

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

```
*****
Intersection #5 Palm Ave and Orange St
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.451
Loss Time (sec):       0          Average Delay (sec/veh):          10.8
Optimal Cycle:         0          Level Of Service:          B
*****
Street Name:          Palm Ave          Orange St
Approach:              North Bound      South Bound      East Bound      West Bound
Movement:              L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:               Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:                Include          Include          Include          Include
Min. Green:            0    0    0        0    0    0        0    0    0        0    0    0
Lanes:                 0    1    0    0    1    0    1    0    0    1    0    1    0    0    1
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol:              5    171    2        10    268    13        58    64    71        2    5    7
Growth Adj:  1.07 1.07  1.07  1.07 1.07  1.07  1.07 1.07  1.07  1.07 1.07  1.07
Initial Bse:           5    183    2        11    287    14        62    69    76        2    5    8
Added Vol:             0    0    0        0    0    0        0    0    0        0    0    0
PasserByVol:           0    0    0        0    0    0        0    0    0        0    0    0
Initial Fut:           5    183    2        11    287    14        62    69    76        2    5    8
User Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:               1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:            5    183    2        11    287    14        62    69    76        2    5    8
Reduct Vol:            0    0    0        0    0    0        0    0    0        0    0    0
Reduced Vol:           5    183    2        11    287    14        62    69    76        2    5    8
PCE Adj:               1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:               1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:           5    183    2        11    287    14        62    69    76        2    5    8
-----|-----|-----|-----|
Saturation Flow Module:
Adjustment:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:                 0.03 0.97  1.00  0.04 0.96  1.00  0.48 0.52  1.00  0.29 0.71  1.00
Final Sat.:            18    623    730    24    637    754    269 296    661    151 379    606
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:               0.29 0.29  0.00  0.45 0.45  0.02  0.23 0.23  0.12  0.01 0.01  0.01
Crit Moves:            ****          ****          ****          ****
Delay/Veh:             10.3 10.3    7.4  12.2 12.2    7.4  10.4 10.4    8.4    9.0  9.0    8.1
Delay Adj:             1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:            10.3 10.3    7.4  12.2 12.2    7.4  10.4 10.4    8.4    9.0  9.0    8.1
LOS by Move:           B    B    A    B    B    A    B    B    A    A    A    A
ApproachDel:           10.3          12.0          9.7          8.6
Delay Adj:             1.00          1.00          1.00          1.00
ApprAdjDel:            10.3          12.0          9.7          8.6
LOS by Appr:           B          B    A    A
AllWayAvgQ:            0.4  0.4    0.0  0.8  0.8    0.0  0.3  0.3    0.1  0.0  0.0    0.0
*****
```

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 PM Peak Hour

Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.527
 Loss Time (sec): 0 Average Delay (sec/veh): 11.2
 Optimal Cycle: 0 Level Of Service: B

Street Name:	Chestnut St				Palm Ave															
Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Rights:	Include				Include				Include				Include							
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1
Volume Module:	>> Count Date: 17 Nov 2015 << PM Peak																			
Base Vol:	5	146	9	14	338	8	7	7	79	6	1	7								
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07							
Initial Bse:	5	157	10	15	362	9	8	8	85	6	1	8								
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0								
Initial Fut:	5	157	10	15	362	9	8	8	85	6	1	8								

User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	157	10	15	362	9	8	8	85	6	1	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	157	10	15	362	9	8	8	85	6	1	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	157	10	15	362	9	8	8	85	6	1	8
----- ----- ----- ----- -----												
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.97	1.00	0.04	0.96	1.00	0.50	0.50	1.00	0.86	0.14	1.00
Final Sat.:	23	663	789	28	687	827	274	274	643	443	74	617
----- ----- ----- ----- -----												
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.01	0.53	0.53	0.01	0.03	0.03	0.13	0.01	0.01	0.01
Crit Moves:	****			****			****			****		
Delay/Veh:	9.4	9.4	7.2	13.0	13.0	7.0	9.0	9.0	8.6	9.2	9.2	8.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.4	9.4	7.2	13.0	13.0	7.0	9.0	9.0	8.6	9.2	9.2	8.0
LOS by Move:	A	A	A	B	B	A	A	A	A	A	A	A
ApproachDel:	9.3			12.8			8.6			8.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.3			12.8			8.6			8.6		
LOS by Appr:	A			B			A			A		
AllWayAvgQ:	0.3	0.3	0.0	1.1	1.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 PM Peak Hour

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #7 Fremont Ave and Poplar Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.739
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 55 Level Of Service: C

 Street Name: Fremont Ave Poplar Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 152 1403 115 25 863 42 25 117 80 53 118 28
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 163 1504 123 27 925 45 27 125 86 57 127 30
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	163	1504	123	27	925	45	27	125	86	57	127	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	163	1504	123	27	925	45	27	125	86	57	127	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	163	1504	123	27	925	45	27	125	86	57	127	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	163	1504	123	27	925	45	27	125	86	57	127	30

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.85	0.15	1.00	1.91	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2958	242	1600	3051	149	1600	1600	1600	1600	1600	1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat:	0.10	0.51	0.51	0.02	0.30	0.30	0.02	0.08	0.05	0.04	0.08	0.02
Crit Moves:	****			****			****			****		

Shared LOS: * * * * * * * * * * *
ApproachDel: xxxxxx 17.5 xxxxxx xxxxxx
ApproachLOS: * C * *

Note: Queue reported is the number of cars per lane.

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B[10.5]

Street Name: Chestnut St Date Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 0 1 1 0 1 0 1 0 0 1! 0 0 0 1 0 0 1

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol: 18 178 12 38 373 10 0 0 0 10 2 17
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 19 191 13 41 400 11 0 0 0 11 2 18
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 19 191 13 41 400 11 0 0 0 11 2 18
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 19 191 13 41 400 11 0 0 0 11 2 18
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 19 191 13 41 400 11 0 0 0 11 2 18

Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxx 4.1 xxxxx xxxxx 7.1 6.5 6.2 6.4 6.5 6.2
FollowUpTim: 2.2 xxxxx xxxxx 2.2 xxxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
Cnflct Vol: 411 xxxxx xxxxx 204 xxxxx xxxxx 727 724 400 716 722 191
Potent Cap.: 1159 xxxxx xxxxx 1380 xxxxx xxxxx 342 355 654 400 356 856
Move Cap.: 1159 xxxxx xxxxx 1380 xxxxx xxxxx 321 338 654 386 339 856
Total Cap: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 482 475 xxxxx 529 467 xxxxx
Volume/Cap: 0.02 xxxxx xxxxx 0.03 xxxxx xxxxx 0.00 0.00 0.00 0.02 0.00 0.02

Level Of Service Module:
2Way95thQ: 0.1 xxxxx xxxxx 0.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.1
Control Del: 8.2 xxxxx xxxxx 7.7 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 9.3
LOS by Move: A * * A * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0 xxxxx 518 xxxxx xxxxx
SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.1 xxxxx xxxxx
Shrd ConDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 12.1 xxxxx xxxxx
Shared LOS: * * * * * * * * * * B * *
ApproachDel: xxxxxx xxxxxx xxxxxx 10.5
ApproachLOS: * * * B

Note: Queue reported is the number of cars per lane.

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

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-----
                        Level Of Service Computation Report
                    ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #10 Fremont Ave and Concord Ave
*****
Cycle (sec):           100                Critical Vol./Cap.(X):           0.630
Loss Time (sec):       10                Average Delay (sec/veh):           xxxxxx
Optimal Cycle:         43                Level Of Service:               B
*****
Street Name:           Fremont Ave                Concord Ave
Approach:              North Bound                South Bound                East Bound                West Bound
Movement:              L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|
Control:               Protected                Protected                Permitted                Permitted
Rights:               Include                Include                Include                Include
Min. Green:            0    0    0                0    0    0                0    0    0                0    0    0
Y+R:                   4.0  4.0  4.0                4.0  4.0  4.0                4.0  4.0  4.0                4.0  4.0  4.0
Lanes:                 1  0  2  1  0                1  0  1  1  0                1  0  1  0  1                1  0  0  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:              51 1539   113                27  898   71                79  43   47                75  60   75
Growth Adj:            1.07 1.07   1.07                1.07 1.07   1.07                1.07 1.07   1.07                1.07 1.07   1.07
Initial Bse:           55 1650   121                29  963   76                85  46   50                80  64   80
Added Vol:              0    0    0                0    0    0                0    0    0                0    0    0
PasserByVol:           0    0    0                0    0    0                0    0    0                0    0    0
Initial Fut:           55 1650   121                29  963   76                85  46   50                80  64   80
User Adj:              1.00 1.00   1.00                1.00 1.00   1.00                1.00 1.00   1.00                1.00 1.00   1.00
PHF Adj:               1.00 1.00   1.00                1.00 1.00   1.00                1.00 1.00   1.00                1.00 1.00   1.00
PHF Volume:            55 1650   121                29  963   76                85  46   50                80  64   80
Reduct Vol:            0    0    0                0    0    0                0    0    0                0    0    0
Reduced Vol:           55 1650   121                29  963   76                85  46   50                80  64   80
PCE Adj:               1.00 1.00   1.00                1.00 1.00   1.00                1.00 1.00   1.00                1.00 1.00   1.00
MLF Adj:               1.00 1.00   1.00                1.00 1.00   1.00                1.00 1.00   1.00                1.00 1.00   1.00
FinalVolume:           55 1650   121                29  963   76                85  46   50                80  64   80
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1600 1600   1600                1600 1600   1600                1600 1600   1600                1600 1600   1600
Adjustment:            1.00 1.00   1.00                1.00 1.00   1.00                1.00 1.00   1.00                1.00 1.00   1.00
Lanes:                 1.00 2.79   0.21                1.00 1.85   0.15                1.00 1.00   1.00                1.00 0.44   0.56
Final Sat.:            1600 4472   328                1600 2966   234                1600 1600   1600                1600  711   889
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:               0.03 0.37   0.37                0.02 0.32   0.32                0.05 0.03   0.03                0.05 0.09   0.09
Crit Moves:            ****                ****                ****                ****
*****
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Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.715

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 71 Level Of Service: C

Street Name:	Fremont Ave						Montezuma Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	1	0	1	2	0	0	1	0	0

Volume Module:

Base Vol:	687	443	86	24	41	259	399	167	611	33	69	19
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	737	475	92	26	44	278	428	179	655	35	74	20
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	737	475	92	26	44	278	428	179	655	35	74	20
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	737	475	92	26	44	0	428	179	655	35	74	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	737	475	92	26	44	0	428	179	655	35	74	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	737	475	92	26	44	0	428	179	655	35	74	20

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.84	0.16	0.74	1.26	1.00	2.00	0.43	1.57	0.27	0.57	0.16
Final Sat.:	2880	1340	260	1182	2018	1600	2880	687	2513	436	912	251

Capacity Analysis Module:

Vol/Sat:	0.26	0.35	0.35	0.02	0.02	0.00	0.15	0.26	0.26	0.02	0.08	0.08
Crit Moves:	****						****					

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.555

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 37 Level Of Service: A

Street Name:	Palm Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	-	T	-	R		L	-	T	-	R	
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1		1	0	1	1	0	

Volume Module:

Base Vol:	49	124	20	172	217	244	190	416	70	8	385	96
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	53	133	21	184	233	262	204	446	75	9	413	103
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	53	133	21	184	233	262	204	446	75	9	413	103
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	53	133	21	184	233	262	204	446	75	9	413	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	133	21	184	233	262	204	446	75	9	413	103
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	53	133	21	184	233	262	204	446	75	9	413	103

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.71	0.29	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2739	461	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.08	0.01	0.12	0.15	0.16	0.13	0.16	0.16	0.01	0.13	0.06
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.633

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 43 Level Of Service: B

Street Name:	Date Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	-	T	-	R		L	-	T	-	R	
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1		1	0	1	1	0	

Volume Module:

Base Vol:	63	127	57	116	81	144	206	514	97	51	487	115
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	68	136	61	124	87	154	221	551	104	55	522	123
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	68	136	61	124	87	154	221	551	104	55	522	123
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	68	136	61	124	87	154	221	551	104	55	522	123
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	136	61	124	87	154	221	551	104	55	522	123
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	68	136	61	124	87	154	221	551	104	55	522	123

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.36	0.64	1.00	1.68	0.32	1.00	1.62	0.38
Final Sat.:	1600	1600	1600	1600	576	1024	1600	2692	508	1600	2589	611

Capacity Analysis Module:

Vol/Sat:	0.04	0.09	0.04	0.08	0.15	0.15	0.14	0.20	0.20	0.03	0.20	0.20
Crit Moves:	****				****		****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.916

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 109 Level Of Service: E

Street Name:	Fremont Ave						Commonwealth Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
-----	-----			-----			-----			-----			-----		
Control:	Protected			Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	1	0	1	0	1	0	1
-----	-----			-----			-----			-----			-----		

Volume Module:

Base Vol:	36	1421	259	199	799	25	30	137	14	157	158	238
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	39	1523	278	213	857	27	32	147	15	168	169	255
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	39	1523	278	213	857	27	32	147	15	168	169	255
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	39	1523	278	213	857	27	32	147	15	168	169	255
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	1523	278	213	857	27	32	147	15	168	169	255
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	39	1523	278	213	857	27	32	147	15	168	169	255

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.94	0.06	1.00	0.91	0.09	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3103	97	1600	1452	148	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.48	0.17	0.13	0.28	0.28	0.02	0.10	0.10	0.11	0.11	0.16
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Fremont Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.940

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 125 Level Of Service: E

Street Name:	Fremont Ave						Valley Blvd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
-----	-----			-----			-----			-----			-----		
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	2	0	2	2	0	2	0	1
-----	-----			-----			-----			-----			-----		

Volume Module:

Base Vol:	28	803	33	186	961	774	616	899	25	125	349	308
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	30	861	35	199	1030	830	660	964	27	134	374	330
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	861	35	199	1030	830	660	964	27	134	374	330
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	30	861	35	199	1030	830	660	964	27	134	374	330
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	861	35	199	1030	830	660	964	27	134	374	330
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	30	861	35	199	1030	830	660	964	27	134	374	330

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.92	0.08	1.00	2.00	2.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3074	126	1600	3200	3200	2880	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.28	0.28	0.12	0.32	0.26	0.23	0.30	0.02	0.08	0.12	0.21
Crit Moves:	****			****			****					****

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.622

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 42 Level Of Service: B

Street Name: Palm Ave Mission Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 0

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Volume Module: >> Count Date: 17 Nov 2015 << PM Peak

Base Vol: 0 0 0 330 0 110 49 898 0 0 570 102

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 0 0 0 354 0 118 53 963 0 0 611 109

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 354 0 118 53 963 0 0 611 109

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 354 0 118 53 963 0 0 611 109

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 354 0 118 53 963 0 0 611 109

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 0 0 354 0 118 53 963 0 0 611 109

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 1.70 0.30

Final Sat.: 0 0 0 1600 0 1600 1600 3200 0 0 2714 486

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Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.22 0.00 0.07 0.03 0.30 0.00 0.00 0.23 0.23

Crit Moves: **** *

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.790

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 64 Level Of Service: C

Street Name:	Marengo Ave						Valley Blvd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
-----	-----			-----			-----			-----			-----		
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	0	1	0	1	0	2	0	1
-----	-----			-----			-----			-----			-----		

Volume Module:

Base Vol:	17	159	64	285	201	195	307	869	8	48	557	136
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	18	170	69	306	215	209	329	932	9	51	597	146
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	170	69	306	215	209	329	932	9	51	597	146
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	170	69	306	215	209	329	932	9	51	597	146
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	170	69	306	215	209	329	932	9	51	597	146
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	170	69	306	215	209	329	932	9	51	597	146

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.51	0.49	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	812	788	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.01	0.11	0.04	0.19	0.27	0.27	0.21	0.29	0.01	0.03	0.19	0.09
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.975
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 160 Level Of Service: E

Street Name:	Atlantic Blvd						Mission Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1

Volume Module:

Base Vol:	95	1061	137	42	951	101	131	965	133	182	563	60
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	102	1137	147	45	1020	108	140	1035	143	195	604	64
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	102	1137	147	45	1020	108	140	1035	143	195	604	64
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	102	1137	147	45	1020	108	140	1035	143	195	604	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	102	1137	147	45	1020	108	140	1035	143	195	604	64
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	102	1137	147	45	1020	108	140	1035	143	195	604	64

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.77	0.23	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.81	0.19
Final Sat.:	1600	2834	366	1600	3200	1600	1600	3200	1600	1600	2892	308

Capacity Analysis Module:

Vol/Sat:	0.06	0.40	0.40	0.03	0.32	0.07	0.09	0.32	0.09	0.12	0.21	0.21
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.948

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 132 Level Of Service: E

Street Name:	Marengo Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	0

Volume Module:

Base Vol:	73	515	225	58	466	46	53	939	283	70	538	59
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	78	552	241	62	500	49	57	1007	303	75	577	63
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	78	552	241	62	500	49	57	1007	303	75	577	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	78	552	241	62	500	49	57	1007	303	75	577	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	552	241	62	500	49	57	1007	303	75	577	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	78	552	241	62	500	49	57	1007	303	75	577	63

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.91	0.09	1.00	1.54	0.46	1.00	1.80	0.20
Final Sat.:	1600	1600	1600	1600	1456	144	1600	2459	741	1600	2884	316

Capacity Analysis Module:

Vol/Sat:	0.05	0.35	0.15	0.04	0.34	0.34	0.04	0.41	0.41	0.05	0.20	0.20
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #20 Marengo Ave and Front St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.820

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 72 Level Of Service: D

Street Name:	Marengo Ave						Front St								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
-----	-----			-----			-----			-----					
Control:	Permitted			Permitted			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	0	1	0	1	0	1	0	1	0	1	0	0	1
-----	-----			-----			-----			-----					

Volume Module:

Base Vol:	3	634	4	23	682	188	150	50	8	2	19	16
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	3	680	4	25	731	202	161	54	9	2	20	17
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	680	4	25	731	202	161	54	9	2	20	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	680	4	25	731	202	161	54	9	2	20	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	680	4	25	731	202	161	54	9	2	20	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	680	4	25	731	202	161	54	9	2	20	17

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.99	0.01	1.00	0.78	0.22	0.75	0.25	1.00	0.10	0.90	1.00
Final Sat.:	1600	1590	10	1600	1254	346	1200	400	1600	152	1448	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.43	0.43	0.02	0.58	0.58	0.10	0.13	0.01	0.00	0.01	0.01
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #21 I-710 NB Ramp and Valley Blvd

Cycle (sec): 120 Critical Vol./Cap.(X): 0.687

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 51 Level Of Service: B

Street Name:	I-710 NB Ramp						Valley Blvd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
-----	-----			-----			-----			-----					
Control:	Split Phase			Split Phase			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1!	0	1	0	0	0	1!	0	0	0	0	2	0
-----	-----			-----			-----			-----					

Volume Module:

Base Vol:	584	0	1238	1	0	2	0	530	0	0	1118	0
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	626	0	1327	1	0	2	0	568	0	0	1199	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	626	0	1327	1	0	2	0	568	0	0	1199	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	626	0	1327	1	0	2	0	568	0	0	1199	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	626	0	1327	1	0	2	0	568	0	0	1199	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	626	0	1327	1	0	2	0	568	0	0	1199	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	2.00	0.33	0.00	0.67	0.00	2.00	0.00	0.00	4.00	0.00
Final Sat.:	1600	0	3200	533	0	1067	0	3200	0	0	6400	0

Capacity Analysis Module:

Vol/Sat:	0.39	0.00	0.41	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.19	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.880

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 91 Level Of Service: D

Street Name: I-710 SB Ramp Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 0 0 0 2 0 1 2 0 2 0 0

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Volume Module:

Base Vol: 0 0 0 0 0 0 0 0 539 729 783 940 0

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 0 0 0 0 0 0 0 0 578 782 839 1008 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 0 0 0 0 0 578 782 839 1008 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 0 0 0 0 0 578 782 839 1008 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 0 0 0 0 0 578 782 839 1008 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 0 0 0 0 0 0 0 578 782 839 1008 0

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00

Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00

Final Sat.: 0 0 0 0 0 0 0 0 3200 1600 2880 3200 0

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.18 0.49 0.29 0.31 0.00

Crit Moves: **** *

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.810

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 69 Level Of Service: D

Street Name:	Fremont Ave						Hellman Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	85	740	242	147	813	68	128	173	216	206	181	237
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	91	793	259	158	872	73	137	185	232	221	194	254
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	793	259	158	872	73	137	185	232	221	194	254
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	793	259	158	872	73	137	185	232	221	194	254
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	793	259	158	872	73	137	185	232	221	194	254
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	793	259	158	872	73	137	185	232	221	194	254

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.51	0.49	1.00	1.85	0.15	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2411	789	1600	2953	247	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.06	0.33	0.33	0.10	0.30	0.30	0.09	0.12	0.14	0.14	0.12	0.16
Crit Moves:	****			****			****		****	****		

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions
 PM Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.826

Loss Time (sec): 0 Average Delay (sec/veh): 28.2

Optimal Cycle: 0 Level Of Service: D

Street Name: Elm St Hellman Ave/Ramona Rd/ 10 WB ramp

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 1 0 0 0 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:PM Peak

Base Vol: 467 172 98 10 5 40 29 299 223 120 105 2

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 501 184 105 11 5 43 31 321 239 129 113 2

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 501 184 105 11 5 43 31 321 239 129 113 2

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 501 184 105 11 5 43 31 321 239 129 113 2

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 501 184 105 11 5 43 31 321 239 129 113 2

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 501 184 105 11 5 43 31 321 239 129 113 2

-----|-----|-----|-----|

Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.27 0.47 0.26 0.67 0.33 1.00 0.09 0.91 1.00 0.53 0.47 1.00

Final Sat.: 1082 -255 127 261 130 441 43 440 533 231 202 481

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.46-0.72 0.83 0.04 0.04 0.10 0.73 0.73 0.45 0.56 0.56 0.00

Crit Moves: **** **** **** ****

Delay/Veh: 36.5 36.1 36.1 11.7 11.7 11.1 27.1 27.1 14.5 20.1 20.1 9.9

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 36.5 36.1 36.1 11.7 11.7 11.1 27.1 27.1 14.5 20.1 20.1 9.9

LOS by Move: E E E B B B D D B C C A

ApproachDel: 36.6 11.3 22.0 20.0

Delay Adj:	1.00			1.00				1.00			1.00	
ApprAdjDel:	36.6			11.3				22.0			20.0	
LOS by Appr:		E			B				C			C
AllWayAvgQ:	3.4	3.4	3.4	0.0	0.0	0.1	2.3	2.3	0.8	1.1	1.1	0.0

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 1.305
Loss Time (sec): 0 Average Delay (sec/veh): 96.4
Optimal Cycle: 0 Level Of Service: F

Street Name:	Fremont Ave		Ramona Road/10 EB ramp	
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign

Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Lanes:	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0
----- ----- ----- -----																				
Volume Module:PM Peak																				
Base Vol:	0	731	116	0	0	0	4	91	289	47	0	78								
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07								
Initial Bse:	0	784	124	0	0	0	4	98	310	50	0	84								
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0								
Initial Fut:	0	784	124	0	0	0	4	98	310	50	0	84								
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
PHF Volume:	0	784	124	0	0	0	4	98	310	50	0	84								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
Reduced Vol:	0	784	124	0	0	0	4	98	310	50	0	84								
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
FinalVolume:	0	784	124	0	0	0	4	98	310	50	0	84								
----- ----- ----- -----																				
Saturation Flow Module:																				
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Lanes:	0.00	1.00	1.00	0.00	0.00	0.00	0.04	0.96	1.00	0.38	xxxx	0.62								
Final Sat.:	0	601	668	0	0	0	22	507	593	199	0	331								
----- ----- ----- -----																				
Capacity Analysis Module:																				
Vol/Sat:	xxxx	1.30	0.19	xxxx	xxxx	xxxx	0.19	0.19	0.52	0.25	0.00	0.25								
Crit Moves:	****						****			****										
Delay/Veh:	0.0	168	9.2	0.0	0.0	0.0	11.0	11.0	15.1	12.0	12.0	12.0								
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
AdjDel/Veh:	0.0	168	9.2	0.0	0.0	0.0	11.0	11.0	15.1	12.0	12.0	12.0								
LOS by Move:	*	F	A	*	*	*	B	B	C	B	B	B								
ApproachDel:	146.2			xxxxxx			14.1			12.0										
Delay Adj:	1.00			xxxxxx			1.00			1.00										
ApprAdjDel:	146.2			xxxxxx			14.1			12.0										
LOS by Appr:	F			*			B			B										
AllWayAvgQ:	0.0	26.6	0.2	0.0	0.0	0.0	0.2	0.2	1.0	0.3	0.3	0.3								

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.526
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 35 Level Of Service: A

Street Name: Fremont Ave Ross Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|

Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

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Volume Module:

Base Vol:	30	849	168	26	988	41	11	32	6	54	40	41
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	32	910	180	28	1059	44	12	34	6	58	43	44
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	32	910	180	28	1059	44	12	34	6	58	43	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	910	180	28	1059	44	12	34	6	58	43	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	910	180	28	1059	44	12	34	6	58	43	44
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	32	910	180	28	1059	44	12	34	6	58	43	44

-----|-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.67	0.33	1.00	1.92	0.08	1.00	0.84	0.16	1.00	1.00	1.00
Final Sat.:	1600	2671	529	1600	3072	128	1600	1347	253	1600	1600	1600

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Capacity Analysis Module:

Vol/Sat:	0.02	0.34	0.34	0.02	0.34	0.34	0.01	0.03	0.03	0.04	0.03	0.03
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Westmont Dr and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.675

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 47 Level Of Service: B

Street Name:	Westmont Dr						Valley Blvd									
Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
-----	-----			-----			-----			-----			-----			
Control:	Permitted			Permitted			Permitted			Permitted						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	0	0	1!	0	0	0	0	0	1!	0	0	1	0	2	0	1
-----	-----			-----			-----			-----			-----			

Volume Module:

Base Vol:	16	10	11	24	9	14	56	1578	135	8	1040	33
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	17	11	12	26	10	15	60	1692	145	9	1115	35
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	11	12	26	10	15	60	1692	145	9	1115	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	11	12	26	10	15	60	1692	145	9	1115	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	11	12	26	10	15	60	1692	145	9	1115	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	17	11	12	26	10	15	60	1692	145	9	1115	35

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.43	0.27	0.30	0.51	0.19	0.30	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	692	432	476	817	306	477	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.01	0.02	0.02	0.02	0.03	0.03	0.04	0.53	0.09	0.01	0.35	0.02
Crit Moves:	****			****			****			****		

Intersection

Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	8	19	14	2	5	2	5	63	2	5	206	31
Future Vol, veh/h	8	19	14	2	5	2	5	63	2	5	206	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	21	15	2	5	2	5	68	2	5	224	34
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.1	8.1	8.2	9.2
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	7%	0%	30%	0%	29%	0%	2%	0%
Vol Thru, %	93%	0%	70%	0%	71%	0%	98%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	2	27	14	7	2	211	31
LT Vol	5	0	8	0	2	0	5	0
Through Vol	63	0	19	0	5	0	206	0
RT Vol	0	2	0	14	0	2	0	31
Lane Flow Rate	74	2	29	15	8	2	229	34
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.101	0.003	0.045	0.02	0.012	0.003	0.298	0.037
Departure Headway (Hd)	4.916	4.177	5.501	4.649	5.537	4.689	4.678	3.965
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	732	860	654	774	649	766	759	890
Service Time	2.625	1.886	3.207	2.355	3.245	2.397	2.459	1.746
HCM Lane V/C Ratio	0.101	0.002	0.044	0.019	0.012	0.003	0.302	0.038
HCM Control Delay	8.2	6.9	8.5	7.4	8.3	7.4	9.5	6.9
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.3	0	0.1	0.1	0	0	1.2	0.1

Intersection

Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	1	1	8	1	3	8	15	96	2	13	175	12
Future Vol, veh/h	1	1	8	1	3	8	15	96	2	13	175	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	9	1	3	9	16	104	2	14	190	13
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	7.6	7.7	8.4	9
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	14%	0%	50%	0%	25%	0%	7%	0%
Vol Thru, %	86%	0%	50%	0%	75%	0%	93%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	111	2	2	8	4	8	188	12
LT Vol	15	0	1	0	1	0	13	0
Through Vol	96	0	1	0	3	0	175	0
RT Vol	0	2	0	8	0	8	0	12
Lane Flow Rate	121	2	2	9	4	9	204	13
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.159	0.002	0.003	0.011	0.007	0.011	0.265	0.014
Departure Headway (Hd)	4.75	3.981	5.615	4.66	5.487	4.658	4.67	3.935
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	749	889	641	773	656	773	766	904
Service Time	2.518	1.749	3.316	2.361	3.187	2.358	2.418	1.683
HCM Lane V/C Ratio	0.162	0.002	0.003	0.012	0.006	0.012	0.266	0.014
HCM Control Delay	8.4	6.8	8.3	7.4	8.2	7.4	9.1	6.7
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.6	0	0	0	0	0	1.1	0

Intersection	
Intersection Delay, s/veh	86.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱			↱	↱
Traffic Vol, veh/h	55	175	351	427	65	14	384	59	23	84	15	214
Future Vol, veh/h	55	175	351	427	65	14	384	59	23	84	15	214
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	190	382	464	71	15	417	64	25	91	16	233
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1






Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	40	229.5	31.3	22.3
HCM LOS	E	F	D	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	65%	24%	0%	87%	0%	85%	0%
Vol Thru, %	0%	25%	76%	0%	13%	0%	15%	0%
Vol Right, %	0%	10%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	234	232	230	351	492	14	99	214
LT Vol	234	150	55	0	427	0	84	0
Through Vol	0	59	175	0	65	0	15	0
RT Vol	0	23	0	351	0	14	0	214
Lane Flow Rate	255	252	250	382	535	15	108	233
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.673	0.649	0.624	0.865	1.434	0.036	0.295	0.565
Departure Headway (Hd)	10.521	10.261	9.9	9.036	9.65	8.466	10.913	9.72
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	346	355	368	404	380	423	331	375
Service Time	8.221	7.961	7.6	6.736	7.402	6.218	8.613	7.42
HCM Lane V/C Ratio	0.737	0.71	0.679	0.946	1.408	0.035	0.326	0.621
HCM Control Delay	32.4	30.1	27.7	48	235.7	11.5	18.1	24.3
HCM Lane LOS	D	D	D	E	F	B	C	C
HCM 95th-tile Q	4.6	4.3	4	8.5	27.4	0.1	1.2	3.3

Intersection

Intersection Delay, s/veh 140.8

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	26	626	122	0	16	0	670	51	0	0	0
Future Vol, veh/h	2	26	626	122	0	16	0	670	51	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	28	680	133	0	17	0	728	55	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	109.3	16.2	193.2
HCM LOS	F	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	7%	0%	88%
Vol Thru, %	100%	0%	93%	0%	0%
Vol Right, %	0%	100%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	670	51	28	626	138
LT Vol	0	0	2	0	122
Through Vol	670	0	26	0	0
RT Vol	0	51	0	626	16
Lane Flow Rate	728	55	30	680	150
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.388	0.095	0.058	1.153	0.322
Departure Headway (Hd)	7.181	6.467	7.797	7.041	8.983
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	510	558	462	524	404
Service Time	4.881	4.167	5.497	4.741	6.983
HCM Lane V/C Ratio	1.427	0.099	0.065	1.298	0.371
HCM Control Delay	207.2	9.8	11	113.7	16.2
HCM Lane LOS	F	A	B	F	C
HCM 95th-tile Q	32.4	0.3	0.2	20.5	1.4

HCM 2010 TWSC
4: Date Ave & Orange St

03/06/2018

Intersection

Int Delay, s/veh 3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	19	34	45	8	26	3	51	95	5	6	179	71
Future Vol, veh/h	19	34	45	8	26	3	51	95	5	6	179	71
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	37	49	9	28	3	55	103	5	7	195	77

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	436	422	195	440	422	103	195	0	0	103	0	0
Stage 1	208	208	-	214	214	-	-	-	-	-	-	-
Stage 2	228	214	-	226	208	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	531	523	846	527	523	952	1378	-	-	1489	-	-
Stage 1	794	730	-	788	725	-	-	-	-	-	-	-
Stage 2	775	725	-	777	730	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	489	500	846	453	500	952	1378	-	-	1489	-	-
Mov Cap-2 Maneuver	489	500	-	453	500	-	-	-	-	-	-	-
Stage 1	762	727	-	757	696	-	-	-	-	-	-	-
Stage 2	711	696	-	692	727	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.5		12.7		2.6		0.2	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1378	-	-	496	846	488	952	1489	-	-
HCM Lane V/C Ratio	0.04	-	-	0.116	0.058	0.076	0.003	0.004	-	-
HCM Control Delay (s)	7.7	-	-	13.2	9.5	13	8.8	7.4	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.2	0.2	0	0	-	-

Intersection










Int Delay, s/veh 1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	88	463	1296	168	24	84
Future Vol, veh/h	88	463	1296	168	24	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	96	503	1409	183	26	91

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1591	0	0 1943 796
Stage 1	-	-	- 1500 -
Stage 2	-	-	- 443 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	408	-	- 57 330
Stage 1	-	-	- 171 -
Stage 2	-	-	- 614 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	408	-	- 38 330
Mov Cap-2 Maneuver	-	-	- 124 -
Stage 1	-	-	- 171 -
Stage 2	-	-	- 413 -

Approach	EB	WB	SB
HCM Control Delay, s	2.6	0	24.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	408	-	-	-	124	330
HCM Lane V/C Ratio	0.234	-	-	-	0.21	0.277
HCM Control Delay (s)	16.5	-	-	-	41.6	20
HCM Lane LOS	C	-	-	-	E	C
HCM 95th %tile Q(veh)	0.9	-	-	-	0.8	1.1

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	3	2	81	154	9	13	145	57
Future Vol, veh/h	0	0	0	2	3	2	81	154	9	13	145	57
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	2	3	2	88	167	10	14	158	62
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	531	529	158	529	529	167	158	0	0	167	0	0
Stage 1	186	186	-	343	343	-	-	-	-	-	-	-
Stage 2	345	343	-	186	186	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	459	455	887	460	455	877	1422	-	-	1411	-	-
Stage 1	816	746	-	672	637	-	-	-	-	-	-	-
Stage 2	671	637	-	816	746	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	430	423	887	435	423	877	1422	-	-	1411	-	-
Mov Cap-2 Maneuver	430	423	-	435	423	-	-	-	-	-	-	-
Stage 1	766	739	-	630	598	-	-	-	-	-	-	-
Stage 2	624	598	-	808	739	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0		12.2		2.6		0.5					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1422	-	-	-	428	877	1411	-	-			
HCM Lane V/C Ratio	0.062	-	-	-	0.013	0.002	0.01	-	-			
HCM Control Delay (s)	7.7	-	-	0	13.5	9.1	7.6	-	-			
HCM Lane LOS	A	-	-	A	B	A	A	-	-			
HCM 95th %tile Q(veh)	0.2	-	-	-	0	0	0	-	-			

Intersection

Intersection Delay, s/veh	11.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	62	69	76	2	5	8	5	183	2	11	287	14
Future Vol, veh/h	62	69	76	2	5	8	5	183	2	11	287	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	75	83	2	5	9	5	199	2	12	312	15
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10.3	8.9	11	13.1
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	47%	0%	29%	0%	4%	0%
Vol Thru, %	97%	0%	53%	0%	71%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	188	2	131	76	7	8	298	14
LT Vol	5	0	62	0	2	0	11	0
Through Vol	183	0	69	0	5	0	287	0
RT Vol	0	2	0	76	0	8	0	14
Lane Flow Rate	204	2	142	83	8	9	324	15
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.316	0.003	0.249	0.12	0.014	0.014	0.489	0.02
Departure Headway (Hd)	5.675	4.955	6.288	5.241	6.57	5.714	5.437	4.714
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	638	727	575	675	548	630	654	749
Service Time	3.375	2.655	3.988	3.041	4.275	3.418	3.23	2.506
HCM Lane V/C Ratio	0.32	0.003	0.247	0.123	0.015	0.014	0.495	0.02
HCM Control Delay	11	7.7	11.1	8.8	9.4	8.5	13.4	7.6
HCM Lane LOS	B	A	B	A	A	A	B	A
HCM 95th-tile Q	1.4	0	1	0.4	0	0	2.7	0.1

Intersection

Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	8	8	85	6	1	8	5	157	10	15	362	9
Future Vol, veh/h	8	8	85	6	1	8	5	157	10	15	362	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	9	92	7	1	9	5	171	11	16	393	10
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9	8.9	9.7	14.3
HCM LOS	A	A	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	50%	0%	86%	0%	4%	0%
Vol Thru, %	97%	0%	50%	0%	14%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	162	10	16	85	7	8	377	9
LT Vol	5	0	8	0	6	0	15	0
Through Vol	157	0	8	0	1	0	362	0
RT Vol	0	10	0	85	0	8	0	9
Lane Flow Rate	176	11	17	92	8	9	410	10
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.257	0.014	0.03	0.137	0.014	0.013	0.576	0.012
Departure Headway (Hd)	5.257	4.536	6.299	5.338	6.626	5.483	5.058	4.335
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	680	784	566	668	537	647	713	822
Service Time	3.011	2.29	4.063	3.102	4.409	3.265	2.802	2.079
HCM Lane V/C Ratio	0.259	0.014	0.03	0.138	0.015	0.014	0.575	0.012
HCM Control Delay	9.8	7.4	9.3	9	9.5	8.3	14.5	7.1
HCM Lane LOS	A	A	A	A	A	A	B	A
HCM 95th-tile Q	1	0	0.1	0.5	0	0	3.7	0

Intersection

Intersection Delay, s/veh 41

Intersection LOS E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱			↱	↱
Traffic Vol, veh/h	31	321	239	129	113	2	501	184	105	11	5	43
Future Vol, veh/h	31	321	239	129	113	2	501	184	105	11	5	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	349	260	140	123	2	545	200	114	12	5	47
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	31	26.1	55.3	12.5
HCM LOS	D	D	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	27%	9%	0%	53%	0%	69%	0%
Vol Thru, %	0%	47%	91%	0%	47%	0%	31%	0%
Vol Right, %	0%	27%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	396	394	352	239	242	2	16	43
LT Vol	396	105	31	0	129	0	11	0
Through Vol	0	184	321	0	113	0	5	0
RT Vol	0	105	0	239	0	2	0	43
Lane Flow Rate	430	428	383	260	263	2	17	47
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.968	0.896	0.841	0.516	0.644	0.005	0.047	0.111
Departure Headway (Hd)	8.098	7.531	7.914	7.149	8.808	7.809	9.641	8.551
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	447	484	459	507	410	458	371	419
Service Time	5.835	5.267	5.644	4.88	6.552	5.553	7.396	6.305
HCM Lane V/C Ratio	0.962	0.884	0.834	0.513	0.641	0.004	0.046	0.112
HCM Control Delay	63.6	46.9	40.3	17.3	26.2	10.6	12.9	12.4
HCM Lane LOS	F	E	E	C	D	B	B	B
HCM 95th-tile Q	11.8	9.9	8.3	2.9	4.4	0	0.1	0.4

Intersection

Intersection Delay, s/veh 141.6

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱↲			↱	↱			
Traffic Vol, veh/h	4	98	310	50	0	84	0	784	124	0	0	0
Future Vol, veh/h	4	98	310	50	0	84	0	784	124	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	107	337	54	0	91	0	852	135	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	17.5	14	216.7
HCM LOS	C	B	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	4%	0%	37%
Vol Thru, %	100%	0%	96%	0%	0%
Vol Right, %	0%	100%	0%	100%	63%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	784	124	102	310	134
LT Vol	0	0	4	0	50
Through Vol	784	0	98	0	0
RT Vol	0	124	0	310	84
Lane Flow Rate	852	135	111	337	146
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.495	0.21	0.211	0.574	0.277
Departure Headway (Hd)	6.316	5.607	7.915	7.176	7.946
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	579	644	457	505	456
Service Time	4.016	3.307	5.615	4.876	5.946
HCM Lane V/C Ratio	1.472	0.21	0.243	0.667	0.32
HCM Control Delay	249.4	9.8	12.7	19.1	14
HCM Lane LOS	F	A	B	C	B
HCM 95th-tile Q	42.7	0.8	0.8	3.6	1.1

HCM 2010 TWSC
4: Date Ave & Orange St

03/06/2018

Intersection

Int Delay, s/veh 11.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗	↖	↗	↖	↗	↖	↗
Traffic Vol, veh/h	72	165	166	1	21	6	33	182	3	27	286	44
Future Vol, veh/h	72	165	166	1	21	6	33	182	3	27	286	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	78	179	180	1	23	7	36	198	3	29	311	48

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	651	640	311	729	640	198	311	0	0	198	0	0
Stage 1	370	370	-	270	270	-	-	-	-	-	-	-
Stage 2	281	270	-	459	370	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	382	393	729	338	393	843	1249	-	-	1375	-	-
Stage 1	650	620	-	736	686	-	-	-	-	-	-	-
Stage 2	726	686	-	582	620	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	348	374	729	153	374	843	1249	-	-	1375	-	-
Mov Cap-2 Maneuver	348	374	-	153	374	-	-	-	-	-	-	-
Stage 1	631	607	-	715	666	-	-	-	-	-	-	-
Stage 2	676	666	-	302	607	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	25.4		14.6		1.2		0.6	
HCM LOS	D		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1249	-	-	366	729	351	843	1375	-	-
HCM Lane V/C Ratio	0.029	-	-	0.704	0.248	0.068	0.008	0.021	-	-
HCM Control Delay (s)	8	-	-	35.1	11.6	16	9.3	7.7	-	-
HCM Lane LOS	A	-	-	E	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	5.2	1	0.2	0	0.1	-	-

Intersection

Int Delay, s/veh 11.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	90	789	604	119	209	170
Future Vol, veh/h	90	789	604	119	209	170
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	98	858	657	129	227	185










Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	786	0	0 1345 393
Stage 1	-	-	- 721 -
Stage 2	-	-	- 624 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	829	-	- ~ 143 606
Stage 1	-	-	- 443 -
Stage 2	-	-	- 496 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	829	-	- ~ 111 606
Mov Cap-2 Maneuver	-	-	- 238 -
Stage 1	-	-	- 443 -
Stage 2	-	-	- 384 -

Approach	EB	WB	SB
HCM Control Delay, s	1	0	56.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	829	-	-	-	238	606
HCM Lane V/C Ratio	0.118	-	-	-	0.955	0.305
HCM Control Delay (s)	9.9	-	-	-	91.1	13.5
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.4	-	-	-	8.6	1.3

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	11	2	18	19	191	13	41	400	11
Future Vol, veh/h	0	0	0	11	2	18	19	191	13	41	400	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	12	2	20	21	208	14	45	435	12
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	774	773	435	773	773	208	435	0	0	208	0	0
Stage 1	524	524	-	249	249	-	-	-	-	-	-	-
Stage 2	250	249	-	524	524	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	316	330	621	316	330	832	1125	-	-	1363	-	-
Stage 1	537	530	-	755	701	-	-	-	-	-	-	-
Stage 2	754	701	-	537	530	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	295	313	621	304	313	832	1125	-	-	1363	-	-
Mov Cap-2 Maneuver	295	313	-	304	313	-	-	-	-	-	-	-
Stage 1	527	513	-	741	688	-	-	-	-	-	-	-
Stage 2	720	688	-	519	513	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0		12.8			0.7			0.7			
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1125	-	-	-	305	832	1363	-	-			
HCM Lane V/C Ratio	0.018	-	-	-	0.046	0.024	0.033	-	-			
HCM Control Delay (s)	8.3	-	-	0	17.4	9.4	7.7	-	-			
HCM Lane LOS	A	-	-	A	C	A	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	0.1	0.1	-	-			

Appendix K – Intersection Analysis Worksheets – Ambient (2024) Plus Project Conditions

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Scenario Report

Scenario:	2024 Ambient Growth + Proj AM
Command:	2024 Ambient Growth + Proj AM
Volume:	2024 AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	2024 Project AM
Trip Distribution:	Cum + Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

 Alhambra Campus Residential Development TIA
 Ambient Growth Conditions Plus Project
 AM Peak Hour

Turning Movement Report
 Project 2024 AM

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 Fremont Ave and Mission Rd													
Base	237	1446	217	13	1397	47	66	359	509	382	837	46	5557
Added	0	5	5	0	42	9	1	1	0	42	9	0	114
Total	237	1451	222	13	1439	56	67	360	509	424	846	46	5671
#2 Fremont Ave and 1000 Fremont Ave													
Base	51	1389	125	4	1384	39	25	5	58	4	1	6	3093
Added	0	6	0	0	50	0	0	0	0	0	0	0	56

Total	51	1395	125	4	1434	39	25	5	58	4	1	6	3149
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#3 Fremont Ave and Orange St

Base	2	1205	238	150	1415	2	1	1	0	58	0	57	3129
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Added	0	0	6	4	0	0	0	0	0	50	0	29	89
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Total	2	1205	244	154	1415	2	1	1	0	108	0	86	3218
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#4 Date Ave and Orange St

Base	51	95	5	6	179	71	19	34	45	8	26	3	544
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Added	1	14	0	0	2	1	5	16	8	0	2	0	49
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Total	52	109	5	6	181	72	24	50	53	8	28	3	593
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#5 Palm Ave and Orange St

Base	5	63	2	5	206	31	8	19	14	2	5	2	363
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Added	0	5	0	0	1	1	5	11	0	0	1	0	24
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Total	5	68	2	5	207	32	13	30	14	2	6	2	387
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#6 Chestnut St and Palm Ave

Base	15	96	2	13	175	12	1	1	8	1	3	8	334
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Added	0	0	0	0	0	1	5	11	0	0	1	0	18
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Total	15	96	2	13	175	13	6	12	8	1	4	8	352
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#7 Fremont Ave and Poplar Blvd

Base	96	1111	54	18	1503	16	20	111	70	57	114	19	3189
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Added	9	21	9	0	3	0	0	0	1	1	0	0	44
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Total	105	1132	63	18	1506	16	20	111	71	58	114	19	3233
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#8 Date Ave and Mission Rd

Base	0	0	0	24	0	84	88	463	0	0	1296	168	2123
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Added	0	0	0	34	0	50	6	0	0	0	0	4	94
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Total	0	0	0	58	0	134	94	463	0	0	1296	172	2217
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#9 Chestnut St and Date Ave

Base	81	154	9	13	145	57	0	0	0	2	3	2	466
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Added	10	1	0	0	8	2	14	16	76	0	2	0	129
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Total	91	155	9	13	153	59	14	16	76	2	5	2	595
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 Alhambra Campus Residential Development TIA
 Ambient Growth Conditions Plus Project
 AM Peak Hour

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#10 Fremont Ave and Concord Ave													
Base	60	1166	40	4	1479	63	43	13	73	24	15	11	2991
Added	0	29	0	0	4	0	0	0	0	0	0	0	33
Total	60	1195	40	4	1483	63	43	13	73	24	15	11	3024
#11 Fremont Ave and Montezuma Ave													
Base	732	277	43	4	86	641	434	56	656	54	100	11	3093
Added	1	0	0	0	0	3	19	0	6	0	0	0	29
Total	733	277	43	4	86	644	453	56	662	54	100	11	3122
#12 Palm Ave and Commonwealth Ave													
Base	19	34	4	42	231	270	64	227	30	14	278	41	1254
Added	0	10	0	0	1	1	10	0	0	0	0	0	22
Total	19	44	4	42	232	271	74	227	30	14	278	41	1276
#13 Date Ave and Commonwealth Ave													
Base	26	43	17	50	71	76	73	256	101	127	350	72	1261
Added	10	0	10	0	0	0	0	0	1	1	0	0	22
Total	36	43	27	50	71	76	73	256	102	128	350	72	1283
#14 Fremont Ave and Commonwealth Ave													
Base	42	1081	99	183	1399	66	29	144	17	116	166	115	3456
Added	0	29	0	1	4	0	0	0	0	0	0	10	44
Total	42	1110	99	184	1403	66	29	144	17	116	166	125	3500
#15 Fremont Ave and Valley Blvd													
Base	44	981	28	79	863	1365	565	433	30	60	777	198	5424
Added	0	6	0	0	47	36	5	0	0	0	0	0	94
Total	44	987	28	79	910	1401	570	433	30	60	777	198	5518
#16 Palm Ave and Mission Rd													
Base	0	0	0	55	0	133	35	452	0	0	1377	90	2142
Added	0	0	0	0	0	0	0	34	0	0	4	0	38
Total	0	0	0	55	0	133	35	486	0	0	1381	90	2180
#17 Marengo Ave and Valley Blvd													
Base	24	125	77	239	175	147	178	449	25	66	1025	202	2732
Added	0	1	0	9	4	0	0	0	0	0	0	1	15
Total	24	126	77	248	179	147	178	449	25	66	1025	203	2747
#18 Atlantic Blvd and Mission Road													
Base	165	1139	123	43	1011	264	94	553	72	188	1025	35	4712
Added	0	0	0	0	0	0	0	17	0	0	2	0	19
Total	165	1139	123	43	1011	264	94	570	72	188	1027	35	4731

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions Plus Project
 AM Peak Hour

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#19 Marengo Ave and Mission Road													
Base	91	410	168	46	540	71	47	376	91	292	1255	79	3467
Added	2	0	0	0	0	0	1	4	17	13	0	2	39
Total	93	410	168	46	540	72	51	393	104	292	1257	79	3506
#20 Marengo Ave and Front St													
Base	2	545	3	11	529	384	87	12	8	2	80	36	1698
Added	0	2	0	0	13	0	0	0	0	0	0	0	15
Total	2	547	3	11	542	384	87	12	8	2	80	36	1713
#21 I-710 NB Ramp and Valley Blvd													
Base	646	1	734	4	0	1	0	222	0	0	2333	6	3949
Added	0	0	5	0	0	0	0	0	0	0	36	0	41
Total	646	1	739	4	0	1	0	222	0	0	2369	6	3990
#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	229	697	1708	1287	0	3921
Added	0	0	0	0	0	0	0	0	0	36	0	0	36
Total	0	0	0	0	0	0	0	229	697	1744	1287	0	3957
#23 Fremont Ave and Hellman Ave													
Base	152	1001	336	136	757	118	116	119	164	180	244	227	3551
Added	0	4	0	21	26	0	0	0	0	0	0	2	53
Total	152	1005	336	157	783	118	116	119	164	180	244	229	3604
#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	384	59	23	84	15	214	55	175	351	427	65	14	1864
Added	2	0	0	0	0	0	0	0	21	0	0	0	23
Total	386	59	23	84	15	214	55	175	372	427	65	14	1887
#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	670	51	0	0	0	2	26	626	122	0	16	1514
Added	0	0	19	0	0	0	0	0	3	0	0	0	22
Total	0	670	70	0	0	0	2	26	629	122	0	16	1536
#26 Ross Ave and Fremont Ave													
Base	28	1080	227	45	930	36	28	53	5	185	190	18	2825
Added	0	6	0	0	47	0	0	0	0	0	0	0	53
Total	28	1086	227	45	977	36	28	53	5	185	190	18	2878
#27 Westmont Dr and Valley Blvd													
Base	55	15	8	4	6	40	18	1036	15	3	2183	32	3415
Added	0	0	0	0	0	0	0	5	0	0	36	0	41
Total	55	15	8	4	6	40	18	1041	15	3	2219	32	3456

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions Plus Project
 AM Peak Hour

Intersection Volume Report
 Base Volume Alternative

Node	Intersection	Northbound			Southbound			Eastbound			Westbound		
		L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1	Fremont Ave a	237	1446	217	13	1397	47	66	359	509	382	837	46
2	Fremont Ave a	51	1389	125	4	1384	39	25	5	58	4	1	6
3	Fremont Ave a	2	1205	238	150	1415	2	1	1	0	58	0	57
4	Date Ave and	51	95	5	6	179	71	19	34	45	8	26	3
5	Palm Ave and	5	63	2	5	206	31	8	19	14	2	5	2
6	Chestnut St a	15	96	2	13	175	12	1	1	8	1	3	8
7	Fremont Ave a	96	1111	54	18	1503	16	20	111	70	57	114	19
8	Date Ave and	0	0	0	24	0	84	88	463	0	0	1296	168
9	Chestnut St a	81	154	9	13	145	57	0	0	0	2	3	2
10	Fremont Ave a	60	1166	40	4	1479	63	43	13	73	24	15	11
11	Fremont Ave a	732	277	43	4	86	641	434	56	656	54	100	11
12	Palm Ave and	19	34	4	42	231	270	64	227	30	14	278	41
13	Date Ave and	26	43	17	50	71	76	73	256	101	127	350	72
14	Fremont Ave a	42	1081	99	183	1399	66	29	144	17	116	166	115
15	Fremont Ave a	44	981	28	79	863	1365	565	433	30	60	777	198
16	Palm Ave and	0	0	0	55	0	133	35	452	0	0	1377	90
17	Marengo Ave a	24	125	77	239	175	147	178	449	25	66	1025	202
18	Atlantic Blvd	165	1139	123	43	1011	264	94	553	72	188	1025	35
19	Marengo Ave a	91	410	168	46	540	71	47	376	91	292	1255	79
20	Marengo Ave a	2	545	3	11	529	384	87	12	8	2	80	36
21	I-710 NB Ramp	646	1	734	4	0	1	0	222	0	0	2333	6
22	I-710 SB Ramp	0	0	0	0	0	0	0	229	697	1708	1287	0
23	Fremont Ave a	152	1001	336	136	757	118	116	119	164	180	244	227
24	Elm St and He	384	59	23	84	15	214	55	175	351	427	65	14
25	Fremont Ave a	0	670	51	0	0	0	2	26	626	122	0	16
26	Ross Ave and	28	1080	227	45	930	36	28	53	5	185	190	18
27	Westmont Dr a	55	15	8	4	6	40	18	1036	15	3	2183	32

Alhambra Campus Residential Development TIA
 Ambient Growth Conditions Plus Project
 AM Peak Hour

Intersection Volume Report
 Future Volume Alternative

Node	Intersection	Northbound			Southbound			Eastbound			Westbound		
		L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1	Fremont Ave a	237	1451	222	13	1439	56	67	360	509	424	846	46
2	Fremont Ave a	51	1395	125	4	1434	39	25	5	58	4	1	6
3	Fremont Ave a	2	1205	244	154	1415	2	1	1	0	108	0	86
4	Date Ave and	52	109	5	6	181	72	24	50	53	8	28	3
5	Palm Ave and	5	68	2	5	207	32	13	30	14	2	6	2
6	Chestnut St a	15	96	2	13	175	13	6	12	8	1	4	8
7	Fremont Ave a	105	1132	63	18	1506	16	20	111	71	58	114	19
8	Date Ave and	0	0	0	58	0	134	94	463	0	0	1296	172
9	Chestnut St a	91	155	9	13	153	59	14	16	76	2	5	2
10	Fremont Ave a	60	1195	40	4	1483	63	43	13	73	24	15	11
11	Fremont Ave a	733	277	43	4	86	644	453	56	662	54	100	11
12	Palm Ave and	19	44	4	42	232	271	74	227	30	14	278	41
13	Date Ave and	36	43	27	50	71	76	73	256	102	128	350	72
14	Fremont Ave a	42	1110	99	184	1403	66	29	144	17	116	166	125
15	Fremont Ave a	44	987	28	79	910	1401	570	433	30	60	777	198
16	Palm Ave and	0	0	0	55	0	133	35	486	0	0	1381	90
17	Marengo Ave a	24	126	77	248	179	147	178	449	25	66	1025	203
18	Atlantic Blvd	165	1139	123	43	1011	264	94	570	72	188	1027	35
19	Marengo Ave a	93	410	168	46	540	72	51	393	104	292	1257	79
20	Marengo Ave a	2	547	3	11	542	384	87	12	8	2	80	36
21	I-710 NB Ramp	646	1	739	4	0	1	0	222	0	0	2369	6
22	I-710 SB Ramp	0	0	0	0	0	0	0	229	697	1744	1287	0
23	Fremont Ave a	152	1005	336	157	783	118	116	119	164	180	244	229
24	Elm St and He	386	59	23	84	15	214	55	175	372	427	65	14
25	Fremont Ave a	0	670	70	0	0	0	2	26	629	122	0	16
26	Ross Ave and	28	1086	227	45	977	36	28	53	5	185	190	18
27	Westmont Dr a	55	15	8	4	6	40	18	1041	15	3	2219	32

 Alhambra Campus Residential Development TIA
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Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Fremont Ave and Mission Rd	F	xxxxx 1.241	F	xxxxx 1.281	+ 0.039 V/C
# 2 Fremont Ave and 1000 Fremont A	B	xxxxx 0.607	B	xxxxx 0.623	+ 0.016 V/C
# 3 Fremont Ave and Orange St	B	xxxxx 0.608	B	xxxxx 0.635	+ 0.027 V/C
# 4 Date Ave and Orange St	B	11.4 0.055	B	11.6 0.082	+ 0.189 D/V
# 5 Palm Ave and Orange St	A	8.6 0.278	A	8.7 0.283	+ 0.005 V/C
# 6 Chestnut St and Palm Ave	A	8.5 0.244	A	8.5 0.247	+ 0.003 V/C
# 7 Fremont Ave and Poplar Blvd	C	xxxxx 0.740	C	xxxxx 0.747	+ 0.007 V/C
# 8 Date Ave and Mission Rd	C	19.4 0.227	C	23.4 0.364	+ 4.051 D/V
# 9 Chestnut St and Date Ave	B	10.8 0.059	B	11.5 0.085	+ 0.713 D/V
# 10 Fremont Ave and Concord Ave	B	xxxxx 0.680	B	xxxxx 0.681	+ 0.001 V/C
# 11 Fremont Ave and Montezuma Ave	B	xxxxx 0.636	B	xxxxx 0.643	+ 0.007 V/C
# 12 Palm Ave and Commonwealth Ave	A	xxxxx 0.408	A	xxxxx 0.415	+ 0.007 V/C
# 13 Date Ave and Commonwealth Ave	A	xxxxx 0.399	A	xxxxx 0.406	+ 0.007 V/C
# 14 Fremont Ave and Commonwealth A	C	xxxxx 0.757	C	xxxxx 0.758	+ 0.001 V/C
# 15 Fremont Ave and Valley Blvd	E	xxxxx 0.993	F	xxxxx 1.006	+ 0.013 V/C

# 16 Palm Ave and Mission Rd	B xxxxx 0.664	B xxxxx 0.665	+ 0.001 V/C
# 17 Marengo Ave and Valley Blvd	C xxxxx 0.759	C xxxxx 0.766	+ 0.006 V/C
# 18 Atlantic Blvd and Mission Road	E xxxxx 0.909	E xxxxx 0.910	+ 0.001 V/C
# 19 Marengo Ave and Mission Road	E xxxxx 0.985	E xxxxx 0.990	+ 0.005 V/C
# 20 Marengo Ave and Front St	C xxxxx 0.777	C xxxxx 0.786	+ 0.008 V/C
# 21 I-710 NB Ramp and Valley Blvd	C xxxxx 0.740	C xxxxx 0.747	+ 0.007 V/C
# 22 I-710 SB Ramp and Valley Blvd	F xxxxx 1.129	F xxxxx 1.141	+ 0.012 V/C

23 Fremont Ave and Hellman Ave D xxxxx 0.828 D xxxxx 0.842 + 0.014 V/C

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Intersection	Base			Future			Change in
	Del/	V/		Del/	V/		
	LOS	Veh	C	LOS	Veh	C	
# 24 Elm St and Hellman Ave/Ramona	F	52.4	1.191	F	53.8	1.198	+ 0.006 V/C
# 25 Fremont Ave and Ramona Road/10	F	95.0	1.234	F	95.0	1.234	+ 0.000 V/C
# 26 Ross Ave and Fremont Ave	B	xxxxx	0.689	B	xxxxx	0.691	+ 0.002 V/C
# 27 Westmont Dr and Valley Blvd	D	xxxxx	0.859	D	xxxxx	0.870	+ 0.011 V/C

Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Fremont Ave and Mission Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.281
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Fremont Ave		Mission Rd	
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

Control:	Protected					Protected					Protected					Protected				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	2	0	1	1	0	2	0	1	1	0	1	1	0

Volume Module:

Base Vol:	221	1349	202	12	1303	44	62	335	475	356	781	43
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	237	1446	217	13	1397	47	66	359	509	382	837	46
Added Vol:	0	5	5	0	42	9	1	1	0	42	9	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	237	1451	222	13	1439	56	67	360	509	424	846	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	237	1451	222	13	1439	56	67	360	509	424	846	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	237	1451	222	13	1439	56	67	360	509	424	846	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	237	1451	222	13	1439	56	67	360	509	424	846	46

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.74	0.26	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.90	0.10
Final Sat.:	1600	2776	424	1600	3200	1600	1600	3200	1600	1600	3035	165

Capacity Analysis Module:

Vol/Sat:	0.15	0.52	0.52	0.01	0.45	0.04	0.04	0.11	0.32	0.26	0.28	0.28
Crit Moves:	****			****					****	****		

Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.623

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 42 Level Of Service: B

Street Name: Fremont Ave 1000 Fremont Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 1 0 0 1 0

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 48 1296 117 4 1291 36 23 5 54 4 1 6

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 51 1389 125 4 1384 39 25 5 58 4 1 6

Added Vol: 0 6 0 0 50 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 51 1395 125 4 1434 39 25 5 58 4 1 6

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 51 1395 125 4 1434 39 25 5 58 4 1 6

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 51 1395 125 4 1434 39 25 5 58 4 1 6

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 51 1395 125 4 1434 39 25 5 58 4 1 6

-----|-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.08 0.92 1.00 0.14 0.86

Final Sat.: 1600 3200 1600 1600 3200 1600 1600 136 1464 1600 229 1371

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.03 0.44 0.08 0.00 0.45 0.02 0.02 0.04 0.04 0.00 0.00 0.00

Crit Moves: **** **** **** ****

Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.635

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 43 Level Of Service: B

Street Name:	Fremont Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	2	1124	222	140	1320	2	1	1	0	54	0	53
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	2	1205	238	150	1415	2	1	1	0	58	0	57
Added Vol:	0	0	6	4	0	0	0	0	0	50	0	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	1205	244	154	1415	2	1	1	0	108	0	86
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1205	244	154	1415	2	1	1	0	108	0	86
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1205	244	154	1415	2	1	1	0	108	0	86
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	1205	244	154	1415	2	1	1	0	108	0	86

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.50	0.50	1.00	1.11	0.00	0.89
Final Sat.:	1600	3200	1600	1600	3195	5	800	800	1600	1782	0	1418

Capacity Analysis Module:

Vol/Sat:	0.00	0.38	0.15	0.10	0.44	0.44	0.00	0.00	0.00	0.06	0.00	0.06
Crit Moves:	****			****			****			****		

Alhambra Campus Residential Development TIA
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Date Ave and Orange St

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: B[11.6]

Street Name: Date Ave Orange St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 0 1 1 0 1 0 0 1 0 1 0 0 1
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol: 48 89 5 6 167 66 18 32 42 7 24 3
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 51 95 5 6 179 71 19 34 45 8 26 3
Added Vol: 1 14 0 0 2 1 5 16 8 0 2 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 52 109 5 6 181 72 24 50 53 8 28 3
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 52 109 5 6 181 72 24 50 53 8 28 3
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 52 109 5 6 181 72 24 50 53 8 28 3
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 253 xxxx xxxxx 115 xxxx xxxxx 426 414 181 496 480 109
Potent Cap.: 1324 xxxx xxxxx 1487 xxxx xxxxx 542 532 867 488 488 950
Move Cap.: 1324 xxxx xxxxx 1487 xxxx xxxxx 498 509 867 409 467 950
Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 628 611 xxxxx 530 567 xxxxx
Volume/Cap: 0.04 xxxx xxxx 0.00 xxxx xxxx 0.04 0.08 0.06 0.01 0.05 0.00
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: 0.1 xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx 0.2 xxxx xxxx 0.0
Control Del: 7.8 xxxx xxxxx 7.4 xxxx xxxxx xxxxx xxxx 9.4 xxxxx xxxx 8.8
LOS by Move: A * * A * * * * A * * A
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx 617 xxxx xxxxx 559 xxxx xxxxx
SharedQueue:xxxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.4 xxxx xxxxx 0.2 xxxx xxxxx
Shrd ConDel:xxxxxx xxxx xxxxx xxxxx xxxx xxxxx 11.6 xxxx xxxxx 11.9 xxxx xxxxx

Shared LOS: * * * * * * B * * B * *
ApproachDel: xxxxxx xxxxxx 10.7 11.6
ApproachLOS: * * B B

Note: Queue reported is the number of cars per lane.

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Alhambra Campus Residential Development TIA
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Palm Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.283
Loss Time (sec): 0 Average Delay (sec/veh): 8.7
Optimal Cycle: 0 Level Of Service: A

Street Name:	Palm Ave						Orange St								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak												
Base Vol:	5	59	2	5	192	29	7	18	13	2	5	2
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	5	63	2	5	206	31	8	19	14	2	5	2
Added Vol:	0	5	0	0	1	1	5	11	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	68	2	5	207	32	13	30	14	2	6	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	68	2	5	207	32	13	30	14	2	6	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	68	2	5	207	32	13	30	14	2	6	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	68	2	5	207	32	13	30	14	2	6	2

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.07	0.93	1.00	0.03	0.97	1.00	0.29	0.71	1.00	0.25	0.75	1.00
Final Sat.:	53	671	849	19	731	879	186	450	746	159	470	734

Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.00	0.28	0.28	0.04	0.07	0.07	0.02	0.01	0.01	0.00
Crit Moves:	****			****			****			****		
Delay/Veh:	8.1	8.1	6.9	9.3	9.3	6.9	8.5	8.5	7.3	8.2	8.2	7.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.1	8.1	6.9	9.3	9.3	6.9	8.5	8.5	7.3	8.2	8.2	7.3
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.1			9.0			8.2			8.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.1			9.0			8.2			8.0		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.0	0.4	0.4	0.0	0.1	0.1	0.0	0.0	0.0	0.0

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.247
 Loss Time (sec): 0 Average Delay (sec/veh): 8.5
 Optimal Cycle: 0 Level Of Service: A

Street Name: Chestnut St Palm Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1
 -----|-----|-----|-----|
 Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
 Base Vol: 14 90 2 12 163 11 1 1 7 1 3 7
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 15 96 2 13 175 12 1 1 8 1 3 8
 Added Vol: 0 0 0 0 0 1 5 11 0 0 1 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 15 96 2 13 175 13 6 12 8 1 4 8
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 15 96 2 13 175 13 6 12 8 1 4 8
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 15 96 2 13 175 13 6 12 8 1 4 8
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 15 96 2 13 175 13 6 12 8 1 4 8
 -----|-----|-----|-----|
 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.13 0.87 1.00 0.07 0.93 1.00 0.33 0.67 1.00 0.20 0.80 1.00
 Final Sat.: 100 642 880 52 706 896 211 420 746 129 508 742
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.15 0.15 0.00 0.25 0.25 0.01 0.03 0.03 0.01 0.01 0.01 0.01
 Crit Moves: **** **** **** ****
 Delay/Veh: 8.3 8.3 6.7 8.9 8.9 6.7 8.3 8.3 7.3 8.1 8.1 7.3
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 8.3 8.3 6.7 8.9 8.9 6.7 8.3 8.3 7.3 8.1 8.1 7.3
 LOS by Move: A A A A A A A A A A A A
 ApproachDel: 8.3 8.8 8.0 7.6
 Delay Adj: 1.00 1.00 1.00
 ApprAdjDel: 8.3 8.8 8.0 7.6
 LOS by Appr: A A A A
 AllWayAvgQ: 0.2 0.2 0.0 0.3 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd


```

*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.747
Loss Time (sec):      10          Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        57          Level Of Service:              C
*****

```

```

Street Name:          Fremont Ave          Poplar Blvd
Approach:              North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:              Permitted            Permitted            Permitted            Permitted
Rights:               Include              Include              Include              Include
Min. Green:           0    0    0          0    0    0          0    0    0          0    0    0
Y+R:                  4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:                1  0  1  1  0          1  0  1  1  0          1  0  1  0  1          1  0  1  0  1
-----|-----|-----|-----|

```

```

Volume Module:
Base Vol:             90 1036    50    17 1402    15    19 104    65    53 106    18
Growth Adj:           1.07 1.07    1.07    1.07 1.07    1.07    1.07 1.07    1.07    1.07 1.07    1.07
Initial Bse:          96 1111    54    18 1503    16    20 111    70    57 114    19
Added Vol:            9   21     9     0   3     0     0   0     1     1   0     0
PasserByVol:          0   0     0     0   0     0     0   0     0     0   0     0
Initial Fut:         105 1132    63    18 1506    16    20 111    71    58 114    19
User Adj:             1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
PHF Adj:              1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
PHF Volume:          105 1132    63    18 1506    16    20 111    71    58 114    19
Reduct Vol:           0   0     0     0   0     0     0   0     0     0   0     0
Reduced Vol:         105 1132    63    18 1506    16    20 111    71    58 114    19
PCE Adj:              1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
MLF Adj:              1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
FinalVolume:         105 1132    63    18 1506    16    20 111    71    58 114    19
-----|-----|-----|-----|

```

```

Saturation Flow Module:
Sat/Lane:             1600 1600    1600    1600 1600    1600    1600 1600    1600    1600 1600    1600
Adjustment:           1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
Lanes:                1.00 1.90    0.10    1.00 1.98    0.02    1.00 1.00    1.00    1.00 1.00    1.00
Final Sat.:          1600 3032    168    1600 3166    34    1600 1600    1600    1600 1600    1600
-----|-----|-----|-----|

```

```

Capacity Analysis Module:
Vol/Sat:              0.07 0.37    0.37    0.01 0.48    0.48    0.01 0.07    0.04    0.04 0.07    0.01
Crit Moves:          ****              ****              ****

```

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Date Ave and Mission Rd

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: C[23.4]

Street Name:	Date Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	AM Peak						
Base Vol:	0	0	0	22	0	78	82	432	0	0	1209	157
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	0	0	24	0	84	88	463	0	0	1296	168
Added Vol:	0	0	0	34	0	50	6	0	0	0	0	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	58	0	134	94	463	0	0	1296	172
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	58	0	134	94	463	0	0	1296	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	58	0	134	94	463	0	0	1296	172

Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:												
Cnflct Vol:	xxxx	xxxx	xxxxx	1802	xxxx	734	1468	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	73	xxxx	367	466	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	61	xxxx	367	466	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	177	98	xxxxx	199	209	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.29	xxxx	0.36	0.20	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	1.2	xxxx	1.7	0.8	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	30.4	xxxx	20.4	14.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	D	*	C	B	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * * * * * * * *
ApproachDel: xxxxxx 23.4 xxxxxx xxxxxx
ApproachLOS: * C * *

Note: Queue reported is the number of cars per lane.

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 3.4 Worst Case Level Of Service: B[11.5]

Street Name: Chestnut St Date Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 0 1 1 0 1 0 1 0 0 1! 0 0 0 1 0 0 1

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol: 76 144 8 12 135 53 0 0 0 2 3 2
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 81 154 9 13 145 57 0 0 0 2 3 2
Added Vol: 10 1 0 0 8 2 14 16 76 0 2 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 91 155 9 13 153 59 14 16 76 2 5 2
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 91 155 9 13 153 59 14 16 76 2 5 2
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 91 155 9 13 153 59 14 16 76 2 5 2

Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxx 4.1 xxxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim: 2.2 xxxxx xxxxx 2.2 xxxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
Cnflct Vol: 212 xxxxx xxxxx 164 xxxxx xxxxx 525 525 153 592 576 155
Potent Cap.: 1371 xxxxx xxxxx 1427 xxxxx xxxxx 466 460 899 421 431 896
Move Cap.: 1371 xxxxx xxxxx 1427 xxxxx xxxxx 434 426 899 353 399 896
Total Cap: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 557 533 xxxxx 493 510 xxxxx
Volume/Cap: 0.07 xxxxx xxxxx 0.01 xxxxx xxxxx 0.03 0.03 0.08 0.00 0.01 0.00

Level Of Service Module:
2Way95thQ: 0.2 xxxxx xxxxx 0.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.0
Control Del: 7.8 xxxxx xxxxx 7.5 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 9.0
LOS by Move: A * * A * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 759 xxxxx 505 xxxxx xxxxx
SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.5 xxxxx 0.0 xxxxx xxxxx
Shrd ConDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 10.5 xxxxx 12.2 xxxxx xxxxx
Shared LOS: * * * * * * * * B * B * *
ApproachDel: xxxxxx xxxxxx 10.5 11.5
ApproachLOS: * * B B

Note: Queue reported is the number of cars per lane.

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Fremont Ave and Concord Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.681
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: B

Street Name: Fremont Ave Concord Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 1 0 1 0 1 1 0 1 1 0 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 56 1088 37 4 1380 59 40 12 68 22 14 10
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 60 1166 40 4 1479 63 43 13 73 24 15 11
Added Vol: 0 29 0 0 4 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 60 1195 40 4 1483 63 43 13 73 24 15 11
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 60 1195 40 4 1483 63 43 13 73 24 15 11
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 60 1195 40 4 1483 63 43 13 73 24 15 11
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 60 1195 40 4 1483 63 43 13 73 24 15 11
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.90 0.10 1.00 1.92 0.08 1.00 1.00 1.00 1.00 0.58 0.42
Final Sat.: 1600 4646 154 1600 3069 131 1600 1600 1600 1600 933 667
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.04 0.26 0.26 0.00 0.48 0.48 0.03 0.01 0.05 0.01 0.02 0.02
Crit Moves: **** **** **** ****

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.643
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: B

Street Name:	Fremont Ave						Montezuma Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	1	0	0	0	1	1	0	0	0

Volume Module:

Base Vol:	683	258	40	4	80	598	405	52	612	50	93	10
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	732	277	43	4	86	641	434	56	656	54	100	11
Added Vol:	1	0	0	0	0	3	19	0	6	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	733	277	43	4	86	644	453	56	662	54	100	11
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	733	277	43	4	86	0	453	56	662	54	100	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	733	277	43	4	86	0	453	56	662	54	100	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	733	277	43	4	86	0	453	56	662	54	100	11

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.87	0.13	0.10	1.90	1.00	2.00	0.16	1.84	0.33	0.61	0.06
Final Sat.:	2880	1385	215	152	3048	1600	2880	249	2951	523	973	105

Capacity Analysis Module:

Vol/Sat:	0.25	0.20	0.20	0.00	0.03	0.00	0.16	0.22	0.22	0.03	0.10	0.10
Crit Moves:	****				****		****			****		

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.415
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 29 Level Of Service: A

Street Name: Palm Ave Commonwealth Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 2 0 1

Volume Module:
Base Vol: 18 32 4 39 215 252 60 212 28 13 259 38
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 19 34 4 42 231 270 64 227 30 14 278 41
Added Vol: 0 10 0 0 1 1 10 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 19 44 4 42 232 271 74 227 30 14 278 41
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 19 44 4 42 232 271 74 227 30 14 278 41
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 19 44 4 42 232 271 74 227 30 14 278 41
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 19 44 4 42 232 271 74 227 30 14 278 41

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.77 0.23 1.00 2.00 1.00
Final Sat.: 1600 1600 1600 1600 1600 1600 1600 2827 373 1600 3200 1600

Capacity Analysis Module:
Vol/Sat: 0.01 0.03 0.00 0.03 0.14 0.17 0.05 0.08 0.08 0.01 0.09 0.03
Crit Moves: **** **** **** ****

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.406
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 29 Level Of Service: A

Street Name: Date Ave Commonwealth Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 0 1 1 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 24 40 16 47 66 71 68 239 94 118 326 67
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 26 43 17 50 71 76 73 256 101 127 350 72
Added Vol: 10 0 10 0 0 0 0 0 0 1 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 36 43 27 50 71 76 73 256 102 128 350 72
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 36 43 27 50 71 76 73 256 102 128 350 72
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 36 43 27 50 71 76 73 256 102 128 350 72
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 36 43 27 50 71 76 73 256 102 128 350 72
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 0.48 0.52 1.00 1.43 0.57 1.00 1.66 0.34
Final Sat.: 1600 1600 1600 1600 771 829 1600 2290 910 1600 2654 546
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.02 0.03 0.02 0.03 0.09 0.09 0.05 0.11 0.11 0.08 0.13 0.13
Crit Moves: **** **** **** ****

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.758
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 59 Level Of Service: C

Street Name: Fremont Ave Commonwealth Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 1 1 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 39 1008 92 171 1305 62 27 134 16 108 155 107
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 42 1081 99 183 1399 66 29 144 17 116 166 115
Added Vol: 0 29 0 1 4 0 0 0 0 0 0 10
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 42 1110 99 184 1403 66 29 144 17 116 166 125
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 42 1110 99 184 1403 66 29 144 17 116 166 125
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 42 1110 99 184 1403 66 29 144 17 116 166 125
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 42 1110 99 184 1403 66 29 144 17 116 166 125
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 1.91 0.09 1.00 0.89 0.11 1.00 1.00 1.00
Final Sat.: 1600 3200 1600 1600 3055 145 1600 1429 171 1600 1600 1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.03 0.35 0.06 0.12 0.46 0.46 0.02 0.10 0.10 0.07 0.10 0.08
Crit Moves: **** **** **** ****

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Alhambra Campus Residential Development TIA
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AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Fremont Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.006
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Street Name: Fremont Ave Valley Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 2 0 2 2 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol: 41 915 26 74 805 1273 527 404 28 56 725 185
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 44 981 28 79 863 1365 565 433 30 60 777 198
Added Vol: 0 6 0 0 47 36 5 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 44 987 28 79 910 1401 570 433 30 60 777 198
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 44 987 28 79 910 1401 570 433 30 60 777 198
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 44 987 28 79 910 1401 570 433 30 60 777 198
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 44 987 28 79 910 1401 570 433 30 60 777 198
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.95 0.05 1.00 2.00 2.00 2.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1600 3112 88 1600 3200 3200 2880 3200 1600 1600 3200 1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.03 0.32 0.32 0.05 0.28 0.44 0.20 0.14 0.02 0.04 0.24 0.12
Crit Moves: **** **** **** ****

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.665
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 46 Level Of Service: B

Street Name: Palm Ave Mission Rd

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Protected					Permitted					Permitted				
Rights:	Include					Include					Include					Include				
Min. Green:	0		0		0	0		0		0	0		0		0	0		0		0
Y+R:	4.0		4.0		4.0	4.0		4.0		4.0	4.0		4.0		4.0	4.0		4.0		4.0
Lanes:	0		0		0	1		0		0	1		0		2	0		0		0

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol:	0		0		0	51		0		124	33		422		0	0		1284		84
Growth Adj:	1.07		1.07		1.07	1.07		1.07		1.07	1.07		1.07		1.07	1.07		1.07		1.07
Initial Bse:	0		0		0	55		0		133	35		452		0	0		1377		90
Added Vol:	0		0		0	0		0		0	0		34		0	0		4		0
PasserByVol:	0		0		0	0		0		0	0		0		0	0		0		0
Initial Fut:	0		0		0	55		0		133	35		486		0	0		1381		90
User Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	0		0		0	55		0		133	35		486		0	0		1381		90
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Reduced Vol:	0		0		0	55		0		133	35		486		0	0		1381		90
PCE Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
MLF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
FinalVolume:	0		0		0	55		0		133	35		486		0	0		1381		90

Saturation Flow Module:

Sat/Lane:	1600		1600		1600	1600		1600		1600	1600		1600		1600	1600		1600		1600
Adjustment:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
Lanes:	0.00		0.00		0.00	1.00		0.00		1.00	1.00		2.00		0.00	0.00		1.88		0.12
Final Sat.:	0		0		0	1600		0		1600	1600		3200		0	0		3004		196

Capacity Analysis Module:

Vol/Sat:	0.00		0.00		0.00	0.03		0.00		0.08	0.02		0.15		0.00	0.00		0.46		0.46
Crit Moves:										****	****							****		

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Ambient Growth Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.766
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 60 Level Of Service: C

Street Name: Marengo Ave Valley Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 0 1 0 1 1 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol: 22 117 72 223 163 137 166 419 23 62 956 188
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 24 125 77 239 175 147 178 449 25 66 1025 202
Added Vol: 0 1 0 9 4 0 0 0 0 0 0 1
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 24 126 77 248 179 147 178 449 25 66 1025 203
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 24 126 77 248 179 147 178 449 25 66 1025 203
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 126 77 248 179 147 178 449 25 66 1025 203
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 24 126 77 248 179 147 178 449 25 66 1025 203
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 0.55 0.45 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1600 1600 1600 1600 878 722 1600 3200 1600 1600 3200 1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.01 0.08 0.05 0.16 0.20 0.20 0.11 0.14 0.02 0.04 0.32 0.13
Crit Moves: **** **** **** ****

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Alhambra Campus Residential Development TIA
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AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.910
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 105 Level Of Service: E

Street Name: Atlantic Blvd Mission Road
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 154 1062 115 40 943 246 88 516 67 175 956 33
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 165 1139 123 43 1011 264 94 553 72 188 1025 35
Added Vol: 0 0 0 0 0 0 0 17 0 0 2 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 165 1139 123 43 1011 264 94 570 72 188 1027 35
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 165 1139 123 43 1011 264 94 570 72 188 1027 35
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 165 1139 123 43 1011 264 94 570 72 188 1027 35
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 165 1139 123 43 1011 264 94 570 72 188 1027 35
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.80 0.20 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.93 0.07
Final Sat.: 1600 2887 313 1600 3200 1600 1600 3200 1600 1600 3093 107
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.10 0.39 0.39 0.03 0.32 0.16 0.06 0.18 0.04 0.12 0.33 0.33
Crit Moves: **** **** **** ****

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Alhambra Campus Residential Development TIA
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AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.990
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Street Name: Marengo Ave Mission Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 0 1 1 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 85 382 157 43 504 66 44 351 85 272 1171 74
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 91 410 168 46 540 71 47 376 91 292 1255 79
Added Vol: 2 0 0 0 0 0 1 4 17 13 0 2 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 93 410 168 46 540 72 51 393 104 292 1257 79
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 93 410 168 46 540 72 51 393 104 292 1257 79
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 93 410 168 46 540 72 51 393 104 292 1257 79
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 93 410 168 46 540 72 51 393 104 292 1257 79
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 0.88 0.12 1.00 1.58 0.42 1.00 1.88 0.12
Final Sat.: 1600 1600 1600 1600 1412 188 1600 2530 670 1600 3010 190
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.06 0.26 0.11 0.03 0.38 0.38 0.03 0.16 0.16 0.18 0.42 0.42
Crit Moves: **** **** **** ****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #20 Marengo Ave and Front St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.786
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 64 Level Of Service: C

Street Name:	Marengo Ave				Front St			
Approach:	North Bound		South Bound		East Bound		West Bound	
Movement:	L	T	R	L	T	R	L	T
Control:	Permitted		Permitted		Permitted		Permitted	
Rights:	Include		Include		Include		Include	
Min. Green:	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	2	508	3	10	493	358	81	11	7	2	75	34
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	2	545	3	11	529	384	87	12	8	2	80	36
Added Vol:	0	2	0	0	13	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	547	3	11	542	384	87	12	8	2	80	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	547	3	11	542	384	87	12	8	2	80	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	547	3	11	542	384	87	12	8	2	80	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	547	3	11	542	384	87	12	8	2	80	36

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.99	0.01	1.00	0.59	0.41	0.88	0.12	1.00	0.03	0.97	1.00
Final Sat.:	1600	1591	9	1600	936	664	1409	191	1600	42	1558	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.34	0.34	0.01	0.58	0.05	0.06	0.00	0.00	0.05	0.02	
Crit Moves:	****			****		****				****		

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Alhambra Campus Residential Development TIA
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #21 I-710 NB Ramp and Valley Blvd

Cycle (sec): 120 Critical Vol./Cap.(X): 0.747
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 59 Level Of Service: C

Street Name: I-710 NB Ramp Valley Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Split Phase Split Phase Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1! 0 1 0 0 1! 0 0 0 0 2 0 0 0 0 3 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 603 1 685 4 0 1 0 207 0 0 2176 6
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 646 1 734 4 0 1 0 222 0 0 2333 6
Added Vol: 0 0 5 0 0 0 0 0 0 0 36 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 646 1 739 4 0 1 0 222 0 0 2369 6
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 646 1 739 4 0 1 0 222 0 0 2369 6
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 646 1 739 4 0 1 0 222 0 0 2369 6
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 646 1 739 4 0 1 0 222 0 0 2369 6
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.39 0.01 1.60 0.80 0.00 0.20 0.00 2.00 0.00 0.00 3.99 0.01
Final Sat.: 2237 4 2559 1280 0 320 0 3200 0 0 6383 17
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.29 0.29 0.29 0.00 0.00 0.00 0.00 0.07 0.00 0.00 0.37 0.37
Crit Moves: **** **** **** ****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.141
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Street Name: I-710 SB Ramp Valley Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 0 0 0 2 0 1 2 0 2 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 0 0 0 0 0 0 0 0 214 650 1593 1200 0
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 0 0 0 0 0 0 0 0 229 697 1708 1287 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 36 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 0 0 0 0 0 229 697 1744 1287 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 0 0 0 0 229 697 1744 1287 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 229 697 1744 1287 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 0 0 0 0 0 229 697 1744 1287 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00
Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 0.00
Final Sat.: 0 0 0 0 0 0 0 0 3200 1600 2880 3200 0
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.07 0.44 0.61 0.40 0.00
Crit Moves: **** **

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Alhambra Campus Residential Development TIA
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.842
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 78 Level Of Service: D

Street Name:	Fremont Ave						Hellman Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	142	934	313	127	706	110	108	111	153	168	228	212
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	152	1001	336	136	757	118	116	119	164	180	244	227
Added Vol:	0	4	0	21	26	0	0	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	152	1005	336	157	783	118	116	119	164	180	244	229
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	152	1005	336	157	783	118	116	119	164	180	244	229
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	152	1005	336	157	783	118	116	119	164	180	244	229
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	152	1005	336	157	783	118	116	119	164	180	244	229

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.50	0.50	1.00	1.74	0.26	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2399	801	1600	2781	419	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.10	0.42	0.42	0.10	0.28	0.28	0.07	0.07	0.10	0.11	0.15	0.14
Crit Moves:	****			****			****			****		

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.198
Loss Time (sec): 0 Average Delay (sec/veh): 53.8
Optimal Cycle: 0 Level Of Service: F

Street Name:	Elm St	Hellman Ave/Ramona Rd/ 10 WB ramp		
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	1 0 1 0 0	0 1 0 0 1	0 1 0 0 1	0 1 0 0 1

Volume Module:AM Peak	Elm St	Hellman Ave/Ramona Rd/ 10 WB ramp		
Base Vol:	358 55 21	78 14 200	51 163 327	398 61 13
Growth Adj:	1.07 1.07 1.07	1.07 1.07 1.07	1.07 1.07 1.07	1.07 1.07 1.07
Initial Bse:	384 59 23	84 15 214	55 175 351	427 65 14
Added Vol:	2 0 0	0 0 0	0 0 21	0 0 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	386 59 23	84 15 214	55 175 372	427 65 14
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	386 59 23	84 15 214	55 175 372	427 65 14
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	386 59 23	84 15 214	55 175 372	427 65 14
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
FinalVolume:	386 59 23	84 15 214	55 175 372	427 65 14

Saturation Flow Module:	Elm St	Hellman Ave/Ramona Rd/ 10 WB ramp		
Adjustment:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Lanes:	1.65 0.25 0.10	0.85 0.15 1.00	0.24 0.76 1.00	0.87 0.13 1.00
Final Sat.:	1035 -288 37	323 58 432	101 324 472	356 55 459

Capacity Analysis Module:	Elm St	Hellman Ave/Ramona Rd/ 10 WB ramp		
Vol/Sat:	0.37-0.20 0.60	0.26 0.26 0.50	0.54 0.54 0.79	1.20 1.20 0.03
Crit Moves:	****	****	****	****
Delay/Veh:	24.3 24.8 24.8	15.1 15.1 18.4	20.4 20.4 32.5	137.9 138 10.6
Delay Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	24.3 24.8 24.8	15.1 15.1 18.4	20.4 20.4 32.5	137.9 138 10.6
LOS by Move:	C C C	C C C	C C D	F F B

ApproachDel:	24.1			17.4			27.9			134.4
Delay Adj:	1.00			1.00			1.00			1.00
ApprAdjDel:	24.1			17.4			27.9			134.4
LOS by Appr:		C			C			D		F
AllWayAvgQ:	1.4	1.4	1.4	0.3	0.3	0.9	1.1	1.1	2.9	14.4 14.4 0.0

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

```

*****
Cycle (sec):          100                Critical Vol./Cap.(X):          1.234
Loss Time (sec):      0                  Average Delay (sec/veh):        95.0
Optimal Cycle:        0                  Level Of Service:            F
*****

```

```

Street Name:          Fremont Ave                Ramona Road/10 EB ramp
Approach:             North Bound                South Bound                East Bound                West Bound
Movement:            L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|
Control:             Stop Sign                Stop Sign                Stop Sign                Stop Sign
Rights:              Include                Include                Include                Include
Min. Green:          0 0 0 0                0 0 0 0                0 0 0 0                0 0 0 0
Lanes:              0 0 1 0 1                0 0 0 0 0                0 1 0 0 1                0 0 1! 0 0
-----|-----|-----|-----|

```

```

Volume Module:AM Peak
Base Vol:            0 625 48                0 0 0                2 24 584 114 0 15
Growth Adj:          1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse:         0 670 51                0 0 0                2 26 626 122 0 16
Added Vol:           0 0 19                0 0 0                0 0 3 0 0 0
PasserByVol:         0 0 0                0 0 0                0 0 0 0 0 0
Initial Fut:         0 670 70                0 0 0                2 26 629 122 0 16
User Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:          0 670 70                0 0 0                2 26 629 122 0 16
Reduct Vol:          0 0 0                0 0 0                0 0 0 0 0 0
Reduced Vol:         0 670 70                0 0 0                2 26 629 122 0 16
PCE Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:         0 670 70                0 0 0                2 26 629 122 0 16
-----|-----|-----|-----|

```

```

Saturation Flow Module:
Adjustment:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:              0.00 1.00 1.00 0.00 0.00 0.00 0.08 0.92 1.00 0.88 0.00 0.12
Final Sat.:          0 543 606                0 0 0                41 490 597 421 0 55
-----|-----|-----|-----|

```

```

Capacity Analysis Module:
Vol/Sat:            xxxx 1.23 0.12  xxxx xxxx  xxxx  0.05 0.05  1.05  0.29 xxxx  0.29
Crit Moves:          ****                ****                ****
Delay/Veh:           0.0 142 9.4  0.0 0.0  0.0  9.8 9.8 75.8 13.6 0.0 13.6
Delay Adj:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:          0.0 142 9.4  0.0 0.0  0.0  9.8 9.8 75.8 13.6 0.0 13.6
LOS by Move:         *  F  A  *  *  *  A  A  F  B  *  B
ApproachDel:         129.6                xxxxxx                73.0                13.6
Delay Adj:           1.00                xxxxxx                1.00                1.00
ApprAdjDel:          129.6                xxxxxx                73.0                13.6
LOS by Appr:         F                *                F                B
AllWayAvgQ:          0.0 20.1 0.1  0.0 0.0  0.0  0.1 0.1 11.1 0.4 0.4 0.4

```

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Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
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AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

```

*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.691
Loss Time (sec):      10          Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        49          Level Of Service:              B
*****

```

```

Street Name:          Fremont Ave          Ross Ave
Approach:              North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|-----|
Control:              Permitted            Permitted            Protected            Protected
Rights:               Include              Include              Include              Include
Min. Green:           0    0    0          0    0    0          0    0    0          0    0    0
Y+R:                  4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:                1  0  1  1  0        1  0  1  1  0        1  0  0  1  0        1  0  1  0  1
-----|-----|-----|-----|-----|

```

```

Volume Module:
Base Vol:             26 1007    212    42 867    34    26 49    5    173 177    17
Growth Adj:           1.07 1.07  1.07  1.07 1.07  1.07  1.07 1.07  1.07  1.07 1.07  1.07
Initial Bse:          28 1080    227    45 930    36    28 53    5    185 190    18
Added Vol:             0    6    0          0  47    0          0    0    0          0    0    0
PasserByVol:          0    0    0          0    0    0          0    0    0          0    0    0
Initial Fut:          28 1086    227    45 977    36    28 53    5    185 190    18
User Adj:             1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:           28 1086    227    45 977    36    28 53    5    185 190    18
Reduct Vol:           0    0    0          0    0    0          0    0    0          0    0    0
Reduced Vol:          28 1086    227    45 977    36    28 53    5    185 190    18
PCE Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:          28 1086    227    45 977    36    28 53    5    185 190    18
-----|-----|-----|-----|-----|

```

```

Saturation Flow Module:
Sat/Lane:             1600 1600  1600  1600 1600  1600 1600  1600  1600 1600  1600
Adjustment:           1.00 1.00  1.00  1.00 1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:                1.00 1.65  0.35  1.00 1.93  0.07  1.00 0.91  0.09  1.00 1.00  1.00
Final Sat.:           1600 2646    554  1600 3085    115  1600 1452    148  1600 1600  1600
-----|-----|-----|-----|-----|

```

```

Capacity Analysis Module:
Vol/Sat:              0.02 0.41  0.41  0.03 0.32  0.32  0.02 0.04  0.04  0.12 0.12  0.01
Crit Moves:           ****          ****          ****          ****

```

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Westmont Dr and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.870
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 87 Level Of Service: D

Street Name: Westmont Dr Valley Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 2 0 1

Volume Module:
Base Vol: 51 14 7 4 6 37 17 966 14 3 2036 30
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 55 15 8 4 6 40 18 1036 15 3 2183 32
Added Vol: 0 0 0 0 0 0 0 5 0 0 36 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 55 15 8 4 6 40 18 1041 15 3 2219 32
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 55 15 8 4 6 40 18 1041 15 3 2219 32
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 55 15 8 4 6 40 18 1041 15 3 2219 32
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 55 15 8 4 6 40 18 1041 15 3 2219 32

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.71 0.19 0.10 0.08 0.13 0.79 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1133 311 156 136 204 1260 1600 3200 1600 1600 3200 1600

Capacity Analysis Module:
Vol/Sat: 0.03 0.05 0.05 0.00 0.03 0.03 0.01 0.33 0.01 0.00 0.69 0.02
Crit Moves: **** **** **** ****

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
PM Peak Hour

Scenario Report

Scenario:	2024 Ambient Growth + Proj PM
Command:	2024 Ambient Growth + Proj PM
Volume:	2024 PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	2024 Project PM
Trip Distribution:	Cum + Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

 Alhambra Campus Residential Development TIA
 Ambient Growth Conditions Plus Project
 PM Peak Hour

Turning Movement Report
 Project 2024 PM

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 Fremont Ave and Mission Rd													
Base	207	1490	206	54	1178	58	125	539	462	330	452	48	5150
Added	0	36	36	0	21	4	7	7	0	21	4	0	136
Total	207	1526	242	54	1199	62	132	546	462	351	456	48	5286
#2 Fremont Ave and 1000 Fremont Ave													
Base	58	1562	46	8	1193	64	87	3	74	42	4	27	3168
Added	0	43	0	0	25	0	0	0	0	0	0	0	68

Total	58	1605	46	8	1218	64	87	3	74	42	4	27	3236
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#3 Fremont Ave and Orange St

Base	2	1501	188	109	1020	2	10	5	5	261	2	310	3415
------	---	------	-----	-----	------	---	----	---	---	-----	---	-----	------

Added	0	0	43	25	0	0	0	0	0	25	0	14	107
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Total	2	1501	231	134	1020	2	10	5	5	286	2	324	3522
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#4 Date Ave and Orange St

Base	33	182	3	27	286	44	72	165	166	1	21	6	1008
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Added	7	7	0	0	12	4	2	8	4	0	13	0	57
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Total	40	189	3	27	298	48	74	173	170	1	34	6	1065
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#5 Palm Ave and Orange St

Base	5	183	2	11	287	14	62	69	76	2	5	8	725
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Added	0	2	0	0	4	4	2	5	0	0	9	0	26
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Total	5	185	2	11	291	18	64	74	76	2	14	8	751
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#6 Chestnut St and Palm Ave

Base	5	157	10	15	362	9	8	8	85	6	1	8	672
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Added	0	0	0	0	0	4	2	5	0	0	9	0	20
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Total	5	157	10	15	362	13	10	13	85	6	10	8	692
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#7 Fremont Ave and Poplar Blvd

Base	163	1504	123	27	925	45	27	125	86	57	127	30	3239
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Added	4	11	4	0	18	0	0	0	7	7	0	0	51
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Total	167	1515	127	27	943	45	27	125	93	64	127	30	3290
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#8 Date Ave and Mission Rd

Base	0	0	0	209	0	170	90	789	0	0	604	119	1981
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Added	0	0	0	17	0	25	43	0	0	0	0	29	114
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Total	0	0	0	226	0	195	133	789	0	0	604	148	2095
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#9 Chestnut St and Date Ave

Base	19	191	13	41	400	11	0	0	0	11	2	18	705
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Added	65	7	0	0	4	12	7	8	38	0	13	0	154
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Total	84	198	13	41	404	23	7	8	38	11	15	18	859
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 Alhambra Campus Residential Development TIA
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Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#10 Fremont Ave and Concord Ave													
Base	55	1650	121	29	963	76	85	46	50	80	64	80	3300
Added	0	14	0	0	25	0	0	0	0	0	0	0	39
Total	55	1664	121	29	988	76	85	46	50	80	64	80	3339
#11 Fremont Ave and Montezuma Ave													
Base	737	475	92	26	44	278	428	179	655	35	74	20	3043
Added	5	0	0	0	0	18	10	0	3	0	0	0	36
Total	742	475	92	26	44	296	438	179	658	35	74	20	3079
#12 Palm Ave and Commonwealth Ave													
Base	53	133	21	184	233	262	204	446	75	9	413	103	2135
Added	0	5	0	0	8	8	5	0	0	0	0	0	26
Total	53	138	21	184	241	270	209	446	75	9	413	103	2161
#13 Date Ave and Commonwealth Ave													
Base	68	136	61	124	87	154	221	551	104	55	522	123	2206
Added	5	0	5	0	0	0	0	0	8	8	0	0	26
Total	73	136	66	124	87	154	221	551	112	63	522	123	2232
#14 Fremont Ave and Commonwealth Ave													
Base	39	1523	278	213	857	27	32	147	15	168	169	255	3723
Added	0	14	0	8	25	0	0	0	0	0	0	5	52
Total	39	1537	278	221	882	27	32	147	15	168	169	260	3775
#15 Fremont Ave and Valley Blvd													
Base	30	861	35	199	1030	830	660	964	27	134	374	330	5475
Added	0	40	0	0	23	18	31	0	0	0	0	0	112
Total	30	901	35	199	1053	848	691	964	27	134	374	330	5587
#16 Palm Ave and Mission Rd													
Base	0	0	0	354	0	118	53	963	0	0	611	109	2207
Added	0	0	0	0	0	0	0	17	0	0	29	0	46
Total	0	0	0	354	0	118	53	980	0	0	640	109	2253
#17 Marengo Ave and Valley Blvd													
Base	18	170	69	306	215	209	329	932	9	51	597	146	3051
Added	0	4	0	4	2	0	0	0	0	0	0	7	17
Total	18	174	69	310	217	209	329	932	9	51	597	153	3068
#18 Atlantic Blvd and Mission Road													
Base	102	1137	147	45	1020	108	140	1035	143	195	604	64	4740
Added	0	0	0	0	0	0	0	8	0	0	15	0	23

Total 102 1137 147 45 1020 108 140 1043 143 195 619 64 4763

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 Alhambra Campus Residential Development TIA
 Ambient Growth Conditions Plus Project
 PM Peak Hour

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#19 Marengo Ave and Mission Road													
Base	78	552	241	62	500	49	57	1007	303	75	577	63	3565
Added	11	0	0	0	0	4	2	8	6	0	15	0	46
Total	89	552	241	62	500	53	59	1015	309	75	592	63	3611
#20 Marengo Ave and Front St													
Base	3	680	4	25	731	202	161	54	9	2	20	17	1907
Added	0	11	0	0	6	0	0	0	0	0	0	0	17
Total	3	691	4	25	737	202	161	54	9	2	20	17	1924
#21 I-710 NB Ramp and Valley Blvd													
Base	626	0	1327	1	0	2	0	568	0	0	1199	0	3723
Added	0	0	31	0	0	0	0	0	0	0	18	0	49
Total	626	0	1358	1	0	2	0	568	0	0	1217	0	3772
#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	578	782	839	1008	0	3207
Added	0	0	0	0	0	0	0	0	0	18	0	0	18
Total	0	0	0	0	0	0	0	578	782	857	1008	0	3225
#23 Fremont Ave and Hellman Ave													
Base	91	793	259	158	872	73	137	185	232	221	194	254	3469
Added	0	24	0	11	13	0	0	0	0	0	0	16	64
Total	91	817	259	169	885	73	137	185	232	221	194	270	3533
#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	501	184	105	11	5	43	31	321	239	129	113	2	1683
Added	16	0	0	0	0	0	0	0	11	0	0	0	27
Total	517	184	105	11	5	43	31	321	250	129	113	2	1710
#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	784	124	0	0	0	4	98	310	50	0	84	1454
Added	0	0	10	0	0	0	0	0	18	0	0	0	28
Total	0	784	134	0	0	0	4	98	328	50	0	84	1482
#26 Ross Ave and Fremont Ave													
Base	32	910	180	28	1059	44	12	34	6	58	43	44	2451
Added	0	40	0	0	23	0	0	0	0	0	0	0	63
Total	32	950	180	28	1082	44	12	34	6	58	43	44	2514
#27 Westmont Dr and Valley Blvd													
Base	17	11	12	26	10	15	60	1692	145	9	1115	35	3146
Added	0	0	0	0	0	0	0	31	0	0	18	0	49

Total 17 11 12 26 10 15 60 1723 145 9 1133 35 3195

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Alhambra Campus Residential Development TIA
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PM Peak Hour

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#135													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	43	0	0	25	0	68
Total	0	0	0	0	0	0	0	43	0	0	25	0	68

 Alhambra Campus Residential Development TIA
 Ambient Growth Conditions Plus Project
 PM Peak Hour

Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	207	1490	206	54	1178	58	125	539	462	330	452	48
2 Fremont Ave a	58	1562	46	8	1193	64	87	3	74	42	4	27
3 Fremont Ave a	2	1501	188	109	1020	2	10	5	5	261	2	310

4 Date Ave and	33	182	3	27	286	44	72	165	166	1	21	6
5 Palm Ave and	5	183	2	11	287	14	62	69	76	2	5	8
6 Chestnut St a	5	157	10	15	362	9	8	8	85	6	1	8
7 Fremont Ave a	163	1504	123	27	925	45	27	125	86	57	127	30
8 Date Ave and	0	0	0	209	0	170	90	789	0	0	604	119
9 Chestnut St a	19	191	13	41	400	11	0	0	0	11	2	18
10 Fremont Ave a	55	1650	121	29	963	76	85	46	50	80	64	80
11 Fremont Ave a	737	475	92	26	44	278	428	179	655	35	74	20
12 Palm Ave and	53	133	21	184	233	262	204	446	75	9	413	103
13 Date Ave and	68	136	61	124	87	154	221	551	104	55	522	123
14 Fremont Ave a	39	1523	278	213	857	27	32	147	15	168	169	255
15 Fremont Ave a	30	861	35	199	1030	830	660	964	27	134	374	330
16 Palm Ave and	0	0	0	354	0	118	53	963	0	0	611	109
17 Marengo Ave a	18	170	69	306	215	209	329	932	9	51	597	146
18 Atlantic Blvd	102	1137	147	45	1020	108	140	1035	143	195	604	64
19 Marengo Ave a	78	552	241	62	500	49	57	1007	303	75	577	63
20 Marengo Ave a	3	680	4	25	731	202	161	54	9	2	20	17
21 I-710 NB Ramp	626	0	1327	1	0	2	0	568	0	0	1199	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	578	782	839	1008	0
23 Fremont Ave a	91	793	259	158	872	73	137	185	232	221	194	254
24 Elm St and He	501	184	105	11	5	43	31	321	239	129	113	2
25 Fremont Ave a	0	784	124	0	0	0	4	98	310	50	0	84
26 Ross Ave and	32	910	180	28	1059	44	12	34	6	58	43	44

27 Westmont Dr a 17 11 12 26 10 15 60 1692 145 9 1115 35

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Alhambra Campus Residential Development TIA
 Ambient Growth Conditions Plus Project
 PM Peak Hour

Intersection Volume Report
 Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	207	1526	242	54	1199	62	132	546	462	351	456	48
2 Fremont Ave a	58	1605	46	8	1218	64	87	3	74	42	4	27
3 Fremont Ave a	2	1501	231	134	1020	2	10	5	5	286	2	324
4 Date Ave and	40	189	3	27	298	48	74	173	170	1	34	6
5 Palm Ave and	5	185	2	11	291	18	64	74	76	2	14	8
6 Chestnut St a	5	157	10	15	362	13	10	13	85	6	10	8
7 Fremont Ave a	167	1515	127	27	943	45	27	125	93	64	127	30
8 Date Ave and	0	0	0	226	0	195	133	789	0	0	604	148
9 Chestnut St a	84	198	13	41	404	23	7	8	38	11	15	18
10 Fremont Ave a	55	1664	121	29	988	76	85	46	50	80	64	80
11 Fremont Ave a	742	475	92	26	44	296	438	179	658	35	74	20
12 Palm Ave and	53	138	21	184	241	270	209	446	75	9	413	103
13 Date Ave and	73	136	66	124	87	154	221	551	112	63	522	123
14 Fremont Ave a	39	1537	278	221	882	27	32	147	15	168	169	260
15 Fremont Ave a	30	901	35	199	1053	848	691	964	27	134	374	330
16 Palm Ave and	0	0	0	354	0	118	53	980	0	0	640	109
17 Marengo Ave a	18	174	69	310	217	209	329	932	9	51	597	153
18 Atlantic Blvd	102	1137	147	45	1020	108	140	1043	143	195	619	64
19 Marengo Ave a	89	552	241	62	500	53	59	1015	309	75	592	63
20 Marengo Ave a	3	691	4	25	737	202	161	54	9	2	20	17
21 I-710 NB Ramp	626	0	1358	1	0	2	0	568	0	0	1217	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	578	782	857	1008	0
23 Fremont Ave a	91	817	259	169	885	73	137	185	232	221	194	270
24 Elm St and He	517	184	105	11	5	43	31	321	250	129	113	2
25 Fremont Ave a	0	784	134	0	0	0	4	98	328	50	0	84
26 Ross Ave and	32	950	180	28	1082	44	12	34	6	58	43	44

27 Westmont Dr a 17 11 12 26 10 15 60 1723 145 9 1133 35

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Alhambra Campus Residential Development TIA
 Ambient Growth Conditions Plus Project
 PM Peak Hour

Impact Analysis Report
 Level Of Service

Intersection	Base Del/ V/ LOS Veh C	Future Del/ V/ LOS Veh C	Change in
# 1 Fremont Ave and Mission Rd	F xxxxxx 1.159	F xxxxxx 1.194	+ 0.036 V/C
# 2 Fremont Ave and 1000 Fremont A	B xxxxxx 0.667	B xxxxxx 0.681	+ 0.013 V/C
# 3 Fremont Ave and Orange St	D xxxxxx 0.842	D xxxxxx 0.866	+ 0.024 V/C
# 4 Date Ave and Orange St	B 14.5 0.309	C 15.3 0.333	+ 0.798 D/V
# 5 Palm Ave and Orange St	B 10.8 0.451	B 11.0 0.463	+ 0.012 V/C
# 6 Chestnut St and Palm Ave	B 11.2 0.527	B 11.3 0.534	+ 0.007 V/C
# 7 Fremont Ave and Poplar Blvd	C xxxxxx 0.739	C xxxxxx 0.748	+ 0.009 V/C
# 8 Date Ave and Mission Rd	C 17.5 0.489	C 21.1 0.591	+ 3.587 D/V
# 9 Chestnut St and Date Ave	B 10.5 0.030	B 12.8 0.074	+ 2.321 D/V
# 10 Fremont Ave and Concord Ave	B xxxxxx 0.630	B xxxxxx 0.633	+ 0.003 V/C
# 11 Fremont Ave and Montezuma Ave	C xxxxxx 0.715	C xxxxxx 0.716	+ 0.001 V/C
# 12 Palm Ave and Commonwealth Ave	A xxxxxx 0.555	A xxxxxx 0.561	+ 0.006 V/C
# 13 Date Ave and Commonwealth Ave	B xxxxxx 0.633	B xxxxxx 0.636	+ 0.003 V/C
# 14 Fremont Ave and Commonwealth A	E xxxxxx 0.916	E xxxxxx 0.925	+ 0.009 V/C
# 15 Fremont Ave and Valley Blvd	E xxxxxx 0.940	E xxxxxx 0.964	+ 0.023 V/C

# 16 Palm Ave and Mission Rd	B xxxxx 0.622	B xxxxx 0.627	+ 0.005 V/C
# 17 Marengo Ave and Valley Blvd	C xxxxx 0.790	C xxxxx 0.795	+ 0.005 V/C
# 18 Atlantic Blvd and Mission Road	E xxxxx 0.975	E xxxxx 0.977	+ 0.003 V/C
# 19 Marengo Ave and Mission Road	E xxxxx 0.948	E xxxxx 0.962	+ 0.014 V/C
# 20 Marengo Ave and Front St	D xxxxx 0.820	D xxxxx 0.824	+ 0.004 V/C
# 21 I-710 NB Ramp and Valley Blvd	B xxxxx 0.687	B xxxxx 0.700	+ 0.012 V/C
# 22 I-710 SB Ramp and Valley Blvd	D xxxxx 0.880	D xxxxx 0.886	+ 0.006 V/C

23 Fremont Ave and Hellman Ave D xxxxxx 0.810 D xxxxxx 0.825 + 0.014 V/C

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 Alhambra Campus Residential Development TIA
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Intersection	Base			Future			Change in
	Del/	V/		Del/	V/		
	LOS	Veh	C	LOS	Veh	C	
# 24 Elm St and Hellman Ave/Ramona	D	28.2	0.826	D	29.5	0.846	+ 0.020 V/C
# 25 Fremont Ave and Ramona Road/10	F	96.4	1.305	F	97.3	1.316	+ 0.011 V/C
# 26 Ross Ave and Fremont Ave	A	xxxxxx	0.526	A	xxxxxx	0.534	+ 0.007 V/C
# 27 Westmont Dr and Valley Blvd	B	xxxxxx	0.675	B	xxxxxx	0.685	+ 0.010 V/C

Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Fremont Ave and Mission Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.194
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Fremont Ave		Mission Rd	
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	193	1390	192	50	1099	54	117	503	431	308	422	45
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	207	1490	206	54	1178	58	125	539	462	330	452	48
Added Vol:	0	36	36	0	21	4	7	7	0	21	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	207	1526	242	54	1199	62	132	546	462	351	456	48
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	207	1526	242	54	1199	62	132	546	462	351	456	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	207	1526	242	54	1199	62	132	546	462	351	456	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	207	1526	242	54	1199	62	132	546	462	351	456	48

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.73	0.27	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.81	0.19
Final Sat.:	1600	2762	438	1600	3200	1600	1600	3200	1600	1600	2894	306

Capacity Analysis Module:

Vol/Sat:	0.13	0.55	0.55	0.03	0.37	0.04	0.08	0.17	0.29	0.22	0.16	0.16
Crit Moves:	****			****			****			****		

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.681
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: B

Street Name: Fremont Ave 1000 Fremont Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 54 1457 43 7 1113 60 81 3 69 39 4 25
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 58 1562 46 8 1193 64 87 3 74 42 4 27
Added Vol: 0 43 0 0 25 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 58 1605 46 8 1218 64 87 3 74 42 4 27
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 58 1605 46 8 1218 64 87 3 74 42 4 27
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 58 1605 46 8 1218 64 87 3 74 42 4 27
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 58 1605 46 8 1218 64 87 3 74 42 4 27
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.04 0.96 1.00 0.14 0.86
Final Sat.: 1600 3200 1600 1600 3200 1600 1600 67 1533 1600 221 1379
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.04 0.50 0.03 0.00 0.38 0.04 0.05 0.05 0.05 0.03 0.02 0.02
Crit Moves: **** **** **** ****

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Alhambra Campus Residential Development TIA
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PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.866
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 86 Level Of Service: D

Street Name: Fremont Ave Orange St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 1 1 0 1 1 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 2 1400 175 102 951 2 9 5 5 243 2 289
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 2 1501 188 109 1020 2 10 5 5 261 2 310
Added Vol: 0 0 43 25 0 0 0 0 0 25 0 14
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2 1501 231 134 1020 2 10 5 5 286 2 324
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 2 1501 231 134 1020 2 10 5 5 286 2 324
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2 1501 231 134 1020 2 10 5 5 286 2 324
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2 1501 231 134 1020 2 10 5 5 286 2 324
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 1.99 0.01 0.64 0.36 1.00 1.00 0.01 0.99
Final Sat.: 1600 3200 1600 1600 3193 7 1029 571 1600 1600 11 1589
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.00 0.47 0.14 0.08 0.32 0.32 0.01 0.01 0.00 0.18 0.20 0.20
Crit Moves: **** **** **** ****

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Date Ave and Orange St

Average Delay (sec/veh): 7.0 Worst Case Level Of Service: C[15.3]

Street Name:	Date Ave						Orange St						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	1	0	1	0	1	0	1	0	1	0	1	0	1

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	PM Peak						
Base Vol:	31	170	3	25	267	41	67	154	155	1	20	6
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	33	182	3	27	286	44	72	165	166	1	21	6
Added Vol:	7	7	0	0	12	4	2	8	4	0	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	189	3	27	298	48	74	173	170	1	34	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	40	189	3	27	298	48	74	173	170	1	34	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	40	189	3	27	298	48	74	173	170	1	34	6

Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:												
Cnflct Vol:	346	xxxx	xxxxx	192	xxxx	xxxxx	644	625	298	817	670	189
Potent Cap.:	1224	xxxx	xxxxx	1393	xxxx	xxxxx	389	404	746	297	381	858
Move Cap.:	1224	xxxx	xxxxx	1393	xxxx	xxxxx	344	383	746	143	361	858
Total Cap:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	515	520	xxxxx	231	490	xxxxx
Volume/Cap:	0.03	xxxx	xxxx	0.02	xxxx	xxxx	0.14	0.33	0.23	0.00	0.07	0.01

Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	0.9	xxxx	xxxx	0.0
Control Del:	8.0	xxxx	xxxxx	7.6	xxxx	xxxxx	xxxxx	xxxx	11.2	xxxxx	xxxx	9.2
LOS by Move:	A	*	*	A	*	*	*	*	B	*	*	A
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	518	xxxx	xxxxx	474	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.5	xxxx	xxxxx	0.2	xxxx	xxxxx

Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	18.1	xxxx	xxxxx	13.2	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	C	*	*	B	*	*
ApproachDel:	xxxxxx			xxxxxx			15.3			12.6		
ApproachLOS:	*			*			C			B		

 Note: Queue reported is the number of cars per lane.

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 Alhambra Campus Residential Development TIA
 Ambient Growth Conditions Plus Project
 PM Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #5 Palm Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.463
 Loss Time (sec): 0 Average Delay (sec/veh): 11.0
 Optimal Cycle: 0 Level Of Service: B

Street Name:	Palm Ave				Orange St					
Approach:	North Bound		South Bound		East Bound		West Bound			
Movement:	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign		Stop Sign		Stop Sign		Stop Sign			
Rights:	Include		Include		Include		Include			
Min. Green:	0	0	0	0	0	0	0	0	0	
Lanes:	0	1	0	0	1	0	1	0	0	1

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	PM Peak						
Base Vol:	5	171	2	10	268	13	58	64	71	2	5	7
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	5	183	2	11	287	14	62	69	76	2	5	8
Added Vol:	0	2	0	0	4	4	2	5	0	0	9	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	185	2	11	291	18	64	74	76	2	14	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	185	2	11	291	18	64	74	76	2	14	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	185	2	11	291	18	64	74	76	2	14	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	185	2	11	291	18	64	74	76	2	14	8

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.97	1.00	0.04	0.96	1.00	0.47	0.53	1.00	0.13	0.87	1.00
Final Sat.:	18	615	717	23	629	743	261	300	654	69	463	600

Capacity Analysis Module:												
Vol/Sat:	0.30	0.30	0.00	0.46	0.46	0.02	0.25	0.25	0.12	0.03	0.03	0.01
Crit Moves:	****			****			****			****		
Delay/Veh:	10.5	10.5	7.5	12.5	12.5	7.5	10.6	10.6	8.5	9.1	9.1	8.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.5	10.5	7.5	12.5	12.5	7.5	10.6	10.6	8.5	9.1	9.1	8.2
LOS by Move:	B	B	A	B	B	A	B	B	A	A	A	A
ApproachDel:	10.4			12.2			9.8			8.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.4			12.2			9.8			8.8		
LOS by Appr:	B			B			A			A		
AllWayAvgQ:	0.4	0.4	0.0	0.8	0.8	0.0	0.3	0.3	0.1	0.0	0.0	0.0

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
PM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave


```

*****
Cycle (sec):          100                Critical Vol./Cap.(X):          0.534
Loss Time (sec):      0                  Average Delay (sec/veh):        11.3
Optimal Cycle:        0                  Level Of Service:             B
*****

Street Name:          Chestnut St                Palm Ave
Approach:              North Bound                South Bound                East Bound                West Bound
Movement:             L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|-----|
Control:              Stop Sign                Stop Sign                Stop Sign                Stop Sign
Rights:               Include                Include                Include                Include
Min. Green:           0    0    0                0    0    0                0    0    0                0    0    0
Lanes:               0  1  0  0  1                0  1  0  0  1                0  1  0  0  1                0  1  0  0  1
-----|-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol:            5  146    9    14  338    8    7    7    79    6    1    7
Growth Adj:  1.07 1.07  1.07  1.07 1.07  1.07 1.07 1.07 1.07  1.07 1.07  1.07
Initial Bse:    5  157    10    15  362    9    8    8    85    6    1    8
Added Vol:      0    0    0    0    0    4    2    5    0    0    9    0
PasserByVol:    0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:    5  157    10    15  362    13   10  13    85    6   10    8
User Adj:       1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00 1.00  1.00 1.00  1.00
PHF Adj:        1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00 1.00  1.00 1.00  1.00
PHF Volume:     5  157    10    15  362    13   10  13    85    6   10    8
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:    5  157    10    15  362    13   10  13    85    6   10    8
PCE Adj:        1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00 1.00  1.00 1.00  1.00
MLF Adj:        1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00 1.00  1.00 1.00  1.00
FinalVolume:     5  157    10    15  362    13   10  13    85    6   10    8
-----|-----|-----|-----|-----|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00 1.00  1.00 1.00  1.00
Lanes:       0.03 0.97  1.00  0.04 0.96  1.00 0.43 0.57 1.00  0.39 0.61  1.00
Final Sat.:  22  653    776    28  679    815   237 312   639   208 325   614
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.24 0.24  0.01  0.53 0.53  0.02 0.04 0.04  0.13 0.03 0.03  0.01
Crit Moves:   ****                ****                ****                ****
Delay/Veh:    9.5  9.5    7.2  13.2 13.2    7.1  9.0  9.0    8.6  9.1  9.1    8.1
Delay Adj:    1.00 1.00  1.00  1.00 1.00    1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:   9.5  9.5    7.2  13.2 13.2    7.1  9.0  9.0    8.6  9.1  9.1    8.1
LOS by Move:  A    A    A    B    B    A    A    A    A    A    A    A
ApproachDel:    9.4                13.0                8.7                8.8
Delay Adj:      1.00                1.00                1.00                1.00
ApprAdjDel:     9.4                13.0                8.7                8.8
LOS by Appr:    A                B    A    A    A
AllWayAvgQ:    0.3  0.3    0.0  1.1  1.1    0.0  0.0  0.0    0.1  0.0  0.0    0.0

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Alhambra Campus Residential Development TIA
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Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd

```

*****
Cycle (sec):          100                Critical Vol./Cap.(X):          0.748
Loss Time (sec):      10                Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        57                Level Of Service:              C
*****

```

```

Street Name:          Fremont Ave                Poplar Blvd
Approach:              North Bound                South Bound                East Bound                West Bound
Movement:             L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|-----|
Control:              Permitted                Permitted                Permitted                Permitted
Rights:               Include                Include                Include                Include
Min. Green:           0      0      0                0      0      0                0      0      0                0      0      0
Y+R:                  4.0    4.0    4.0                4.0    4.0    4.0                4.0    4.0    4.0                4.0    4.0    4.0
Lanes:                1    0    1    1    0                1    0    1    1    0                1    0    1    0    1                1    0    1    0    1
-----|-----|-----|-----|-----|

```

```

Volume Module:
Base Vol:             152 1403    115    25 863    42    25 117    80    53 118    28
Growth Adj:           1.07 1.07    1.07    1.07 1.07    1.07    1.07 1.07    1.07    1.07 1.07    1.07
Initial Bse:          163 1504    123    27 925    45    27 125    86    57 127    30
Added Vol:            4     11     4     0     18     0     0     0     7     7     0     0
PasserByVol:          0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:          167 1515    127    27 943    45    27 125    93    64 127    30
User Adj:             1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
PHF Adj:              1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
PHF Volume:           167 1515    127    27 943    45    27 125    93    64 127    30
Reduct Vol:           0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:          167 1515    127    27 943    45    27 125    93    64 127    30
PCE Adj:              1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
MLF Adj:              1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
FinalVolume:          167 1515    127    27 943    45    27 125    93    64 127    30
-----|-----|-----|-----|-----|

```

```

Saturation Flow Module:
Sat/Lane:             1600 1600    1600    1600 1600    1600    1600 1600    1600    1600 1600    1600
Adjustment:           1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
Lanes:                1.00 1.84    0.16    1.00 1.91    0.09    1.00 1.00    1.00    1.00 1.00    1.00
Final Sat.:           1600 2952    248    1600 3054    146    1600 1600    1600    1600 1600    1600
-----|-----|-----|-----|-----|

```

```

Capacity Analysis Module:
Vol/Sat:              0.10 0.51    0.51    0.02 0.31    0.31    0.02 0.08    0.06    0.04 0.08    0.02
Crit Moves:           ****                ****                ****                ****

```

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Date Ave and Mission Rd

Average Delay (sec/veh): 4.9 Worst Case Level Of Service: C[21.1]

Street Name:	Date Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	PM Peak						
Base Vol:	0	0	0	195	0	159	84	736	0	0	563	111
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	0	0	209	0	170	90	789	0	0	604	119
Added Vol:	0	0	0	17	0	25	43	0	0	0	0	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	226	0	195	133	789	0	0	604	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	226	0	195	133	789	0	0	604	148
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	226	0	195	133	789	0	0	604	148

Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:												
Cnflct Vol:	xxxx	xxxx	xxxxx	1338	xxxx	376	752	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	147	xxxx	628	867	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	130	xxxx	628	867	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	203	238	xxxxx	382	253	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.59	xxxx	0.31	0.15	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	4.1	xxxx	1.3	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	27.8	xxxx	13.3	9.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	D	*	B	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * * * * * *
ApproachDel: xxxxxx 21.1 xxxxxx xxxxxx
ApproachLOS: * C * *

Note: Queue reported is the number of cars per lane.

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: B[12.8]

Street Name:	Chestnut St						Date Ave											
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
Control:	Uncontrolled						Uncontrolled						Stop Sign					
Rights:	Include						Include						Include					
Lanes:	1	0	1	0	1	1	0	1	0	1	0	0	1	0	0			

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak

Base Vol:	18	178	12	38	373	10	0	0	0	10	2	17
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	19	191	13	41	400	11	0	0	0	11	2	18
Added Vol:	65	7	0	0	4	12	7	8	38	0	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	198	13	41	404	23	7	8	38	11	15	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	84	198	13	41	404	23	7	8	38	11	15	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	84	198	13	41	404	23	7	8	38	11	15	18

Critical Gap Module:

Critical Gap:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	427	xxxx	xxxxx	211	xxxx	xxxxx	875	865	404	886	875	198
Potent Cap.:	1144	xxxx	xxxxx	1372	xxxx	xxxxx	272	294	651	267	290	848
Move Cap.:	1144	xxxx	xxxxx	1372	xxxx	xxxxx	235	264	651	227	261	848
Total Cap:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	413	422	xxxxx	362	390	xxxxx
Volume/Cap:	0.07	xxxx	xxxxx	0.03	xxxx	xxxxx	0.02	0.02	0.06	0.03	0.04	0.02

Level Of Service Module:

2Way95thQ:	0.2	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.1
Control Del:	8.4	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.3
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	A
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	562	xxxxx	378	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.3	xxxxx	0.2	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	12.1	xxxxx	15.2	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	C	*	*
ApproachDel:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	12.1			12.8		
ApproachLOS:	*	*	*	*	*	*	B			B		

Note: Queue reported is the number of cars per lane.

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Fremont Ave and Concord Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.633
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: B

Street Name:	Fremont Ave						Concord Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	1	0	1	0	0	1

Volume Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Base Vol:	51	1539	113	27	898	71	79	43	47	75	60	75
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	55	1650	121	29	963	76	85	46	50	80	64	80
Added Vol:	0	14	0	0	25	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	1664	121	29	988	76	85	46	50	80	64	80
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	1664	121	29	988	76	85	46	50	80	64	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	1664	121	29	988	76	85	46	50	80	64	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	1664	121	29	988	76	85	46	50	80	64	80

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.80	0.20	1.00	1.86	0.14	1.00	1.00	1.00	1.00	0.44	0.56
Final Sat.:	1600	4474	326	1600	2971	229	1600	1600	1600	1600	711	889

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Vol/Sat:	0.03	0.37	0.37	0.02	0.33	0.33	0.05	0.03	0.03	0.05	0.09	0.09
Crit Moves:	****			****			****			****		

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Alhambra Campus Residential Development TIA
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.716
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 71 Level Of Service: C

Street Name:	Fremont Ave						Montezuma Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	1	0	0	0	1	1	0	0	0

Volume Module:												
Base Vol:	687	443	86	24	41	259	399	167	611	33	69	19
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	737	475	92	26	44	278	428	179	655	35	74	20
Added Vol:	5	0	0	0	0	18	10	0	3	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	742	475	92	26	44	296	438	179	658	35	74	20
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	742	475	92	26	44	0	438	179	658	35	74	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	742	475	92	26	44	0	438	179	658	35	74	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	742	475	92	26	44	0	438	179	658	35	74	20

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.84	0.16	0.74	1.26	1.00	2.00	0.43	1.57	0.27	0.57	0.16
Final Sat.:	2880	1340	260	1182	2018	1600	2880	684	2516	436	912	251

Capacity Analysis Module:												
Vol/Sat:	0.26	0.35	0.35	0.02	0.02	0.00	0.15	0.26	0.26	0.02	0.08	0.08
Crit Moves:	****							****				

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.561
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: A

Street Name: Palm Ave Commonwealth Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 1 0 1 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol: 49 124 20 172 217 244 190 416 70 8 385 96
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 53 133 21 184 233 262 204 446 75 9 413 103
Added Vol: 0 5 0 0 8 8 5 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 53 138 21 184 241 270 209 446 75 9 413 103
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 53 138 21 184 241 270 209 446 75 9 413 103
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 53 138 21 184 241 270 209 446 75 9 413 103
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 53 138 21 184 241 270 209 446 75 9 413 103
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.71 0.29 1.00 2.00 1.00
Final Sat.: 1600 1600 1600 1600 1600 1600 1600 2739 461 1600 3200 1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.03 0.09 0.01 0.12 0.15 0.17 0.13 0.16 0.16 0.01 0.13 0.06
Crit Moves: **** **** **** ****

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Alhambra Campus Residential Development TIA
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.636
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: B

Street Name: Date Ave Commonwealth Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 63 127 57 116 81 144 206 514 97 51 487 115
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 68 136 61 124 87 154 221 551 104 55 522 123
Added Vol: 5 0 5 0 0 0 0 0 8 8 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 73 136 66 124 87 154 221 551 112 63 522 123
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 73 136 66 124 87 154 221 551 112 63 522 123
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 73 136 66 124 87 154 221 551 112 63 522 123
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 73 136 66 124 87 154 221 551 112 63 522 123

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 0.36 0.64 1.00 1.66 0.34 1.00 1.62 0.38
Final Sat.: 1600 1600 1600 1600 576 1024 1600 2660 540 1600 2589 611

Capacity Analysis Module:
Vol/Sat: 0.05 0.09 0.04 0.08 0.15 0.14 0.21 0.21 0.04 0.20 0.20
Crit Moves: ****

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Alhambra Campus Residential Development TIA
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.925
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 114 Level Of Service: E

Street Name: Fremont Ave Commonwealth Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 1 1 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 36 1421 259 199 799 25 30 137 14 157 158 238
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 39 1523 278 213 857 27 32 147 15 168 169 255
Added Vol: 0 14 0 8 25 0 0 0 0 0 0 5
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 39 1537 278 221 882 27 32 147 15 168 169 260
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 39 1537 278 221 882 27 32 147 15 168 169 260
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 39 1537 278 221 882 27 32 147 15 168 169 260
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 39 1537 278 221 882 27 32 147 15 168 169 260
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 1.94 0.06 1.00 0.91 0.09 1.00 1.00 1.00
Final Sat.: 1600 3200 1600 1600 3106 94 1600 1452 148 1600 1600 1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.02 0.48 0.17 0.14 0.28 0.28 0.02 0.10 0.10 0.11 0.11 0.16
Crit Moves: **** **** **** ****

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Alhambra Campus Residential Development TIA
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Fremont Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.964
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 147 Level Of Service: E

Street Name: Fremont Ave Valley Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 2 0 2 2 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol: 28 803 33 186 961 774 616 899 25 125 349 308
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 30 861 35 199 1030 830 660 964 27 134 374 330
Added Vol: 0 40 0 0 23 18 31 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 30 901 35 199 1053 848 691 964 27 134 374 330
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 30 901 35 199 1053 848 691 964 27 134 374 330
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 30 901 35 199 1053 848 691 964 27 134 374 330
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 30 901 35 199 1053 848 691 964 27 134 374 330
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.92 0.08 1.00 2.00 2.00 2.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1600 3079 121 1600 3200 3200 2880 3200 1600 1600 3200 1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.02 0.29 0.29 0.12 0.33 0.26 0.24 0.30 0.02 0.08 0.12 0.21
Crit Moves: **** **** **** ****

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.627
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: B

Street Name: Palm Ave Mission Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 2 0 0 0 0 1 1 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol: 0 0 0 330 0 110 49 898 0 0 570 102
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 0 0 0 354 0 118 53 963 0 0 611 109
Added Vol: 0 0 0 0 0 0 0 17 0 0 29 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 354 0 118 53 980 0 0 640 109
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 354 0 118 53 980 0 0 640 109
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 354 0 118 53 980 0 0 640 109
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 354 0 118 53 980 0 0 640 109
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 1.71 0.29
Final Sat.: 0 0 0 1600 0 1600 1600 3200 0 0 2733 467
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.22 0.00 0.07 0.03 0.31 0.00 0.00 0.23 0.23
Crit Moves: **** * 0.00 0.23 0.23

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.795
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 66 Level Of Service: C

Street Name: Marengo Ave Valley Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 0 1 0 1 1 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol: 17 159 64 285 201 195 307 869 8 48 557 136
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 18 170 69 306 215 209 329 932 9 51 597 146
Added Vol: 0 4 0 4 2 0 0 0 0 0 0 7
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 18 174 69 310 217 209 329 932 9 51 597 153
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 18 174 69 310 217 209 329 932 9 51 597 153
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 18 174 69 310 217 209 329 932 9 51 597 153
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 18 174 69 310 217 209 329 932 9 51 597 153
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 0.51 0.49 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1600 1600 1600 1600 816 784 1600 3200 1600 1600 3200 1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.01 0.11 0.04 0.19 0.27 0.27 0.21 0.29 0.01 0.03 0.19 0.10
Crit Moves: **** **** **** ****

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Alhambra Campus Residential Development TIA
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.977
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 163 Level Of Service: E

Street Name: Atlantic Blvd Mission Road
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 95 1061 137 42 951 101 131 965 133 182 563 60
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 102 1137 147 45 1020 108 140 1035 143 195 604 64
Added Vol: 0 0 0 0 0 0 0 8 0 0 15 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 102 1137 147 45 1020 108 140 1043 143 195 619 64
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 102 1137 147 45 1020 108 140 1043 143 195 619 64
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 102 1137 147 45 1020 108 140 1043 143 195 619 64
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 102 1137 147 45 1020 108 140 1043 143 195 619 64
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.77 0.23 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.81 0.19
Final Sat.: 1600 2834 366 1600 3200 1600 1600 3200 1600 1600 2899 301
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.06 0.40 0.40 0.03 0.32 0.07 0.09 0.33 0.09 0.12 0.21 0.21
Crit Moves: **** **** **** ****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.962
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 145 Level Of Service: E

Street Name: Marengo Ave Mission Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 0 1 1 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 73 515 225 58 466 46 53 939 283 70 538 59
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 78 552 241 62 500 49 57 1007 303 75 577 63
Added Vol: 11 0 0 0 0 4 2 8 6 0 15 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 89 552 241 62 500 53 59 1015 309 75 592 63
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 89 552 241 62 500 53 59 1015 309 75 592 63
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 89 552 241 62 500 53 59 1015 309 75 592 63
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 89 552 241 62 500 53 59 1015 309 75 592 63
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 0.90 0.10 1.00 1.53 0.47 1.00 1.81 0.19
Final Sat.: 1600 1600 1600 1600 1446 154 1600 2452 748 1600 2891 309
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.06 0.35 0.15 0.04 0.35 0.35 0.04 0.41 0.41 0.05 0.20 0.20
Crit Moves: **** **** **** ****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #20 Marengo Ave and Front St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.824
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 72 Level Of Service: D

Street Name:	Marengo Ave						Front St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	0	1	0	0	1	0

Volume Module:

Base Vol:	3	634	4	23	682	188	150	50	8	2	19	16
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	3	680	4	25	731	202	161	54	9	2	20	17
Added Vol:	0	11	0	0	6	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	691	4	25	737	202	161	54	9	2	20	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	691	4	25	737	202	161	54	9	2	20	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	691	4	25	737	202	161	54	9	2	20	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	691	4	25	737	202	161	54	9	2	20	17

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.99	0.01	1.00	0.79	0.21	0.75	0.25	1.00	0.10	0.90	1.00
Final Sat.:	1600	1590	10	1600	1256	344	1200	400	1600	152	1448	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.43	0.43	0.02	0.59	0.10	0.13	0.01	0.00	0.01	0.01	0.01
Crit Moves:	****			****		****			****			

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #21 I-710 NB Ramp and Valley Blvd

Cycle (sec): 120 Critical Vol./Cap.(X): 0.700
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 52 Level Of Service: B

Street Name: I-710 NB Ramp Valley Blvd

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	2	0	0	0

Volume Module:

Base Vol:	584	0	1238	1	0	2	0	530	0	0	1118	0
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	626	0	1327	1	0	2	0	568	0	0	1199	0
Added Vol:	0	0	31	0	0	0	0	0	0	0	18	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	626	0	1358	1	0	2	0	568	0	0	1217	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	626	0	1358	1	0	2	0	568	0	0	1217	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	626	0	1358	1	0	2	0	568	0	0	1217	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	626	0	1358	1	0	2	0	568	0	0	1217	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	2.00	0.33	0.00	0.67	0.00	2.00	0.00	0.00	4.00	0.00
Final Sat.:	1600	0	3200	533	0	1067	0	3200	0	0	6400	0

Capacity Analysis Module:

Vol/Sat:	0.39	0.00	0.42	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.19	0.00
Crit Moves:			****	****			****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.886
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 94 Level Of Service: D

Street Name: I-710 SB Ramp Valley Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 0 0 0 2 0 1 2 0 2 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 0 0 0 0 0 0 0 0 539 729 783 940 0
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 0 0 0 0 0 0 0 0 578 782 839 1008 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 18 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 0 0 0 0 0 578 782 857 1008 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 0 0 0 0 578 782 857 1008 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 578 782 857 1008 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 0 0 0 0 0 578 782 857 1008 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00
Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 0.00
Final Sat.: 0 0 0 0 0 0 0 0 3200 1600 2880 3200 0
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.18 0.49 0.30 0.31 0.00
Crit Moves: **** **

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.825
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 73 Level Of Service: D

Street Name:	Fremont Ave						Hellman Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	85	740	242	147	813	68	128	173	216	206	181	237
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	91	793	259	158	872	73	137	185	232	221	194	254
Added Vol:	0	24	0	11	13	0	0	0	0	0	0	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	817	259	169	885	73	137	185	232	221	194	270
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	817	259	169	885	73	137	185	232	221	194	270
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	817	259	169	885	73	137	185	232	221	194	270
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	817	259	169	885	73	137	185	232	221	194	270

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.52	0.48	1.00	1.85	0.15	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2429	771	1600	2956	244	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.06	0.34	0.34	0.11	0.30	0.30	0.09	0.12	0.14	0.14	0.12	0.17
Crit Moves:	****			****					****	****		

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.846

Loss Time (sec): 0 Average Delay (sec/veh): 29.5

Optimal Cycle: 0 Level Of Service: D

Street Name: Elm St Hellman Ave/Ramona Rd/ 10 WB ramp

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|-----|

Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 1 0 0 0 0 1 0 0 0 1 0 1 0 0 1

-----|-----|-----|-----|-----|

Volume Module:PM Peak

Base Vol: 467 172 98 10 5 40 29 299 223 120 105 2

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 501 184 105 11 5 43 31 321 239 129 113 2

Added Vol: 16 0 0 0 0 0 0 0 0 11 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 517 184 105 11 5 43 31 321 250 129 113 2

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 517 184 105 11 5 43 31 321 250 129 113 2

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 517 184 105 11 5 43 31 321 250 129 113 2

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 517 184 105 11 5 43 31 321 250 129 113 2

-----|-----|-----|-----|-----|

Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.28 0.46 0.26 0.67 0.33 1.00 0.09 0.91 1.00 0.53 0.47 1.00

Final Sat.: 1085 -258 124 260 130 440 42 438 530 230 201 477

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.48-0.71 0.85 0.04 0.04 0.10 0.73 0.73 0.47 0.56 0.56 0.00

Crit Moves: **** **** **** ****

Delay/Veh: 39.1 38.7 38.7 11.8 11.8 11.2 27.4 27.4 15.1 20.3 20.3 9.9

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 39.1 38.7 38.7 11.8 11.8 11.2 27.4 27.4 15.1 20.3 20.3 9.9

LOS by Move: E E E B B B D D C C C A

ApproachDel:	39.1		11.3		22.3		20.2					
Delay Adj:	1.00		1.00		1.00		1.00					
ApprAdjDel:	39.1		11.3		22.3		20.2					
LOS by Appr:	E		B		C		C					
AllWayAvgQ:	3.8	3.8	3.8	0.0	0.0	0.1	2.3	2.3	0.8	1.1	1.1	0.0

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
PM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

```

*****
Cycle (sec):          100                Critical Vol./Cap.(X):          1.316
Loss Time (sec):      0                  Average Delay (sec/veh):        97.3
Optimal Cycle:        0                  Level Of Service:            F
*****

```

```

Street Name:          Fremont Ave                Ramona Road/10 EB ramp
Approach:             North Bound                South Bound                East Bound                West Bound
Movement:            L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|
Control:             Stop Sign                Stop Sign                Stop Sign                Stop Sign
Rights:              Include                Include                Include                Include
Min. Green:          0 0 0 0                0 0 0 0                0 0 0 0                0 0 0 0
Lanes:              0 0 1 0 1                0 0 0 0 0                0 1 0 0 1                0 0 1! 0 0
-----|-----|-----|-----|

```

```

Volume Module:PM Peak
Base Vol:            0 731 116                0 0 0                4 91 289                47 0 78
Growth Adj:          1.07 1.07 1.07            1.07 1.07 1.07            1.07 1.07 1.07            1.07 1.07 1.07
Initial Bse:         0 784 124                0 0 0                4 98 310                50 0 84
Added Vol:           0 0 10                0 0 0                0 0 18                0 0 0
PasserByVol:         0 0 0                0 0 0                0 0 0                0 0 0
Initial Fut:         0 784 134                0 0 0                4 98 328                50 0 84
User Adj:            1.00 1.00 1.00            1.00 1.00 1.00            1.00 1.00 1.00            1.00 1.00 1.00
PHF Adj:             1.00 1.00 1.00            1.00 1.00 1.00            1.00 1.00 1.00            1.00 1.00 1.00
PHF Volume:          0 784 134                0 0 0                4 98 328                50 0 84
Reduct Vol:          0 0 0                0 0 0                0 0 0                0 0 0
Reduced Vol:         0 784 134                0 0 0                4 98 328                50 0 84
PCE Adj:             1.00 1.00 1.00            1.00 1.00 1.00            1.00 1.00 1.00            1.00 1.00 1.00
MLF Adj:             1.00 1.00 1.00            1.00 1.00 1.00            1.00 1.00 1.00            1.00 1.00 1.00
FinalVolume:         0 784 134                0 0 0                4 98 328                50 0 84
-----|-----|-----|-----|

```

```

Saturation Flow Module:
Adjustment:          1.00 1.00 1.00            1.00 1.00 1.00            1.00 1.00 1.00            1.00 1.00 1.00
Lanes:              0.00 1.00 1.00            0.00 0.00 0.00            0.04 0.96 1.00            0.38 xxxx 0.62
Final Sat.:          0 595 663                0 0 0                22 507 592                198 0 329
-----|-----|-----|-----|

```

```

Capacity Analysis Module:
Vol/Sat:            xxxx 1.32 0.20            xxxx xxxx xxxx            0.19 0.19 0.55 0.25 0.00 0.25
Crit Moves:         ****                ****                ****
Delay/Veh:           0.0 172 9.4                0.0 0.0 0.0            11.1 11.1 15.9 12.0 12.0 12.0
Delay Adj:           1.00 1.00 1.00            1.00 1.00 1.00            1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:          0.0 172 9.4                0.0 0.0 0.0            11.1 11.1 15.9 12.0 12.0 12.0
LOS by Move:         * F A                * * *                B B C                B B B
ApproachDel:         148.4                xxxxxx                14.8                12.0
Delay Adj:           1.00                xxxxxx                1.00                1.00
ApprAdjDel:          148.4                xxxxxx                14.8                12.0
LOS by Appr:         F                *                B                B
AllWayAvgQ:          0.0 27.0 0.2                0.0 0.0 0.0            0.2 0.2 1.2 0.3 0.3 0.3

```

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
PM Peak Hour

Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

```

*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.534
Loss Time (sec):      10          Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        35          Level Of Service:              A
*****

```

```

Street Name:          Fremont Ave          Ross Ave
Approach:              North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:              Permitted            Permitted            Protected            Protected
Rights:               Include              Include              Include              Include
Min. Green:           0    0    0          0    0    0          0    0    0          0    0    0
Y+R:                  4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:                1  0  1  1  0          1  0  1  1  0          1  0  0  1  0          1  0  1  0  1
-----|-----|-----|-----|

```

```

Volume Module:
Base Vol:             30  849  168          26  988  41          11  32   6          54  40  41
Growth Adj:           1.07 1.07  1.07          1.07 1.07  1.07          1.07 1.07  1.07          1.07 1.07  1.07
Initial Bse:          32  910  180          28 1059  44          12  34   6          58  43  44
Added Vol:            0   40   0           0   23   0           0   0   0           0   0   0
PasserByVol:          0   0   0           0   0   0           0   0   0           0   0   0
Initial Fut:          32  950  180          28 1082  44          12  34   6          58  43  44
User Adj:             1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Adj:              1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Volume:           32  950  180          28 1082  44          12  34   6          58  43  44
Reduct Vol:           0   0   0           0   0   0           0   0   0           0   0   0
Reduced Vol:          32  950  180          28 1082  44          12  34   6          58  43  44
PCE Adj:              1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
MLF Adj:              1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
FinalVolume:          32  950  180          28 1082  44          12  34   6          58  43  44
-----|-----|-----|-----|

```

```

Saturation Flow Module:
Sat/Lane:             1600 1600  1600          1600 1600  1600          1600 1600  1600          1600 1600  1600
Adjustment:           1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
Lanes:                1.00 1.68  0.32          1.00 1.92  0.08          1.00 0.84  0.16          1.00 1.00  1.00
Final Sat.:           1600 2690  510          1600 3075  125          1600 1347  253          1600 1600  1600
-----|-----|-----|-----|

```

```

Capacity Analysis Module:
Vol/Sat:              0.02 0.35  0.35          0.02 0.35  0.35          0.01 0.03  0.03          0.04 0.03  0.03
Crit Moves:          ****              ****              ****              ****

```

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Alhambra Campus Residential Development TIA
Ambient Growth Conditions Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Westmont Dr and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.685
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: B

Street Name: Westmont Dr Valley Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol: 16 10 11 24 9 14 56 1578 135 8 1040 33
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 17 11 12 26 10 15 60 1692 145 9 1115 35
Added Vol: 0 0 0 0 0 0 0 0 31 0 0 18 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 17 11 12 26 10 15 60 1723 145 9 1133 35
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 17 11 12 26 10 15 60 1723 145 9 1133 35
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 17 11 12 26 10 15 60 1723 145 9 1133 35
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 17 11 12 26 10 15 60 1723 145 9 1133 35
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.43 0.27 0.30 0.51 0.19 0.30 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 692 432 476 817 306 477 1600 3200 1600 1600 3200 1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.01 0.02 0.02 0.02 0.03 0.03 0.04 0.54 0.09 0.01 0.35 0.02
Crit Moves: **** **** **** ****

Intersection

Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	13	30	14	2	6	2	5	68	2	5	207	32
Future Vol, veh/h	13	30	14	2	6	2	5	68	2	5	207	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	33	15	2	7	2	5	74	2	5	225	35
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.4	8.2	8.3	9.3
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	7%	0%	30%	0%	25%	0%	2%	0%
Vol Thru, %	93%	0%	70%	0%	75%	0%	98%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	2	43	14	8	2	212	32
LT Vol	5	0	13	0	2	0	5	0
Through Vol	68	0	30	0	6	0	207	0
RT Vol	0	2	0	14	0	2	0	32
Lane Flow Rate	79	2	47	15	9	2	230	35
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.11	0.003	0.072	0.02	0.013	0.003	0.309	0.04
Departure Headway (Hd)	4.975	4.238	5.53	4.674	5.565	4.735	4.82	4.107
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	723	846	649	767	644	756	751	877
Service Time	2.691	1.954	3.251	2.395	3.291	2.461	2.52	1.807
HCM Lane V/C Ratio	0.109	0.002	0.072	0.02	0.014	0.003	0.306	0.04
HCM Control Delay	8.3	7	8.7	7.5	8.4	7.5	9.7	7
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0	0.2	0.1	0	0	1.3	0.1

Intersection

Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	6	12	8	1	4	8	15	96	2	13	175	13
Future Vol, veh/h	6	12	8	1	4	8	15	96	2	13	175	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	13	9	1	4	9	16	104	2	14	190	14
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.1	7.7	8.5	9
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	14%	0%	33%	0%	20%	0%	7%	0%
Vol Thru, %	86%	0%	67%	0%	80%	0%	93%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	111	2	18	8	5	8	188	13
LT Vol	15	0	6	0	1	0	13	0
Through Vol	96	0	12	0	4	0	175	0
RT Vol	0	2	0	8	0	8	0	13
Lane Flow Rate	121	2	20	9	5	9	204	14
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.16	0.002	0.03	0.011	0.008	0.011	0.267	0.016
Departure Headway (Hd)	4.783	4.015	5.542	4.67	5.493	4.688	4.702	3.966
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	740	876	650	771	655	768	756	891
Service Time	2.58	1.81	3.242	2.37	3.194	2.389	2.476	1.74
HCM Lane V/C Ratio	0.164	0.002	0.031	0.012	0.008	0.012	0.27	0.016
HCM Control Delay	8.5	6.8	8.4	7.4	8.2	7.4	9.2	6.8
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.6	0	0.1	0	0	0	1.1	0

Intersection	
Intersection Delay, s/veh	89
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱			↱	↱
Traffic Vol, veh/h	55	175	372	427	65	14	386	59	23	84	15	214
Future Vol, veh/h	55	175	372	427	65	14	386	59	23	84	15	214
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	190	404	464	71	15	420	64	25	91	16	233
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1






Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	46.1	233.9	31.9	22.6
HCM LOS	E	F	D	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	65%	24%	0%	87%	0%	85%	0%
Vol Thru, %	0%	25%	76%	0%	13%	0%	15%	0%
Vol Right, %	0%	10%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	235	233	230	372	492	14	99	214
LT Vol	235	151	55	0	427	0	84	0
Through Vol	0	59	175	0	65	0	15	0
RT Vol	0	23	0	372	0	14	0	214
Lane Flow Rate	256	253	250	404	535	15	108	233
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.68	0.654	0.625	0.919	1.444	0.036	0.297	0.569
Departure Headway (Hd)	10.581	10.321	9.936	9.071	9.718	8.534	10.978	9.784
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	343	351	365	404	374	419	329	372
Service Time	8.281	8.021	7.636	6.771	7.472	6.287	8.678	7.484
HCM Lane V/C Ratio	0.746	0.721	0.685	1	1.43	0.036	0.328	0.626
HCM Control Delay	33.1	30.6	27.8	57.4	240.2	11.6	18.2	24.6
HCM Lane LOS	D	D	D	F	F	B	C	C
HCM 95th-tile Q	4.7	4.4	4	9.9	27.7	0.1	1.2	3.4

Intersection

Intersection Delay, s/veh 137.5

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	26	629	122	0	16	0	670	70	0	0	0
Future Vol, veh/h	2	26	629	122	0	16	0	670	70	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	28	684	133	0	17	0	728	76	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	112.3	16.1	182.6
HCM LOS	F	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	7%	0%	88%
Vol Thru, %	100%	0%	93%	0%	0%
Vol Right, %	0%	100%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	670	70	28	629	138
LT Vol	0	0	2	0	122
Through Vol	670	0	26	0	0
RT Vol	0	70	0	629	16
Lane Flow Rate	728	76	30	684	150
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.372	0.129	0.058	1.162	0.322
Departure Headway (Hd)	7.196	6.482	7.765	7.009	8.927
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	510	556	464	526	405
Service Time	4.896	4.182	5.465	4.709	6.927
HCM Lane V/C Ratio	1.427	0.137	0.065	1.3	0.37
HCM Control Delay	200.6	10.1	10.9	116.8	16.1
HCM Lane LOS	F	B	B	F	C
HCM 95th-tile Q	31.4	0.4	0.2	21	1.4

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	24	50	53	8	28	3	52	109	5	6	181	72
Future Vol, veh/h	24	50	53	8	28	3	52	109	5	6	181	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	54	58	9	30	3	57	118	5	7	197	78
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	457	442	197	469	442	118	197	0	0	118	0	0
Stage 1	210	210	-	232	232	-	-	-	-	-	-	-
Stage 2	247	232	-	237	210	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	514	510	844	505	510	934	1376	-	-	1470	-	-
Stage 1	792	728	-	771	713	-	-	-	-	-	-	-
Stage 2	757	713	-	766	728	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	471	487	844	415	487	934	1376	-	-	1470	-	-
Mov Cap-2 Maneuver	471	487	-	415	487	-	-	-	-	-	-	-
Stage 1	759	725	-	739	683	-	-	-	-	-	-	-
Stage 2	691	683	-	657	725	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	12.2		13.1		2.4		0.2					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1376	-	-	482	844	469	934	1470	-	-		
HCM Lane V/C Ratio	0.041	-	-	0.167	0.068	0.083	0.003	0.004	-	-		
HCM Control Delay (s)	7.7	-	-	14	9.6	13.4	8.9	7.5	-	-		
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.2	0.3	0	0	-	-		

Intersection

Int Delay, s/veh 3.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	94	463	1296	172	58	134
Future Vol, veh/h	94	463	1296	172	58	134
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	102	503	1409	187	63	146










Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1596	0	0 1958 798
Stage 1	-	-	- 1502 -
Stage 2	-	-	- 456 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	407	-	- ~ 56 329
Stage 1	-	-	- 171 -
Stage 2	-	-	- 605 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	407	-	- ~ 37 329
Mov Cap-2 Maneuver	-	-	- 123 -
Stage 1	-	-	- 171 -
Stage 2	-	-	- 394 -

Approach	EB	WB	SB
HCM Control Delay, s	2.8	0	35.6
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	407	-	-	-	123	329
HCM Lane V/C Ratio	0.251	-	-	-	0.513	0.443
HCM Control Delay (s)	16.8	-	-	-	61.6	24.4
HCM Lane LOS	C	-	-	-	F	C
HCM 95th %tile Q(veh)	1	-	-	-	2.4	2.2









Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	16	76	2	5	2	91	155	9	13	153	59
Future Vol, veh/h	14	16	76	2	5	2	91	155	9	13	153	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	17	83	2	5	2	99	168	10	14	166	64
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	564	561	166	611	561	168	166	0	0	168	0	0
Stage 1	195	195	-	366	366	-	-	-	-	-	-	-
Stage 2	369	366	-	245	195	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	436	436	878	406	436	876	1412	-	-	1410	-	-
Stage 1	807	739	-	653	623	-	-	-	-	-	-	-
Stage 2	651	623	-	759	739	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	404	401	878	334	401	876	1412	-	-	1410	-	-
Mov Cap-2 Maneuver	404	401	-	334	401	-	-	-	-	-	-	-
Stage 1	750	732	-	607	579	-	-	-	-	-	-	-
Stage 2	598	579	-	665	732	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	11.6		13.5		2.8		0.4					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1412	-	-	658 379 876	1410	-	-					
HCM Lane V/C Ratio	0.07	-	-	0.175 0.02 0.002	0.01	-	-					
HCM Control Delay (s)	7.7	-	-	11.6 14.7 9.1	7.6	-	-					
HCM Lane LOS	A	-	-	B B A	A	-	-					
HCM 95th %tile Q(veh)	0.2	-	-	0.6 0.1 0	0	-	-					

Intersection

Intersection Delay, s/veh	12
Intersection LOS	B









Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	64	74	76	2	14	8	5	185	2	11	291	18
Future Vol, veh/h	64	74	76	2	14	8	5	185	2	11	291	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	70	80	83	2	15	9	5	201	2	12	316	20
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10.4	9.2	11.3	13.7
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	46%	0%	12%	0%	4%	0%
Vol Thru, %	97%	0%	54%	0%	88%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	190	2	138	76	16	8	302	18
LT Vol	5	0	64	0	2	0	11	0
Through Vol	185	0	74	0	14	0	291	0
RT Vol	0	2	0	76	0	8	0	18
Lane Flow Rate	207	2	150	83	17	9	328	20
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.33	0.003	0.264	0.124	0.032	0.014	0.512	0.027
Departure Headway (Hd)	5.75	5.029	6.344	5.401	6.552	5.777	5.612	4.888
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	626	712	567	664	546	619	647	737
Service Time	3.475	2.755	4.075	3.132	4.293	3.518	3.312	2.588
HCM Lane V/C Ratio	0.331	0.003	0.265	0.125	0.031	0.015	0.507	0.027
HCM Control Delay	11.3	7.8	11.3	8.9	9.5	8.6	14.1	7.7
HCM Lane LOS	B	A	B	A	A	A	B	A
HCM 95th-tile Q	1.4	0	1.1	0.4	0.1	0	2.9	0.1

Intersection

Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	13	85	6	10	8	5	157	10	15	362	13
Future Vol, veh/h	10	13	85	6	10	8	5	157	10	15	362	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	14	92	7	11	9	5	171	11	16	393	14
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1









Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.1	9.1	9.8	14.5
HCM LOS	A	A	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	43%	0%	38%	0%	4%	0%
Vol Thru, %	97%	0%	57%	0%	62%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	162	10	23	85	16	8	377	13
LT Vol	5	0	10	0	6	0	15	0
Through Vol	157	0	13	0	10	0	362	0
RT Vol	0	10	0	85	0	8	0	13
Lane Flow Rate	176	11	25	92	17	9	410	14
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.26	0.014	0.044	0.138	0.031	0.013	0.582	0.017
Departure Headway (Hd)	5.325	4.604	6.299	5.371	6.413	5.514	5.115	4.392
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	671	771	566	662	554	643	705	810
Service Time	3.089	2.368	4.071	3.143	4.203	3.303	2.867	2.144
HCM Lane V/C Ratio	0.262	0.014	0.044	0.139	0.031	0.014	0.582	0.017
HCM Control Delay	10	7.4	9.4	9	9.4	8.4	14.8	7.2
HCM Lane LOS	A	A	A	A	A	A	B	A
HCM 95th-tile Q	1	0	0.1	0.5	0.1	0	3.8	0.1

Intersection

Intersection Delay, s/veh 43.5

Intersection LOS E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	321	250	129	113	2	517	184	105	11	5	43
Future Vol, veh/h	31	321	250	129	113	2	517	184	105	11	5	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	349	272	140	123	2	562	200	114	12	5	47
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	31.4	26.5	60	12.5
HCM LOS	D	D	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	28%	9%	0%	53%	0%	69%	0%
Vol Thru, %	0%	46%	91%	0%	47%	0%	31%	0%
Vol Right, %	0%	26%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	403	403	352	250	242	2	16	43
LT Vol	403	114	31	0	129	0	11	0
Through Vol	0	184	321	0	113	0	5	0
RT Vol	0	105	0	250	0	2	0	43
Lane Flow Rate	438	438	383	272	263	2	17	47
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.989	0.92	0.844	0.542	0.648	0.005	0.047	0.112
Departure Headway (Hd)	8.124	7.568	7.941	7.177	8.869	7.87	9.696	8.605
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	447	482	459	503	408	455	370	417
Service Time	5.859	5.303	5.671	4.906	6.613	5.614	7.445	6.354
HCM Lane V/C Ratio	0.98	0.909	0.834	0.541	0.645	0.004	0.046	0.113
HCM Control Delay	68.7	51.2	40.8	18.1	26.6	10.7	12.9	12.4
HCM Lane LOS	F	F	E	C	D	B	B	B
HCM 95th-tile Q	12.5	10.6	8.3	3.2	4.4	0	0.1	0.4

Intersection

Intersection Delay, s/veh 142.6

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱↲			↱	↱			
Traffic Vol, veh/h	4	98	328	50	0	84	0	784	134	0	0	0
Future Vol, veh/h	4	98	328	50	0	84	0	784	134	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	107	357	54	0	91	0	852	146	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	18.6	14.1	219.4
HCM LOS	C	B	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	4%	0%	37%
Vol Thru, %	100%	0%	96%	0%	0%
Vol Right, %	0%	100%	0%	100%	63%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	784	134	102	328	134
LT Vol	0	0	4	0	50
Through Vol	784	0	98	0	0
RT Vol	0	134	0	328	84
Lane Flow Rate	852	146	111	357	146
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.508	0.229	0.211	0.609	0.279
Departure Headway (Hd)	6.372	5.663	7.939	7.2	7.988
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	579	638	456	506	453
Service Time	4.072	3.363	5.639	4.9	5.988
HCM Lane V/C Ratio	1.472	0.229	0.243	0.706	0.322
HCM Control Delay	255.2	10	12.7	20.5	14.1
HCM Lane LOS	F	A	B	C	B
HCM 95th-tile Q	43.3	0.9	0.8	4	1.1

Intersection												
Int Delay, s/veh	13.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔	↔	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	74	173	170	1	34	6	40	189	3	27	298	48
Future Vol, veh/h	74	173	170	1	34	6	40	189	3	27	298	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	80	188	185	1	37	7	43	205	3	29	324	52
Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	694	675	324	769	675	205	324	0	0	205	0	0
Stage 1	383	383	-	292	292	-	-	-	-	-	-	-
Stage 2	311	292	-	477	383	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	357	376	717	318	376	836	1236	-	-	1366	-	-
Stage 1	640	612	-	716	671	-	-	-	-	-	-	-
Stage 2	699	671	-	569	612	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	312	355	717	132	355	836	1236	-	-	1366	-	-
Mov Cap-2 Maneuver	312	355	-	132	355	-	-	-	-	-	-	-
Stage 1	618	599	-	691	648	-	-	-	-	-	-	-
Stage 2	631	648	-	284	599	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB		SB		SB	
HCM Control Delay, s	31.7		15.9		1.4		0.6					
HCM LOS	D		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1236	-	-	341	717	339	836	1366	-	-		
HCM Lane V/C Ratio	0.035	-	-	0.787	0.258	0.112	0.008	0.021	-	-		
HCM Control Delay (s)	8	-	-	45.4	11.8	17	9.3	7.7	-	-		
HCM Lane LOS	A	-	-	E	B	C	A	A	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	6.5	1	0.4	0	0.1	-	-		

Intersection

Int Delay, s/veh 23.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	133	789	604	148	226	195
Future Vol, veh/h	133	789	604	148	226	195
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	145	858	657	161	246	212










Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	817	0	0 1455 409
Stage 1	-	-	- 737 -
Stage 2	-	-	- 718 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	807	-	- ~ 121 592
Stage 1	-	-	- 434 -
Stage 2	-	-	- 444 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	807	-	- ~ 79 592
Mov Cap-2 Maneuver	-	-	- ~ 194 -
Stage 1	-	-	- 434 -
Stage 2	-	-	- 292 -

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	115.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	807	-	-	-	194	592
HCM Lane V/C Ratio	0.179	-	-	-	1.266	0.358
HCM Control Delay (s)	10.4	-	-	-	202.5	14.4
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.7	-	-	-	13.4	1.6

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	8	38	11	15	18	84	198	13	41	404	23
Future Vol, veh/h	7	8	38	11	15	18	84	198	13	41	404	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	9	41	12	16	20	91	215	14	45	439	25
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	934	926	439	951	926	215	439	0	0	215	0	0
Stage 1	528	528	-	398	398	-	-	-	-	-	-	-
Stage 2	406	398	-	553	528	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	246	269	618	240	269	825	1121	-	-	1355	-	-
Stage 1	534	528	-	628	603	-	-	-	-	-	-	-
Stage 2	622	603	-	517	528	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	208	239	618	199	239	825	1121	-	-	1355	-	-
Mov Cap-2 Maneuver	208	239	-	199	239	-	-	-	-	-	-	-
Stage 1	491	510	-	577	554	-	-	-	-	-	-	-
Stage 2	542	554	-	458	510	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	15.2		18		2.4		0.7					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1121	-	-	412 220 825	1355	-	-					
HCM Lane V/C Ratio	0.081	-	-	0.14 0.128 0.024	0.033	-	-					
HCM Control Delay (s)	8.5	-	-	15.2 23.8 9.5	7.7	-	-					
HCM Lane LOS	A	-	-	C C A	A	-	-					
HCM 95th %tile Q(veh)	0.3	-	-	0.5 0.4 0.1	0.1	-	-					

Appendix L – Intersection Analysis Worksheets – Cumulative (2024) Conditions

Scenario: 2024 Cum AM
Command: 2024 Cum AM
Volume: 2024 AM
Geometry: Existing
Impact Fee: Default Impact Fee
Trip Generation: Cum AM
Trip Distribution: Cum + Project
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Fremont Ave and Mission Rd													
Base	237	1446	217	13	1397	47	66	359	509	382	837	46	5557
Added	0	0	16	0	0	15	16	0	0	15	0	0	62
Total	237	1446	233	13	1397	62	82	359	509	397	837	46	5619
#2 Fremont Ave and 1000 Fremont Ave													
Base	51	1389	125	4	1384	39	25	5	58	4	1	6	3093
Added	0	16	0	0	15	0	0	0	0	0	0	0	31
Total	51	1405	125	4	1399	39	25	5	58	4	1	6	3124
#3 Fremont Ave and Orange St													
Base	2	1205	238	150	1415	2	1	1	0	58	0	57	3129
Added	0	16	0	0	15	0	0	0	0	0	0	0	31
Total	2	1221	238	150	1430	2	1	1	0	58	0	57	3160
#4 Date Ave and Orange St													
Base	51	95	5	6	179	71	19	34	45	8	26	3	544
Added	0	32	0	0	31	0	0	0	0	0	0	0	63
Total	51	127	5	6	210	71	19	34	45	8	26	3	607
#5 Palm Ave and Orange St													
Base	5	63	2	5	206	31	8	19	14	2	5	2	363
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	63	2	5	206	31	8	19	14	2	5	2	363
#6 Chestnut St and Palm Ave													
Base	15	96	2	13	175	12	1	1	8	1	3	8	334
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	15	96	2	13	175	12	1	1	8	1	3	8	334
#7 Fremont Ave and Poplar Blvd													
Base	96	1111	54	18	1503	16	20	111	70	57	114	19	3189
Added	0	23	0	1	24	0	0	9	0	0	7	4	68
Total	96	1134	54	19	1527	16	20	120	70	57	121	23	3257
#8 Date Ave and Mission Rd													
Base	0	0	0	24	0	84	88	463	0	0	1296	168	2123
Added	0	0	0	15	0	15	16	0	0	0	0	16	62
Total	0	0	0	39	0	99	104	463	0	0	1296	184	2185
#9 Chestnut St and Date Ave													
Base	81	154	9	13	145	57	0	0	0	2	3	2	466

Added	0	32	0	0	31	0	0	0	0	0	0	0	63
Total	81	186	9	13	176	57	0	0	0	2	3	2	529

#10 Fremont Ave and Concord Ave

Base	60	1166	40	4	1479	63	43	13	73	24	15	11	2991
Added	0	16	0	0	15	0	0	0	0	0	0	0	31
Total	60	1182	40	4	1494	63	43	13	73	24	15	11	3022

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#11 Fremont Ave and Montezuma Ave

Base	732	277	43	4	86	641	434	56	656	54	100	11	3093
Added	25	4	0	0	4	7	8	0	9	0	0	0	57
Total	757	281	43	4	90	648	442	56	665	54	100	11	3150

#12 Palm Ave and Commonwealth Ave

Base	19	34	4	42	231	270	64	227	30	14	278	41	1254
Added	0	0	0	0	0	40	38	38	0	0	40	0	156
Total	19	34	4	42	231	310	102	265	30	14	318	41	1410

#13 Date Ave and Commonwealth Ave

Base	26	43	17	50	71	76	73	256	101	127	350	72	1261
Added	0	0	38	0	0	0	0	38	0	40	40	0	156
Total	26	43	55	50	71	76	73	294	101	167	390	72	1417

#14 Fremont Ave and Commonwealth Ave

Base	42	1081	99	183	1399	66	29	144	17	116	166	115	3456
Added	0	0	16	24	0	0	0	0	0	15	0	23	78
Total	42	1081	115	207	1399	66	29	144	17	131	166	138	3534

#15 Fremont Ave and Valley Blvd

Base	44	981	28	79	863	1365	565	433	30	60	777	198	5424
Added	5	16	4	0	15	0	0	2	1	7	3	0	53
Total	49	997	32	79	878	1365	565	435	31	67	780	198	5477

#16 Palm Ave and Mission Rd

Base	0	0	0	55	0	133	35	452	0	0	1377	90	2142
Added	0	0	0	0	0	0	0	15	0	0	16	0	31
Total	0	0	0	55	0	133	35	467	0	0	1393	90	2173

#17 Marengo Ave and Valley Blvd

Base	24	125	77	239	175	147	178	449	25	66	1025	202	2732
Added	10	26	0	0	21	0	0	0	7	0	0	0	64
Total	34	151	77	239	196	147	178	449	32	66	1025	202	2796

#18 Atlantic Blvd and Mission Road

Base	165	1139	123	43	1011	264	94	553	72	188	1025	35	4712
Added	0	31	0	0	23	1	3	0	0	0	0	0	58
Total	165	1170	123	43	1034	265	97	553	72	188	1025	35	4770

#19 Marengo Ave and Mission Road

Base	91	410	168	46	540	71	47	376	91	292	1255	79	3467
------	----	-----	-----	----	-----	----	----	-----	----	-----	------	----	------

Added	23	0	3	0	0	0	0	0	20	1	0	0	47
Total	114	410	171	46	540	71	47	376	111	293	1255	79	3514

#20 Marengo Ave and Front St

Base	2	545	3	11	529	384	87	12	8	2	80	36	1698
Added	0	26	0	0	21	0	0	0	0	0	0	0	47
Total	2	571	3	11	550	384	87	12	8	2	80	36	1745

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#21 I-710 NB Ramp and Valley Blvd

Base	646	1	734	4	0	1	0	222	0	0	2333	6	3949
Added	0	0	4	0	0	0	0	0	0	0	8	0	12
Total	646	1	738	4	0	1	0	222	0	0	2341	6	3961

#22 I-710 SB Ramp and Valley Blvd

Base	0	0	0	0	0	0	0	229	697	1708	1287	0	3921
Added	0	0	0	0	0	0	0	0	0	8	0	0	8
Total	0	0	0	0	0	0	0	229	697	1716	1287	0	3929

#23 Fremont Ave and Hellman Ave

Base	152	1001	336	136	757	118	116	119	164	180	244	227	3551
Added	0	18	14	8	15	0	0	0	0	1	0	7	63
Total	152	1019	350	144	772	118	116	119	164	181	244	234	3614

#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Base	384	59	23	84	15	214	55	175	351	427	65	14	1864
Added	8	0	0	0	0	0	0	0	22	0	0	0	30
Total	392	59	23	84	15	214	55	175	373	427	65	14	1894

#25 Fremont Ave and Ramona Road/10 EB ramp

Base	0	670	51	0	0	0	2	26	626	122	0	16	1514
Added	0	0	12	0	0	0	0	0	11	0	0	0	23
Total	0	670	63	0	0	0	2	26	637	122	0	16	1537

#26 Ross Ave and Fremont Ave

Base	28	1080	227	45	930	36	28	53	5	185	190	18	2825
Added	0	25	0	0	23	0	0	0	0	0	0	0	48
Total	28	1105	227	45	953	36	28	53	5	185	190	18	2873

#27 Westmont Dr and Valley Blvd

Base	55	15	8	4	6	40	18	1036	15	3	2183	32	3415
------	----	----	---	---	---	----	----	------	----	---	------	----	------

Added	0	0	0	0	0	0	0	4	0	0	8	0	12
Total	55	15	8	4	6	40	18	1040	15	3	2191	32	3427

#135

Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	16	0	0	15	0	31
Total	0	0	0	0	0	0	0	16	0	0	15	0	31

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Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	237	1446	217	13	1397	47	66	359	509	382	837	46
2 Fremont Ave a	51	1389	125	4	1384	39	25	5	58	4	1	6
3 Fremont Ave a	2	1205	238	150	1415	2	1	1	0	58	0	57
4 Date Ave and	51	95	5	6	179	71	19	34	45	8	26	3
5 Palm Ave and	5	63	2	5	206	31	8	19	14	2	5	2
6 Chestnut St a	15	96	2	13	175	12	1	1	8	1	3	8
7 Fremont Ave a	96	1111	54	18	1503	16	20	111	70	57	114	19
8 Date Ave and	0	0	0	24	0	84	88	463	0	0	1296	168
9 Chestnut St a	81	154	9	13	145	57	0	0	0	2	3	2
10 Fremont Ave a	60	1166	40	4	1479	63	43	13	73	24	15	11
11 Fremont Ave a	732	277	43	4	86	641	434	56	656	54	100	11
12 Palm Ave and	19	34	4	42	231	270	64	227	30	14	278	41
13 Date Ave and	26	43	17	50	71	76	73	256	101	127	350	72
14 Fremont Ave a	42	1081	99	183	1399	66	29	144	17	116	166	115
15 Fremont Ave a	44	981	28	79	863	1365	565	433	30	60	777	198
16 Palm Ave and	0	0	0	55	0	133	35	452	0	0	1377	90
17 Marengo Ave a	24	125	77	239	175	147	178	449	25	66	1025	202
18 Atlantic Blvd	165	1139	123	43	1011	264	94	553	72	188	1025	35
19 Marengo Ave a	91	410	168	46	540	71	47	376	91	292	1255	79
20 Marengo Ave a	2	545	3	11	529	384	87	12	8	2	80	36
21 I-710 NB Ramp	646	1	734	4	0	1	0	222	0	0	2333	6
22 I-710 SB Ramp	0	0	0	0	0	0	0	229	697	1708	1287	0

23 Fremont Ave a	152	1001	336	136	757	118	116	119	164	180	244	227
24 Elm St and He	384	59	23	84	15	214	55	175	351	427	65	14
25 Fremont Ave a	0	670	51	0	0	0	2	26	626	122	0	16
26 Ross Ave and	28	1080	227	45	930	36	28	53	5	185	190	18
27 Westmont Dr a	55	15	8	4	6	40	18	1036	15	3	2183	32

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Intersection Volume Report
 Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	237	1446	233	13	1397	62	82	359	509	397	837	46
2 Fremont Ave a	51	1405	125	4	1399	39	25	5	58	4	1	6
3 Fremont Ave a	2	1221	238	150	1430	2	1	1	0	58	0	57
4 Date Ave and	51	127	5	6	210	71	19	34	45	8	26	3
5 Palm Ave and	5	63	2	5	206	31	8	19	14	2	5	2
6 Chestnut St a	15	96	2	13	175	12	1	1	8	1	3	8
7 Fremont Ave a	96	1134	54	19	1527	16	20	120	70	57	121	23
8 Date Ave and	0	0	0	39	0	99	104	463	0	0	1296	184
9 Chestnut St a	81	186	9	13	176	57	0	0	0	2	3	2
10 Fremont Ave a	60	1182	40	4	1494	63	43	13	73	24	15	11
11 Fremont Ave a	757	281	43	4	90	648	442	56	665	54	100	11
12 Palm Ave and	19	34	4	42	231	310	102	265	30	14	318	41
13 Date Ave and	26	43	55	50	71	76	73	294	101	167	390	72
14 Fremont Ave a	42	1081	115	207	1399	66	29	144	17	131	166	138
15 Fremont Ave a	49	997	32	79	878	1365	565	435	31	67	780	198
16 Palm Ave and	0	0	0	55	0	133	35	467	0	0	1393	90
17 Marengo Ave a	34	151	77	239	196	147	178	449	32	66	1025	202
18 Atlantic Blvd	165	1170	123	43	1034	265	97	553	72	188	1025	35
19 Marengo Ave a	114	410	171	46	540	71	47	376	111	293	1255	79
20 Marengo Ave a	2	571	3	11	550	384	87	12	8	2	80	36
21 I-710 NB Ramp	646	1	738	4	0	1	0	222	0	0	2341	6
22 I-710 SB Ramp	0	0	0	0	0	0	0	229	697	1716	1287	0

23 Fremont Ave a	152	1019	350	144	772	118	116	119	164	181	244	234
24 Elm St and He	392	59	23	84	15	214	55	175	373	427	65	14
25 Fremont Ave a	0	670	63	0	0	0	2	26	637	122	0	16
26 Ross Ave and	28	1105	227	45	953	36	28	53	5	185	190	18
27 Westmont Dr a	55	15	8	4	6	40	18	1040	15	3	2191	32

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Impact Analysis Report
 Level Of Service

Intersection	Base Del/ LOS Veh	V/ C	Future Del/ LOS Veh	V/ C	Change in
# 1 Fremont Ave and Mission Rd	F xxxxxx	1.241	F xxxxxx	1.251	+ 0.009 V/C
# 2 Fremont Ave and 1000 Fremont A	B xxxxxx	0.607	B xxxxxx	0.612	+ 0.005 V/C
# 3 Fremont Ave and Orange St	B xxxxxx	0.608	B xxxxxx	0.613	+ 0.005 V/C
# 4 Date Ave and Orange St	B 11.4	0.055	B 11.8	0.058	+ 0.332 D/V
# 5 Palm Ave and Orange St	A 8.6	0.278	A 8.6	0.278	+ 0.000 V/C
# 6 Chestnut St and Palm Ave	A 8.5	0.244	A 8.5	0.244	+ 0.000 V/C
# 7 Fremont Ave and Poplar Blvd	C xxxxxx	0.740	C xxxxxx	0.753	+ 0.013 V/C
# 8 Date Ave and Mission Rd	C 19.4	0.227	C 21.1	0.271	+ 1.756 D/V
# 9 Chestnut St and Date Ave	B 10.8	0.059	B 11.1	0.060	+ 0.274 D/V
# 10 Fremont Ave and Concord Ave	B xxxxxx	0.680	B xxxxxx	0.685	+ 0.005 V/C
# 11 Fremont Ave and Montezuma Ave	B xxxxxx	0.636	B xxxxxx	0.648	+ 0.013 V/C
# 12 Palm Ave and Commonwealth Ave	A xxxxxx	0.408	A xxxxxx	0.469	+ 0.061 V/C
# 13 Date Ave and Commonwealth Ave	A xxxxxx	0.399	A xxxxxx	0.435	+ 0.037 V/C

# 14 Fremont Ave and Commonwealth A	C	xxxxxx	0.757	C	xxxxxx	0.766	+ 0.009	V/C
# 15 Fremont Ave and Valley Blvd	E	xxxxxx	0.993	E	xxxxxx	0.997	+ 0.004	V/C
# 16 Palm Ave and Mission Rd	B	xxxxxx	0.664	B	xxxxxx	0.669	+ 0.005	V/C
# 17 Marengo Ave and Valley Blvd	C	xxxxxx	0.759	C	xxxxxx	0.776	+ 0.016	V/C
# 18 Atlantic Blvd and Mission Road	E	xxxxxx	0.909	E	xxxxxx	0.923	+ 0.014	V/C
# 19 Marengo Ave and Mission Road	E	xxxxxx	0.985	E	xxxxxx	1.000	+ 0.014	V/C

# 20 Marengo Ave and Front St	C	xxxxx	0.777	C	xxxxx	0.791	+ 0.013 V/C
# 21 I-710 NB Ramp and Valley Blvd	C	xxxxx	0.740	C	xxxxx	0.742	+ 0.002 V/C
# 22 I-710 SB Ramp and Valley Blvd	F	xxxxx	1.129	F	xxxxx	1.131	+ 0.003 V/C
# 23 Fremont Ave and Hellman Ave	D	xxxxx	0.828	D	xxxxx	0.843	+ 0.015 V/C
# 24 Elm St and Hellman Ave/Ramona	F	52.4	1.191	F	54.1	1.201	+ 0.009 V/C
# 25 Fremont Ave and Ramona Road/10	F	95.0	1.234	F	96.8	1.234	+ 0.000 V/C

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 26 Ross Ave and Fremont Ave	B	xxxxxx 0.689	B	xxxxxx 0.696	+ 0.008 V/C
# 27 Westmont Dr and Valley Blvd	D	xxxxxx 0.859	D	xxxxxx 0.862	+ 0.002 V/C

```

*****
Intersection #1 Fremont Ave and Mission Rd
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          1.251
Loss Time (sec):      10          Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        180          Level Of Service:          F
*****
Street Name:          Fremont Ave          Mission Rd
Approach:              North Bound          South Bound          East Bound          West Bound
Movement:              L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:                Protected          Protected          Protected          Protected
Rights:                  Include          Include          Include          Include
Min. Green:              0    0    0          0    0    0          0    0    0          0    0    0
Y+R:                    4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:                   1  0  1  1  0          1  0  2  0  1          1  0  2  0  1          1  0  1  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:                221 1349    202          12 1303    44          62 335    475          356 781    43
Growth Adj:              1.07 1.07    1.07          1.07 1.07    1.07          1.07 1.07    1.07          1.07 1.07    1.07
Initial Bse:              237 1446    217          13 1397    47          66 359    509          382 837    46
Added Vol:                 0    0    16          0    0    15          16    0    0          15    0    0
PasserByVol:              0    0    0          0    0    0          0    0    0          0    0    0
Initial Fut:              237 1446    233          13 1397    62          82 359    509          397 837    46
User Adj:                 1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00
PHF Adj:                  1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00
PHF Volume:               237 1446    233          13 1397    62          82 359    509          397 837    46
Reduct Vol:                 0    0    0          0    0    0          0    0    0          0    0    0
Reduced Vol:              237 1446    233          13 1397    62          82 359    509          397 837    46
PCE Adj:                  1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00
MLF Adj:                  1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00
FinalVolume:              237 1446    233          13 1397    62          82 359    509          397 837    46
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:                1600 1600    1600          1600 1600    1600          1600 1600    1600          1600 1600    1600
Adjustment:              1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00          1.00 1.00    1.00
Lanes:                   1.00 1.72    0.28          1.00 2.00    1.00          1.00 2.00    1.00          1.00 1.90    0.10

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Final Sat.: 1600 2757 443 1600 3200 1600 1600 3200 1600 1600 3033 167
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.15 0.52 0.52 0.01 0.44 0.04 0.05 0.11 0.32 0.25 0.28 0.28
Crit Moves: ****          ****          ****          ****
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #2 Fremont Ave and 1000 Fremont Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.612
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     41          Level Of Service:      B
*****
Street Name:      Fremont Ave          1000 Fremont Ave
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Protected          Protected          Permitted          Permitted
Rights:            Include          Include          Include          Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:             1  0  2  0  1          1  0  2  0  1          1  0  0  1  0          1  0  0  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:          48 1296 117          4 1291 36          23 5 54          4 1 6
Growth Adj:        1.07 1.07 1.07          1.07 1.07 1.07          1.07 1.07 1.07          1.07 1.07 1.07
Initial Bse:        51 1389 125          4 1384 39          25 5 58          4 1 6
Added Vol:          0 16 0          0 15 0          0 0 0          0 0 0
PasserByVol:        0 0 0          0 0 0          0 0 0          0 0 0
Initial Fut:        51 1405 125          4 1399 39          25 5 58          4 1 6
User Adj:           1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
PHF Adj:            1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
PHF Volume:         51 1405 125          4 1399 39          25 5 58          4 1 6
Reduct Vol:         0 0 0          0 0 0          0 0 0          0 0 0
Reduced Vol:        51 1405 125          4 1399 39          25 5 58          4 1 6
PCE Adj:            1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
MLF Adj:            1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
FinalVolume:        51 1405 125          4 1399 39          25 5 58          4 1 6
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600 1600          1600 1600 1600          1600 1600 1600          1600 1600 1600
Adjustment:         1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
Lanes:             1.00 2.00 1.00          1.00 2.00 1.00          1.00 0.08 0.92          1.00 0.14 0.86

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Final Sat.: 1600 3200 1600 1600 3200 1600 1600 136 1464 1600 229 1371
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.03 0.44 0.08 0.00 0.44 0.02 0.02 0.04 0.04 0.00 0.00 0.00
Crit Moves: ****          ****          ****          ****
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #3 Fremont Ave and Orange St
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.613
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     41          Level Of Service:      B
*****
Street Name:      Fremont Ave          Orange St
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Protected          Protected          Split Phase          Split Phase
Rights:            Include          Include          Include          Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:             1  0  2  0  1          1  0  1  1  0          0  1  0  0  1          1  0  1! 0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:          2 1124    222    140 1320    2    1    1    0    54    0    53
Growth Adj:        1.07 1.07  1.07  1.07 1.07  1.07  1.07 1.07  1.07  1.07 1.07  1.07
Initial Bse:        2 1205    238    150 1415    2    1    1    0    58    0    57
Added Vol:          0    16    0    0    15    0    0    0    0    0    0    0
PasserByVol:        0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:        2 1221    238    150 1430    2    1    1    0    58    0    57
User Adj:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:         2 1221    238    150 1430    2    1    1    0    58    0    57
Reduct Vol:         0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:        2 1221    238    150 1430    2    1    1    0    58    0    57
PCE Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:            1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:        2 1221    238    150 1430    2    1    1    0    58    0    57
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600  1600 1600  1600 1600  1600  1600 1600  1600
Adjustment:         1.00 1.00  1.00  1.00 1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:             1.00 2.00  1.00  1.00 1.99  0.01 0.50 0.50  1.00  1.01 xxxx 0.99

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Final Sat.: 1600 3200 1600 1600 3195 5 800 800 1600 1615 0 1585
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.00 0.38 0.15 0.09 0.45 0.45 0.00 0.00 0.00 0.04 0.00 0.04
Crit Moves: **** **** **** ****
*****

```

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #4 Date Ave and Orange St
*****
Average Delay (sec/veh): 3.2 Worst Case Level Of Service: B[ 11.8]
*****
Street Name: Date Ave Orange St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 0 1 1 0 1 0 1 0 1 0 0 1 0 1 0 0 1
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol: 48 89 5 6 167 66 18 32 42 7 24 3
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 51 95 5 6 179 71 19 34 45 8 26 3
Added Vol: 0 32 0 0 31 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 51 127 5 6 210 71 19 34 45 8 26 3
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 51 127 5 6 210 71 19 34 45 8 26 3
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 51 127 5 6 210 71 19 34 45 8 26 3
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 281 xxxx xxxxx 133 xxxx xxxxx 470 459 210 528 524 127
Potent Cap.: 1293 xxxx xxxxx 1465 xxxx xxxxx 507 502 835 464 461 928
Move Cap.: 1293 xxxx xxxxx 1465 xxxx xxxxx 466 480 835 401 441 928
Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 609 593 xxxxx 531 548 xxxxx
Volume/Cap: 0.04 xxxx xxxx 0.00 xxxx xxxx 0.03 0.06 0.05 0.01 0.05 0.00
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: 0.1 xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx 0.2 xxxx xxxx 0.0

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Control Del:	7.9	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	9.6	xxxxx	xxxx	8.9			
LOS by Move:	A	*	*	A	*	*	*	*	A	*	*	A			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	598	xxxx	xxxxx	544	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	0.2	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.6	xxxx	xxxxx	12.0	xxxx	xxxxx			

Shared LOS: * * * * * B * * B * *

ApproachDel: xxxxxx xxxxxx 10.7 11.8

ApproachLOS: * * B B

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Palm Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.278

Loss Time (sec): 0 Average Delay (sec/veh): 8.6

Optimal Cycle: 0 Level Of Service: A

Street Name: Palm Ave Orange St

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Rights:	Include				Include				Include				Include							
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol:	5	59	2	5	192	29	7	18	13	2	5	2
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	5	63	2	5	206	31	8	19	14	2	5	2
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	63	2	5	206	31	8	19	14	2	5	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	63	2	5	206	31	8	19	14	2	5	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	63	2	5	206	31	8	19	14	2	5	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	63	2	5	206	31	8	19	14	2	5	2

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.08	0.92	1.00	0.03	0.97	1.00	0.28	0.72	1.00	0.29	0.71	1.00
Final Sat.:	57	677	864	19	741	894	179	460	750	181	451	743

Capacity Analysis Module:

Vol/Sat:	0.09	0.09	0.00	0.28	0.28	0.03	0.04	0.04	0.02	0.01	0.01	0.00
Crit Moves:	****			****			****			****		
Delay/Veh:	8.0	8.0	6.8	9.2	9.2	6.8	8.3	8.3	7.3	8.2	8.2	7.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.0	8.0	6.8	9.2	9.2	6.8	8.3	8.3	7.3	8.2	8.2	7.3
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.0			8.9			8.0			8.0		

Delay Adj:	1.00	1.00	1.00	1.00
ApprAdjDel:	8.0	8.9	8.0	8.0
LOS by Appr:	A	A	A	A
AllWayAvgQ:	0.1 0.1 0.0 0.4 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0			

Note: Queue reported is the number of cars per lane.

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Level of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.244
Loss Time (sec):	0	Average Delay (sec/veh):	8.5
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Chestnut St						Palm Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lanes:	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol:	14	90	2	12	163	11	1	1	7	1	3	7
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	15	96	2	13	175	12	1	1	8	1	3	8
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	96	2	13	175	12	1	1	8	1	3	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	15	96	2	13	175	12	1	1	8	1	3	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	96	2	13	175	12	1	1	8	1	3	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	15	96	2	13	175	12	1	1	8	1	3	8

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.13	0.87	1.00	0.07	0.93	1.00	0.50	0.50	1.00	0.25	0.75	1.00
Final Sat.:	101	651	895	53	716	909	312	312	747	159	478	748

Capacity Analysis Module:

Vol/Sat:	0.15	0.15	0.00	0.24	0.24	0.01	0.00	0.00	0.01	0.01	0.01	0.01
Crit Moves:	****			****			****			****		
Delay/Veh:	8.3	8.3	6.7	8.9	8.9	6.7	8.2	8.2	7.3	8.1	8.1	7.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.3	8.3	6.7	8.9	8.9	6.7	8.2	8.2	7.3	8.1	8.1	7.3
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.2			8.7			7.5			7.6		

Delay Adj:	1.00		1.00		1.00		1.00				
ApprAdjDel:	8.2		8.7		7.5		7.6				
LOS by Appr:	A		A		A		A				
AllWayAvgQ:	0.2	0.2	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #7 Fremont Ave and Poplar Blvd
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.753
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     58      Level Of Service:      C
*****
Street Name:      Fremont Ave      Poplar Blvd
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:          Permitted      Permitted      Permitted      Permitted
Rights:           Include      Include      Include      Include
Min. Green:       0    0    0      0    0    0      0    0    0      0    0    0
Y+R:             4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0
Lanes:           1  0  1  1  0      1  0  1  1  0      1  0  1  0  1      1  0  1  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:        90 1036    50    17 1402    15    19 104    65    53 106    18
Growth Adj:      1.07 1.07    1.07    1.07 1.07    1.07    1.07 1.07    1.07    1.07 1.07    1.07
Initial Bse:     96 1111    54    18 1503    16    20 111    70    57 114    19
Added Vol:       0   23     0     1   24     0     0   9     0     0   7     4
PasserByVol:     0   0     0     0   0     0     0   0     0     0   0     0
Initial Fut:     96 1134    54    19 1527    16    20 120    70    57 121    23
User Adj:        1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
PHF Adj:         1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
PHF Volume:      96 1134    54    19 1527    16    20 120    70    57 121    23
Reduct Vol:      0   0     0     0   0     0     0   0     0     0   0     0
Reduced Vol:     96 1134    54    19 1527    16    20 120    70    57 121    23
PCE Adj:         1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
MLF Adj:         1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
FinalVolume:     96 1134    54    19 1527    16    20 120    70    57 121    23
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:        1600 1600    1600    1600 1600    1600    1600 1600    1600    1600 1600    1600
Adjustment:      1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00    1.00 1.00    1.00
  
```

Lanes:	1.00	1.91	0.09	1.00	1.98	0.02	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	3056	144	1600	3167	33	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.06	0.37	0.37	0.01	0.48	0.48	0.01	0.08	0.04	0.04	0.08	0.01
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #8 Date Ave and Mission Rd

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: C[21.1]

Street Name:	Date Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol:	0	0	0	22	0	78	82	432	0	0	1209	157
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	0	0	24	0	84	88	463	0	0	1296	168
Added Vol:	0	0	0	15	0	15	16	0	0	0	0	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	39	0	99	104	463	0	0	1296	184
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	39	0	99	104	463	0	0	1296	184
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	39	0	99	104	463	0	0	1296	184

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1828	xxxx	740	1480	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	70	xxxx	364	461	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	58	xxxx	364	461	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	205	86	xxxxx	197	207	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.20	xxxx	0.27	0.23	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.7	xxxx	1.1	0.9	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	27.7	xxxx	18.6	15.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	D	*	C	C	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			

Shared LOS: * * * * * * * * * * * * * * * *
ApproachDel: xxxxxx 21.1 xxxxxx xxxxxx
ApproachLOS: * C * *

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: B[11.1]

Street Name: Chestnut St Date Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 0 1 1 0 1 0 1 0 0 1! 0 0 0 1 0 0 1
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol: 76 144 8 12 135 53 0 0 0 2 3 2
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 81 154 9 13 145 57 0 0 0 2 3 2
Added Vol: 0 32 0 0 31 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 81 186 9 13 176 57 0 0 0 2 3 2
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 81 186 9 13 176 57 0 0 0 2 3 2
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 81 186 9 13 176 57 0 0 0 2 3 2
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 6.4 6.5 6.2
FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflict Vol: 233 xxxx xxxxx 195 xxxx xxxxx 558 559 176 579 608 186
Potent Cap.: 1347 xxxx xxxxx 1390 xxxx xxxxx 444 440 873 480 413 861
Move Cap.: 1347 xxxx xxxxx 1390 xxxx xxxxx 416 410 873 455 385 861
Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 550 526 xxxxx 584 504 xxxxx
Volume/Cap: 0.06 xxxx xxxxx 0.01 xxxx xxxxx 0.00 0.00 0.00 0.00 0.01 0.00
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: 0.2 xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx 0.0
Control Del: 7.8 xxxx xxxxx 7.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx 9.2
LOS by Move: A * * A * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 0 xxxxx 533 xxxx xxxxx
SharedQueue: xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.0 xxxx xxxxx
Shrd ConDel: xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 11.8 xxxx xxxxx

```

Shared LOS:      *      *      *      *      *      *      *      *      *      B      *      *
ApproachDel:     xxxxxx          xxxxxx          xxxxxx          11.1
ApproachLOS:     *              *              *              B
*****
Note: Queue reported is the number of cars per lane.
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #10 Fremont Ave and Concord Ave
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.685
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     48          Level Of Service:      B
*****
Street Name:      Fremont Ave          Concord Ave
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Protected          Protected          Permitted          Permitted
Rights:            Include            Include            Include            Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             1  0  2  1  0        1  0  1  1  0        1  0  1  0  1        1  0  0  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:          56 1088    37          4 1380    59          40  12    68          22  14    10
Growth Adj:        1.07 1.07  1.07        1.07 1.07  1.07        1.07 1.07  1.07        1.07 1.07  1.07
Initial Bse:        60 1166    40          4 1479    63          43  13    73          24  15    11
Added Vol:          0   16     0          0   15     0          0   0     0          0   0     0
PasserByVol:        0   0     0          0   0     0          0   0     0          0   0     0
Initial Fut:        60 1182    40          4 1494    63          43  13    73          24  15    11
User Adj:           1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00
PHF Adj:            1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00
PHF Volume:         60 1182    40          4 1494    63          43  13    73          24  15    11
Reduct Vol:         0   0     0          0   0     0          0   0     0          0   0     0
Reduced Vol:        60 1182    40          4 1494    63          43  13    73          24  15    11
PCE Adj:            1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00
MLF Adj:            1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00
FinalVolume:        60 1182    40          4 1494    63          43  13    73          24  15    11
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600        1600 1600  1600        1600 1600  1600        1600 1600  1600
Adjustment:         1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00        1.00 1.00  1.00

```

Lanes: 1.00 2.90 0.10 1.00 1.92 0.08 1.00 1.00 1.00 1.00 0.58 0.42
 Final Sat.: 1600 4644 156 1600 3070 130 1600 1600 1600 1600 933 667
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.04 0.25 0.25 0.00 0.49 0.49 0.03 0.01 0.05 0.01 0.02 0.02
 Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.648

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 44 Level Of Service: B

Street Name:	Fremont Ave						Montezuma Ave						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Permitted			Protected			Permitted			
Rights:	Include			Ignore			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	0	1	0	1	2	0	0	1	1	0	0

Volume Module:

Base Vol:	683	258	40	4	80	598	405	52	612	50	93	10
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	732	277	43	4	86	641	434	56	656	54	100	11
Added Vol:	25	4	0	0	4	7	8	0	9	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	757	281	43	4	90	648	442	56	665	54	100	11
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	757	281	43	4	90	0	442	56	665	54	100	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	757	281	43	4	90	0	442	56	665	54	100	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	757	281	43	4	90	0	442	56	665	54	100	11

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00

Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.80 0.20 1.00 2.00 1.00
 Final Sat.: 1600 1600 1600 1600 1600 1600 1600 2875 325 1600 3200 1600
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.01 0.02 0.00 0.03 0.14 0.19 0.06 0.09 0.09 0.01 0.10 0.03
 Crit Moves: **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #13 Date Ave and Commonwealth Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.435
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 30 Level Of Service: A

 Street Name: Date Ave Commonwealth Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 1 1 0 1 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 24 40 16 47 66 71 68 239 94 118 326 67
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 26 43 17 50 71 76 73 256 101 127 350 72
 Added Vol: 0 0 38 0 0 0 0 38 0 40 40 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 26 43 55 50 71 76 73 294 101 167 390 72
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 26 43 55 50 71 76 73 294 101 167 390 72
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 26 43 55 50 71 76 73 294 101 167 390 72
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 26 43 55 50 71 76 73 294 101 167 390 72
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.48 0.52 1.00 1.49 0.51 1.00 1.69 0.31
 Final Sat.: 1600 1600 1600 1600 771 829 1600 2384 816 1600 2702 498
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.02 0.03 0.03 0.03 0.09 0.09 0.05 0.12 0.12 0.10 0.14 0.14
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #14 Fremont Ave and Commonwealth Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.766
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 60 Level Of Service: C

 Street Name: Fremont Ave Commonwealth Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 1 0 1 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 39 1008 92 171 1305 62 27 134 16 108 155 107
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 42 1081 99 183 1399 66 29 144 17 116 166 115
 Added Vol: 0 0 16 24 0 0 0 0 0 15 0 23
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 42 1081 115 207 1399 66 29 144 17 131 166 138
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 42 1081 115 207 1399 66 29 144 17 131 166 138
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 42 1081 115 207 1399 66 29 144 17 131 166 138
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 42 1081 115 207 1399 66 29 144 17 131 166 138
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 1.91 0.09 1.00 0.89 0.11 1.00 1.00 1.00
 Final Sat.: 1600 3200 1600 1600 3055 145 1600 1429 171 1600 1600 1600
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.03 0.34 0.07 0.13 0.46 0.46 0.02 0.10 0.10 0.08 0.10 0.09
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #15 Fremont Ave and Valley Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.997
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: E

 Street Name: Fremont Ave Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 2 2 0 2 0 1 1 0 2 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 41 915 26 74 805 1273 527 404 28 56 725 185
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 44 981 28 79 863 1365 565 433 30 60 777 198
 Added Vol: 5 16 4 0 15 0 0 2 1 7 3 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 49 997 32 79 878 1365 565 435 31 67 780 198
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 49 997 32 79 878 1365 565 435 31 67 780 198
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 49 997 32 79 878 1365 565 435 31 67 780 198
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 49 997 32 79 878 1365 565 435 31 67 780 198
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00


```

Lanes:      1.00 1.94  0.06  1.00 2.00  2.00  2.00 2.00  1.00  1.00 2.00  1.00
Final Sat.: 1600 3101   99  1600 3200  3200  2880 3200  1600  1600 3200  1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.03 0.32  0.32  0.05 0.27  0.43  0.20 0.14  0.02  0.04 0.24  0.12
Crit Moves: ****                ****  ****                ****
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #16 Palm Ave and Mission Rd
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.669
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     46          Level Of Service:      B
*****
Street Name:      Palm Ave          Mission Rd
Approach:          North Bound      South Bound      East Bound      West Bound
Movement:          L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:           Protected        Protected        Permitted        Permitted
Rights:            Include          Include          Include          Include
Min. Green:        0    0    0        0    0    0        0    0    0        0    0    0
Y+R:               4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0      4.0  4.0  4.0
Lanes:             0    0    0    0    1    0    0    0    1    1    0    2    0    0    0    0    1    1    0
-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol:          0    0    0        51    0    124      33  422    0        0 1284    84
Growth Adj:        1.07 1.07  1.07      1.07 1.07  1.07      1.07 1.07  1.07      1.07 1.07  1.07
Initial Bse:        0    0    0        55    0    133      35  452    0        0 1377    90
Added Vol:          0    0    0        0    0    0        0    15    0        0    16    0
PasserByVol:        0    0    0        0    0    0        0    0    0        0    0    0
Initial Fut:        0    0    0        55    0    133      35  467    0        0 1393    90
User Adj:           1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
PHF Adj:            1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
PHF Volume:         0    0    0        55    0    133      35  467    0        0 1393    90
Reduct Vol:         0    0    0        0    0    0        0    0    0        0    0    0
Reduced Vol:        0    0    0        55    0    133      35  467    0        0 1393    90
PCE Adj:            1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
MLF Adj:            1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00
FinalVolume:        0    0    0        55    0    133      35  467    0        0 1393    90
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600      1600 1600  1600      1600 1600  1600      1600 1600  1600
Adjustment:         1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00

```

Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 1.88 0.12
 Final Sat.: 0 0 0 1600 0 1600 1600 3200 0 0 3006 194
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.08 0.02 0.15 0.00 0.00 0.46 0.46
 Crit Moves: **** *

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #17 Marengo Ave and Valley Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.776
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 62 Level Of Service: C

 Street Name: Marengo Ave Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 0 1 0 1 1 0 2 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 22 117 72 223 163 137 166 419 23 62 956 188
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 24 125 77 239 175 147 178 449 25 66 1025 202
 Added Vol: 10 26 0 0 21 0 0 0 7 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 34 151 77 239 196 147 178 449 32 66 1025 202
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 34 151 77 239 196 147 178 449 32 66 1025 202
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 34 151 77 239 196 147 178 449 32 66 1025 202
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 34 151 77 239 196 147 178 449 32 66 1025 202
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes:	1.00	1.00	1.00	1.00	0.57	0.43	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	914	686	1600	3200	1600	1600	3200	1600
----- ----- ----- ----- -----												
Capacity Analysis Module:												
Vol/Sat:	0.02	0.09	0.05	0.15	0.21	0.21	0.11	0.14	0.02	0.04	0.32	0.13
Crit Moves:	****			****			****			****		

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #18 Atlantic Blvd and Mission Road

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.923
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 113 Level Of Service: E

 Street Name: Atlantic Blvd Mission Road
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 1 0
 -----|-----|-----|-----|-----|
 Volume Module:
 Base Vol: 154 1062 115 40 943 246 88 516 67 175 956 33
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 165 1139 123 43 1011 264 94 553 72 188 1025 35
 Added Vol: 0 31 0 0 23 1 3 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 165 1170 123 43 1034 265 97 553 72 188 1025 35
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 165 1170 123 43 1034 265 97 553 72 188 1025 35
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 165 1170 123 43 1034 265 97 553 72 188 1025 35
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 165 1170 123 43 1034 265 97 553 72 188 1025 35
 -----|-----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes:	1.00	1.81	0.19	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	1600	2895	305	1600	3200	1600	1600	3200	1600	1600	3093	107
----- ----- ----- ----- -----												
Capacity Analysis Module:												
Vol/Sat:	0.10	0.40	0.40	0.03	0.32	0.17	0.06	0.17	0.04	0.12	0.33	0.33
Crit Moves:	****			****			****			****		

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #19 Marengo Ave and Mission Road

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.000
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: E

 Street Name: Marengo Ave Mission Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|-----|
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 0 1 1 0 1 0
 -----|-----|-----|-----|-----|
 Volume Module:
 Base Vol: 85 382 157 43 504 66 44 351 85 272 1171 74
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 91 410 168 46 540 71 47 376 91 292 1255 79
 Added Vol: 23 0 3 0 0 0 0 0 20 1 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 114 410 171 46 540 71 47 376 111 293 1255 79
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 114 410 171 46 540 71 47 376 111 293 1255 79
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 114 410 171 46 540 71 47 376 111 293 1255 79
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 114 410 171 46 540 71 47 376 111 293 1255 79
 -----|-----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.88 0.12 1.00 1.54 0.46 1.00 1.88 0.12
 Final Sat.: 1600 1600 1600 1600 1415 185 1600 2470 730 1600 3010 190
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.07 0.26 0.11 0.03 0.38 0.38 0.03 0.15 0.15 0.18 0.42 0.42
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #20 Marengo Ave and Front St

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.791
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 65 Level Of Service: C

 Street Name: Marengo Ave Front St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 1 0 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 2 508 3 10 493 358 81 11 7 2 75 34
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 2 545 3 11 529 384 87 12 8 2 80 36
 Added Vol: 0 26 0 0 21 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 2 571 3 11 550 384 87 12 8 2 80 36
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 2 571 3 11 550 384 87 12 8 2 80 36
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 2 571 3 11 550 384 87 12 8 2 80 36
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 2 571 3 11 550 384 87 12 8 2 80 36
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

```

Lanes:      1.00 0.99  0.01  1.00 0.59  0.41  0.88 0.12  1.00  0.03 0.97  1.00
Final Sat.: 1600 1591    9  1600 942   658  1409 191  1600   42 1558  1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.00 0.36  0.36  0.01 0.58  0.58  0.05 0.06  0.00  0.00 0.05  0.02
Crit Moves: ****          ****          ****          ****
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #21 I-710 NB Ramp and Valley Blvd
*****
Cycle (sec):      120          Critical Vol./Cap.(X):      0.742
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     59          Level Of Service:      C
*****
Street Name:      I-710 NB Ramp          Valley Blvd
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|-----|
Control:          Split Phase          Split Phase          Permitted          Permitted
Rights:           Include          Include          Include          Include
Min. Green:       0    0    0          0    0    0          0    0    0          0    0    0
Y+R:             4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:           1  0  1! 0  1          0  0  1! 0  0          0  0  2  0  0          0  0  3  1  0
-----|-----|-----|-----|-----|
Volume Module:
Base Vol:        603    1    685          4    0    1          0  207    0          0 2176    6
Growth Adj:      1.07 1.07  1.07          1.07 1.07  1.07          1.07 1.07  1.07          1.07 1.07  1.07
Initial Bse:     646    1    734          4    0    1          0  222    0          0 2333    6
Added Vol:       0    0    4          0    0    0          0    0    0          0    8    0
PasserByVol:     0    0    0          0    0    0          0    0    0          0    0    0
Initial Fut:     646    1    738          4    0    1          0  222    0          0 2341    6
User Adj:        1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Adj:         1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Volume:      646    1    738          4    0    1          0  222    0          0 2341    6
Reduct Vol:      0    0    0          0    0    0          0    0    0          0    0    0
Reduced Vol:     646    1    738          4    0    1          0  222    0          0 2341    6
PCE Adj:         1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
MLF Adj:         1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
FinalVolume:     646    1    738          4    0    1          0  222    0          0 2341    6
-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:        1600 1600  1600          1600 1600  1600          1600 1600  1600          1600 1600  1600
Adjustment:      1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00

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```

Lanes:      1.40 0.01  1.59  0.80 0.00  0.20  0.00 2.00  0.00  0.00 3.99  0.01
Final Sat.: 2239   4 2557 1280   0  320   0 3200   0   0 6382  18
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.29 0.29  0.29  0.00 0.00  0.00  0.00 0.07  0.00  0.00 0.37  0.37
Crit Moves: ****          ****          ****          ****
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #22 I-710 SB Ramp and Valley Blvd
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      1.131
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     180          Level Of Service:      F
*****
Street Name:      I-710 SB Ramp          Valley Blvd
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|-----|
Control:          Protected          Protected          Protected          Protected
Rights:           Include            Include            Include            Include
Min. Green:       0   0   0          0   0   0          0   0   0          0   0   0
Y+R:              4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:            0   0   0   0   0        0   0   0   0   0        0   0   2   0   1        2   0   2   0   0
-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         0   0   0          0   0   0          0  214  650 1593 1200   0
Growth Adj:       1.07 1.07  1.07    1.07 1.07  1.07    1.07 1.07  1.07 1.07 1.07  1.07
Initial Bse:      0   0   0          0   0   0          0  229  697 1708 1287   0
Added Vol:        0   0   0          0   0   0          0   0   0   8   0   0
PasserByVol:      0   0   0          0   0   0          0   0   0   0   0   0
Initial Fut:      0   0   0          0   0   0          0  229  697 1716 1287   0
User Adj:         1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00 1.00 1.00  1.00
PHF Volume:       0   0   0          0   0   0          0  229  697 1716 1287   0
Reduct Vol:       0   0   0          0   0   0          0   0   0   0   0   0
Reduced Vol:      0   0   0          0   0   0          0  229  697 1716 1287   0
PCE Adj:          1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:      0   0   0          0   0   0          0  229  697 1716 1287   0
-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1600 1600  1600    1600 1600  1600    1600 1600  1600 1600 1600  1600
Adjustment:       1.00 1.00  1.00    1.00 1.00  1.00    1.00 1.00  1.00 0.90 1.00  1.00

```

Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00
 Final Sat.: 0 0 0 0 0 0 0 0 3200 1600 2880 3200 0
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.07 0.44 0.60 0.40 0.00
 Crit Moves: **** *

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #23 Fremont Ave and Hellman Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.843
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 78 Level Of Service: D

 Street Name: Fremont Ave Hellman Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 1 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 142 934 313 127 706 110 108 111 153 168 228 212
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 152 1001 336 136 757 118 116 119 164 180 244 227
 Added Vol: 0 18 14 8 15 0 0 0 0 1 0 7
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 152 1019 350 144 772 118 116 119 164 181 244 234
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 152 1019 350 144 772 118 116 119 164 181 244 234
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 152 1019 350 144 772 118 116 119 164 181 244 234
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 152 1019 350 144 772 118 116 119 164 181 244 234
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes:	1.00	1.49	0.51	1.00	1.73	0.27	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2383	817	1600	2776	424	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.10	0.43	0.43	0.09	0.28	0.28	0.07	0.07	0.10	0.11	0.15	0.15
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	1.201
Loss Time (sec):	0	Average Delay (sec/veh):	54.1
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Elm St	Hellman Ave/Ramona Rd/ 10 WB ramp
Approach:	North Bound	East Bound
Movement:	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign
Rights:	Include	Include
Min. Green:	0 0 0	0 0 0
Lanes:	1 0 1 0 0	0 1 0 0 1

Volume Module:AM Peak

Base Vol:	358	55	21	78	14	200	51	163	327	398	61	13
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	384	59	23	84	15	214	55	175	351	427	65	14
Added Vol:	8	0	0	0	0	0	0	0	22	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	392	59	23	84	15	214	55	175	373	427	65	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	392	59	23	84	15	214	55	175	373	427	65	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	392	59	23	84	15	214	55	175	373	427	65	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	392	59	23	84	15	214	55	175	373	427	65	14

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.66	0.25	0.09	0.85	0.15	1.00	0.24	0.76	1.00	0.87	0.13	1.00
Final Sat.:	1037	-289	37	322	58	431	101	323	471	355	54	458

Capacity Analysis Module:

Vol/Sat:	0.38-0.20	0.61	0.26	0.26	0.50	0.54	0.54	0.79	1.20	1.20	0.03	
Crit Moves:		****			****			****	****			
Delay/Veh:	24.7	25.2	25.2	15.2	15.2	18.4	20.4	20.4	32.9	139.0	139	10.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.7	25.2	25.2	15.2	15.2	18.4	20.4	20.4	32.9	139.0	139	10.6
LOS by Move:	C	D	D	C	C	C	C	C	D	F	F	B
ApproachDel:	24.5			17.4			28.2			135.5		

Delay Adj:	1.00		1.00		1.00		1.00					
ApprAdjDel:	24.5		17.4		28.2		135.5					
LOS by Appr:	C		C		D		F					
AllWayAvgQ:	1.4	1.4	1.4	0.3	0.3	0.9	1.1	1.1	3.0	14.5	14.5	0.0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	1.234
Loss Time (sec):	0	Average Delay (sec/veh):	96.8
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Fremont Ave						Ramona Road/10 EB ramp								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lanes:	0	0	1	0	1	0	0	0	0	0	1	0	0	1	

-----|-----|-----|-----|

Volume Module:AM Peak

Base Vol:	0	625	48	0	0	0	2	24	584	114	0	15
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	670	51	0	0	0	2	26	626	122	0	16
Added Vol:	0	0	12	0	0	0	0	0	11	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	670	63	0	0	0	2	26	637	122	0	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	670	63	0	0	0	2	26	637	122	0	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	670	63	0	0	0	2	26	637	122	0	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	670	63	0	0	0	2	26	637	122	0	16

-----|-----|-----|-----|

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	0.00	0.00	0.08	0.92	1.00	0.88	0.00	0.12
Final Sat.:	0	543	606	0	0	0	41	491	597	421	0	55

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat:	xxxx	1.23	0.10	xxxx	xxxx	xxxx	0.05	0.05	1.07	0.29	xxxx	0.29
Crit Moves:	****			****			****			****		
Delay/Veh:	0.0	142	9.3	0.0	0.0	0.0	9.8	9.8	79.4	13.6	0.0	13.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	142	9.3	0.0	0.0	0.0	9.8	9.8	79.4	13.6	0.0	13.6
LOS by Move:	*	F	A	*	*	*	A	A	F	B	*	B
ApproachDel:	130.8			xxxxxx			76.5			13.6		

Delay Adj: 1.00 xxxxx 1.00 1.00
 ApprAdjDel: 130.8 xxxxxx 76.5 13.6
 LOS by Appr: F * F B
 AllWayAvgQ: 0.0 20.1 0.1 0.0 0.0 0.0 0.1 0.1 11.7 0.4 0.4 0.4

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.696
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	B

Street Name:	Fremont Ave						Ross Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted			Permitted			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	26	1007	212	42	867	34	26	49	5	173	177	17
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	28	1080	227	45	930	36	28	53	5	185	190	18
Added Vol:	0	25	0	0	23	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	1105	227	45	953	36	28	53	5	185	190	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	28	1105	227	45	953	36	28	53	5	185	190	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	1105	227	45	953	36	28	53	5	185	190	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	28	1105	227	45	953	36	28	53	5	185	190	18

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

```

Lanes:      1.00 1.66 0.34 1.00 1.93 0.07 1.00 0.91 0.09 1.00 1.00 1.00
Final Sat.: 1600 2654 546 1600 3082 118 1600 1452 148 1600 1600 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.02 0.42 0.42 0.03 0.31 0.31 0.02 0.04 0.04 0.12 0.12 0.01
Crit Moves:      ****      ****      ****      ****
*****

```

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #27 Westmont Dr and Valley Blvd
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.862
Loss Time (sec):   10      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     84      Level Of Service:      D
*****
Street Name:      Westmont Dr      Valley Blvd
Approach:          North Bound      South Bound      East Bound      West Bound
Movement:          L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:           Permitted      Permitted      Permitted      Permitted
Rights:            Include      Include      Include      Include
Min. Green:        0 0 0      0 0 0      0 0 0      0 0 0
Y+R:              4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0
Lanes:             0 0 1! 0 0      0 0 1! 0 0      1 0 2 0 1      1 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:          51 14 7      4 6 37      17 966 14      3 2036 30
Growth Adj:        1.07 1.07 1.07      1.07 1.07 1.07      1.07 1.07 1.07      1.07 1.07 1.07
Initial Bse:       55 15 8      4 6 40      18 1036 15      3 2183 32
Added Vol:         0 0 0      0 0 0      0 4 0      0 8 0
PasserByVol:       0 0 0      0 0 0      0 0 0      0 0 0
Initial Fut:       55 15 8      4 6 40      18 1040 15      3 2191 32
User Adj:          1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:           1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Volume:        55 15 8      4 6 40      18 1040 15      3 2191 32
Reduct Vol:        0 0 0      0 0 0      0 0 0      0 0 0
Reduced Vol:       55 15 8      4 6 40      18 1040 15      3 2191 32
PCE Adj:           1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
MLF Adj:           1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
FinalVolume:       55 15 8      4 6 40      18 1040 15      3 2191 32
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600 1600      1600 1600 1600      1600 1600 1600      1600 1600 1600
Adjustment:        1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00

```

Lanes: 0.71 0.19 0.10 0.08 0.13 0.79 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1133 311 156 136 204 1260 1600 3200 1600 1600 3200 1600
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.03 0.05 0.05 0.00 0.03 0.03 0.01 0.32 0.01 0.00 0.68 0.02
Crit Moves: **** **** **** ****

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Scenario: 2024 Cum PM

Command: 2024 Cum PM

Volume: 2024 PM

Geometry: Existing

Impact Fee: Default Impact Fee

Trip Generation: Cum PM

Trip Distribution: Cum + Project

Paths: Default Path

Routes: Default Route

Configuration: Default Configuration

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Fremont Ave and Mission Rd													
Base	207	1490	206	54	1178	58	125	539	462	330	452	48	5150
Added	0	0	10	0	0	9	10	0	0	9	0	0	38
Total	207	1490	216	54	1178	67	135	539	462	339	452	48	5188
#2 Fremont Ave and 1000 Fremont Ave													
Base	58	1562	46	8	1193	64	87	3	74	42	4	27	3168
Added	0	10	0	0	9	0	0	0	0	0	0	0	19
Total	58	1572	46	8	1202	64	87	3	74	42	4	27	3187
#3 Fremont Ave and Orange St													
Base	2	1501	188	109	1020	2	10	5	5	261	2	310	3415
Added	0	10	0	0	9	0	0	0	0	0	0	0	19
Total	2	1511	188	109	1029	2	10	5	5	261	2	310	3434
#4 Date Ave and Orange St													
Base	33	182	3	27	286	44	72	165	166	1	21	6	1008
Added	0	20	0	0	17	0	0	0	0	0	0	0	37
Total	33	202	3	27	303	44	72	165	166	1	21	6	1045
#5 Palm Ave and Orange St													
Base	5	183	2	11	287	14	62	69	76	2	5	8	725
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	183	2	11	287	14	62	69	76	2	5	8	725
#6 Chestnut St and Palm Ave													
Base	5	157	10	15	362	9	8	8	85	6	1	8	672
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	157	10	15	362	9	8	8	85	6	1	8	672
#7 Fremont Ave and Poplar Blvd													
Base	163	1504	123	27	925	45	27	125	86	57	127	30	3239
Added	0	13	0	7	15	0	0	12	0	0	12	4	63
Total	163	1517	123	34	940	45	27	137	86	57	139	34	3302
#8 Date Ave and Mission Rd													
Base	0	0	0	209	0	170	90	789	0	0	604	119	1981
Added	0	0	0	9	0	9	10	0	0	0	0	10	38
Total	0	0	0	218	0	179	100	789	0	0	604	129	2019
#9 Chestnut St and Date Ave													
Base	19	191	13	41	400	11	0	0	0	11	2	18	705

Added	0	20	0	0	17	0	0	0	0	0	0	0	37
Total	19	211	13	41	417	11	0	0	0	11	2	18	742

#10 Fremont Ave and Concord Ave

Base	55	1650	121	29	963	76	85	46	50	80	64	80	3300
Added	0	10	0	0	9	0	0	0	0	0	0	0	19
Total	55	1660	121	29	972	76	85	46	50	80	64	80	3319

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#11 Fremont Ave and Montezuma Ave

Base	737	475	92	26	44	278	428	179	655	35	74	20	3043
Added	15	2	0	0	14	7	7	0	13	0	0	0	58
Total	752	477	92	26	58	285	435	179	668	35	74	20	3101

#12 Palm Ave and Commonwealth Ave

Base	53	133	21	184	233	262	204	446	75	9	413	103	2135
Added	0	0	0	0	0	26	22	22	0	0	26	0	96
Total	53	133	21	184	233	288	226	468	75	9	439	103	2231

#13 Date Ave and Commonwealth Ave

Base	68	136	61	124	87	154	221	551	104	55	522	123	2206
Added	0	0	22	0	0	0	0	22	0	26	26	0	96
Total	68	136	83	124	87	154	221	573	104	81	548	123	2302

#14 Fremont Ave and Commonwealth Ave

Base	39	1523	278	213	857	27	32	147	15	168	169	255	3723
Added	0	0	10	15	0	0	0	0	0	9	0	13	47
Total	39	1523	288	228	857	27	32	147	15	177	169	268	3770

#15 Fremont Ave and Valley Blvd

Base	30	861	35	199	1030	830	660	964	27	134	374	330	5475
Added	3	10	8	0	9	0	0	4	5	9	4	0	52
Total	33	871	43	199	1039	830	660	968	32	143	378	330	5527

#16 Palm Ave and Mission Rd

Base	0	0	0	354	0	118	53	963	0	0	611	109	2207
Added	0	0	0	0	0	0	0	9	0	0	10	0	19
Total	0	0	0	354	0	118	53	972	0	0	621	109	2226

#17 Marengo Ave and Valley Blvd

Base	18	170	69	306	215	209	329	932	9	51	597	146	3051
Added	13	21	0	0	20	0	0	0	12	0	0	0	66
Total	31	191	69	306	235	209	329	932	21	51	597	146	3117

#18 Atlantic Blvd and Mission Road

Base	102	1137	147	45	1020	108	140	1035	143	195	604	64	4740
Added	0	27	0	0	34	4	2	0	0	0	0	0	67
Total	102	1164	147	45	1054	112	142	1035	143	195	604	64	4807

#19 Marengo Ave and Mission Road

Base	78	552	241	62	500	49	57	1007	303	75	577	63	3565
------	----	-----	-----	----	-----	----	----	------	-----	----	-----	----	------

Added	19	0	2	0	0	0	0	0	17	4	0	0	42
Total	97	552	243	62	500	49	57	1007	320	79	577	63	3607

#20 Marengo Ave and Front St

Base	3	680	4	25	731	202	161	54	9	2	20	17	1907
Added	0	21	0	0	20	0	0	0	0	0	0	0	41
Total	3	701	4	25	751	202	161	54	9	2	20	17	1948

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#21 I-710 NB Ramp and Valley Blvd

Base	626	0	1327	1	0	2	0	568	0	0	1199	0	3723
Added	0	0	9	0	0	0	0	0	0	0	7	0	16
Total	626	0	1336	1	0	2	0	568	0	0	1206	0	3739

#22 I-710 SB Ramp and Valley Blvd

Base	0	0	0	0	0	0	0	578	782	839	1008	0	3207
Added	0	0	0	0	0	0	0	0	0	7	0	0	7
Total	0	0	0	0	0	0	0	578	782	846	1008	0	3214

#23 Fremont Ave and Hellman Ave

Base	91	793	259	158	872	73	137	185	232	221	194	254	3469
Added	0	14	8	7	16	0	0	0	0	4	0	7	56
Total	91	807	267	165	888	73	137	185	232	225	194	261	3525

#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Base	501	184	105	11	5	43	31	321	239	129	113	2	1683
Added	11	0	0	0	0	0	0	0	15	0	0	0	26
Total	512	184	105	11	5	43	31	321	254	129	113	2	1709

#25 Fremont Ave and Ramona Road/10 EB ramp

Base	0	784	124	0	0	0	4	98	310	50	0	84	1454
Added	0	0	9	0	0	0	0	0	21	0	0	0	30
Total	0	784	133	0	0	0	4	98	331	50	0	84	1484

#26 Ross Ave and Fremont Ave

Base	32	910	180	28	1059	44	12	34	6	58	43	44	2451
Added	0	21	0	0	22	0	0	0	0	0	0	0	43
Total	32	931	180	28	1081	44	12	34	6	58	43	44	2494

#27 Westmont Dr and Valley Blvd

Base	17	11	12	26	10	15	60	1692	145	9	1115	35	3146
------	----	----	----	----	----	----	----	------	-----	---	------	----	------

Added	0	0	0	0	0	0	0	9	0	0	7	0	16
Total	17	11	12	26	10	15	60	1701	145	9	1122	35	3162

#135

Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	10	0	0	9	0	19
Total	0	0	0	0	0	0	0	10	0	0	9	0	19

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Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	207	1490	206	54	1178	58	125	539	462	330	452	48
2 Fremont Ave a	58	1562	46	8	1193	64	87	3	74	42	4	27
3 Fremont Ave a	2	1501	188	109	1020	2	10	5	5	261	2	310
4 Date Ave and	33	182	3	27	286	44	72	165	166	1	21	6
5 Palm Ave and	5	183	2	11	287	14	62	69	76	2	5	8
6 Chestnut St a	5	157	10	15	362	9	8	8	85	6	1	8
7 Fremont Ave a	163	1504	123	27	925	45	27	125	86	57	127	30
8 Date Ave and	0	0	0	209	0	170	90	789	0	0	604	119
9 Chestnut St a	19	191	13	41	400	11	0	0	0	11	2	18
10 Fremont Ave a	55	1650	121	29	963	76	85	46	50	80	64	80
11 Fremont Ave a	737	475	92	26	44	278	428	179	655	35	74	20
12 Palm Ave and	53	133	21	184	233	262	204	446	75	9	413	103
13 Date Ave and	68	136	61	124	87	154	221	551	104	55	522	123
14 Fremont Ave a	39	1523	278	213	857	27	32	147	15	168	169	255
15 Fremont Ave a	30	861	35	199	1030	830	660	964	27	134	374	330
16 Palm Ave and	0	0	0	354	0	118	53	963	0	0	611	109
17 Marengo Ave a	18	170	69	306	215	209	329	932	9	51	597	146
18 Atlantic Blvd	102	1137	147	45	1020	108	140	1035	143	195	604	64
19 Marengo Ave a	78	552	241	62	500	49	57	1007	303	75	577	63
20 Marengo Ave a	3	680	4	25	731	202	161	54	9	2	20	17
21 I-710 NB Ramp	626	0	1327	1	0	2	0	568	0	0	1199	0

22 I-710 SB Ramp	0	0	0	0	0	0	0	578	782	839	1008	0
23 Fremont Ave a	91	793	259	158	872	73	137	185	232	221	194	254
24 Elm St and He	501	184	105	11	5	43	31	321	239	129	113	2
25 Fremont Ave a	0	784	124	0	0	0	4	98	310	50	0	84
26 Ross Ave and	32	910	180	28	1059	44	12	34	6	58	43	44
27 Westmont Dr a	17	11	12	26	10	15	60	1692	145	9	1115	35

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Intersection Volume Report
Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	207	1490	216	54	1178	67	135	539	462	339	452	48
2 Fremont Ave a	58	1572	46	8	1202	64	87	3	74	42	4	27
3 Fremont Ave a	2	1511	188	109	1029	2	10	5	5	261	2	310
4 Date Ave and	33	202	3	27	303	44	72	165	166	1	21	6
5 Palm Ave and	5	183	2	11	287	14	62	69	76	2	5	8
6 Chestnut St a	5	157	10	15	362	9	8	8	85	6	1	8
7 Fremont Ave a	163	1517	123	34	940	45	27	137	86	57	139	34
8 Date Ave and	0	0	0	218	0	179	100	789	0	0	604	129
9 Chestnut St a	19	211	13	41	417	11	0	0	0	11	2	18
10 Fremont Ave a	55	1660	121	29	972	76	85	46	50	80	64	80
11 Fremont Ave a	752	477	92	26	58	285	435	179	668	35	74	20
12 Palm Ave and	53	133	21	184	233	288	226	468	75	9	439	103
13 Date Ave and	68	136	83	124	87	154	221	573	104	81	548	123
14 Fremont Ave a	39	1523	288	228	857	27	32	147	15	177	169	268
15 Fremont Ave a	33	871	43	199	1039	830	660	968	32	143	378	330
16 Palm Ave and	0	0	0	354	0	118	53	972	0	0	621	109
17 Marengo Ave a	31	191	69	306	235	209	329	932	21	51	597	146
18 Atlantic Blvd	102	1164	147	45	1054	112	142	1035	143	195	604	64
19 Marengo Ave a	97	552	243	62	500	49	57	1007	320	79	577	63
20 Marengo Ave a	3	701	4	25	751	202	161	54	9	2	20	17
21 I-710 NB Ramp	626	0	1336	1	0	2	0	568	0	0	1206	0

22 I-710 SB Ramp	0	0	0	0	0	0	0	578	782	846	1008	0
23 Fremont Ave a	91	807	267	165	888	73	137	185	232	225	194	261
24 Elm St and He	512	184	105	11	5	43	31	321	254	129	113	2
25 Fremont Ave a	0	784	133	0	0	0	4	98	331	50	0	84
26 Ross Ave and	32	931	180	28	1081	44	12	34	6	58	43	44
27 Westmont Dr a	17	11	12	26	10	15	60	1701	145	9	1122	35

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Impact Analysis Report
 Level Of Service

Intersection	Base Del/ LOS Veh	V/ C	Future Del/ LOS Veh	V/ C	Change in
# 1 Fremont Ave and Mission Rd	F xxxxxx	1.159	F xxxxxx	1.167	+ 0.009 V/C
# 2 Fremont Ave and 1000 Fremont A	B xxxxxx	0.667	B xxxxxx	0.670	+ 0.003 V/C
# 3 Fremont Ave and Orange St	D xxxxxx	0.842	D xxxxxx	0.845	+ 0.003 V/C
# 4 Date Ave and Orange St	B 14.5	0.309	B 14.9	0.317	+ 0.425 D/V
# 5 Palm Ave and Orange St	B 10.8	0.451	B 10.8	0.451	+ 0.000 V/C
# 6 Chestnut St and Palm Ave	B 11.2	0.527	B 11.2	0.527	+ 0.000 V/C
# 7 Fremont Ave and Poplar Blvd	C xxxxxx	0.739	C xxxxxx	0.755	+ 0.016 V/C
# 8 Date Ave and Mission Rd	C 17.5	0.489	C 18.4	0.523	+ 0.932 D/V
# 9 Chestnut St and Date Ave	B 10.5	0.030	B 10.6	0.030	+ 0.141 D/V
# 10 Fremont Ave and Concord Ave	B xxxxxx	0.630	B xxxxxx	0.633	+ 0.002 V/C
# 11 Fremont Ave and Montezuma Ave	C xxxxxx	0.715	C xxxxxx	0.720	+ 0.005 V/C
# 12 Palm Ave and Commonwealth Ave	A xxxxxx	0.555	A xxxxxx	0.591	+ 0.036 V/C

# 13 Date Ave and Commonwealth Ave	B xxxxx 0.633	B xxxxx 0.641	+ 0.008 V/C
# 14 Fremont Ave and Commonwealth A	E xxxxx 0.916	E xxxxx 0.931	+ 0.015 V/C
# 15 Fremont Ave and Valley Blvd	E xxxxx 0.940	E xxxxx 0.946	+ 0.006 V/C
# 16 Palm Ave and Mission Rd	B xxxxx 0.622	B xxxxx 0.625	+ 0.003 V/C
# 17 Marengo Ave and Valley Blvd	C xxxxx 0.790	D xxxxx 0.803	+ 0.013 V/C
# 18 Atlantic Blvd and Mission Road	E xxxxx 0.975	E xxxxx 0.983	+ 0.008 V/C
# 19 Marengo Ave and Mission Road	E xxxxx 0.948	E xxxxx 0.968	+ 0.020 V/C

# 20 Marengo Ave and Front St	D	xxxxxx	0.820	D	xxxxxx	0.833	+	0.012	V/C
# 21 I-710 NB Ramp and Valley Blvd	B	xxxxxx	0.687	B	xxxxxx	0.691	+	0.004	V/C
# 22 I-710 SB Ramp and Valley Blvd	D	xxxxxx	0.880	D	xxxxxx	0.882	+	0.002	V/C
# 23 Fremont Ave and Hellman Ave	D	xxxxxx	0.810	D	xxxxxx	0.824	+	0.014	V/C
# 24 Elm St and Hellman Ave/Ramona	D	28.2	0.826	D	29.2	0.841	+	0.015	V/C
# 25 Fremont Ave and Ramona Road/10	F	96.4	1.305	F	97.6	1.318	+	0.013	V/C

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
	LOS Veh	C	LOS Veh	C	
# 26 Ross Ave and Fremont Ave	A xxxxx	0.526	A xxxxx	0.533	+ 0.007 V/C
# 27 Westmont Dr and Valley Blvd	B xxxxx	0.675	B xxxxx	0.678	+ 0.003 V/C


```

*****
Intersection #1 Fremont Ave and Mission Rd
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          1.167
Loss Time (sec):       10          Average Delay (sec/veh):          xxxxxx
Optimal Cycle:         180          Level Of Service:          F
*****
Street Name:          Fremont Ave          Mission Rd
Approach:              North Bound          South Bound          East Bound          West Bound
Movement:              L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:                Protected          Protected          Protected          Protected
Rights:                  Include          Include          Include          Include
Min. Green:              0    0    0          0    0    0          0    0    0          0    0    0
Y+R:                    4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:                   1  0  1  1  0          1  0  2  0  1          1  0  2  0  1          1  0  1  1  0
-----|-----|-----|-----|
Volume Module:
Base Vol:               193 1390   192          50 1099   54          117 503   431          308 422   45
Growth Adj:             1.07 1.07   1.07          1.07 1.07   1.07          1.07 1.07   1.07          1.07 1.07   1.07
Initial Bse:            207 1490   206          54 1178   58          125 539   462          330 452   48
Added Vol:               0    0    10          0    0    9          10    0    0          9    0    0
PasserByVol:            0    0    0          0    0    0          0    0    0          0    0    0
Initial Fut:            207 1490   216          54 1178   67          135 539   462          339 452   48
User Adj:               1.00 1.00   1.00          1.00 1.00   1.00          1.00 1.00   1.00          1.00 1.00   1.00
PHF Adj:               1.00 1.00   1.00          1.00 1.00   1.00          1.00 1.00   1.00          1.00 1.00   1.00
PHF Volume:             207 1490   216          54 1178   67          135 539   462          339 452   48
Reduct Vol:              0    0    0          0    0    0          0    0    0          0    0    0
Reduced Vol:            207 1490   216          54 1178   67          135 539   462          339 452   48
PCE Adj:               1.00 1.00   1.00          1.00 1.00   1.00          1.00 1.00   1.00          1.00 1.00   1.00
MLF Adj:               1.00 1.00   1.00          1.00 1.00   1.00          1.00 1.00   1.00          1.00 1.00   1.00
FinalVolume:            207 1490   216          54 1178   67          135 539   462          339 452   48
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:               1600 1600   1600          1600 1600   1600          1600 1600   1600          1600 1600   1600
Adjustment:             1.00 1.00   1.00          1.00 1.00   1.00          1.00 1.00   1.00          1.00 1.00   1.00

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Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.04 0.96 1.00 0.14 0.86
 Final Sat.: 1600 3200 1600 1600 3200 1600 1600 67 1533 1600 221 1379
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.04 0.49 0.03 0.00 0.38 0.04 0.05 0.05 0.05 0.03 0.02 0.02
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #3 Fremont Ave and Orange St

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.845
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 78 Level Of Service: D

 Street Name: Fremont Ave Orange St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 1 1 0 1 1 0 0 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 2 1400 175 102 951 2 9 5 5 243 2 289
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 2 1501 188 109 1020 2 10 5 5 261 2 310
 Added Vol: 0 10 0 0 9 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 2 1511 188 109 1029 2 10 5 5 261 2 310
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 2 1511 188 109 1029 2 10 5 5 261 2 310
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 2 1511 188 109 1029 2 10 5 5 261 2 310
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 2 1511 188 109 1029 2 10 5 5 261 2 310
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 1.99 0.01 0.64 0.36 1.00 1.00 0.01 0.99
 Final Sat.: 1600 3200 1600 1600 3193 7 1029 571 1600 1600 11 1589
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.47 0.12 0.07 0.32 0.32 0.01 0.01 0.00 0.16 0.19 0.19
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #4 Date Ave and Orange St

 Average Delay (sec/veh): 6.5 Worst Case Level Of Service: B[14.9]

 Street Name: Date Ave Orange St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 1 0 1 1 0 1 0 1 0 1 0 0 1 0 1 0 0 1
 -----|-----|-----|-----|
 Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
 Base Vol: 31 170 3 25 267 41 67 154 155 1 20 6
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 33 182 3 27 286 44 72 165 166 1 21 6
 Added Vol: 0 20 0 0 17 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 33 202 3 27 303 44 72 165 166 1 21 6
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 33 202 3 27 303 44 72 165 166 1 21 6
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 33 202 3 27 303 44 72 165 166 1 21 6
 -----|-----|-----|-----|
 Critical Gap Module:
 Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
 FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
 -----|-----|-----|-----|
 Capacity Module:
 Cnflct Vol: 347 xxxx xxxxx 205 xxxx xxxxx 641 629 303 813 670 202
 Potent Cap.: 1223 xxxx xxxxx 1378 xxxx xxxxx 390 402 741 299 381 844
 Move Cap.: 1223 xxxx xxxxx 1378 xxxx xxxxx 357 383 741 149 363 844
 Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 526 520 xxxxx 244 494 xxxxx
 Volume/Cap: 0.03 xxxx xxxx 0.02 xxxx xxxx 0.14 0.32 0.22 0.00 0.04 0.01
 -----|-----|-----|-----|
 Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	0.9	xxxx	xxxx	0.0
Control Del:	8.0	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	11.3	xxxxx	xxxx	9.3
LOS by Move:	A	*	*	A	*	*	*	*	B	*	*	A
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	522	xxxx	xxxxx	471	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	0.2	xxxx	xxxxx

Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 17.5 xxxx xxxxx 13.0 xxxx xxxxx
 Shared LOS: * * * * * C * * B * *
 ApproachDel: xxxxxx xxxxxx 14.9 12.2
 ApproachLOS: * * B B

 Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #5 Palm Ave and Orange St

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.451
 Loss Time (sec): 0 Average Delay (sec/veh): 10.8
 Optimal Cycle: 0 Level Of Service: B

 Street Name: Palm Ave Orange St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1

 Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
 Base Vol: 5 171 2 10 268 13 58 64 71 2 5 7
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 5 183 2 11 287 14 62 69 76 2 5 8
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 5 183 2 11 287 14 62 69 76 2 5 8
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 5 183 2 11 287 14 62 69 76 2 5 8
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 5 183 2 11 287 14 62 69 76 2 5 8
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 5 183 2 11 287 14 62 69 76 2 5 8

 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.03 0.97 1.00 0.04 0.96 1.00 0.48 0.52 1.00 0.29 0.71 1.00
 Final Sat.: 18 623 730 24 637 754 269 296 661 151 379 606

 Capacity Analysis Module:
 Vol/Sat: 0.29 0.29 0.00 0.45 0.45 0.02 0.23 0.23 0.12 0.01 0.01 0.01
 Crit Moves: **** **** ****
 Delay/Veh: 10.3 10.3 7.4 12.2 12.2 7.4 10.4 10.4 8.4 9.0 9.0 8.1
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 10.3 10.3 7.4 12.2 12.2 7.4 10.4 10.4 8.4 9.0 9.0 8.1
 LOS by Move: B B A B B A B B A A A A
 ApproachDel: 10.3 12.0 9.7 8.6

Delay Adj:	1.00		1.00		1.00		1.00		1.00		
ApprAdjDel:	10.3		12.0		9.7		8.6				
LOS by Appr:	B		B		A		A				
AllWayAvgQ:	0.4	0.4	0.0	0.8	0.8	0.0	0.3	0.3	0.1	0.0	0.0

Note: Queue reported is the number of cars per lane.

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Level of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.527
Loss Time (sec):	0	Average Delay (sec/veh):	11.2
Optimal Cycle:	0	Level of Service:	B

Street Name:	Chestnut St				Palm Ave					
Approach:	North Bound		South Bound		East Bound		West Bound			
Movement:	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign		Stop Sign		Stop Sign		Stop Sign			
Rights:	Include		Include		Include		Include			
Min. Green:	0	0	0	0	0	0	0	0	0	
Lanes:	0	1	0	0	1	0	1	0	0	1

Volume Module: >> Count Date:	17 Nov 2015 << PM Peak											
Base Vol:	5	146	9	14	338	8	7	79	6	1	7	
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	
Initial Bse:	5	157	10	15	362	9	8	85	6	1	8	
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	5	157	10	15	362	9	8	85	6	1	8	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	5	157	10	15	362	9	8	85	6	1	8	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	5	157	10	15	362	9	8	85	6	1	8	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	5	157	10	15	362	9	8	85	6	1	8	

Saturation Flow Module:											
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.97	1.00	0.04	0.96	1.00	0.50	0.50	1.00	0.86	0.14
Final Sat.:	23	663	789	28	687	827	274	274	643	443	74

Capacity Analysis Module:											
Vol/Sat:	0.24	0.24	0.01	0.53	0.53	0.01	0.03	0.03	0.13	0.01	0.01
Crit Moves:	****			****			****			****	
Delay/Veh:	9.4	9.4	7.2	13.0	13.0	7.0	9.0	9.0	8.6	9.2	9.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.4	9.4	7.2	13.0	13.0	7.0	9.0	9.0	8.6	9.2	9.2
LOS by Move:	A	A	A	B	B	A	A	A	A	A	A
ApproachDel:	9.3			12.8			8.6			8.6	

Delay Adj:	1.00		1.00		1.00		1.00		1.00		1.00
ApprAdjDel:	9.3		12.8		8.6		8.6				
LOS by Appr:	A		B		A		A				
AllWayAvgQ:	0.3	0.3	0.0	1.1	1.1	0.0	0.0	0.0	0.1	0.0	0.0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #7 Fremont Ave and Poplar Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.755
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	C

Street Name:	Fremont Ave						Poplar Blvd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted			Permitted			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	152	1403	115	25	863	42	25	117	80	53	118	28
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	163	1504	123	27	925	45	27	125	86	57	127	30
Added Vol:	0	13	0	7	15	0	0	12	0	0	12	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	163	1517	123	34	940	45	27	137	86	57	139	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	163	1517	123	34	940	45	27	137	86	57	139	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	163	1517	123	34	940	45	27	137	86	57	139	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	163	1517	123	34	940	45	27	137	86	57	139	34

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lanes:	1.00	1.85	0.15	1.00	1.91	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2959	241	1600	3054	146	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.10	0.51	0.51	0.02	0.31	0.31	0.02	0.09	0.05	0.04	0.09	0.02
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #8 Date Ave and Mission Rd

Average Delay (sec/veh): 4.1 Worst Case Level Of Service: C[18.4]

Street Name:	Date Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak

Base Vol:	0	0	0	195	0	159	84	736	0	0	563	111
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	0	0	209	0	170	90	789	0	0	604	119
Added Vol:	0	0	0	9	0	9	10	0	0	0	0	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	218	0	179	100	789	0	0	604	129
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	218	0	179	100	789	0	0	604	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	218	0	179	100	789	0	0	604	129

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1263	xxxx	366	733	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	164	xxxx	636	881	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	150	xxxx	636	881	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	234	270	xxxxx	417	284	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.52	xxxx	0.28	0.11	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	3.2	xxxx	1.2	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	23.0	xxxx	12.9	9.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	C	*	B	A	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			

Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
 Shared LOS: * * * * *
 ApproachDel: xxxxxx 18.4 xxxxxx xxxxxx
 ApproachLOS: * C *

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B[10.6]

Street Name: Chestnut St Date Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 1 0 1 1 0 1 0 1 0 0 1! 0 0 0 1 0 0 1

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
 Base Vol: 18 178 12 38 373 10 0 0 0 10 2 17
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 19 191 13 41 400 11 0 0 0 11 2 18
 Added Vol: 0 20 0 0 17 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 19 211 13 41 417 11 0 0 0 11 2 18
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 19 211 13 41 417 11 0 0 0 11 2 18
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 19 211 13 41 417 11 0 0 0 11 2 18

Critical Gap Module:
 Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 6.4 6.5 6.2
 FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
 Cnflct Vol: 428 xxxx xxxxx 224 xxxx xxxxx 764 761 417 753 759 211
 Potent Cap.: 1143 xxxx xxxxx 1357 xxxx xxxxx 323 338 640 380 339 834
 Move Cap.: 1143 xxxx xxxxx 1357 xxxx xxxxx 303 322 640 367 323 834
 Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 468 463 xxxxx 517 456 xxxxx
 Volume/Cap: 0.02 xxxx xxxx 0.03 xxxx xxxx 0.00 0.00 0.00 0.02 0.00 0.02

Level Of Service Module:
 2Way95thQ: 0.1 xxxx xxxxx 0.1 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx 0.1
 Control Del: 8.2 xxxx xxxxx 7.7 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx 9.4
 LOS by Move: A * * A * * * * * * * A
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 0 xxxxx 505 xxxx xxxxx
 SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.1 xxxx xxxxx

Lanes:	1.00	2.80	0.20	1.00	1.85	0.15	1.00	1.00	1.00	1.00	0.44	0.56
Final Sat.:	1600	4474	326	1600	2968	232	1600	1600	1600	1600	711	889
----- ----- ----- ----- -----												
Capacity Analysis Module:												
Vol/Sat:	0.03	0.37	0.37	0.02	0.33	0.33	0.05	0.03	0.03	0.05	0.09	0.09
Crit Moves:	****			****			****			****		

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #11 Fremont Ave and Montezuma Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.720
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 73 Level Of Service: C

 Street Name: Fremont Ave Montezuma Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|-----|
 Control: Protected Permitted Protected Permitted
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 0 1 0 0 1 1 0 1 2 0 0 1 1 0 0 0 1! 0 0
 -----|-----|-----|-----|-----|
 Volume Module:
 Base Vol: 687 443 86 24 41 259 399 167 611 33 69 19
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 737 475 92 26 44 278 428 179 655 35 74 20
 Added Vol: 15 2 0 0 14 7 7 0 13 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 752 477 92 26 58 285 435 179 668 35 74 20
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 752 477 92 26 58 0 435 179 668 35 74 20
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 752 477 92 26 58 0 435 179 668 35 74 20
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 752 477 92 26 58 0 435 179 668 35 74 20
 -----|-----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 0.90 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.72 0.28 1.00 2.00 1.00
 Final Sat.: 1600 1600 1600 1600 1600 1600 1600 2758 442 1600 3200 1600
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.03 0.08 0.01 0.12 0.15 0.18 0.14 0.17 0.17 0.01 0.14 0.06
 Crit Moves: **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #13 Date Ave and Commonwealth Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.641
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 44 Level Of Service: B

 Street Name: Date Ave Commonwealth Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 1 1 0 1 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 63 127 57 116 81 144 206 514 97 51 487 115
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 68 136 61 124 87 154 221 551 104 55 522 123
 Added Vol: 0 0 22 0 0 0 0 22 0 26 26 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 68 136 83 124 87 154 221 573 104 81 548 123
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 68 136 83 124 87 154 221 573 104 81 548 123
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 68 136 83 124 87 154 221 573 104 81 548 123
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 68 136 83 124 87 154 221 573 104 81 548 123
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.36 0.64 1.00 1.69 0.31 1.00 1.63 0.37
 Final Sat.: 1600 1600 1600 1600 576 1024 1600 2708 492 1600 2612 588
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.04 0.09 0.05 0.08 0.15 0.15 0.14 0.21 0.21 0.05 0.21 0.21
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #14 Fremont Ave and Commonwealth Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.931
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 118 Level Of Service: E

 Street Name: Fremont Ave Commonwealth Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 1 0 1 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 36 1421 259 199 799 25 30 137 14 157 158 238
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 39 1523 278 213 857 27 32 147 15 168 169 255
 Added Vol: 0 0 10 15 0 0 0 0 0 9 0 13
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 39 1523 288 228 857 27 32 147 15 177 169 268
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 39 1523 288 228 857 27 32 147 15 177 169 268
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 39 1523 288 228 857 27 32 147 15 177 169 268
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 39 1523 288 228 857 27 32 147 15 177 169 268
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 1.94 0.06 1.00 0.91 0.09 1.00 1.00 1.00
 Final Sat.: 1600 3200 1600 1600 3103 97 1600 1452 148 1600 1600 1600
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.02 0.48 0.18 0.14 0.28 0.28 0.02 0.10 0.10 0.11 0.11 0.17
 Crit Moves: **** **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #15 Fremont Ave and Valley Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.946
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 130 Level Of Service: E

 Street Name: Fremont Ave Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 2 2 0 2 0 1 1 0 2 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 28 803 33 186 961 774 616 899 25 125 349 308
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 30 861 35 199 1030 830 660 964 27 134 374 330
 Added Vol: 3 10 8 0 9 0 0 4 5 9 4 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 33 871 43 199 1039 830 660 968 32 143 378 330
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 33 871 43 199 1039 830 660 968 32 143 378 330
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 33 871 43 199 1039 830 660 968 32 143 378 330
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 33 871 43 199 1039 830 660 968 32 143 378 330
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00

Lanes:	1.00	1.91	0.09	1.00	2.00	2.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3048	152	1600	3200	3200	2880	3200	1600	1600	3200	1600
----- ----- ----- ----- -----												
Capacity Analysis Module:												
Vol/Sat:	0.02	0.29	0.29	0.12	0.32	0.26	0.23	0.30	0.02	0.09	0.12	0.21
Crit Moves:	****			****			****			****		

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #16 Palm Ave and Mission Rd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.625
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 42 Level Of Service: B

Street Name:	Palm Ave						Mission Rd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	0		
----- ----- ----- ----- -----															

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
 Base Vol: 0 0 0 330 0 110 49 898 0 0 570 102
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 0 0 0 354 0 118 53 963 0 0 611 109
 Added Vol: 0 0 0 0 0 0 0 9 0 0 10 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 0 354 0 118 53 972 0 0 621 109
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 0 354 0 118 53 972 0 0 621 109
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 354 0 118 53 972 0 0 621 109
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 354 0 118 53 972 0 0 621 109
 -----|-----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 1.70 0.30
 Final Sat.: 0 0 0 1600 0 1600 1600 3200 0 0 2721 479
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.22 0.00 0.07 0.03 0.30 0.00 0.00 0.23 0.23
 Crit Moves: **** **** ****

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #17 Marengo Ave and Valley Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.803
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 67 Level Of Service: D

 Street Name: Marengo Ave Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 0 1 0 1 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 17 159 64 285 201 195 307 869 8 48 557 136
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 18 170 69 306 215 209 329 932 9 51 597 146
 Added Vol: 13 21 0 0 20 0 0 0 12 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 31 191 69 306 235 209 329 932 21 51 597 146
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 31 191 69 306 235 209 329 932 21 51 597 146
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 31 191 69 306 235 209 329 932 21 51 597 146
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 31 191 69 306 235 209 329 932 21 51 597 146
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes:	1.00	1.00	1.00	1.00	0.53	0.47	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	848	752	1600	3200	1600	1600	3200	1600
----- ----- ----- ----- -----												
Capacity Analysis Module:												
Vol/Sat:	0.02	0.12	0.04	0.19	0.28	0.28	0.21	0.29	0.01	0.03	0.19	0.09
Crit Moves:	****			****			****			****		

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #18 Atlantic Blvd and Mission Road

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.983
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 171 Level Of Service: E

 Street Name: Atlantic Blvd Mission Road
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 1 0
 -----|-----|-----|-----|-----|
 Volume Module:
 Base Vol: 95 1061 137 42 951 101 131 965 133 182 563 60
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 102 1137 147 45 1020 108 140 1035 143 195 604 64
 Added Vol: 0 27 0 0 34 4 2 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 102 1164 147 45 1054 112 142 1035 143 195 604 64
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 102 1164 147 45 1054 112 142 1035 143 195 604 64
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 102 1164 147 45 1054 112 142 1035 143 195 604 64
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 102 1164 147 45 1054 112 142 1035 143 195 604 64
 -----|-----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00


```

Lanes:      1.00 1.00  1.00   1.00 0.91  0.09  1.00 1.52  0.48  1.00 1.80  0.20
Final Sat.: 1600 1600  1600   1600 1456   144  1600 2427  773  1600 2884  316
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:    0.06 0.35  0.15   0.04 0.34  0.34  0.04 0.41  0.41  0.05 0.20  0.20
Crit Moves: ****          ****          ****          ****
*****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #20 Marengo Ave and Front St
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.833
Loss Time (sec):   10          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     75          Level Of Service:      D
*****
Street Name:      Marengo Ave          Front St
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Permitted          Permitted          Permitted          Permitted
Rights:            Include            Include            Include            Include
Min. Green:        0    0    0          0    0    0          0    0    0          0    0    0
Y+R:               4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:             1  0  0  1  0        1  0  0  1  0        0  1  0  0  1        0  1  0  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:          3  634          4  23  682  188  150  50  8  2  19  16
Growth Adj:        1.07 1.07  1.07   1.07 1.07  1.07  1.07 1.07  1.07  1.07 1.07  1.07
Initial Bse:        3  680          4  25  731  202  161  54  9  2  20  17
Added Vol:          0  21    0    0  20    0    0  0  0  0  0  0
PasserByVol:        0  0    0    0  0    0    0  0  0  0  0  0
Initial Fut:        3  701          4  25  751  202  161  54  9  2  20  17
User Adj:           1.00 1.00  1.00   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:            1.00 1.00  1.00   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:         3  701          4  25  751  202  161  54  9  2  20  17
Reduct Vol:         0  0    0    0  0    0    0  0  0  0  0  0
Reduced Vol:        3  701          4  25  751  202  161  54  9  2  20  17
PCE Adj:            1.00 1.00  1.00   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:            1.00 1.00  1.00   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:        3  701          4  25  751  202  161  54  9  2  20  17
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1600 1600  1600   1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:         1.00 1.00  1.00   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00

```


Lanes: 1.00 0.00 2.00 0.33 0.00 0.67 0.00 2.00 0.00 0.00 4.00 0.00
 Final Sat.: 1600 0 3200 533 0 1067 0 3200 0 0 6400 0
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.39 0.00 0.42 0.00 0.00 0.00 0.00 0.18 0.00 0.00 0.19 0.00
 Crit Moves: **** *

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #22 I-710 SB Ramp and Valley Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.882
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 92 Level Of Service: D

 Street Name: I-710 SB Ramp Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 0 0 0 0 0 2 0 1 2 0 2 0 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 0 0 0 0 0 0 0 539 729 783 940 0
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 0 0 0 0 0 0 0 578 782 839 1008 0
 Added Vol: 0 0 0 0 0 0 0 0 0 7 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 0 0 0 0 0 578 782 846 1008 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 0 0 0 0 0 578 782 846 1008 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 0 0 0 0 578 782 846 1008 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 0 0 0 0 578 782 846 1008 0
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00

Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00
 Final Sat.: 0 0 0 0 0 0 0 0 3200 1600 2880 3200 0
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.18 0.49 0.29 0.31 0.00
 Crit Moves: **** *

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 Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #23 Fremont Ave and Hellman Ave

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.824
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 72 Level Of Service: D

 Street Name: Fremont Ave Hellman Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 1 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 85 740 242 147 813 68 128 173 216 206 181 237
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 91 793 259 158 872 73 137 185 232 221 194 254
 Added Vol: 0 14 8 7 16 0 0 0 0 4 0 7
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 91 807 267 165 888 73 137 185 232 225 194 261
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 91 807 267 165 888 73 137 185 232 225 194 261
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 91 807 267 165 888 73 137 185 232 225 194 261
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 91 807 267 165 888 73 137 185 232 225 194 261
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes:	1.00	1.50	0.50	1.00	1.85	0.15	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2404	796	1600	2957	243	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.06	0.34	0.34	0.10	0.30	0.30	0.09	0.12	0.14	0.14	0.12	0.16
Crit Moves:	****			****			****			****		

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Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec):	100						Critical Vol./Cap.(X):						0.841	
Loss Time (sec):	0						Average Delay (sec/veh):						29.2	
Optimal Cycle:	0						Level Of Service:						D	

Street Name:	Elm St						Hellman Ave/Ramona Rd/ 10 WB ramp											
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
Control:	Stop Sign						Stop Sign						Stop Sign					
Rights:	Include						Include						Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	1	0	0	0	0	1	0	0	1	0	1	0	0	1		

Volume Module:PM Peak

Base Vol:	467	172	98	10	5	40	29	299	223	120	105	2
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	501	184	105	11	5	43	31	321	239	129	113	2
Added Vol:	11	0	0	0	0	0	0	0	15	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	512	184	105	11	5	43	31	321	254	129	113	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	512	184	105	11	5	43	31	321	254	129	113	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	512	184	105	11	5	43	31	321	254	129	113	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	512	184	105	11	5	43	31	321	254	129	113	2

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.28	0.46	0.26	0.67	0.33	1.00	0.09	0.91	1.00	0.53	0.47	1.00
Final Sat.:	1082	-257	125	260	130	439	42	438	531	230	201	477

Capacity Analysis Module:

Vol/Sat:	0.47-0.72	0.84	0.04	0.04	0.10	0.73	0.73	0.48	0.56	0.56	0.00	
Crit Moves:		****			****		****			****		
Delay/Veh:	38.4	38.1	38.1	11.8	11.8	11.2	27.3	27.3	15.2	20.3	20.3	9.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.4	38.1	38.1	11.8	11.8	11.2	27.3	27.3	15.2	20.3	20.3	9.9
LOS by Move:	E	E	E	B	B	B	D	D	C	C	C	A
ApproachDel:	38.5			11.3			22.2			20.2		

Delay Adj:	1.00		1.00		1.00		1.00		1.00			
ApprAdjDel:	38.5		11.3		22.2		20.2					
LOS by Appr:	E		B		C		C					
AllWayAvgQ:	3.7	3.7	3.7	0.0	0.0	0.1	2.3	2.3	0.9	1.1	1.1	0.0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	1.318
Loss Time (sec):	0	Average Delay (sec/veh):	97.6
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Fremont Ave						Ramona Road/10 EB ramp								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lanes:	0	0	1	0	1	0	0	0	0	0	1	0	0	0	

Volume Module:PM Peak

Base Vol:	0	731	116	0	0	0	4	91	289	47	0	78
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	784	124	0	0	0	4	98	310	50	0	84
Added Vol:	0	0	9	0	0	0	0	0	21	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	784	133	0	0	0	4	98	331	50	0	84
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	784	133	0	0	0	4	98	331	50	0	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	784	133	0	0	0	4	98	331	50	0	84
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	784	133	0	0	0	4	98	331	50	0	84

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	0.00	0.00	0.04	0.96	1.00	0.38	xxxx	0.62
Final Sat.:	0	595	662	0	0	0	22	507	592	198	0	329

Capacity Analysis Module:

Vol/Sat:	xxxx	1.32	0.20	xxxx	xxxx	xxxx	0.19	0.19	0.56	0.25	0.00	0.25
Crit Moves:		****							****			****
Delay/Veh:	0.0	173	9.4	0.0	0.0	0.0	11.1	11.1	16.0	12.0	12.0	12.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	173	9.4	0.0	0.0	0.0	11.1	11.1	16.0	12.0	12.0	12.0
LOS by Move:	*	F	A	*	*	*	B	B	C	B	B	B
ApproachDel:	149.1			xxxxxx			14.9			12.0		

Delay Adj: 1.00 xxxxx 1.00 1.00
 ApprAdjDel: 149.1 xxxxxx 14.9 12.0
 LOS by Appr: F * B B
 AllWayAvgQ: 0.0 27.1 0.2 0.0 0.0 0.0 0.2 1.2 0.3 0.3 0.3

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.533
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Street Name:	Fremont Ave						Ross Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted			Permitted			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	30	849	168	26	988	41	11	32	6	54	40	41
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	32	910	180	28	1059	44	12	34	6	58	43	44
Added Vol:	0	21	0	0	22	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	32	931	180	28	1081	44	12	34	6	58	43	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	931	180	28	1081	44	12	34	6	58	43	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	931	180	28	1081	44	12	34	6	58	43	44
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	32	931	180	28	1081	44	12	34	6	58	43	44

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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[illegible]

Lanes:	0.43	0.27	0.30	0.51	0.19	0.30	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	692	432	476	817	306	477	1600	3200	1600	1600	3200	1600
----- ----- ----- ----- -----												
Capacity Analysis Module:												
Vol/Sat:	0.01	0.02	0.02	0.02	0.03	0.03	0.04	0.53	0.09	0.01	0.35	0.02
Crit Moves:	****			****			****			****		

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Intersection

Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	8	19	14	2	5	2	5	63	2	5	206	31
Future Vol, veh/h	8	19	14	2	5	2	5	63	2	5	206	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	21	15	2	5	2	5	68	2	5	224	34
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.1	8.1	8.2	9.2
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	7%	0%	30%	0%	29%	0%	2%	0%
Vol Thru, %	93%	0%	70%	0%	71%	0%	98%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	2	27	14	7	2	211	31
LT Vol	5	0	8	0	2	0	5	0
Through Vol	63	0	19	0	5	0	206	0
RT Vol	0	2	0	14	0	2	0	31
Lane Flow Rate	74	2	29	15	8	2	229	34
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.101	0.003	0.045	0.02	0.012	0.003	0.298	0.037
Departure Headway (Hd)	4.916	4.177	5.501	4.649	5.537	4.689	4.678	3.965
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	732	860	654	774	649	766	759	890
Service Time	2.625	1.886	3.207	2.355	3.245	2.397	2.459	1.746
HCM Lane V/C Ratio	0.101	0.002	0.044	0.019	0.012	0.003	0.302	0.038
HCM Control Delay	8.2	6.9	8.5	7.4	8.3	7.4	9.5	6.9
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.3	0	0.1	0.1	0	0	1.2	0.1

Intersection

Intersection Delay, s/veh 8.7

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗	↘		↗	↘		↗	↘		↗	↘
Traffic Vol, veh/h	1	1	8	1	3	8	15	96	2	13	175	12
Future Vol, veh/h	1	1	8	1	3	8	15	96	2	13	175	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	9	1	3	9	16	104	2	14	190	13
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	7.6	7.7	8.4	9
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	14%	0%	50%	0%	25%	0%	7%	0%
Vol Thru, %	86%	0%	50%	0%	75%	0%	93%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	111	2	2	8	4	8	188	12
LT Vol	15	0	1	0	1	0	13	0
Through Vol	96	0	1	0	3	0	175	0
RT Vol	0	2	0	8	0	8	0	12
Lane Flow Rate	121	2	2	9	4	9	204	13
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.159	0.002	0.003	0.011	0.007	0.011	0.265	0.014
Departure Headway (Hd)	4.75	3.981	5.615	4.66	5.487	4.658	4.67	3.935
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	749	889	641	773	656	773	766	904
Service Time	2.518	1.749	3.316	2.361	3.187	2.358	2.418	1.683
HCM Lane V/C Ratio	0.162	0.002	0.003	0.012	0.006	0.012	0.266	0.014
HCM Control Delay	8.4	6.8	8.3	7.4	8.2	7.4	9.1	6.7
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.6	0	0	0	0	0	1.1	0

Intersection

Intersection Delay, s/veh 89.5

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱			↱	↱
Traffic Vol, veh/h	55	175	373	427	65	14	392	59	23	84	15	214
Future Vol, veh/h	55	175	373	427	65	14	392	59	23	84	15	214
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	190	405	464	71	15	426	64	25	91	16	233
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	46.7	235.1	32.5	22.7
HCM LOS	E	F	D	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	66%	24%	0%	87%	0%	85%	0%
Vol Thru, %	0%	25%	76%	0%	13%	0%	15%	0%
Vol Right, %	0%	10%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	235	239	230	373	492	14	99	214
LT Vol	235	157	55	0	427	0	84	0
Through Vol	0	59	175	0	65	0	15	0
RT Vol	0	23	0	373	0	14	0	214
Lane Flow Rate	256	260	250	405	535	15	108	233
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.68	0.673	0.626	0.923	1.447	0.036	0.297	0.57
Departure Headway (Hd)	10.59	10.337	9.958	9.094	9.742	8.558	11.001	9.807
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	343	353	365	401	374	418	329	370
Service Time	8.29	8.037	7.658	6.794	7.496	6.311	8.701	7.507
HCM Lane V/C Ratio	0.746	0.737	0.685	1.01	1.43	0.036	0.328	0.63
HCM Control Delay	33.1	31.9	27.9	58.3	241.5	11.6	18.3	24.7
HCM Lane LOS	D	D	D	F	F	B	C	C
HCM 95th-tile Q	4.7	4.7	4.1	10	27.7	0.1	1.2	3.4

Intersection

Intersection Delay, s/veh 140.2

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕	↕			
Traffic Vol, veh/h	2	26	637	122	0	16	0	670	63	0	0	0
Future Vol, veh/h	2	26	637	122	0	16	0	670	63	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	28	692	133	0	17	0	728	68	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	117.3	16.2	184.3
HCM LOS	F	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	7%	0%	88%
Vol Thru, %	100%	0%	93%	0%	0%
Vol Right, %	0%	100%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	670	63	28	637	138
LT Vol	0	0	2	0	122
Through Vol	670	0	26	0	0
RT Vol	0	63	0	637	16
Lane Flow Rate	728	68	30	692	150
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.372	0.116	0.058	1.176	0.322
Departure Headway (Hd)	7.219	6.505	7.764	7.009	8.959
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	510	555	464	526	404
Service Time	4.919	4.205	5.464	4.709	6.959
HCM Lane V/C Ratio	1.427	0.123	0.065	1.316	0.371
HCM Control Delay	200.7	10.1	10.9	122	16.2
HCM Lane LOS	F	B	B	F	C
HCM 95th-tile Q	31.4	0.4	0.2	21.7	1.4

HCM 2010 TWSC

4: Date Ave & Orange St

03/15/2018

Intersection

Int Delay, s/veh 3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	19	34	45	8	26	3	51	127	5	6	210	71
Future Vol, veh/h	19	34	45	8	26	3	51	127	5	6	210	71
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	37	49	9	28	3	55	138	5	7	228	77

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	504	490	228	509	490	138	228	0	0	138	0	0
Stage 1	241	241	-	249	249	-	-	-	-	-	-	-
Stage 2	263	249	-	260	241	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	478	479	811	475	479	910	1340	-	-	1446	-	-
Stage 1	762	706	-	755	701	-	-	-	-	-	-	-
Stage 2	742	701	-	745	706	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	438	457	811	404	457	910	1340	-	-	1446	-	-
Mov Cap-2 Maneuver	438	457	-	404	457	-	-	-	-	-	-	-
Stage 1	731	703	-	724	672	-	-	-	-	-	-	-
Stage 2	679	672	-	660	703	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.1		13.5		2.2		0.2	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1340	-	-	450	811	443	910	1446	-	-
HCM Lane V/C Ratio	0.041	-	-	0.128	0.06	0.083	0.004	0.005	-	-
HCM Control Delay (s)	7.8	-	-	14.2	9.7	13.9	9	7.5	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.2	0.3	0	0	-	-

Intersection

Int Delay, s/veh 2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	104	463	1296	184	39	99
Future Vol, veh/h	104	463	1296	184	39	99
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	113	503	1409	200	42	108










Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1609	0	0 1987 804
Stage 1	-	-	- 1509 -
Stage 2	-	-	- 478 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	402	-	- 53 326
Stage 1	-	-	- 169 -
Stage 2	-	-	- 590 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	402	-	- ~ 32 326
Mov Cap-2 Maneuver	-	-	- 117 -
Stage 1	-	-	- 169 -
Stage 2	-	-	- 360 -

Approach	EB	WB	SB
HCM Control Delay, s	3.2	0	30.1
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	402	-	-	-	117	326
HCM Lane V/C Ratio	0.281	-	-	-	0.362	0.33
HCM Control Delay (s)	17.4	-	-	-	52.3	21.4
HCM Lane LOS	C	-	-	-	F	C
HCM 95th %tile Q(veh)	1.1	-	-	-	1.5	1.4

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	3	2	81	186	9	13	176	57
Future Vol, veh/h	0	0	0	2	3	2	81	186	9	13	176	57
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	2	3	2	88	202	10	14	191	62
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	600	598	191	598	598	202	191	0	0	202	0	0
Stage 1	220	220	-	378	378	-	-	-	-	-	-	-
Stage 2	380	378	-	220	220	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	413	416	851	414	416	839	1383	-	-	1370	-	-
Stage 1	782	721	-	644	615	-	-	-	-	-	-	-
Stage 2	642	615	-	782	721	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	386	386	851	391	386	839	1383	-	-	1370	-	-
Mov Cap-2 Maneuver	386	386	-	391	386	-	-	-	-	-	-	-
Stage 1	732	714	-	603	576	-	-	-	-	-	-	-
Stage 2	596	576	-	774	714	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0		12.9		2.3		0.4					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1383	-	-	-	388	839	1370	-	-			
HCM Lane V/C Ratio	0.064	-	-	-	0.014	0.003	0.01	-	-			
HCM Control Delay (s)	7.8	-	-	0	14.4	9.3	7.7	-	-			
HCM Lane LOS	A	-	-	A	B	A	A	-	-			
HCM 95th %tile Q(veh)	0.2	-	-	-	0	0	0	-	-			

Intersection

Intersection Delay, s/veh	11.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	62	69	76	2	5	8	5	183	2	11	287	14
Future Vol, veh/h	62	69	76	2	5	8	5	183	2	11	287	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	75	83	2	5	9	5	199	2	12	312	15
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10.3	8.9	11	13.1
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	47%	0%	29%	0%	4%	0%
Vol Thru, %	97%	0%	53%	0%	71%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	188	2	131	76	7	8	298	14
LT Vol	5	0	62	0	2	0	11	0
Through Vol	183	0	69	0	5	0	287	0
RT Vol	0	2	0	76	0	8	0	14
Lane Flow Rate	204	2	142	83	8	9	324	15
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.316	0.003	0.249	0.12	0.014	0.014	0.489	0.02
Departure Headway (Hd)	5.675	4.955	6.288	5.241	6.57	5.714	5.437	4.714
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	638	727	575	675	548	630	654	749
Service Time	3.375	2.655	3.988	3.041	4.275	3.418	3.23	2.506
HCM Lane V/C Ratio	0.32	0.003	0.247	0.123	0.015	0.014	0.495	0.02
HCM Control Delay	11	7.7	11.1	8.8	9.4	8.5	13.4	7.6
HCM Lane LOS	B	A	B	A	A	A	B	A
HCM 95th-tile Q	1.4	0	1	0.4	0	0	2.7	0.1

Intersection

Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗	↘		↗	↘		↗	↘		↗	↘
Traffic Vol, veh/h	8	8	85	6	1	8	5	157	10	15	362	9
Future Vol, veh/h	8	8	85	6	1	8	5	157	10	15	362	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	9	92	7	1	9	5	171	11	16	393	10
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9	8.9	9.7	14.3
HCM LOS	A	A	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	50%	0%	86%	0%	4%	0%
Vol Thru, %	97%	0%	50%	0%	14%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	162	10	16	85	7	8	377	9
LT Vol	5	0	8	0	6	0	15	0
Through Vol	157	0	8	0	1	0	362	0
RT Vol	0	10	0	85	0	8	0	9
Lane Flow Rate	176	11	17	92	8	9	410	10
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.257	0.014	0.03	0.137	0.014	0.013	0.576	0.012
Departure Headway (Hd)	5.257	4.536	6.299	5.338	6.626	5.483	5.058	4.335
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	680	784	566	668	537	647	713	822
Service Time	3.011	2.29	4.063	3.102	4.409	3.265	2.802	2.079
HCM Lane V/C Ratio	0.259	0.014	0.03	0.138	0.015	0.014	0.575	0.012
HCM Control Delay	9.8	7.4	9.3	9	9.5	8.3	14.5	7.1
HCM Lane LOS	A	A	A	A	A	A	B	A
HCM 95th-tile Q	1	0	0.1	0.5	0	0	3.7	0

Intersection

Intersection Delay, s/veh 43.1

Intersection LOS E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱			↱	↱
Traffic Vol, veh/h	31	321	254	129	113	2	512	184	105	11	5	43
Future Vol, veh/h	31	321	254	129	113	2	512	184	105	11	5	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	349	276	140	123	2	557	200	114	12	5	47
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	31.4	26.5	59.2	12.5
HCM LOS	D	D	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	27%	9%	0%	53%	0%	69%	0%
Vol Thru, %	0%	46%	91%	0%	47%	0%	31%	0%
Vol Right, %	0%	26%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	404	397	352	254	242	2	16	43
LT Vol	404	108	31	0	129	0	11	0
Through Vol	0	184	321	0	113	0	5	0
RT Vol	0	105	0	254	0	2	0	43
Lane Flow Rate	440	431	383	276	263	2	17	47
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.993	0.905	0.844	0.55	0.648	0.005	0.047	0.112
Departure Headway (Hd)	8.127	7.563	7.937	7.172	8.868	7.869	9.696	8.606
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	448	478	459	505	408	455	370	416
Service Time	5.864	5.299	5.667	4.902	6.614	5.615	7.448	6.357
HCM Lane V/C Ratio	0.982	0.902	0.834	0.547	0.645	0.004	0.046	0.113
HCM Control Delay	69.7	48.5	40.8	18.4	26.6	10.7	12.9	12.4
HCM Lane LOS	F	E	E	C	D	B	B	B
HCM 95th-tile Q	12.6	10.2	8.3	3.3	4.4	0	0.1	0.4

Intersection

Intersection Delay, s/veh 142.9

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕	↕			
Traffic Vol, veh/h	4	98	331	50	0	84	0	784	133	0	0	0
Future Vol, veh/h	4	98	331	50	0	84	0	784	133	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	107	360	54	0	91	0	852	145	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	18.8	14.1	220.4
HCM LOS	C	B	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	4%	0%	37%
Vol Thru, %	100%	0%	96%	0%	0%
Vol Right, %	0%	100%	0%	100%	63%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	784	133	102	331	134
LT Vol	0	0	4	0	50
Through Vol	784	0	98	0	0
RT Vol	0	133	0	331	84
Lane Flow Rate	852	145	111	360	146
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.51	0.228	0.211	0.614	0.279
Departure Headway (Hd)	6.38	5.671	7.943	7.204	7.999
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	579	638	455	504	452
Service Time	4.08	3.371	5.643	4.904	5.999
HCM Lane V/C Ratio	1.472	0.227	0.244	0.714	0.323
HCM Control Delay	256.1	10	12.8	20.7	14.1
HCM Lane LOS	F	A	B	C	B
HCM 95th-tile Q	43.3	0.9	0.8	4.1	1.1

Intersection

Int Delay, s/veh 11.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	72	165	166	1	21	6	33	202	3	27	303	44
Future Vol, veh/h	72	165	166	1	21	6	33	202	3	27	303	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	78	179	180	1	23	7	36	220	3	29	329	48

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	691	679	329	769	679	220	329	0	0	220	0	0
Stage 1	388	388	-	291	291	-	-	-	-	-	-	-
Stage 2	303	291	-	478	388	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	359	374	712	318	374	820	1231	-	-	1349	-	-
Stage 1	636	609	-	717	672	-	-	-	-	-	-	-
Stage 2	706	672	-	568	609	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	326	355	712	138	355	820	1231	-	-	1349	-	-
Mov Cap-2 Maneuver	326	355	-	138	355	-	-	-	-	-	-	-
Stage 1	617	596	-	696	652	-	-	-	-	-	-	-
Stage 2	656	652	-	290	596	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	28.6		15.1		1.1		0.6	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1231	-	-	346	712	331	820	1349	-	-
HCM Lane V/C Ratio	0.029	-	-	0.745	0.253	0.072	0.008	0.022	-	-
HCM Control Delay (s)	8	-	-	40.3	11.8	16.7	9.4	7.7	-	-
HCM Lane LOS	A	-	-	E	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	5.8	1	0.2	0	0.1	-	-

HCM 2010 TWSC

8: Mission Road & Date Ave

03/15/2018

Intersection

Int Delay, s/veh 14.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	100	789	604	129	218	179
Future Vol, veh/h	100	789	604	129	218	179
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	109	858	657	140	237	195

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	797	0	0 1373 398
Stage 1	-	-	- 727 -
Stage 2	-	-	- 646 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	821	-	- ~ 137 601
Stage 1	-	-	- 439 -
Stage 2	-	-	- 484 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	821	-	- ~ 102 601
Mov Cap-2 Maneuver	-	-	- ~ 227 -
Stage 1	-	-	- 439 -
Stage 2	-	-	- 361 -

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	70.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	821	-	-	-	227	601
HCM Lane V/C Ratio	0.132	-	-	-	1.044	0.324
HCM Control Delay (s)	10.1	-	-	-	117.6	13.8
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.5	-	-	-	10.1	1.4

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕	↕	↕	↕	↕
Traffic Vol, veh/h	0	0	0	11	2	18	19	211	13	41	417	11
Future Vol, veh/h	0	0	0	11	2	18	19	211	13	41	417	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	12	2	20	21	229	14	45	453	12

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	814	813	453	813	813	229	453	0	0	229	0	0
Stage 1	542	542	-	271	271	-	-	-	-	-	-	-
Stage 2	272	271	-	542	542	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	297	313	607	297	313	810	1108	-	-	1339	-	-
Stage 1	525	520	-	735	685	-	-	-	-	-	-	-
Stage 2	734	685	-	525	520	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	277	297	607	285	297	810	1108	-	-	1339	-	-
Mov Cap-2 Maneuver	277	297	-	285	297	-	-	-	-	-	-	-
Stage 1	515	503	-	721	672	-	-	-	-	-	-	-
Stage 2	700	672	-	507	503	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	13.2	0.6	0.7
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1108	-	-	- 287 810 1339	-	-	-
HCM Lane V/C Ratio	0.019	-	-	- 0.049 0.024 0.033	-	-	-
HCM Control Delay (s)	8.3	-	-	0 18.2 9.6 7.8	-	-	-
HCM Lane LOS	A	-	-	A C A A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	- 0.2 0.1 0.1	-	-	-

Appendix M – Intersection Analysis Worksheets – Cumulative (2024) Plus Project Conditions

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2024 Cum + Proj AM

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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

Scenario Report

Scenario:	2024 Cum + Proj AM
Command:	2024 Cum + Proj AM
Volume:	2024 AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	2024 Cum + Project AM
Trip Distribution:	Cum + Project
Paths:	Default Path

Routes: Default Route
Configuration: Default Configuration

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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

Turning Movement Report
Cum AM + Project 2024 AM

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 Fremont Ave and Mission Rd													
Base	237	1446	217	13	1397	47	66	359	509	382	837	46	5557
Added	0	5	21	0	42	24	17	1	0	57	9	0	176
Total	237	1451	238	13	1439	71	83	360	509	439	846	46	5733

#2 Fremont Ave and 1000 Fremont Ave

Base	51	1389	125	4	1384	39	25	5	58	4	1	6	3093
Added	0	22	0	0	66	0	0	0	0	0	0	0	88
Total	51	1411	125	4	1450	39	25	5	58	4	1	6	3181

#3 Fremont Ave and Orange St

Base	2	1205	238	150	1415	2	1	1	0	58	0	57	3129
Added	0	16	6	4	15	0	0	0	0	50	0	29	120
Total	2	1221	244	154	1430	2	1	1	0	108	0	86	3249

#4 Date Ave and Orange St

Base	51	95	5	6	179	71	19	34	45	8	26	3	544
Added	1	46	0	0	32	1	5	16	8	0	2	0	111
Total	52	141	5	6	211	72	24	50	53	8	28	3	655

#5 Palm Ave and Orange St

Base	5	63	2	5	206	31	8	19	14	2	5	2	363
Added	0	5	0	0	1	1	5	11	0	0	1	0	24
Total	5	68	2	5	207	32	13	30	14	2	6	2	387

#6 Chestnut St and Palm Ave

Base	15	96	2	13	175	12	1	1	8	1	3	8	334
Added	0	0	0	0	0	1	5	11	0	0	1	0	18
Total	15	96	2	13	175	13	6	12	8	1	4	8	352

#7 Fremont Ave and Poplar Blvd

Base	96	1111	54	18	1503	16	20	111	70	57	114	19	3189
Added	9	44	9	1	26	0	0	9	1	1	7	4	111
Total	105	1155	63	19	1529	16	20	120	71	58	121	23	3300

#8 Date Ave and Mission Rd

Base	0	0	0	24	0	84	88	463	0	0	1296	168	2123
Added	0	0	0	50	0	66	22	0	0	0	0	20	158
Total	0	0	0	74	0	150	110	463	0	0	1296	188	2281

#9 Chestnut St and Date Ave

Base	81	154	9	13	145	57	0	0	0	2	3	2	466
Added	10	33	0	0	39	2	14	16	76	0	2	0	192

Total	91	187	9	13	184	59	14	16	76	2	5	2	658
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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 AM Peak Hour

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#10 Fremont Ave and Concord Ave													
Base	60	1166	40	4	1479	63	43	13	73	24	15	11	2991
Added	0	45	0	0	19	0	0	0	0	0	0	0	64
Total	60	1211	40	4	1498	63	43	13	73	24	15	11	3055
#11 Fremont Ave and Montezuma Ave													
Base	732	277	43	4	86	641	434	56	656	54	100	11	3093
Added	26	4	0	0	4	10	27	0	15	0	0	0	86
Total	758	281	43	4	90	651	461	56	671	54	100	11	3179
#12 Palm Ave and Commonwealth Ave													
Base	19	34	4	42	231	270	64	227	30	14	278	41	1254
Added	0	10	0	0	1	41	48	38	0	0	40	0	178
Total	19	44	4	42	232	311	112	265	30	14	318	41	1432
#13 Date Ave and Commonwealth Ave													
Base	26	43	17	50	71	76	73	256	101	127	350	72	1261
Added	10	0	48	0	0	0	0	38	1	41	40	0	178
Total	36	43	65	50	71	76	73	294	102	168	390	72	1439
#14 Fremont Ave and Commonwealth Ave													
Base	42	1081	99	183	1399	66	29	144	17	116	166	115	3456
Added	0	29	16	25	4	0	0	0	0	15	0	33	122
Total	42	1110	115	208	1403	66	29	144	17	131	166	148	3578
#15 Fremont Ave and Valley Blvd													
Base	44	981	28	79	863	1365	565	433	30	60	777	198	5424
Added	5	22	4	0	62	36	5	2	1	7	3	0	147
Total	49	1003	32	79	925	1401	570	435	31	67	780	198	5571
#16 Palm Ave and Mission Rd													
Base	0	0	0	55	0	133	35	452	0	0	1377	90	2142
Added	0	0	0	0	0	0	0	50	0	0	20	0	70
Total	0	0	0	55	0	133	35	502	0	0	1397	90	2212
#17 Marengo Ave and Valley Blvd													
Base	24	125	77	239	175	147	178	449	25	66	1025	202	2732
Added	10	26	0	9	25	0	0	0	7	0	0	1	78
Total	34	151	77	248	200	147	178	449	32	66	1025	203	2810
#18 Atlantic Blvd and Mission Road													
Base	165	1139	123	43	1011	264	94	553	72	188	1025	35	4712
Added	0	31	0	0	23	1	3	17	0	0	2	0	77

Total 165 1170 123 43 1034 265 97 570 72 188 1027 35 4789

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Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 AM Peak Hour

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#19 Marengo Ave and Mission Road													
Base	91	410	168	46	540	71	47	376	91	292	1255	79	3467
Added	24	0	3	0	0	1	4	17	33	1	2	0	85
Total	115	410	171	46	540	72	51	393	124	293	1257	79	3552
#20 Marengo Ave and Front St													
Base	2	545	3	11	529	384	87	12	8	2	80	36	1698
Added	0	28	0	0	34	0	0	0	0	0	0	0	62
Total	2	573	3	11	563	384	87	12	8	2	80	36	1760
#21 I-710 NB Ramp and Valley Blvd													
Base	646	1	734	4	0	1	0	222	0	0	2333	6	3949
Added	0	0	8	0	0	0	0	0	0	0	45	0	53
Total	646	1	742	4	0	1	0	222	0	0	2378	6	4002
#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	229	697	1708	1287	0	3921
Added	0	0	0	0	0	0	0	0	0	45	0	0	45
Total	0	0	0	0	0	0	0	229	697	1753	1287	0	3966
#23 Fremont Ave and Hellman Ave													
Base	152	1001	336	136	757	118	116	119	164	180	244	227	3551
Added	0	22	14	29	41	0	0	0	0	1	0	9	116
Total	152	1023	350	165	798	118	116	119	164	181	244	236	3667
#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	384	59	23	84	15	214	55	175	351	427	65	14	1864
Added	10	0	0	0	0	0	0	0	43	0	0	0	53
Total	394	59	23	84	15	214	55	175	394	427	65	14	1917
#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	670	51	0	0	0	2	26	626	122	0	16	1514
Added	0	0	31	0	0	0	0	0	13	0	0	0	44
Total	0	670	82	0	0	0	2	26	639	122	0	16	1558
#26 Ross Ave and Fremont Ave													
Base	28	1080	227	45	930	36	28	53	5	185	190	18	2825
Added	0	31	0	0	71	0	0	0	0	0	0	0	102
Total	28	1111	227	45	1001	36	28	53	5	185	190	18	2927
#27 Westmont Dr and Valley Blvd													
Base	55	15	8	4	6	40	18	1036	15	3	2183	32	3415
Added	0	0	0	0	0	0	0	8	0	0	45	0	53

Total	55	15	8	4	6	40	18	1044	15	3	2228	32	3468
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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 AM Peak Hour

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#135													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	22	0	0	66	0	88
Total	0	0	0	0	0	0	0	22	0	0	66	0	88

 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 AM Peak Hour

Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	237	1446	217	13	1397	47	66	359	509	382	837	46
2 Fremont Ave a	51	1389	125	4	1384	39	25	5	58	4	1	6
3 Fremont Ave a	2	1205	238	150	1415	2	1	1	0	58	0	57

4 Date Ave and	51	95	5	6	179	71	19	34	45	8	26	3
5 Palm Ave and	5	63	2	5	206	31	8	19	14	2	5	2
6 Chestnut St a	15	96	2	13	175	12	1	1	8	1	3	8
7 Fremont Ave a	96	1111	54	18	1503	16	20	111	70	57	114	19
8 Date Ave and	0	0	0	24	0	84	88	463	0	0	1296	168
9 Chestnut St a	81	154	9	13	145	57	0	0	0	2	3	2
10 Fremont Ave a	60	1166	40	4	1479	63	43	13	73	24	15	11
11 Fremont Ave a	732	277	43	4	86	641	434	56	656	54	100	11
12 Palm Ave and	19	34	4	42	231	270	64	227	30	14	278	41
13 Date Ave and	26	43	17	50	71	76	73	256	101	127	350	72
14 Fremont Ave a	42	1081	99	183	1399	66	29	144	17	116	166	115
15 Fremont Ave a	44	981	28	79	863	1365	565	433	30	60	777	198
16 Palm Ave and	0	0	0	55	0	133	35	452	0	0	1377	90
17 Marengo Ave a	24	125	77	239	175	147	178	449	25	66	1025	202
18 Atlantic Blvd	165	1139	123	43	1011	264	94	553	72	188	1025	35
19 Marengo Ave a	91	410	168	46	540	71	47	376	91	292	1255	79
20 Marengo Ave a	2	545	3	11	529	384	87	12	8	2	80	36
21 I-710 NB Ramp	646	1	734	4	0	1	0	222	0	0	2333	6
22 I-710 SB Ramp	0	0	0	0	0	0	0	229	697	1708	1287	0
23 Fremont Ave a	152	1001	336	136	757	118	116	119	164	180	244	227
24 Elm St and He	384	59	23	84	15	214	55	175	351	427	65	14
25 Fremont Ave a	0	670	51	0	0	0	2	26	626	122	0	16
26 Ross Ave and	28	1080	227	45	930	36	28	53	5	185	190	18

27 Westmont Dr a 55 15 8 4 6 40 18 1036 15 3 2183 32

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Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 AM Peak Hour

Intersection Volume Report
 Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	237	1451	238	13	1439	71	83	360	509	439	846	46
2 Fremont Ave a	51	1411	125	4	1450	39	25	5	58	4	1	6
3 Fremont Ave a	2	1221	244	154	1430	2	1	1	0	108	0	86
4 Date Ave and	52	141	5	6	211	72	24	50	53	8	28	3
5 Palm Ave and	5	68	2	5	207	32	13	30	14	2	6	2
6 Chestnut St a	15	96	2	13	175	13	6	12	8	1	4	8
7 Fremont Ave a	105	1155	63	19	1529	16	20	120	71	58	121	23
8 Date Ave and	0	0	0	74	0	150	110	463	0	0	1296	188
9 Chestnut St a	91	187	9	13	184	59	14	16	76	2	5	2
10 Fremont Ave a	60	1211	40	4	1498	63	43	13	73	24	15	11
11 Fremont Ave a	758	281	43	4	90	651	461	56	671	54	100	11
12 Palm Ave and	19	44	4	42	232	311	112	265	30	14	318	41
13 Date Ave and	36	43	65	50	71	76	73	294	102	168	390	72
14 Fremont Ave a	42	1110	115	208	1403	66	29	144	17	131	166	148
15 Fremont Ave a	49	1003	32	79	925	1401	570	435	31	67	780	198
16 Palm Ave and	0	0	0	55	0	133	35	502	0	0	1397	90
17 Marengo Ave a	34	151	77	248	200	147	178	449	32	66	1025	203
18 Atlantic Blvd	165	1170	123	43	1034	265	97	570	72	188	1027	35
19 Marengo Ave a	115	410	171	46	540	72	51	393	124	293	1257	79
20 Marengo Ave a	2	573	3	11	563	384	87	12	8	2	80	36
21 I-710 NB Ramp	646	1	742	4	0	1	0	222	0	0	2378	6
22 I-710 SB Ramp	0	0	0	0	0	0	0	229	697	1753	1287	0
23 Fremont Ave a	152	1023	350	165	798	118	116	119	164	181	244	236
24 Elm St and He	394	59	23	84	15	214	55	175	394	427	65	14
25 Fremont Ave a	0	670	82	0	0	0	2	26	639	122	0	16
26 Ross Ave and	28	1111	227	45	1001	36	28	53	5	185	190	18

27 Westmont Dr a 55 15 8 4 6 40 18 1044 15 3 2228 32

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Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 AM Peak Hour

Impact Analysis Report
 Level Of Service

Intersection	Base Del/ V/ LOS Veh C	Future Del/ V/ LOS Veh C	Change in
# 1 Fremont Ave and Mission Rd	F xxxxxx 1.241	F xxxxxx 1.290	+ 0.049 V/C
# 2 Fremont Ave and 1000 Fremont A	B xxxxxx 0.607	B xxxxxx 0.628	+ 0.021 V/C
# 3 Fremont Ave and Orange St	B xxxxxx 0.608	B xxxxxx 0.640	+ 0.032 V/C
# 4 Date Ave and Orange St	B 11.4 0.055	B 12.0 0.086	+ 0.527 D/V
# 5 Palm Ave and Orange St	A 8.6 0.278	A 8.7 0.283	+ 0.005 V/C
# 6 Chestnut St and Palm Ave	A 8.5 0.244	A 8.5 0.247	+ 0.003 V/C
# 7 Fremont Ave and Poplar Blvd	C xxxxxx 0.740	C xxxxxx 0.760	+ 0.020 V/C
# 8 Date Ave and Mission Rd	C 19.4 0.227	D 25.9 0.413	+ 6.524 D/V
# 9 Chestnut St and Date Ave	B 10.8 0.059	B 11.8 0.088	+ 1.046 D/V
# 10 Fremont Ave and Concord Ave	B xxxxxx 0.680	B xxxxxx 0.686	+ 0.006 V/C
# 11 Fremont Ave and Montezuma Ave	B xxxxxx 0.636	B xxxxxx 0.655	+ 0.020 V/C
# 12 Palm Ave and Commonwealth Ave	A xxxxxx 0.408	A xxxxxx 0.476	+ 0.068 V/C
# 13 Date Ave and Commonwealth Ave	A xxxxxx 0.399	A xxxxxx 0.443	+ 0.044 V/C
# 14 Fremont Ave and Commonwealth A	C xxxxxx 0.757	C xxxxxx 0.768	+ 0.011 V/C
# 15 Fremont Ave and Valley Blvd	E xxxxxx 0.993	F xxxxxx 1.010	+ 0.017 V/C

# 16 Palm Ave and Mission Rd	B xxxxx 0.664	B xxxxx 0.670	+ 0.006 V/C
# 17 Marengo Ave and Valley Blvd	C xxxxx 0.759	C xxxxx 0.781	+ 0.022 V/C
# 18 Atlantic Blvd and Mission Road	E xxxxx 0.909	E xxxxx 0.924	+ 0.014 V/C
# 19 Marengo Ave and Mission Road	E xxxxx 0.985	F xxxxx 1.004	+ 0.019 V/C
# 20 Marengo Ave and Front St	C xxxxx 0.777	C xxxxx 0.799	+ 0.021 V/C
# 21 I-710 NB Ramp and Valley Blvd	C xxxxx 0.740	C xxxxx 0.749	+ 0.009 V/C

# 22 I-710 SB Ramp and Valley Blvd	F	xxxxx	1.129	F	xxxxx	1.144	+ 0.016 V/C
# 23 Fremont Ave and Hellman Ave	D	xxxxx	0.828	D	xxxxx	0.857	+ 0.029 V/C

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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 AM Peak Hour

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 24 Elm St and Hellman Ave/Ramona	F	52.4	1.191	F	55.8	1.208	+ 0.017 V/C
# 25 Fremont Ave and Ramona Road/10	F	95.0	1.234	F	96.6	1.234	+ 0.000 V/C
# 26 Ross Ave and Fremont Ave	B	xxxxx	0.689	B	xxxxx	0.698	+ 0.010 V/C

27 Westmont Dr and Valley Blvd D xxxxx 0.859 D xxxxx 0.873 + 0.014 V/C

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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Fremont Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.290
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Street Name: Fremont Ave Mission Rd

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Protected					Protected					Protected				
Rights:	Include					Include					Include					Include				
Min. Green:	0		0		0	0		0		0	0		0		0	0		0		0
Y+R:	4.0		4.0		4.0	4.0		4.0		4.0	4.0		4.0		4.0	4.0		4.0		4.0
Lanes:	1		0		1	1		0		1	1		0		1	1		0		1
Volume Module:																				
Base Vol:	221		1349		202	12		1303		44	62		335		475	356		781		43
Growth Adj:	1.07		1.07		1.07	1.07		1.07		1.07	1.07		1.07		1.07	1.07		1.07		1.07
Initial Bse:	237		1446		217	13		1397		47	66		359		509	382		837		46
Added Vol:	0		5		21	0		42		24	17		1		0	57		9		0
PasserByVol:	0		0		0	0		0		0	0		0		0	0		0		0
Initial Fut:	237		1451		238	13		1439		71	83		360		509	439		846		46
User Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	237		1451		238	13		1439		71	83		360		509	439		846		46
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Reduced Vol:	237		1451		238	13		1439		71	83		360		509	439		846		46
PCE Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
MLF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
FinalVolume:	237		1451		238	13		1439		71	83		360		509	439		846		46
Saturation Flow Module:																				
Sat/Lane:	1600		1600		1600	1600		1600		1600	1600		1600		1600	1600		1600		1600
Adjustment:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
Lanes:	1.00		1.72		0.28	1.00		2.00		1.00	1.00		2.00		1.00	1.00		1.90		0.10
Final Sat.:	1600		2750		450	1600		3200		1600	1600		3200		1600	1600		3035		165
Capacity Analysis Module:																				
Vol/Sat:	0.15		0.53		0.53	0.01		0.45		0.04	0.05		0.11		0.32	0.27		0.28		0.28
Crit Moves:	****							****							****	****				

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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.628
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: B

Street Name: Fremont Ave 1000 Fremont Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 48 1296 117 4 1291 36 23 5 54 4 1 6
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 51 1389 125 4 1384 39 25 5 58 4 1 6
Added Vol: 0 22 0 0 66 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 51 1411 125 4 1450 39 25 5 58 4 1 6
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 51 1411 125 4 1450 39 25 5 58 4 1 6
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 51 1411 125 4 1450 39 25 5 58 4 1 6
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 51 1411 125 4 1450 39 25 5 58 4 1 6
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.08 0.92 1.00 0.14 0.86
Final Sat.: 1600 3200 1600 1600 3200 1600 1600 136 1464 1600 229 1371
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.03 0.44 0.08 0.00 0.45 0.02 0.02 0.04 0.04 0.00 0.00 0.00
Crit Moves: **** **** **** ****

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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.640
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: B

Street Name:	Fremont Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	0	1	0	1	0

Volume Module:												
Base Vol:	2	1124	222	140	1320	2	1	1	0	54	0	53
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	2	1205	238	150	1415	2	1	1	0	58	0	57
Added Vol:	0	16	6	4	15	0	0	0	0	50	0	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	1221	244	154	1430	2	1	1	0	108	0	86
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1221	244	154	1430	2	1	1	0	108	0	86
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1221	244	154	1430	2	1	1	0	108	0	86
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	1221	244	154	1430	2	1	1	0	108	0	86

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.50	0.50	1.00	1.11	0.00	0.89
Final Sat.:	1600	3200	1600	1600	3195	5	800	800	1600	1782	0	1418

Capacity Analysis Module:												
Vol/Sat:	0.00	0.38	0.15	0.10	0.45	0.45	0.00	0.00	0.00	0.06	0.00	0.06
Crit Moves:	****			****			****			****		

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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Date Ave and Orange St

Average Delay (sec/veh): 3.6 Worst Case Level Of Service: B[12.0]

Street Name:	Date Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	1	1	0	1	0	0	1	1

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	AM Peak						
Base Vol:	48	89	5	6	167	66	18	32	42	7	24	3
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	51	95	5	6	179	71	19	34	45	8	26	3
Added Vol:	1	46	0	0	32	1	5	16	8	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	141	5	6	211	72	24	50	53	8	28	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	52	141	5	6	211	72	24	50	53	8	28	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	52	141	5	6	211	72	24	50	53	8	28	3

Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:												
Cnflct Vol:	283	xxxx	xxxxx	147	xxxx	xxxxx	488	476	211	558	542	141
Potent Cap.:	1291	xxxx	xxxxx	1447	xxxx	xxxxx	493	491	834	444	450	912
Move Cap.:	1291	xxxx	xxxxx	1447	xxxx	xxxxx	451	469	834	368	430	912
Total Cap:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	596	584	xxxxx	502	542	xxxxx
Volume/Cap:	0.04	xxxx	xxxx	0.00	xxxx	xxxx	0.04	0.09	0.06	0.01	0.05	0.00

Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	0.2	xxxx	xxxx	0.0
Control Del:	7.9	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	9.6	xxxxx	xxxx	9.0
LOS by Move:	A	*	*	A	*	*	*	*	A	*	*	A
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	588	xxxx	xxxxx	533	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	0.2	xxxx	xxxxx

Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	12.0	xxxx	xxxxx	12.2	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	B	*	*	B	*	*
ApproachDel:	xxxxxx			xxxxxx			11.0			12.0		
ApproachLOS:	*			*			B			B		

 Note: Queue reported is the number of cars per lane.

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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 AM Peak Hour

 Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #5 Palm Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.283
 Loss Time (sec): 0 Average Delay (sec/veh): 8.7
 Optimal Cycle: 0 Level Of Service: A

Street Name:	Palm Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	0	1	0	1	0	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	AM Peak
Base Vol:	5	59	2	5	192	29
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	5	63	2	5	206	31
Added Vol:	0	5	0	0	1	1
PasserByVol:	0	0	0	0	0	0
Initial Fut:	5	68	2	5	207	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	68	2	5	207	32
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	5	68	2	5	207	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	68	2	5	207	32

Saturation Flow Module:	Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.07	0.93	1.00	0.03	0.97	1.00	0.29	0.71	1.00	0.25	0.75	1.00
Final Sat.:	53	671	849	19	731	879	186	450	746	159	470	734

Capacity Analysis Module:	Vol/Sat:	0.10	0.10	0.00	0.28	0.28	0.04	0.07	0.07	0.02	0.01	0.01	0.00
Crit Moves:	****				****			****			****		
Delay/Veh:	8.1	8.1	6.9	9.3	9.3	6.9	8.5	8.5	7.3	8.2	8.2	7.3	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	8.1	8.1	6.9	9.3	9.3	6.9	8.5	8.5	7.3	8.2	8.2	7.3	
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A	
ApproachDel:	8.1			9.0			8.2			8.0			
Delay Adj:	1.00			1.00			1.00			1.00			
ApprAdjDel:	8.1			9.0			8.2			8.0			
LOS by Appr:	A			A			A			A			

AllWayAvgQ: 0.1 0.1 0.0 0.4 0.4 0.0 0.1 0.1 0.0 0.0 0.0 0.0

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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
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Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

```

*****
Cycle (sec):          100                Critical Vol./Cap.(X):          0.247
Loss Time (sec):      0                  Average Delay (sec/veh):        8.5
Optimal Cycle:        0                  Level Of Service:            A
*****

```

```

Street Name:          Chestnut St                Palm Ave
Approach:             North Bound                South Bound                East Bound                West Bound
Movement:            L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|-----|
Control:             Stop Sign                Stop Sign                Stop Sign                Stop Sign
Rights:              Include                Include                Include                Include
Min. Green:          0    0    0                0    0    0                0    0    0                0    0    0
Lanes:              0  1  0  0  1                0  1  0  0  1                0  1  0  0  1                0  1  0  0  1
-----|-----|-----|-----|-----|
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol:           14   90    2    12  163   11    1    1    7    1    3    7
Growth Adj:   1.07 1.07  1.07  1.07 1.07  1.07  1.07 1.07  1.07  1.07 1.07  1.07
Initial Bse:    15   96    2    13  175   12    1    1    8    1    3    8
Added Vol:      0    0    0    0    0    0    1    5  11    0    0    1    0
PasserByVol:    0    0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:    15   96    2    13  175   13    6  12    8    1    4    8
User Adj:       1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     15   96    2    13  175   13    6  12    8    1    4    8
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:    15   96    2    13  175   13    6  12    8    1    4    8
PCE Adj:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    15   96    2    13  175   13    6  12    8    1    4    8
-----|-----|-----|-----|-----|
Saturation Flow Module:
Adjustment:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:            0.13 0.87  1.00  0.07 0.93  1.00  0.33 0.67  1.00  0.20 0.80  1.00
Final Sat.:       100  642  880    52  706  896   211  420  746   129  508  742
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.15 0.15  0.00  0.25 0.25  0.01  0.03 0.03  0.01  0.01 0.01  0.01
Crit Moves:             ****                ****                ****                ****
Delay/Veh:         8.3  8.3    6.7    8.9  8.9    6.7    8.3  8.3    7.3    8.1  8.1    7.3
Delay Adj:         1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:        8.3  8.3    6.7    8.9  8.9    6.7    8.3  8.3    7.3    8.1  8.1    7.3
LOS by Move:       A    A    A    A    A    A    A    A    A    A    A    A
ApproachDel:       8.3                8.8                8.0                7.6
Delay Adj:         1.00                1.00                1.00                1.00
ApprAdjDel:        8.3                8.8                8.0                7.6
LOS by Appr:       A                A                A                A

```

AllWayAvgQ: 0.2 0.2 0.0 0.3 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0

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Note: Queue reported is the number of cars per lane.

Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd

```

*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.760
Loss Time (sec):      10          Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        59          Level Of Service:              C
*****

```

```

Street Name:          Fremont Ave          Poplar Blvd
Approach:              North Bound          South Bound          East Bound          West Bound
Movement:              L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:                Permitted          Permitted          Permitted          Permitted
Rights:                  Include          Include          Include          Include
Min. Green:              0      0      0          0      0      0          0      0      0          0      0      0
Y+R:                    4.0    4.0    4.0          4.0    4.0    4.0          4.0    4.0    4.0          4.0    4.0    4.0
Lanes:                   1    0    1    1    0          1    0    1    1    0          1    0    1    0    1
-----|-----|-----|-----|
Volume Module:
Base Vol:                90 1036          50      17 1402          15      19 104          65      53 106          18
Growth Adj:              1.07 1.07          1.07      1.07 1.07          1.07      1.07 1.07          1.07      1.07 1.07
Initial Bse:              96 1111          54      18 1503          16      20 111          70      57 114          19
Added Vol:                9      44          9          1      26          0          0      9          1          1      7          4
PasserByVol:              0      0          0          0      0          0          0      0          0          0      0          0
Initial Fut:              105 1155          63      19 1529          16      20 120          71      58 121          23
User Adj:                 1.00 1.00          1.00      1.00 1.00          1.00      1.00 1.00          1.00      1.00 1.00
PHF Adj:                  1.00 1.00          1.00      1.00 1.00          1.00      1.00 1.00          1.00      1.00 1.00
PHF Volume:               105 1155          63      19 1529          16      20 120          71      58 121          23
Reduct Vol:                0      0          0          0      0          0          0      0          0          0      0          0
Reduced Vol:              105 1155          63      19 1529          16      20 120          71      58 121          23
PCE Adj:                  1.00 1.00          1.00      1.00 1.00          1.00      1.00 1.00          1.00      1.00 1.00
MLF Adj:                  1.00 1.00          1.00      1.00 1.00          1.00      1.00 1.00          1.00      1.00 1.00
FinalVolume:              105 1155          63      19 1529          16      20 120          71      58 121          23
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:                 1600 1600          1600      1600 1600          1600      1600 1600          1600      1600 1600
Adjustment:               1.00 1.00          1.00      1.00 1.00          1.00      1.00 1.00          1.00      1.00 1.00
Lanes:                    1.00 1.90          0.10      1.00 1.98          0.02      1.00 1.00          1.00      1.00 1.00
Final Sat.:               1600 3035          165      1600 3167          33      1600 1600          1600      1600 1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:                  0.07 0.38          0.38      0.01 0.48          0.48      0.01 0.08          0.04      0.04 0.08          0.01

```


SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * * * * * *
ApproachDel: xxxxxx 25.9 xxxxxx xxxxxx
ApproachLOS: * D *

Note: Queue reported is the number of cars per lane.

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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: B[11.8]

Street Name:	Chestnut St						Date Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign					
Rights:	Include			Include			Include			Include					
Lanes:	1	0	1	0	1	1	0	1	0	1	0	0	1	0	1

Volume Module: >> Count Date:	17 Nov 2015 << AM Peak														
Base Vol:	76	144	8	12	135	53	0	0	0	2	3	2			
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07		
Initial Bse:	81	154	9	13	145	57	0	0	0	2	3	2			
Added Vol:	10	33	0	0	39	2	14	16	76	0	2	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	91	187	9	13	184	59	14	16	76	2	5	2			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	91	187	9	13	184	59	14	16	76	2	5	2			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
FinalVolume:	91	187	9	13	184	59	14	16	76	2	5	2			

Critical Gap Module:															
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2			
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3			

Capacity Module:															
Cnflct Vol:	243	xxxx	xxxxx	196	xxxx	xxxxx	588	588	184	655	639	187			
Potent Cap.:	1336	xxxx	xxxxx	1389	xxxx	xxxxx	424	424	864	382	397	860			
Move Cap.:	1336	xxxx	xxxxx	1389	xxxx	xxxxx	393	391	864	318	366	860			
Total Cap:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	529	510	xxxxx	465	487	xxxxx			
Volume/Cap:	0.07	xxxx	xxxxx	0.01	xxxx	xxxxx	0.03	0.03	0.09	0.00	0.01	0.00			

Level Of Service Module:															
2Way95thQ:	0.2	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0			
Control Del:	7.9	xxxx	xxxxx	7.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.2			
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	A			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	727	xxxxx	480	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.5	xxxxx	0.0	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	10.8	xxxxx	12.6	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	B	*	B	*	*			
ApproachDel:	xxxxxxx			xxxxxxx			10.8			11.8					
ApproachLOS:	*			*			B			B					

 Note: Queue reported is the number of cars per lane.

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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 AM Peak Hour

 Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #10 Fremont Ave and Concord Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.686
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 48 Level Of Service: B

Street Name:	Fremont Ave						Concord Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	1	0	1	0	0	1

Volume Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Base Vol:	56	1088	37	4	1380	59	40	12	68	22	14	10
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	60	1166	40	4	1479	63	43	13	73	24	15	11
Added Vol:	0	45	0	0	19	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	1211	40	4	1498	63	43	13	73	24	15	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	1211	40	4	1498	63	43	13	73	24	15	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	1211	40	4	1498	63	43	13	73	24	15	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60	1211	40	4	1498	63	43	13	73	24	15	11

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.90	0.10	1.00	1.92	0.08	1.00	1.00	1.00	1.00	0.58	0.42
Final Sat.:	1600	4648	152	1600	3070	130	1600	1600	1600	1600	933	667

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Vol/Sat:	0.04	0.26	0.26	0.00	0.49	0.49	0.03	0.01	0.05	0.01	0.02	0.02

* * * *

Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Volume Module:

_____ | _____ | _____ | _____ | _____ |

_____ | _____ | _____ | _____ | _____ |

Capacity Analysis Module:												
Vol/Sat:	0.26	0.20	0.20	0.00	0.03	0.00	0.16	0.23	0.23	0.03	0.10	0.10


```
Crit Moves:   ****                               ****      ****                                ****  
*****
```

Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

Intersection #16 Palm Ave and Mission Rd

Crit Moves:

**** *

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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.781
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 63 Level Of Service: C

Street Name:	Marengo Ave						Valley Blvd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	0	1	0	1	0	2	0	1

Volume Module:

Base Vol:	22	117	72	223	163	137	166	419	23	62	956	188
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	24	125	77	239	175	147	178	449	25	66	1025	202
Added Vol:	10	26	0	9	25	0	0	0	7	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	151	77	248	200	147	178	449	32	66	1025	203
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	34	151	77	248	200	147	178	449	32	66	1025	203
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	151	77	248	200	147	178	449	32	66	1025	203
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	34	151	77	248	200	147	178	449	32	66	1025	203

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.58	0.42	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	922	678	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.09	0.05	0.16	0.22	0.22	0.11	0.14	0.02	0.04	0.32	0.13
----------	------	------	------	------	------	------	------	------	------	------	------	------

Crit Moves: **** **** **** ****

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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.924
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxxx
 Optimal Cycle: 113 Level Of Service: E

Street Name:	Atlantic Blvd						Mission Road						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1	0

Volume Module:	Atlantic Blvd			Atlantic Blvd			Mission Road			Mission Road		
Base Vol:	154	1062	115	40	943	246	88	516	67	175	956	33
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	165	1139	123	43	1011	264	94	553	72	188	1025	35
Added Vol:	0	31	0	0	23	1	3	17	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	165	1170	123	43	1034	265	97	570	72	188	1027	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	165	1170	123	43	1034	265	97	570	72	188	1027	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	165	1170	123	43	1034	265	97	570	72	188	1027	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	165	1170	123	43	1034	265	97	570	72	188	1027	35

Saturation Flow Module:	Atlantic Blvd			Atlantic Blvd			Mission Road			Mission Road		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.81	0.19	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	1600	2895	305	1600	3200	1600	1600	3200	1600	1600	3093	107

Capacity Analysis Module:	Atlantic Blvd			Atlantic Blvd			Mission Road			Mission Road		
Vol/Sat:	0.10	0.40	0.40	0.03	0.32	0.17	0.06	0.18	0.04	0.12	0.33	0.33

Crit Moves: **** **** **** ****

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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 1.004
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxxx
 Optimal Cycle: 180 Level Of Service: F

Street Name:	Marengo Ave						Mission Rd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted			Permitted			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	0	1	0	1	0	1	1	0

Volume Module:	Marengo Ave			Mission Rd								
Base Vol:	85	382	157	43	504	66	44	351	85	272	1171	74
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	91	410	168	46	540	71	47	376	91	292	1255	79
Added Vol:	24	0	3	0	0	1	4	17	33	1	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	115	410	171	46	540	72	51	393	124	293	1257	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	115	410	171	46	540	72	51	393	124	293	1257	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	115	410	171	46	540	72	51	393	124	293	1257	79
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	115	410	171	46	540	72	51	393	124	293	1257	79

Saturation Flow Module:	Marengo Ave			Mission Rd								
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.88	0.12	1.00	1.52	0.48	1.00	1.88	0.12
Final Sat.:	1600	1600	1600	1600	1412	188	1600	2432	768	1600	3010	190

Capacity Analysis Module:	Marengo Ave			Mission Rd								
Vol/Sat:	0.07	0.26	0.11	0.03	0.38	0.38	0.03	0.16	0.16	0.18	0.42	0.42

```
Crit Moves:  ****                      ****                      ****                      ****
*****
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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

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*****
Intersection #20 Marengo Ave and Front St
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.799
Loss Time (sec):       10          Average Delay (sec/veh):       xxxxxx
Optimal Cycle:         66          Level Of Service:              C
*****

```

Volume Module:												
Base Vol:	2	508	3	10	493	358	81	11	7	2	75	34
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	2	545	3	11	529	384	87	12	8	2	80	36
Added Vol:	0	28	0	0	34	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	573	3	11	563	384	87	12	8	2	80	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	573	3	11	563	384	87	12	8	2	80	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	573	3	11	563	384	87	12	8	2	80	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	573	3	11	563	384	87	12	8	2	80	36

Crit Moves: **** **** **** ****

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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.144
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxxx
 Optimal Cycle: 180 Level Of Service: F

Street Name:	I-710 SB Ramp						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	0	0	2	0	1	2

Volume Module:	I-710 SB Ramp			I-710 SB Ramp			Valley Blvd			Valley Blvd		
Base Vol:	0	0	0	0	0	0	0	214	650	1593	1200	0
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	0	0	0	0	0	0	229	697	1708	1287	0
Added Vol:	0	0	0	0	0	0	0	0	0	45	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	229	697	1753	1287	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	229	697	1753	1287	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	229	697	1753	1287	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	0	0	229	697	1753	1287	0

Saturation Flow Module:	I-710 SB Ramp			I-710 SB Ramp			Valley Blvd			Valley Blvd		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	0	0	0	0	0	0	0	3200	1600	2880	3200	0

Capacity Analysis Module:	I-710 SB Ramp			I-710 SB Ramp			Valley Blvd			Valley Blvd		
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.44	0.61	0.40	0.00

Crit Moves:

**** *

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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.857
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 82 Level Of Service: D

Street Name:	Fremont Ave						Hellman Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:												
Base Vol:	142	934	313	127	706	110	108	111	153	168	228	212
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	152	1001	336	136	757	118	116	119	164	180	244	227
Added Vol:	0	22	14	29	41	0	0	0	0	1	0	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	152	1023	350	165	798	118	116	119	164	181	244	236
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	152	1023	350	165	798	118	116	119	164	181	244	236
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	152	1023	350	165	798	118	116	119	164	181	244	236
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	152	1023	350	165	798	118	116	119	164	181	244	236

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.49	0.51	1.00	1.74	0.26	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2385	815	1600	2788	412	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:												
Vol/Sat:	0.10	0.43	0.43	0.10	0.29	0.29	0.07	0.07	0.10	0.11	0.15	0.15

Crit Moves: **** **** **** ****

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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 AM Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.208
 Loss Time (sec): 0 Average Delay (sec/veh): 55.8
 Optimal Cycle: 0 Level Of Service: F

Street Name:	Elm St						Hellman Ave/Ramona Rd/ 10 WB ramp											
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
Control:	Stop Sign						Stop Sign						Stop Sign					
Rights:	Include						Include						Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	1	0	0	0	0	1	0	0	1	0	1	0	0	1		

Volume Module:AM Peak												
Base Vol:	358	55	21	78	14	200	51	163	327	398	61	13
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	384	59	23	84	15	214	55	175	351	427	65	14
Added Vol:	10	0	0	0	0	0	0	0	43	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	394	59	23	84	15	214	55	175	394	427	65	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	394	59	23	84	15	214	55	175	394	427	65	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	394	59	23	84	15	214	55	175	394	427	65	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	394	59	23	84	15	214	55	175	394	427	65	14

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.66	0.25	0.09	0.85	0.15	1.00	0.24	0.76	1.00	0.87	0.13	1.00
Final Sat.:	1034	-289	36	320	58	429	101	323	470	353	54	455

Capacity Analysis Module:												
Vol/Sat:	0.38-0.20	0.62	0.26	0.26	0.50	0.54	0.54	0.84	1.21	1.21	0.03	
Crit Moves:	****			****			****			****		
Delay/Veh:	25.1	25.6	25.6	15.3	15.3	18.6	20.5	20.5	37.9	142.0	142	10.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.1	25.6	25.6	15.3	15.3	18.6	20.5	20.5	37.9	142.0	142	10.6

LOS by Move:	D	D	D	C	C	C	C	C	E	F	F	B
ApproachDel:	24.9			17.5			31.5			138.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	24.9			17.5			31.5			138.3		
LOS by Appr:		C			C			D			F	

AllWayAvgQ: 1.5 1.5 1.5 0.3 0.3 0.9 1.1 1.1 3.6 14.8 14.8 0.0

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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

Note: Queue reported is the number of cars per lane.

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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.234
 Loss Time (sec): 0 Average Delay (sec/veh): 96.6
 Optimal Cycle: 0 Level Of Service: F

Street Name: Fremont Ave Ramona Road/10 EB ramp
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 0 1 0 1 0 0 0 0 0 0 1 0 0 1 0 0 0
 -----|-----|-----|-----|

Volume Module:AM Peak
 Base Vol: 0 625 48 0 0 0 2 24 584 114 0 15
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 0 670 51 0 0 0 2 26 626 122 0 16
 Added Vol: 0 0 31 0 0 0 0 0 13 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 670 82 0 0 0 2 26 639 122 0 16
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 670 82 0 0 0 2 26 639 122 0 16
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 670 82 0 0 0 2 26 639 122 0 16
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 670 82 0 0 0 2 26 639 122 0 16
 -----|-----|-----|-----|

Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 1.00 1.00 0.00 0.00 0.00 0.08 0.92 1.00 0.88 0.00 0.12
 Final Sat.: 0 543 606 0 0 0 41 489 596 421 0 55
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: xxxx 1.23 0.14 xxxx xxxx xxxx 0.05 0.05 1.07 0.29 xxxx 0.29
 Crit Moves: **** ****
 Delay/Veh: 0.0 142 9.6 0.0 0.0 0.0 9.9 9.9 81.7 13.6 0.0 13.6
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 142 9.6 0.0 0.0 0.0 9.9 9.9 81.7 13.6 0.0 13.6
 LOS by Move: * F A * * * A A F B * B
 ApproachDel: 127.7 xxxxxx 78.7 13.6
 Delay Adj: 1.00 xxxxxx 1.00 1.00
 ApprAdjDel: 127.7 xxxxxx 78.7 13.6
 LOS by Appr: F * F B

AllWayAvgQ: 0.0 20.1 0.2 0.0 0.0 0.0 0.1 0.1 12.1 0.4 0.4 0.4

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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

Note: Queue reported is the number of cars per lane.

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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

```

*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.698
Loss Time (sec):      10          Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        50          Level Of Service:            B
*****

```

```

Street Name:          Fremont Ave          Ross Ave
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:              Permitted            Permitted            Protected            Protected
Rights:               Include              Include              Include              Include
Min. Green:           0    0    0          0    0    0          0    0    0          0    0    0
Y+R:                  4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:                1  0  1  1  0        1  0  1  1  0        1  0  0  1  0        1  0  1  0  1
-----|-----|-----|-----|

```

```

Volume Module:
Base Vol:             26 1007    212    42  867    34    26  49    5    173 177    17
Growth Adj:           1.07 1.07    1.07    1.07 1.07    1.07 1.07 1.07    1.07 1.07    1.07
Initial Bse:          28 1080    227    45  930    36    28  53    5    185 190    18
Added Vol:            0   31     0     0   71     0     0   0     0     0   0     0
PasserByVol:          0   0     0     0   0     0     0   0     0     0   0     0
Initial Fut:          28 1111    227    45 1001    36    28  53    5    185 190    18
User Adj:             1.00 1.00    1.00    1.00 1.00    1.00 1.00 1.00    1.00 1.00    1.00
PHF Adj:              1.00 1.00    1.00    1.00 1.00    1.00 1.00 1.00    1.00 1.00    1.00
PHF Volume:           28 1111    227    45 1001    36    28  53    5    185 190    18
Reduct Vol:           0   0     0     0   0     0     0   0     0     0   0     0
Reduced Vol:          28 1111    227    45 1001    36    28  53    5    185 190    18
PCE Adj:              1.00 1.00    1.00    1.00 1.00    1.00 1.00 1.00    1.00 1.00    1.00
MLF Adj:              1.00 1.00    1.00    1.00 1.00    1.00 1.00 1.00    1.00 1.00    1.00
FinalVolume:          28 1111    227    45 1001    36    28  53    5    185 190    18
-----|-----|-----|-----|

```

```

Saturation Flow Module:
Sat/Lane:             1600 1600    1600    1600 1600    1600 1600 1600    1600 1600    1600
Adjustment:           1.00 1.00    1.00    1.00 1.00    1.00 1.00 1.00    1.00 1.00    1.00
Lanes:                1.00 1.66    0.34    1.00 1.93    0.07 1.00 0.91    0.09 1.00 1.00    1.00
Final Sat.:           1600 2656    544    1600 3088    112 1600 1452    148 1600 1600    1600
-----|-----|-----|-----|

```

```

Capacity Analysis Module:
Vol/Sat:              0.02 0.42    0.42    0.03 0.32    0.32    0.02 0.04    0.04    0.12 0.12    0.01

```


Crit Moves: **** **** **** ****

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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Westmont Dr and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.873
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxxx
 Optimal Cycle: 88 Level Of Service: D

Street Name:	Westmont Dr						Valley Blvd											
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
Control:	Permitted						Permitted						Permitted					
Rights:	Include						Include						Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	0	0	1	0	0	0	0	0	1	0	0	1	0	2	0	1		

Volume Module:															
Base Vol:	51	14	7	4	6	37	17	966	14	3	2036	30			
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07		
Initial Bse:	55	15	8	4	6	40	18	1036	15	3	2183	32			
Added Vol:	0	0	0	0	0	0	0	8	0	0	45	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	55	15	8	4	6	40	18	1044	15	3	2228	32			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	55	15	8	4	6	40	18	1044	15	3	2228	32			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	55	15	8	4	6	40	18	1044	15	3	2228	32			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
FinalVolume:	55	15	8	4	6	40	18	1044	15	3	2228	32			

Saturation Flow Module:															
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Lanes:	0.71	0.19	0.10	0.08	0.13	0.79	1.00	2.00	1.00	1.00	2.00	1.00			
Final Sat.:	1133	311	156	136	204	1260	1600	3200	1600	1600	3200	1600			

Capacity Analysis Module:															
Vol/Sat:	0.03	0.05	0.05	0.00	0.03	0.03	0.01	0.33	0.01	0.00	0.70	0.02			

Crit Moves: ****

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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
PM Peak Hour

Scenario Report
Scenario: 2024 Cum + Proj PM
Command: 2024 Cum + Proj PM
Volume: 2024 PM
Geometry: Existing
Impact Fee: Default Impact Fee
Trip Generation: 2024 Cum + Project PM
Trip Distribution: Cum + Project

Paths: Default Path
 Routes: Default Route
 Configuration: Default Configuration

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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 PM Peak Hour

Turning Movement Report
 Cum PM + Project 2024 PM

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 Fremont Ave and Mission Rd													
Base	207	1490	206	54	1178	58	125	539	462	330	452	48	5150
Added	0	36	46	0	21	13	18	7	0	29	4	0	174
Total	207	1526	252	54	1199	71	143	546	462	359	456	48	5324

#2 Fremont Ave and 1000 Fremont Ave

Base	58	1562	46	8	1193	64	87	3	74	42	4	27	3168
Added	0	53	0	0	34	0	0	0	0	0	0	0	87
Total	58	1615	46	8	1227	64	87	3	74	42	4	27	3255

#3 Fremont Ave and Orange St

Base	2	1501	188	109	1020	2	10	5	5	261	2	310	3415
Added	0	10	43	25	9	0	0	0	0	25	0	14	126
Total	2	1511	231	134	1029	2	10	5	5	286	2	324	3541

#4 Date Ave and Orange St

Base	33	182	3	27	286	44	72	165	166	1	21	6	1008
Added	7	28	0	0	30	4	2	8	4	0	13	0	96
Total	40	210	3	27	316	48	74	173	170	1	34	6	1104

#5 Palm Ave and Orange St

Base	5	183	2	11	287	14	62	69	76	2	5	8	725
Added	0	2	0	0	4	4	2	5	0	0	9	0	26
Total	5	185	2	11	291	18	64	74	76	2	14	8	751

#6 Chestnut St and Palm Ave

Base	5	157	10	15	362	9	8	8	85	6	1	8	672
Added	0	0	0	0	0	4	2	5	0	0	9	0	20
Total	5	157	10	15	362	13	10	13	85	6	10	8	692

#7 Fremont Ave and Poplar Blvd

Base	163	1504	123	27	925	45	27	125	86	57	127	30	3239
Added	4	24	4	7	34	0	0	12	7	7	12	4	115
Total	167	1528	127	34	959	45	27	137	93	64	139	34	3354

#8 Date Ave and Mission Rd

Base	0	0	0	209	0	170	90	789	0	0	604	119	1981
Added	0	0	0	26	0	34	53	0	0	0	0	39	152
Total	0	0	0	235	0	204	143	789	0	0	604	158	2133

#9 Chestnut St and Date Ave

Base	19	191	13	41	400	11	0	0	0	11	2	18	705
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Added	65	27	0	0	21	12	7	8	38	0	13	0	191
Total	84	218	13	41	421	23	7	8	38	11	15	18	896

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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 PM Peak Hour

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#10 Fremont Ave and Concord Ave													
Base	55	1650	121	29	963	76	85	46	50	80	64	80	3300
Added	0	25	0	0	33	0	0	0	0	0	0	0	58
Total	55	1675	121	29	996	76	85	46	50	80	64	80	3358
#11 Fremont Ave and Montezuma Ave													
Base	737	475	92	26	44	278	428	179	655	35	74	20	3043
Added	21	2	0	0	14	25	16	0	16	0	0	0	94
Total	758	477	92	26	58	303	444	179	671	35	74	20	3137
#12 Palm Ave and Commonwealth Ave													
Base	53	133	21	184	233	262	204	446	75	9	413	103	2135
Added	0	5	0	0	8	34	27	22	0	0	26	0	122
Total	53	138	21	184	241	296	231	468	75	9	439	103	2257
#13 Date Ave and Commonwealth Ave													
Base	68	136	61	124	87	154	221	551	104	55	522	123	2206
Added	5	0	27	0	0	0	0	22	8	34	26	0	122
Total	73	136	88	124	87	154	221	573	112	89	548	123	2328
#14 Fremont Ave and Commonwealth Ave													
Base	39	1523	278	213	857	27	32	147	15	168	169	255	3723
Added	0	14	10	24	25	0	0	0	0	9	0	18	100
Total	39	1537	288	237	882	27	32	147	15	177	169	273	3823
#15 Fremont Ave and Valley Blvd													
Base	30	861	35	199	1030	830	660	964	27	134	374	330	5475
Added	3	50	8	0	32	18	31	4	5	9	4	0	164
Total	33	911	43	199	1062	848	691	968	32	143	378	330	5639
#16 Palm Ave and Mission Rd													
Base	0	0	0	354	0	118	53	963	0	0	611	109	2207
Added	0	0	0	0	0	0	0	26	0	0	39	0	65
Total	0	0	0	354	0	118	53	989	0	0	650	109	2272
#17 Marengo Ave and Valley Blvd													
Base	18	170	69	306	215	209	329	932	9	51	597	146	3051
Added	13	25	0	4	23	0	0	0	12	0	0	7	84
Total	31	195	69	310	238	209	329	932	21	51	597	153	3135
#18 Atlantic Blvd and Mission Road													
Base	102	1137	147	45	1020	108	140	1035	143	195	604	64	4740

Added	0	27	0	0	34	4	2	8	0	0	15	0	90
Total	102	1164	147	45	1054	112	142	1043	143	195	619	64	4830

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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 PM Peak Hour

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#19 Marengo Ave and Mission Road													
Base	78	552	241	62	500	49	57	1007	303	75	577	63	3565
Added	30	0	2	0	0	4	2	8	23	4	15	0	88
Total	108	552	243	62	500	53	59	1015	326	79	592	63	3653
#20 Marengo Ave and Front St													
Base	3	680	4	25	731	202	161	54	9	2	20	17	1907
Added	0	32	0	0	27	0	0	0	0	0	0	0	59
Total	3	712	4	25	758	202	161	54	9	2	20	17	1966
#21 I-710 NB Ramp and Valley Blvd													
Base	626	0	1327	1	0	2	0	568	0	0	1199	0	3723
Added	0	0	40	0	0	0	0	0	0	0	25	0	65
Total	626	0	1367	1	0	2	0	568	0	0	1224	0	3788
#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	578	782	839	1008	0	3207
Added	0	0	0	0	0	0	0	0	0	25	0	0	25
Total	0	0	0	0	0	0	0	578	782	864	1008	0	3232
#23 Fremont Ave and Hellman Ave													
Base	91	793	259	158	872	73	137	185	232	221	194	254	3469
Added	0	38	8	17	28	0	0	0	0	4	0	24	119
Total	91	831	267	175	900	73	137	185	232	225	194	278	3588
#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	501	184	105	11	5	43	31	321	239	129	113	2	1683
Added	28	0	0	0	0	0	0	0	26	0	0	0	54
Total	529	184	105	11	5	43	31	321	265	129	113	2	1737
#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	784	124	0	0	0	4	98	310	50	0	84	1454
Added	0	0	19	0	0	0	0	0	40	0	0	0	59
Total	0	784	143	0	0	0	4	98	350	50	0	84	1513
#26 Ross Ave and Fremont Ave													
Base	32	910	180	28	1059	44	12	34	6	58	43	44	2451
Added	0	62	0	0	46	0	0	0	0	0	0	0	108
Total	32	972	180	28	1105	44	12	34	6	58	43	44	2559
#27 Westmont Dr and Valley Blvd													
Base	17	11	12	26	10	15	60	1692	145	9	1115	35	3146

Added	0	0	0	0	0	0	0	40	0	0	25	0	65
Total	17	11	12	26	10	15	60	1732	145	9	1140	35	3211

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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 PM Peak Hour

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#135													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	53	0	0	34	0	87

Total	0	0	0	0	0	0	0	53	0	0	34	0	87
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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 PM Peak Hour

 Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	207	1490	206	54	1178	58	125	539	462	330	452	48
2 Fremont Ave a	58	1562	46	8	1193	64	87	3	74	42	4	27

3 Fremont Ave a	2	1501	188	109	1020	2	10	5	5	261	2	310
4 Date Ave and	33	182	3	27	286	44	72	165	166	1	21	6
5 Palm Ave and	5	183	2	11	287	14	62	69	76	2	5	8
6 Chestnut St a	5	157	10	15	362	9	8	8	85	6	1	8
7 Fremont Ave a	163	1504	123	27	925	45	27	125	86	57	127	30
8 Date Ave and	0	0	0	209	0	170	90	789	0	0	604	119
9 Chestnut St a	19	191	13	41	400	11	0	0	0	11	2	18
10 Fremont Ave a	55	1650	121	29	963	76	85	46	50	80	64	80
11 Fremont Ave a	737	475	92	26	44	278	428	179	655	35	74	20
12 Palm Ave and	53	133	21	184	233	262	204	446	75	9	413	103
13 Date Ave and	68	136	61	124	87	154	221	551	104	55	522	123
14 Fremont Ave a	39	1523	278	213	857	27	32	147	15	168	169	255
15 Fremont Ave a	30	861	35	199	1030	830	660	964	27	134	374	330
16 Palm Ave and	0	0	0	354	0	118	53	963	0	0	611	109
17 Marengo Ave a	18	170	69	306	215	209	329	932	9	51	597	146
18 Atlantic Blvd	102	1137	147	45	1020	108	140	1035	143	195	604	64
19 Marengo Ave a	78	552	241	62	500	49	57	1007	303	75	577	63
20 Marengo Ave a	3	680	4	25	731	202	161	54	9	2	20	17
21 I-710 NB Ramp	626	0	1327	1	0	2	0	568	0	0	1199	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	578	782	839	1008	0
23 Fremont Ave a	91	793	259	158	872	73	137	185	232	221	194	254
24 Elm St and He	501	184	105	11	5	43	31	321	239	129	113	2
25 Fremont Ave a	0	784	124	0	0	0	4	98	310	50	0	84

26 Ross Ave and	32	910	180	28	1059	44	12	34	6	58	43	44
27 Westmont Dr a	17	11	12	26	10	15	60	1692	145	9	1115	35

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Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 PM Peak Hour

Intersection Volume Report
 Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	207	1526	252	54	1199	71	143	546	462	359	456	48
2 Fremont Ave a	58	1615	46	8	1227	64	87	3	74	42	4	27
3 Fremont Ave a	2	1511	231	134	1029	2	10	5	5	286	2	324
4 Date Ave and	40	210	3	27	316	48	74	173	170	1	34	6
5 Palm Ave and	5	185	2	11	291	18	64	74	76	2	14	8
6 Chestnut St a	5	157	10	15	362	13	10	13	85	6	10	8
7 Fremont Ave a	167	1528	127	34	959	45	27	137	93	64	139	34
8 Date Ave and	0	0	0	235	0	204	143	789	0	0	604	158
9 Chestnut St a	84	218	13	41	421	23	7	8	38	11	15	18
10 Fremont Ave a	55	1675	121	29	996	76	85	46	50	80	64	80
11 Fremont Ave a	758	477	92	26	58	303	444	179	671	35	74	20
12 Palm Ave and	53	138	21	184	241	296	231	468	75	9	439	103
13 Date Ave and	73	136	88	124	87	154	221	573	112	89	548	123
14 Fremont Ave a	39	1537	288	237	882	27	32	147	15	177	169	273
15 Fremont Ave a	33	911	43	199	1062	848	691	968	32	143	378	330
16 Palm Ave and	0	0	0	354	0	118	53	989	0	0	650	109
17 Marengo Ave a	31	195	69	310	238	209	329	932	21	51	597	153
18 Atlantic Blvd	102	1164	147	45	1054	112	142	1043	143	195	619	64
19 Marengo Ave a	108	552	243	62	500	53	59	1015	326	79	592	63
20 Marengo Ave a	3	712	4	25	758	202	161	54	9	2	20	17
21 I-710 NB Ramp	626	0	1367	1	0	2	0	568	0	0	1224	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	578	782	864	1008	0
23 Fremont Ave a	91	831	267	175	900	73	137	185	232	225	194	278
24 Elm St and He	529	184	105	11	5	43	31	321	265	129	113	2
25 Fremont Ave a	0	784	143	0	0	0	4	98	350	50	0	84

26 Ross Ave and	32	972	180	28	1105	44	12	34	6	58	43	44
27 Westmont Dr a	17	11	12	26	10	15	60	1732	145	9	1140	35

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Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 PM Peak Hour

Impact Analysis Report
 Level Of Service

Intersection		Base		Future		Change
		Del/	V/	Del/	V/	in
	LOS	Veh	C	LOS	Veh	C
# 1 Fremont Ave and Mission Rd	F	xxxxxx	1.159	F	xxxxxx	1.202 + 0.044 V/C
# 2 Fremont Ave and 1000 Fremont A	B	xxxxxx	0.667	B	xxxxxx	0.684 + 0.017 V/C
# 3 Fremont Ave and Orange St	D	xxxxxx	0.842	D	xxxxxx	0.869 + 0.027 V/C
# 4 Date Ave and Orange St	B	14.5	0.309	C	15.8	0.342 + 1.318 D/V
# 5 Palm Ave and Orange St	B	10.8	0.451	B	11.0	0.463 + 0.012 V/C
# 6 Chestnut St and Palm Ave	B	11.2	0.527	B	11.3	0.534 + 0.007 V/C
# 7 Fremont Ave and Poplar Blvd	C	xxxxxx	0.739	C	xxxxxx	0.764 + 0.025 V/C
# 8 Date Ave and Mission Rd	C	17.5	0.489	C	23.0	0.634 + 5.487 D/V
# 9 Chestnut St and Date Ave	B	10.5	0.030	B	13.0	0.075 + 2.559 D/V
# 10 Fremont Ave and Concord Ave	B	xxxxxx	0.630	B	xxxxxx	0.636 + 0.005 V/C
# 11 Fremont Ave and Montezuma Ave	C	xxxxxx	0.715	C	xxxxxx	0.721 + 0.006 V/C
# 12 Palm Ave and Commonwealth Ave	A	xxxxxx	0.555	A	xxxxxx	0.583 + 0.028 V/C
# 13 Date Ave and Commonwealth Ave	B	xxxxxx	0.633	B	xxxxxx	0.644 + 0.011 V/C
# 14 Fremont Ave and Commonwealth A	E	xxxxxx	0.916	E	xxxxxx	0.941 + 0.025 V/C

# 15 Fremont Ave and Valley Blvd	E xxxxx 0.940	E xxxxx 0.969	+ 0.029 V/C
# 16 Palm Ave and Mission Rd	B xxxxx 0.622	B xxxxx 0.630	+ 0.008 V/C
# 17 Marengo Ave and Valley Blvd	C xxxxx 0.790	D xxxxx 0.808	+ 0.018 V/C
# 18 Atlantic Blvd and Mission Road	E xxxxx 0.975	E xxxxx 0.986	+ 0.011 V/C
# 19 Marengo Ave and Mission Road	E xxxxx 0.948	E xxxxx 0.982	+ 0.033 V/C
# 20 Marengo Ave and Front St	D xxxxx 0.820	D xxxxx 0.837	+ 0.017 V/C
# 21 I-710 NB Ramp and Valley Blvd	B xxxxx 0.687	C xxxxx 0.704	+ 0.016 V/C

# 22 I-710 SB Ramp and Valley Blvd	D	xxxxxx	0.880	D	xxxxxx	0.889	+	0.009	V/C
# 23 Fremont Ave and Hellman Ave	D	xxxxxx	0.810	D	xxxxxx	0.838	+	0.028	V/C

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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 PM Peak Hour

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 24 Elm St and Hellman Ave/Ramona	D	28.2	0.826	D	30.8	0.862	+ 0.037 V/C
# 25 Fremont Ave and Ramona Road/10	F	96.4	1.305	F	98.7	1.327	+ 0.022 V/C
# 26 Ross Ave and Fremont Ave	A	xxxxxx	0.526	A	xxxxxx	0.541	+ 0.014 V/C

27 Westmont Dr and Valley Blvd B xxxxx 0.675 B xxxxx 0.687 + 0.012 V/C

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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Fremont Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.202
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Street Name: Fremont Ave Mission Rd

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Protected					Protected					Protected				
Rights:	Include					Include					Include					Include				
Min. Green:	0		0		0	0		0		0	0		0		0	0		0		0
Y+R:	4.0		4.0		4.0	4.0		4.0		4.0	4.0		4.0		4.0	4.0		4.0		4.0
Lanes:	1		0		1	1		0		1	1		0		1	1		0		1
Volume Module:																				
Base Vol:	193		1390		192	50		1099		54	117		503		431	308		422		45
Growth Adj:	1.07		1.07		1.07	1.07		1.07		1.07	1.07		1.07		1.07	1.07		1.07		1.07
Initial Bse:	207		1490		206	54		1178		58	125		539		462	330		452		48
Added Vol:	0		36		46	0		21		13	18		7		0	29		4		0
PasserByVol:	0		0		0	0		0		0	0		0		0	0		0		0
Initial Fut:	207		1526		252	54		1199		71	143		546		462	359		456		48
User Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	207		1526		252	54		1199		71	143		546		462	359		456		48
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Reduced Vol:	207		1526		252	54		1199		71	143		546		462	359		456		48
PCE Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
MLF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
FinalVolume:	207		1526		252	54		1199		71	143		546		462	359		456		48
Saturation Flow Module:																				
Sat/Lane:	1600		1600		1600	1600		1600		1600	1600		1600		1600	1600		1600		1600
Adjustment:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
Lanes:	1.00		1.72		0.28	1.00		2.00		1.00	1.00		2.00		1.00	1.00		1.81		0.19
Final Sat.:	1600		2747		453	1600		3200		1600	1600		3200		1600	1600		2894		306
Capacity Analysis Module:																				
Vol/Sat:	0.13		0.56		0.56	0.03		0.37		0.04	0.09		0.17		0.29	0.22		0.16		0.16

Crit Moves: **** **** **** ****

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Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.684
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxxx
 Optimal Cycle: 48 Level Of Service: B

Street Name:	Fremont Ave						1000 Fremont Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	0	1	0

-----|-----|-----|-----|-----|

Volume Module:

Base Vol:	54	1457	43	7	1113	60	81	3	69	39	4	25
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	58	1562	46	8	1193	64	87	3	74	42	4	27
Added Vol:	0	53	0	0	34	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	58	1615	46	8	1227	64	87	3	74	42	4	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	58	1615	46	8	1227	64	87	3	74	42	4	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	1615	46	8	1227	64	87	3	74	42	4	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	58	1615	46	8	1227	64	87	3	74	42	4	27

-----|-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.04	0.96	1.00	0.14	0.86
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	67	1533	1600	221	1379

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat:	0.04	0.50	0.03	0.00	0.38	0.04	0.05	0.05	0.05	0.03	0.02	0.02
----------	------	------	------	------	------	------	------	------	------	------	------	------

Crit Moves: **** **** **** ****

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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.869
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxxx
 Optimal Cycle: 87 Level Of Service: D

Street Name:	Fremont Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	0	1	0	1	0

Volume Module:	Fremont Ave NB			Fremont Ave SB			Orange St EB			Orange St WB		
Base Vol:	2	1400	175	102	951	2	9	5	5	243	2	289
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	2	1501	188	109	1020	2	10	5	5	261	2	310
Added Vol:	0	10	43	25	9	0	0	0	0	25	0	14
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	1511	231	134	1029	2	10	5	5	286	2	324
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1511	231	134	1029	2	10	5	5	286	2	324
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1511	231	134	1029	2	10	5	5	286	2	324
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	1511	231	134	1029	2	10	5	5	286	2	324

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Orange St EB			Orange St WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.64	0.36	1.00	1.00	0.01	0.99
Final Sat.:	1600	3200	1600	1600	3193	7	1029	571	1600	1600	11	1589

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Orange St EB			Orange St WB		
Vol/Sat:	0.00	0.47	0.14	0.08	0.32	0.32	0.01	0.01	0.00	0.18	0.20	0.20

Crit Moves: **** **** **** ****

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 Alhambra Campus Residential Development TIA
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Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #4 Date Ave and Orange St

Average Delay (sec/veh): 6.9 Worst Case Level Of Service: C[15.8]

Street Name: Date Ave Orange St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 1 0 1 0 1 1 0 1 0 1 0 1 0 0 1 0 1 0 0 1

-----|-----|-----|-----|-----|

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak

Base Vol: 31 170 3 25 267 41 67 154 155 1 20 6

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 33 182 3 27 286 44 72 165 166 1 21 6

Added Vol: 7 28 0 0 30 4 2 8 4 0 13 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 40 210 3 27 316 48 74 173 170 1 34 6

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 40 210 3 27 316 48 74 173 170 1 34 6

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

FinalVolume: 40 210 3 27 316 48 74 173 170 1 34 6

-----|-----|-----|-----|-----|

Critical Gap Module:

Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2

FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

-----|-----|-----|-----|-----|

Capacity Module:

Cnflct Vol: 364 xxxx xxxxx 213 xxxx xxxxx 683 664 316 856 709 210

Potent Cap.: 1206 xxxx xxxxx 1369 xxxx xxxxx 366 384 729 280 362 835

Move Cap.: 1206 xxxx xxxxx 1369 xxxx xxxxx 322 364 729 130 343 835

Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 498 506 xxxxx 221 477 xxxxx

Volume/Cap: 0.03 xxxx xxxxx 0.02 xxxx xxxxx 0.15 0.34 0.23 0.00 0.07 0.01

-----|-----|-----|-----|-----|

Level Of Service Module:

2Way95thQ: 0.1 xxxx xxxxx 0.1 xxxx xxxxx xxxx xxxx 0.9 xxxx xxxx 0.0

Control Del: 8.1 xxxx xxxxx 7.7 xxxx xxxxx xxxxxx xxxx 11.4 xxxxxx xxxx 9.3

LOS by Move: A * * A * * * * B * * A

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx 503 xxxx xxxxx 461 xxxx xxxxx

SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.7	xxxx	xxxxx	0.2	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	18.8	xxxx	xxxxx	13.5	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	C	*	*	B	*	*
ApproachDel:	xxxxxx			xxxxxx			15.8			12.8		
ApproachLOS:	*			*			C			B		

Note: Queue reported is the number of cars per lane.

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Alhambra Campus Residential Development TIA
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Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Palm Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.463
Loss Time (sec): 0 Average Delay (sec/veh): 11.0
Optimal Cycle: 0 Level Of Service: B

Street Name:	Palm Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	0	1	0	1	0	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	PM Peak
Base Vol:	5	171	2	10	268	13
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	5	183	2	11	287	14
Added Vol:	0	2	0	0	4	4
PasserByVol:	0	0	0	0	0	0
Initial Fut:	5	185	2	11	291	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	185	2	11	291	18
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	5	185	2	11	291	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	185	2	11	291	18

Saturation Flow Module:	Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.97	1.00	0.04	0.96	1.00	0.47	0.53	1.00	0.13	0.87	1.00
Final Sat.:	18	615	717	23	629	743	261	300	654	69	463	600

Capacity Analysis Module:	Vol/Sat:	0.30	0.30	0.00	0.46	0.46	0.02	0.25	0.25	0.12	0.03	0.03	0.01
Crit Moves:	****				****			****			****		
Delay/Veh:	10.5	10.5	7.5	12.5	12.5	7.5	10.6	10.6	8.5	9.1	9.1	8.2	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	10.5	10.5	7.5	12.5	12.5	7.5	10.6	10.6	8.5	9.1	9.1	8.2	
LOS by Move:	B	B	A	B	B	A	B	B	A	A	A	A	
ApproachDel:	10.4			12.2			9.8			8.8			
Delay Adj:	1.00			1.00			1.00			1.00			
ApprAdjDel:	10.4			12.2			9.8			8.8			
LOS by Appr:	B			B			A			A			

AllWayAvgQ: 0.4 0.4 0.0 0.8 0.8 0.0 0.3 0.3 0.1 0.0 0.0 0.0

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Alhambra Campus Residential Development TIA
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Note: Queue reported is the number of cars per lane.

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Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

```

*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.534
Loss Time (sec):      0          Average Delay (sec/veh):          11.3
Optimal Cycle:        0          Level Of Service:                B
*****

```

```

Street Name:          Chestnut St          Palm Ave
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R           L - T - R           L - T - R           L - T - R
-----|-----|-----|-----|
Control:              Stop Sign           Stop Sign           Stop Sign           Stop Sign
Rights:               Include             Include             Include             Include
Min. Green:           0   0   0           0   0   0           0   0   0           0   0   0
Lanes:                0  1  0  0  1       0  1  0  0  1       0  1  0  0  1       0  1  0  0  1
-----|-----|-----|-----|

```

```

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol:             5  146   9       14  338   8       7   7   79       6   1   7
Growth Adj:           1.07 1.07 1.07     1.07 1.07 1.07     1.07 1.07 1.07     1.07 1.07 1.07
Initial Bse:           5  157  10       15  362   9       8   8   85       6   1   8
Added Vol:             0   0   0         0   0   4       2   5   0       0   9   0
PasserByVol:          0   0   0         0   0   0       0   0   0       0   0   0
Initial Fut:           5  157  10       15  362  13       10  13   85       6  10   8
User Adj:              1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
PHF Adj:               1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
PHF Volume:           5  157  10       15  362  13       10  13   85       6  10   8
Reduct Vol:            0   0   0         0   0   0       0   0   0       0   0   0
Reduced Vol:           5  157  10       15  362  13       10  13   85       6  10   8
PCE Adj:               1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
MLF Adj:               1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
FinalVolume:           5  157  10       15  362  13       10  13   85       6  10   8
-----|-----|-----|-----|

```

```

Saturation Flow Module:
Adjustment:           1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
Lanes:                0.03 0.97 1.00     0.04 0.96 1.00     0.43 0.57 1.00     0.39 0.61 1.00
Final Sat.:           22  653  776       28  679  815       237  312  639       208  325  614
-----|-----|-----|-----|

```

```

Capacity Analysis Module:
Vol/Sat:              0.24 0.24 0.01     0.53 0.53 0.02     0.04 0.04 0.13     0.03 0.03 0.01
Crit Moves:           ****              ****              ****              ****
Delay/Veh:             9.5  9.5   7.2     13.2 13.2   7.1     9.0  9.0   8.6     9.1  9.1   8.1
Delay Adj:             1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
AdjDel/Veh:            9.5  9.5   7.2     13.2 13.2   7.1     9.0  9.0   8.6     9.1  9.1   8.1
LOS by Move:           A   A   A         B   B   A         A   A   A         A   A   A
ApproachDel:           9.4              13.0              8.7              8.8
Delay Adj:             1.00              1.00              1.00              1.00
ApprAdjDel:            9.4              13.0              8.7              8.8
LOS by Appr:           A              B              A              A

```

AllWayAvgQ: 0.3 0.3 0.0 1.1 1.1 0.0 0.0 0.0 0.1 0.0 0.0 0.0

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Note: Queue reported is the number of cars per lane.

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Alhambra Campus Residential Development TIA
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd

```

*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.764
Loss Time (sec):      10          Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        60          Level Of Service:             C
*****

```

```

Street Name:          Fremont Ave          Poplar Blvd
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|
Control:              Permitted            Permitted            Permitted            Permitted
Rights:               Include              Include              Include              Include
Min. Green:           0    0    0          0    0    0          0    0    0          0    0    0
Y+R:                  4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0        4.0  4.0  4.0
Lanes:                1  0  1  1  0        1  0  1  1  0        1  0  1  0  1        1  0  1  0  1
-----|-----|-----|-----|

```

```

Volume Module:
Base Vol:             152 1403   115    25  863   42    25  117   80    53  118   28
Growth Adj:           1.07 1.07   1.07    1.07 1.07   1.07    1.07 1.07   1.07    1.07 1.07   1.07
Initial Bse:          163 1504   123    27  925   45    27  125   86    57  127   30
Added Vol:             4    24    4      7   34    0      0   12    7      7   12    4
PasserByVol:          0    0    0      0   0    0      0   0    0      0   0    0
Initial Fut:          167 1528   127    34  959   45    27  137   93    64  139   34
User Adj:             1.00 1.00   1.00    1.00 1.00   1.00    1.00 1.00   1.00    1.00 1.00   1.00
PHF Adj:              1.00 1.00   1.00    1.00 1.00   1.00    1.00 1.00   1.00    1.00 1.00   1.00
PHF Volume:           167 1528   127    34  959   45    27  137   93    64  139   34
Reduct Vol:           0    0    0      0   0    0      0   0    0      0   0    0
Reduced Vol:          167 1528   127    34  959   45    27  137   93    64  139   34
PCE Adj:              1.00 1.00   1.00    1.00 1.00   1.00    1.00 1.00   1.00    1.00 1.00   1.00
MLF Adj:              1.00 1.00   1.00    1.00 1.00   1.00    1.00 1.00   1.00    1.00 1.00   1.00
FinalVolume:          167 1528   127    34  959   45    27  137   93    64  139   34
-----|-----|-----|-----|

```

```

Saturation Flow Module:
Sat/Lane:             1600 1600   1600   1600 1600   1600   1600 1600   1600   1600 1600   1600
Adjustment:           1.00 1.00   1.00    1.00 1.00   1.00    1.00 1.00   1.00    1.00 1.00   1.00
Lanes:                1.00 1.85   0.15    1.00 1.91   0.09    1.00 1.00   1.00    1.00 1.00   1.00
Final Sat.:           1600 2954   246   1600 3057   143   1600 1600   1600   1600 1600   1600
-----|-----|-----|-----|

```

```

Capacity Analysis Module:
Vol/Sat:              0.10 0.52   0.52    0.02 0.31   0.31    0.02 0.09   0.06    0.04 0.09   0.02

```

Crit Moves: **** **** **** ****

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 Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Date Ave and Mission Rd

Average Delay (sec/veh): 5.4 Worst Case Level Of Service: C[23.0]

Street Name:	Date Ave						Mission Rd													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R					
Control:	Stop Sign						Stop Sign						Uncontrolled							
Rights:	Include						Include						Include							
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	0	0	1	1	0

Volume Module: >> Count Date:	17 Nov 2015 << PM Peak																			
Base Vol:	0	0	0	0	195	0	159	84	736	0	0	563	111							
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07							
Initial Bse:	0	0	0	0	209	0	170	90	789	0	0	604	119							
Added Vol:	0	0	0	0	26	0	34	53	0	0	0	0	39							
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0							
Initial Fut:	0	0	0	0	235	0	204	143	789	0	0	604	158							
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00							
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00							
PHF Volume:	0	0	0	0	235	0	204	143	789	0	0	604	158							
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0							
FinalVolume:	0	0	0	0	235	0	204	143	789	0	0	604	158							

Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx								

Capacity Module:																				
Cnflct Vol:	xxxx	xxxx	xxxxx	1363	xxxx	381	762	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Potent Cap.:	xxxx	xxxx	xxxxx	141	xxxx	623	860	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Move Cap.:	xxxx	xxxx	xxxxx	123	xxxx	623	860	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Total Cap:	194	228	xxxxx	371	244	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Volume/Cap:	xxxx	xxxx	xxxx	0.63	xxxx	0.33	0.17	xxxx	xxxx	xxxx	xxxx	xxxx								

Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	4.9	xxxx	1.5	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Control Del:	xxxxx	xxxx	xxxxx	31.1	xxxx	13.6	10.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
LOS by Move:	*	*	*	D	*	B	B	*	*	*	*	*								
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT					
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								

SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * * * * * * *
ApproachDel: xxxxxx 23.0 xxxxxx xxxxxx

ApproachLOS: * C * *

Note: Queue reported is the number of cars per lane.

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Alhambra Campus Residential Development TIA

Cumulative Conditions Plus Project

PM Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: B[13.0]

Street Name:	Chestnut St						Date Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	1	0	1	0	0	1	0	0
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak												
Base Vol:	18	178	12	38	373	10	0	0	0	10	2	17
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	19	191	13	41	400	11	0	0	0	11	2	18
Added Vol:	65	27	0	0	21	12	7	8	38	0	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	218	13	41	421	23	7	8	38	11	15	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	84	218	13	41	421	23	7	8	38	11	15	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	84	218	13	41	421	23	7	8	38	11	15	18
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	444	xxxx	xxxxxx	231	xxxx	xxxxxx	912	902	421	923	912	218
Potent Cap.:	1127	xxxx	xxxxxx	1349	xxxx	xxxxxx	257	280	637	252	276	827
Move Cap.:	1127	xxxx	xxxxxx	1349	xxxx	xxxxxx	221	251	637	213	248	827
Total Cap:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	400	411	xxxxxx	351	380	xxxxxx
Volume/Cap:	0.07	xxxx	xxxx	0.03	xxxx	xxxx	0.02	0.02	0.06	0.03	0.04	0.02
Level Of Service Module:												
2Way95thQ:	0.2	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	0.1
Control Del:	8.5	xxxx	xxxxxx	7.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.5
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	A
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	549	xxxxxx	367	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.3	xxxxxx	0.2	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	12.3	xxxxxx	15.5	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	C	*	*
ApproachDel:	xxxxxxx			xxxxxxx			12.3			13.0		

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Capacity Analysis Module:												
Vol/Sat:	0.03	0.37	0.37	0.02	0.33	0.33	0.05	0.03	0.03	0.05	0.09	0.09

Crit Moves: **** **** **** ****

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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.721
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxxx
 Optimal Cycle: 74 Level Of Service: C

Street Name:	Fremont Ave						Montezuma Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Permitted			Protected			Permitted					
Rights:	Include			Ignore			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	2	0	0	1	0	0	1	1	0	1	2	0	0	1	1

Volume Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Base Vol:	687	443	86	24	41	259	399	167	611	33	69	19
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	737	475	92	26	44	278	428	179	655	35	74	20
Added Vol:	21	2	0	0	14	25	16	0	16	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	758	477	92	26	58	303	444	179	671	35	74	20
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	758	477	92	26	58	0	444	179	671	35	74	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	758	477	92	26	58	0	444	179	671	35	74	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	758	477	92	26	58	0	444	179	671	35	74	20

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.84	0.16	0.61	1.39	1.00	2.00	0.42	1.58	0.27	0.57	0.16
Final Sat.:	2880	1341	259	984	2216	1600	2880	674	2526	436	912	251

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Vol/Sat:	0.26	0.36	0.36	0.02	0.03	0.00	0.15	0.27	0.27	0.02	0.08	0.08

Crit Moves: **** **** **** ****

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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.644
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxxx
 Optimal Cycle: 44 Level Of Service: B

Street Name:	Date Ave						Commonwealth Ave						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Permitted			Permitted			Permitted			Permitted			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1	0

Volume Module:	Date Ave			Date Ave			Commonwealth Ave			Commonwealth Ave		
Base Vol:	63	127	57	116	81	144	206	514	97	51	487	115
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	68	136	61	124	87	154	221	551	104	55	522	123
Added Vol:	5	0	27	0	0	0	0	22	8	34	26	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	73	136	88	124	87	154	221	573	112	89	548	123
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	73	136	88	124	87	154	221	573	112	89	548	123
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	136	88	124	87	154	221	573	112	89	548	123
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	73	136	88	124	87	154	221	573	112	89	548	123

Saturation Flow Module:	Date Ave			Date Ave			Commonwealth Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.36	0.64	1.00	1.67	0.33	1.00	1.63	0.37
Final Sat.:	1600	1600	1600	1600	576	1024	1600	2677	523	1600	2612	588

Capacity Analysis Module:	Date Ave			Date Ave			Commonwealth Ave			Commonwealth Ave		
Vol/Sat:	0.05	0.09	0.06	0.08	0.15	0.15	0.14	0.21	0.21	0.06	0.21	0.21

Crit Moves: **** **** **** ****

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Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.941
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 126 Level Of Service: E

Street Name:	Fremont Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:	Fremont Ave NB			Fremont Ave SB			Commonwealth Ave EB			Commonwealth Ave WB		
Base Vol:	36	1421	259	199	799	25	30	137	14	157	158	238
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	39	1523	278	213	857	27	32	147	15	168	169	255
Added Vol:	0	14	10	24	25	0	0	0	0	9	0	18
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	39	1537	288	237	882	27	32	147	15	177	169	273
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	39	1537	288	237	882	27	32	147	15	177	169	273
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	1537	288	237	882	27	32	147	15	177	169	273
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	39	1537	288	237	882	27	32	147	15	177	169	273

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Commonwealth Ave EB			Commonwealth Ave WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.94	0.06	1.00	0.91	0.09	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3106	94	1600	1452	148	1600	1600	1600

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Commonwealth Ave EB			Commonwealth Ave WB		
Vol/Sat:	0.02	0.48	0.18	0.15	0.28	0.28	0.02	0.10	0.10	0.11	0.11	0.17

Crit Moves: **** **** **** ****

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 Alhambra Campus Residential Development TIA
 Cumulative Conditions Plus Project
 PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Fremont Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.969
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxxx
 Optimal Cycle: 153 Level Of Service: E

Street Name:	Fremont Ave						Valley Blvd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	1	0	1	0	2	0	2	2	0	2	0	1

Volume Module:	Fremont Ave			Fremont Ave			Valley Blvd			Valley Blvd		
Base Vol:	28	803	33	186	961	774	616	899	25	125	349	308
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	30	861	35	199	1030	830	660	964	27	134	374	330
Added Vol:	3	50	8	0	32	18	31	4	5	9	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	911	43	199	1062	848	691	968	32	143	378	330
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	911	43	199	1062	848	691	968	32	143	378	330
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	911	43	199	1062	848	691	968	32	143	378	330
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	911	43	199	1062	848	691	968	32	143	378	330

Saturation Flow Module:	Fremont Ave			Fremont Ave			Valley Blvd			Valley Blvd		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.91	0.09	1.00	2.00	2.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3055	145	1600	3200	3200	2880	3200	1600	1600	3200	1600

Capacity Analysis Module:	Fremont Ave			Fremont Ave			Valley Blvd			Valley Blvd		
Vol/Sat:	0.02	0.30	0.30	0.12	0.33	0.26	0.24	0.30	0.02	0.09	0.12	0.21

Crit Moves: **** **** **** ****

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 Alhambra Campus Residential Development TIA
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.630
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxxx
 Optimal Cycle: 43 Level Of Service: B

Street Name:	Palm Ave						Mission Rd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
Base Vol: 0 0 0 330 0 110 49 898 0 0 570 102
Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 0 0 0 354 0 118 53 963 0 0 611 109
Added Vol: 0 0 0 0 0 0 0 26 0 0 39 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 354 0 118 53 989 0 0 650 109
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 354 0 118 53 989 0 0 650 109
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 354 0 118 53 989 0 0 650 109
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 354 0 118 53 989 0 0 650 109

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 1.71 0.29
Final Sat.: 0 0 0 1600 0 1600 1600 3200 0 0 2739 461

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.22 0.00 0.07 0.03 0.31 0.00 0.00 0.24 0.24

Crit Moves: **** **** ****

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Alhambra Campus Residential Development TIA
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.808
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 68 Level Of Service: D

Street Name:	Marengo Ave						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	2	0	1	0

Volume Module:	Marengo Ave			Marengo Ave			Valley Blvd			Valley Blvd		
Base Vol:	17	159	64	285	201	195	307	869	8	48	557	136
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	18	170	69	306	215	209	329	932	9	51	597	146
Added Vol:	13	25	0	4	23	0	0	0	12	0	0	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	195	69	310	238	209	329	932	21	51	597	153
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	31	195	69	310	238	209	329	932	21	51	597	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	195	69	310	238	209	329	932	21	51	597	153
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	31	195	69	310	238	209	329	932	21	51	597	153

Saturation Flow Module:	Marengo Ave			Marengo Ave			Valley Blvd			Valley Blvd		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.53	0.47	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	853	747	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:	Marengo Ave			Marengo Ave			Valley Blvd			Valley Blvd		
Vol/Sat:	0.02	0.12	0.04	0.19	0.28	0.28	0.21	0.29	0.01	0.03	0.19	0.10

Crit Moves: **** **** **** ****

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 Alhambra Campus Residential Development TIA
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.986
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxxx
 Optimal Cycle: 175 Level Of Service: E

Street Name:	Atlantic Blvd						Mission Road						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1	0

Volume Module:	Atlantic Blvd			Atlantic Blvd			Mission Road			Mission Road		
Base Vol:	95	1061	137	42	951	101	131	965	133	182	563	60
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	102	1137	147	45	1020	108	140	1035	143	195	604	64
Added Vol:	0	27	0	0	34	4	2	8	0	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	102	1164	147	45	1054	112	142	1043	143	195	619	64
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	102	1164	147	45	1054	112	142	1043	143	195	619	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	102	1164	147	45	1054	112	142	1043	143	195	619	64
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	102	1164	147	45	1054	112	142	1043	143	195	619	64

Saturation Flow Module:	Atlantic Blvd			Atlantic Blvd			Mission Road			Mission Road		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.78	0.22	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.81	0.19
Final Sat.:	1600	2842	358	1600	3200	1600	1600	3200	1600	1600	2899	301

Capacity Analysis Module:	Atlantic Blvd			Atlantic Blvd			Mission Road			Mission Road		
Vol/Sat:	0.06	0.41	0.41	0.03	0.33	0.07	0.09	0.33	0.09	0.12	0.21	0.21

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.982
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxxx
 Optimal Cycle: 169 Level Of Service: E

Street Name:	Marengo Ave						Mission Rd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted			Permitted			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	0	1	0	1	0	1	1	0

Volume Module:	Marengo Ave			Mission Rd		
Base Vol:	73	515	225	58	466	46
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	78	552	241	62	500	49
Added Vol:	30	0	2	0	0	4
PasserByVol:	0	0	0	0	0	0
Initial Fut:	108	552	243	62	500	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	108	552	243	62	500	53
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	108	552	243	62	500	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	108	552	243	62	500	53

Saturation Flow Module:	Marengo Ave			Mission Rd		
Sat/Lane:	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.90	0.10
Final Sat.:	1600	1600	1600	1600	1446	154

Capacity Analysis Module:	Marengo Ave			Mission Rd		
Vol/Sat:	0.07	0.35	0.15	0.04	0.35	0.35

Crit Moves: **** **** **** ****

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.889
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 95 Level Of Service: D

Street Name:	I-710 SB Ramp						Valley Blvd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	0	0	0	0	0	0	0	0	2	0	1	2	0	2	0

Volume Module:												
Base Vol:	0	0	0	0	0	0	0	539	729	783	940	0
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	0	0	0	0	0	0	578	782	839	1008	0
Added Vol:	0	0	0	0	0	0	0	0	0	25	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	578	782	864	1008	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	578	782	864	1008	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	578	782	864	1008	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	0	0	578	782	864	1008	0

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	0	0	0	0	0	0	0	3200	1600	2880	3200	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.49	0.30	0.31	0.00

Crit Moves:

**** *

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.838
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 76 Level Of Service: D

Street Name:	Fremont Ave						Hellman Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	85	740	242	147	813	68	128	173	216	206	181	237
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	91	793	259	158	872	73	137	185	232	221	194	254
Added Vol:	0	38	8	17	28	0	0	0	0	4	0	24
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	831	267	175	900	73	137	185	232	225	194	278
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	831	267	175	900	73	137	185	232	225	194	278
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	831	267	175	900	73	137	185	232	225	194	278
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	831	267	175	900	73	137	185	232	225	194	278

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.51	0.49	1.00	1.85	0.15	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2421	779	1600	2960	240	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.06	0.34	0.34	0.11	0.30	0.30	0.09	0.12	0.14	0.14	0.12	0.17
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Crit Moves: **** **** **** ****

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Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.862
 Loss Time (sec): 0 Average Delay (sec/veh): 30.8
 Optimal Cycle: 0 Level Of Service: D

Street Name:	Elm St						Hellman Ave/Ramona Rd/ 10 WB ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	0	1	0	0	1	0

Volume Module:PM Peak

Base Vol:	467	172	98	10	5	40	29	299	223	120	105	2
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	501	184	105	11	5	43	31	321	239	129	113	2
Added Vol:	28	0	0	0	0	0	0	0	26	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	529	184	105	11	5	43	31	321	265	129	113	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	529	184	105	11	5	43	31	321	265	129	113	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	529	184	105	11	5	43	31	321	265	129	113	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	529	184	105	11	5	43	31	321	265	129	113	2

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.29	0.45	0.26	0.67	0.33	1.00	0.09	0.91	1.00	0.53	0.47	1.00
Final Sat.:	1086	-260	122	259	130	438	42	436	529	229	200	474

Capacity Analysis Module:

Vol/Sat:	0.49-0.71	0.86	0.04	0.04	0.10	0.73	0.73	0.50	0.56	0.56	0.00	
Crit Moves:	****				****	****		****				
Delay/Veh:	41.4	41.1	41.1	11.8	11.8	11.2	27.7	27.7	15.8	20.6	20.6	10.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.4	41.1	41.1	11.8	11.8	11.2	27.7	27.7	15.8	20.6	20.6	10.0

LOS by Move:	E	E	E	B	B	B	D	D	C	C	C	A
ApproachDel:	41.4			11.4			22.6			20.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	41.4			11.4			22.6			20.5		
LOS by Appr:	E			B			C			C		

AllWayAvgQ: 4.1 4.1 4.1 0.0 0.0 0.1 2.3 2.3 0.9 1.2 1.2 0.0

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Note: Queue reported is the number of cars per lane.

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Alhambra Campus Residential Development TIA
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

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*****
Intersection #25 Fremont Ave and Ramona Road/10 EB ramp
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          1.327
Loss Time (sec):      0          Average Delay (sec/veh):          98.7
Optimal Cycle:        0          Level Of Service:          F
*****
Street Name:          Fremont Ave          Ramona Road/10 EB ramp
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:              Stop Sign          Stop Sign          Stop Sign          Stop Sign
Rights:               Include          Include          Include          Include
Min. Green:           0    0    0          0    0    0          0    0    0          0    0    0
Lanes:                0    0    1    0    1          0    0    0    0    0          0    1    0    0    1          0    0    1!    0    0
-----|-----|-----|-----|
Volume Module:PM Peak
Base Vol:             0    731    116          0    0    0          4    91    289          47    0    78
Growth Adj:           1.07 1.07 1.07          1.07 1.07 1.07          1.07 1.07 1.07          1.07 1.07 1.07
Initial Bse:          0    784    124          0    0    0          4    98    310          50    0    84
Added Vol:            0    0    19          0    0    0          0    0    40          0    0    0
PasserByVol:          0    0    0          0    0    0          0    0    0          0    0    0
Initial Fut:          0    784    143          0    0    0          4    98    350          50    0    84
User Adj:             1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
PHF Adj:              1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
PHF Volume:           0    784    143          0    0    0          4    98    350          50    0    84
Reduct Vol:           0    0    0          0    0    0          0    0    0          0    0    0
Reduced Vol:          0    784    143          0    0    0          4    98    350          50    0    84
PCE Adj:              1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
MLF Adj:              1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
FinalVolume:          0    784    143          0    0    0          4    98    350          50    0    84
-----|-----|-----|-----|
Saturation Flow Module:
Adjustment:           1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
Lanes:                0.00 1.00 1.00          0.00 0.00 0.00          0.04 0.96 1.00          0.38 xxxx 0.62
Final Sat.:           0    590    656          0    0    0          22    506    591          197    0    328
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              xxxx 1.33 0.22          xxxx xxxx xxxx          0.19 0.19 0.59          0.26 0.00 0.26
Crit Moves:           ****
Delay/Veh:            0.0    178    9.6          0.0    0.0    0.0          11.1 11.1 17.1          12.1 12.1 12.1
Delay Adj:            1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
AdjDel/Veh:           0.0    178    9.6          0.0    0.0    0.0          11.1 11.1 17.1          12.1 12.1 12.1
LOS by Move:          *    F    A          *    *    *          B    B    C          B    B    B
ApproachDel:          151.6          xxxxxx          15.7          12.1
Delay Adj:            1.00          xxxxxx          1.00          1.00
ApprAdjDel:           151.6          xxxxxx          15.7          12.1
LOS by Appr:          F          *          C          B

```


AllWayAvgQ: 0.0 27.7 0.3 0.0 0.0 0.0 0.2 0.2 1.4 0.3 0.3 0.3

Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to K-H, PHOENIX, AZ
2024 Cum + Proj PM Wed Apr 11, 2018 10:41:06 Page 30-2

Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
PM Peak Hour

Note: Queue reported is the number of cars per lane.

Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to K-H, PHOENIX, AZ
2024 Cum + Proj PM Wed Apr 11, 2018 10:41:06 Page 31-1

Alhambra Campus Residential Development TIA
Cumulative Conditions Plus Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

```

*****
Intersection #26 Ross Ave and Fremont Ave
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.541
Loss Time (sec):       10          Average Delay (sec/veh):          xxxxxx
Optimal Cycle:         36          Level Of Service:          A
*****
Street Name:          Fremont Ave          Ross Ave
Approach:              North Bound          South Bound          East Bound          West Bound
Movement:              L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:                Permitted          Permitted          Protected          Protected
Rights:                 Include          Include          Include          Include
Min. Green:             0    0    0          0    0    0          0    0    0          0    0    0
Y+R:                   4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:                  1  0  1  1  0          1  0  1  1  0          1  0  0  1  0          1  0  1  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:               30  849  168          26  988  41          11  32   6          54  40  41
Growth Adj:             1.07 1.07  1.07          1.07 1.07  1.07          1.07 1.07  1.07          1.07 1.07  1.07
Initial Bse:            32  910  180          28 1059  44          12  34   6          58  43  44
Added Vol:              0   62   0          0   46   0          0   0   0          0   0   0
PasserByVol:           0   0   0          0   0   0          0   0   0          0   0   0
Initial Fut:           32  972  180          28 1105  44          12  34   6          58  43  44
User Adj:              1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Adj:               1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Volume:            32  972  180          28 1105  44          12  34   6          58  43  44
Reduct Vol:            0   0   0          0   0   0          0   0   0          0   0   0
Reduced Vol:           32  972  180          28 1105  44          12  34   6          58  43  44
PCE Adj:               1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
MLF Adj:               1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
FinalVolume:           32  972  180          28 1105  44          12  34   6          58  43  44
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1600 1600  1600          1600 1600  1600          1600 1600  1600          1600 1600  1600
Adjustment:            1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
Lanes:                 1.00 1.69  0.31          1.00 1.92  0.08          1.00 0.84  0.16          1.00 1.00  1.00
Final Sat.:           1600 2700   500          1600 3078  122          1600 1347  253          1600 1600  1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:               0.02 0.36  0.36          0.02 0.36  0.36          0.01 0.03  0.03          0.04 0.03  0.03

```


Intersection

Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	13	30	14	2	6	2	5	68	2	5	207	32
Future Vol, veh/h	13	30	14	2	6	2	5	68	2	5	207	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	33	15	2	7	2	5	74	2	5	225	35
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.4	8.2	8.3	9.3
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	7%	0%	30%	0%	25%	0%	2%	0%
Vol Thru, %	93%	0%	70%	0%	75%	0%	98%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	2	43	14	8	2	212	32
LT Vol	5	0	13	0	2	0	5	0
Through Vol	68	0	30	0	6	0	207	0
RT Vol	0	2	0	14	0	2	0	32
Lane Flow Rate	79	2	47	15	9	2	230	35
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.11	0.003	0.072	0.02	0.013	0.003	0.309	0.04
Departure Headway (Hd)	4.975	4.238	5.53	4.674	5.565	4.735	4.82	4.107
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	723	846	649	767	644	756	751	877
Service Time	2.691	1.954	3.251	2.395	3.291	2.461	2.52	1.807
HCM Lane V/C Ratio	0.109	0.002	0.072	0.02	0.014	0.003	0.306	0.04
HCM Control Delay	8.3	7	8.7	7.5	8.4	7.5	9.7	7
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0	0.2	0.1	0	0	1.3	0.1

Intersection

Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗	↘		↗	↘		↗	↘		↗	↘
Traffic Vol, veh/h	6	12	8	1	4	8	15	96	2	13	175	13
Future Vol, veh/h	6	12	8	1	4	8	15	96	2	13	175	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	13	9	1	4	9	16	104	2	14	190	14
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.1	7.7	8.5	9
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	14%	0%	33%	0%	20%	0%	7%	0%
Vol Thru, %	86%	0%	67%	0%	80%	0%	93%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	111	2	18	8	5	8	188	13
LT Vol	15	0	6	0	1	0	13	0
Through Vol	96	0	12	0	4	0	175	0
RT Vol	0	2	0	8	0	8	0	13
Lane Flow Rate	121	2	20	9	5	9	204	14
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.16	0.002	0.03	0.011	0.008	0.011	0.267	0.016
Departure Headway (Hd)	4.783	4.015	5.542	4.67	5.493	4.688	4.702	3.966
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	740	876	650	771	655	768	756	891
Service Time	2.58	1.81	3.242	2.37	3.194	2.389	2.476	1.74
HCM Lane V/C Ratio	0.164	0.002	0.031	0.012	0.008	0.012	0.27	0.016
HCM Control Delay	8.5	6.8	8.4	7.4	8.2	7.4	9.2	6.8
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.6	0	0.1	0	0	0	1.1	0

Intersection

Intersection Delay, s/veh 92.9

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱			↱	↱
Traffic Vol, veh/h	55	175	394	427	65	14	394	59	23	84	15	214
Future Vol, veh/h	55	175	394	427	65	14	394	59	23	84	15	214
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	190	428	464	71	15	428	64	25	91	16	233
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	54.9	239.4	33.1	22.9
HCM LOS	F	F	D	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	66%	24%	0%	87%	0%	85%	0%
Vol Thru, %	0%	25%	76%	0%	13%	0%	15%	0%
Vol Right, %	0%	10%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	236	240	230	394	492	14	99	214
LT Vol	236	158	55	0	427	0	84	0
Through Vol	0	59	175	0	65	0	15	0
RT Vol	0	23	0	394	0	14	0	214
Lane Flow Rate	257	260	250	428	535	15	108	233
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.687	0.679	0.628	0.978	1.457	0.036	0.299	0.573
Departure Headway (Hd)	10.648	10.396	9.993	9.128	9.811	8.626	11.067	9.871
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	342	349	365	403	374	415	327	368
Service Time	8.348	8.096	7.693	6.828	7.566	6.38	8.767	7.571
HCM Lane V/C Ratio	0.751	0.745	0.685	1.062	1.43	0.036	0.33	0.633
HCM Control Delay	33.8	32.5	28.1	70.5	245.9	11.7	18.4	25
HCM Lane LOS	D	D	D	F	F	B	C	C
HCM 95th-tile Q	4.8	4.7	4.1	11.5	28	0.1	1.2	3.4

Intersection

Intersection Delay, s/veh 139.6

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕	↕			
Traffic Vol, veh/h	2	26	639	122	0	16	0	670	82	0	0	0
Future Vol, veh/h	2	26	639	122	0	16	0	670	82	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	28	695	133	0	17	0	728	89	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	119.7	16.1	179.9
HCM LOS	F	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	7%	0%	88%
Vol Thru, %	100%	0%	93%	0%	0%
Vol Right, %	0%	100%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	670	82	28	639	138
LT Vol	0	0	2	0	122
Through Vol	670	0	26	0	0
RT Vol	0	82	0	639	16
Lane Flow Rate	728	89	30	695	150
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.372	0.151	0.058	1.183	0.322
Departure Headway (Hd)	7.231	6.516	7.765	7.009	8.935
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	510	554	464	521	405
Service Time	4.931	4.216	5.465	4.709	6.935
HCM Lane V/C Ratio	1.427	0.161	0.065	1.334	0.37
HCM Control Delay	200.7	10.4	10.9	124.5	16.1
HCM Lane LOS	F	B	B	F	C
HCM 95th-tile Q	31.3	0.5	0.2	22.1	1.4

HCM 2010 TWSC

4: Date Ave & Orange St

03/15/2018

Intersection

Int Delay, s/veh 4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗	↖	↗	↖	↗	↖	↗
Traffic Vol, veh/h	24	50	53	8	28	3	52	141	5	6	211	72
Future Vol, veh/h	24	50	53	8	28	3	52	141	5	6	211	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	54	58	9	30	3	57	153	5	7	229	78

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	524	508	229	536	508	153	229	0	0	153	0	0
Stage 1	242	242	-	266	266	-	-	-	-	-	-	-
Stage 2	282	266	-	270	242	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	464	468	810	455	468	893	1339	-	-	1428	-	-
Stage 1	762	705	-	739	689	-	-	-	-	-	-	-
Stage 2	725	689	-	736	705	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	423	446	810	370	446	893	1339	-	-	1428	-	-
Mov Cap-2 Maneuver	423	446	-	370	446	-	-	-	-	-	-	-
Stage 1	730	702	-	708	660	-	-	-	-	-	-	-
Stage 2	660	660	-	628	702	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.9		13.9		2.1		0.2	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1339	-	-	438	810	427	893	1428	-	-
HCM Lane V/C Ratio	0.042	-	-	0.184	0.071	0.092	0.004	0.005	-	-
HCM Control Delay (s)	7.8	-	-	15.1	9.8	14.3	9	7.5	-	-
HCM Lane LOS	A	-	-	C	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.2	0.3	0	0	-	-

Intersection

Int Delay, s/veh 5.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	110	463	1296	188	74	150
Future Vol, veh/h	110	463	1296	188	74	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	120	503	1409	204	80	163

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1613	0	0 2002 807
Stage 1	-	-	- 1511 -
Stage 2	-	-	- 491 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	400	-	- ~ 52 324
Stage 1	-	-	- 169 -
Stage 2	-	-	- 581 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	400	-	- ~ 30 324
Mov Cap-2 Maneuver	-	-	- 115 -
Stage 1	-	-	- 169 -
Stage 2	-	-	- 339 -

Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	47.3
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	400	-	-	-	115	324
HCM Lane V/C Ratio	0.299	-	-	-	0.699	0.503
HCM Control Delay (s)	17.8	-	-	-	88.8	26.9
HCM Lane LOS	C	-	-	-	F	D
HCM 95th %tile Q(veh)	1.2	-	-	-	3.7	2.7

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕	↕	↕	↕	↕
Traffic Vol, veh/h	14	16	76	2	5	2	91	187	9	13	184	59
Future Vol, veh/h	14	16	76	2	5	2	91	187	9	13	184	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	17	83	2	5	2	99	203	10	14	200	64

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	632	629	200	679	629	203	200	0	0	203	0	0
Stage 1	228	228	-	401	401	-	-	-	-	-	-	-
Stage 2	404	401	-	278	228	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	393	399	841	366	399	838	1372	-	-	1369	-	-
Stage 1	775	715	-	626	601	-	-	-	-	-	-	-
Stage 2	623	601	-	728	715	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	363	366	841	298	366	838	1372	-	-	1369	-	-
Mov Cap-2 Maneuver	363	366	-	298	366	-	-	-	-	-	-	-
Stage 1	719	708	-	581	558	-	-	-	-	-	-	-
Stage 2	571	558	-	634	708	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.2		14.3		2.5		0.4	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1372	-	-	614 344 838	1369	-	-
HCM Lane V/C Ratio	0.072	-	-	0.188 0.022 0.003	0.01	-	-
HCM Control Delay (s)	7.8	-	-	12.2 15.7 9.3	7.7	-	-
HCM Lane LOS	A	-	-	B C A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.7 0.1 0	0	-	-

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	64	74	76	2	14	8	5	185	2	11	291	18
Future Vol, veh/h	64	74	76	2	14	8	5	185	2	11	291	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	70	80	83	2	15	9	5	201	2	12	316	20
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10.4	9.2	11.3	13.7
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	46%	0%	12%	0%	4%	0%
Vol Thru, %	97%	0%	54%	0%	88%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	190	2	138	76	16	8	302	18
LT Vol	5	0	64	0	2	0	11	0
Through Vol	185	0	74	0	14	0	291	0
RT Vol	0	2	0	76	0	8	0	18
Lane Flow Rate	207	2	150	83	17	9	328	20
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.33	0.003	0.264	0.124	0.032	0.014	0.512	0.027
Departure Headway (Hd)	5.75	5.029	6.344	5.401	6.552	5.777	5.612	4.888
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	626	712	567	664	546	619	647	737
Service Time	3.475	2.755	4.075	3.132	4.293	3.518	3.312	2.588
HCM Lane V/C Ratio	0.331	0.003	0.265	0.125	0.031	0.015	0.507	0.027
HCM Control Delay	11.3	7.8	11.3	8.9	9.5	8.6	14.1	7.7
HCM Lane LOS	B	A	B	A	A	A	B	A
HCM 95th-tile Q	1.4	0	1.1	0.4	0.1	0	2.9	0.1

Intersection

Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	10	13	85	6	10	8	5	157	10	15	362	13
Future Vol, veh/h	10	13	85	6	10	8	5	157	10	15	362	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	14	92	7	11	9	5	171	11	16	393	14
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.1	9.1	9.8	14.5
HCM LOS	A	A	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	43%	0%	38%	0%	4%	0%
Vol Thru, %	97%	0%	57%	0%	62%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	162	10	23	85	16	8	377	13
LT Vol	5	0	10	0	6	0	15	0
Through Vol	157	0	13	0	10	0	362	0
RT Vol	0	10	0	85	0	8	0	13
Lane Flow Rate	176	11	25	92	17	9	410	14
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.26	0.014	0.044	0.138	0.031	0.013	0.582	0.017
Departure Headway (Hd)	5.325	4.604	6.299	5.371	6.413	5.514	5.115	4.392
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	671	771	566	662	554	643	705	810
Service Time	3.089	2.368	4.071	3.143	4.203	3.303	2.867	2.144
HCM Lane V/C Ratio	0.262	0.014	0.044	0.139	0.031	0.014	0.582	0.017
HCM Control Delay	10	7.4	9.4	9	9.4	8.4	14.8	7.2
HCM Lane LOS	A	A	A	A	A	A	B	A
HCM 95th-tile Q	1	0	0.1	0.5	0.1	0	3.8	0.1

Intersection

Intersection Delay, s/veh 45.3

Intersection LOS E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕	↕	↕			↕	↕
Traffic Vol, veh/h	31	321	265	129	113	2	529	184	105	11	5	43
Future Vol, veh/h	31	321	265	129	113	2	529	184	105	11	5	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	349	288	140	123	2	575	200	114	12	5	47
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	30.8	26.2	64.4	12.5
HCM LOS	D	D	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	29%	9%	0%	53%	0%	69%	0%
Vol Thru, %	0%	45%	91%	0%	47%	0%	31%	0%
Vol Right, %	0%	26%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	413	405	352	265	242	2	16	43
LT Vol	413	116	31	0	129	0	11	0
Through Vol	0	184	321	0	113	0	5	0
RT Vol	0	105	0	265	0	2	0	43
Lane Flow Rate	448	441	383	288	263	2	17	47
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	1.016	0.93	0.835	0.568	0.641	0.005	0.046	0.11
Departure Headway (Hd)	8.152	7.6	7.977	7.213	8.952	7.953	9.76	8.669
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	449	480	455	504	405	453	369	416
Service Time	5.852	5.3	5.677	4.913	6.652	5.653	7.46	6.369
HCM Lane V/C Ratio	0.998	0.919	0.842	0.571	0.649	0.004	0.046	0.113
HCM Control Delay	75.6	53.1	39.7	19	26.3	10.7	12.9	12.4
HCM Lane LOS	F	F	E	C	D	B	B	B
HCM 95th-tile Q	13.4	10.9	8.1	3.5	4.3	0	0.1	0.4

Intersection

Intersection Delay, s/veh 144.2

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱↲			↱	↱			
Traffic Vol, veh/h	4	98	350	50	0	84	0	784	143	0	0	0
Future Vol, veh/h	4	98	350	50	0	84	0	784	143	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	107	380	54	0	91	0	852	155	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	20.2	14.1	223.5
HCM LOS	C	B	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	4%	0%	37%
Vol Thru, %	100%	0%	96%	0%	0%
Vol Right, %	0%	100%	0%	100%	63%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	784	143	102	350	134
LT Vol	0	0	4	0	50
Through Vol	784	0	98	0	0
RT Vol	0	143	0	350	84
Lane Flow Rate	852	155	111	380	146
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.524	0.247	0.212	0.65	0.28
Departure Headway (Hd)	6.437	5.728	7.967	7.227	8.043
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	571	631	453	502	450
Service Time	4.137	3.428	5.667	4.927	6.043
HCM Lane V/C Ratio	1.492	0.246	0.245	0.757	0.324
HCM Control Delay	262.4	10.3	12.8	22.4	14.1
HCM Lane LOS	F	B	B	C	B
HCM 95th-tile Q	43.9	1	0.8	4.6	1.1

HCM 2010 TWSC

4: Date Ave & Orange St

03/15/2018

Intersection												
Int Delay, s/veh	15.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	74	173	170	1	34	6	40	210	3	27	316	48
Future Vol, veh/h	74	173	170	1	34	6	40	210	3	27	316	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	80	188	185	1	37	7	43	228	3	29	343	52
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	736	717	343	811	717	228	343	0	0	228	0	0
Stage 1	402	402	-	315	315	-	-	-	-	-	-	-
Stage 2	334	315	-	496	402	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	335	355	700	298	355	811	1216	-	-	1340	-	-
Stage 1	625	600	-	696	656	-	-	-	-	-	-	-
Stage 2	680	656	-	556	600	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	291	335	700	117	335	811	1216	-	-	1340	-	-
Mov Cap-2 Maneuver	291	335	-	117	335	-	-	-	-	-	-	-
Stage 1	603	587	-	671	633	-	-	-	-	-	-	-
Stage 2	613	633	-	272	587	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	37.2			16.7			1.3			0.5		
HCM LOS	E			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1216	-	-	320	700	318	811	1340	-	-		
HCM Lane V/C Ratio	0.036	-	-	0.839	0.264	0.12	0.008	0.022	-	-		
HCM Control Delay (s)	8.1	-	-	54.6	12	17.9	9.5	7.7	-	-		
HCM Lane LOS	A	-	-	F	B	C	A	A	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	7.3	1.1	0.4	0	0.1	-	-		

Intersection

Int Delay, s/veh 30.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	143	789	604	158	235	204
Future Vol, veh/h	143	789	604	158	235	204
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	155	858	657	172	255	222

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	828	0	0 1482 414
Stage 1	-	-	- 742 -
Stage 2	-	-	- 740 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	799	-	- ~ 116 587
Stage 1	-	-	- 432 -
Stage 2	-	-	- 433 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	799	-	- ~ 73 587
Mov Cap-2 Maneuver	-	-	- ~ 183 -
Stage 1	-	-	- 432 -
Stage 2	-	-	- 272 -

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	144
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	799	-	-	-	183	587
HCM Lane V/C Ratio	0.195	-	-	-	1.396	0.378
HCM Control Delay (s)	10.6	-	-	-	256.2	14.8
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.7	-	-	-	15.3	1.8

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	7	8	38	11	15	18	84	218	13	41	421	23
Future Vol, veh/h	7	8	38	11	15	18	84	218	13	41	421	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	9	41	12	16	20	91	237	14	45	458	25

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	975	967	458	992	967	237	458	0	0	237	0	0
Stage 1	547	547	-	420	420	-	-	-	-	-	-	-
Stage 2	428	420	-	572	547	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	231	254	603	225	254	802	1103	-	-	1330	-	-
Stage 1	521	517	-	611	589	-	-	-	-	-	-	-
Stage 2	605	589	-	505	517	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	195	225	603	186	225	802	1103	-	-	1330	-	-
Mov Cap-2 Maneuver	195	225	-	186	225	-	-	-	-	-	-	-
Stage 1	478	500	-	561	540	-	-	-	-	-	-	-
Stage 2	525	540	-	447	500	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.7	18.8	2.3	0.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1103	-	-	394 207 802	1330	-	-
HCM Lane V/C Ratio	0.083	-	-	0.146 0.137 0.024	0.034	-	-
HCM Control Delay (s)	8.6	-	-	15.7 25.1 9.6	7.8	-	-
HCM Lane LOS	A	-	-	C D A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.5 0.5 0.1	0.1	-	-

Appendix N – Intersection Analysis Worksheets – Cumulative (2028) Conditions (Scenario 2)

Scenario Report

Scenario:	2028 Cumulative AM
Command:	2028 Ambient Growth AM
Volume:	2028 AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	2024 Cum + Project AM
Trip Distribution:	Cum + Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Turning Movement Report
Cum AM + Project 2024 AM

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Fremont Ave and Mission Rd													
Base	247	1505	225	13	1454	49	69	374	530	397	871	48	5783
Added	0	5	21	0	42	24	17	1	0	57	9	0	176
Total	247	1510	246	13	1496	73	86	375	530	454	880	48	5959
#2 Fremont Ave and 1000 Fremont Ave													
Base	54	1446	131	4	1440	40	26	6	60	4	1	7	3219
Added	0	22	0	0	66	0	0	0	0	0	0	0	88
Total	54	1468	131	4	1506	40	26	6	60	4	1	7	3307
#3 Fremont Ave and Orange St													
Base	2	1254	248	156	1473	2	1	1	0	60	0	59	3257
Added	0	16	6	4	15	0	0	0	0	50	0	29	120
Total	2	1270	254	160	1488	2	1	1	0	110	0	88	3377
#4 Date Ave and Orange St													
Base	54	99	6	7	186	74	20	36	47	8	27	3	566
Added	1	46	0	0	32	1	5	16	8	0	2	0	111
Total	55	145	6	7	218	75	25	52	55	8	29	3	677
#5 Palm Ave and Orange St													
Base	6	66	2	6	214	32	8	20	15	2	6	2	378
Added	0	5	0	0	1	1	5	11	0	0	1	0	24
Total	6	71	2	6	215	33	13	31	15	2	7	2	402
#6 Chestnut St and Palm Ave													
Base	16	100	2	13	182	12	1	1	8	1	3	8	348
Added	0	0	0	0	0	1	5	11	0	0	1	0	18
Total	16	100	2	13	182	13	6	12	8	1	4	8	366
#7 Fremont Ave and Poplar Blvd													
Base	100	1156	56	19	1564	17	21	116	73	59	118	20	3319
Added	9	44	9	1	26	0	0	9	1	1	7	4	111
Total	109	1200	65	20	1590	17	21	125	74	60	125	24	3430
#8 Date Ave and Mission Rd													
Base	0	0	0	25	0	87	91	482	0	0	1349	175	2209
Added	0	0	0	50	0	66	22	0	0	0	0	20	158
Total	0	0	0	75	0	153	113	482	0	0	1349	195	2367
#9 Chestnut St and Date Ave													
Base	85	161	9	13	151	59	0	0	0	2	3	2	485
Added	10	33	0	0	39	2	14	16	76	0	2	0	192
Total	95	194	9	13	190	61	14	16	76	2	5	2	677
#10 Fremont Ave and Concord Ave													
Base	62	1214	41	4	1540	66	45	13	76	25	16	11	3113
Added	0	45	0	0	19	0	0	0	0	0	0	0	64
Total	62	1259	41	4	1559	66	45	13	76	25	16	11	3177

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#11 Fremont Ave and Montezuma Ave													
Base	762	288	45	4	89	667	452	58	683	56	104	11	3219
Added	26	4	0	0	4	10	27	0	15	0	0	0	86
Total	788	292	45	4	93	677	479	58	698	56	104	11	3305
#12 Palm Ave and Commonwealth Ave													
Base	20	36	4	44	240	281	67	237	31	15	289	42	1305
Added	0	10	0	0	1	41	48	38	0	0	40	0	178
Total	20	46	4	44	241	322	115	275	31	15	329	42	1483
#13 Date Ave and Commonwealth Ave													
Base	27	45	18	52	74	79	76	267	105	132	364	75	1312
Added	10	0	48	0	0	0	0	38	1	41	40	0	178
Total	37	45	66	52	74	79	76	305	106	173	404	75	1490
#14 Fremont Ave and Commonwealth Ave													
Base	44	1125	103	191	1456	69	30	150	18	120	173	119	3597
Added	0	29	16	25	4	0	0	0	0	15	0	33	122
Total	44	1154	119	216	1460	69	30	150	18	135	173	152	3719
#15 Fremont Ave and Valley Blvd													
Base	46	1021	29	83	898	1420	588	451	31	62	809	206	5644
Added	5	22	4	0	62	36	5	2	1	7	3	0	147
Total	51	1043	33	83	960	1456	593	453	32	69	812	206	5791
#16 Palm Ave and Mission Rd													
Base	0	0	0	57	0	138	37	471	0	0	1433	94	2229
Added	0	0	0	0	0	0	0	50	0	0	20	0	70
Total	0	0	0	57	0	138	37	521	0	0	1453	94	2299
#17 Marengo Ave and Valley Blvd													
Base	25	131	80	249	182	153	185	467	26	69	1067	210	2843
Added	10	26	0	9	25	0	0	0	7	0	0	1	78
Total	35	157	80	258	207	153	185	467	33	69	1067	211	2921
#18 Atlantic Blvd and Mission Road													
Base	172	1185	128	45	1052	274	98	576	75	195	1067	37	4904
Added	0	31	0	0	23	1	3	17	0	0	2	0	77
Total	172	1216	128	45	1075	275	101	593	75	195	1069	37	4981
#19 Marengo Ave and Mission Road													
Base	95	426	175	48	562	74	49	392	95	303	1306	83	3608
Added	24	0	3	0	0	1	4	17	33	1	2	0	85
Total	119	426	178	48	562	75	53	409	128	304	1308	83	3693
#20 Marengo Ave and Front St													
Base	2	567	3	11	550	399	90	12	8	2	84	38	1767
Added	0	28	0	0	34	0	0	0	0	0	0	0	62
Total	2	595	3	11	584	399	90	12	8	2	84	38	1829

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#21 I-710 NB Ramp and Valley Blvd													
Base	673	1	764	4	0	1	0	231	0	0	2428	7	4109
Added	0	0	8	0	0	0	0	0	0	0	45	0	53
Total	673	1	772	4	0	1	0	231	0	0	2473	7	4162
#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	239	725	1777	1339	0	4080
Added	0	0	0	0	0	0	0	0	0	45	0	0	45
Total	0	0	0	0	0	0	0	239	725	1822	1339	0	4125
#23 Fremont Ave and Hellman Ave													
Base	158	1042	349	142	788	123	120	124	171	187	254	237	3695
Added	0	22	14	29	41	0	0	0	0	1	0	9	116
Total	158	1064	363	171	829	123	120	124	171	188	254	246	3811
#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	399	61	23	87	16	223	57	182	365	444	68	15	1940
Added	10	0	0	0	0	0	0	0	43	0	0	0	53
Total	409	61	23	87	16	223	57	182	408	444	68	15	1993
#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	697	54	0	0	0	2	27	652	127	0	17	1575
Added	0	0	31	0	0	0	0	0	13	0	0	0	44
Total	0	697	85	0	0	0	2	27	665	127	0	17	1619
#26 Ross Ave and Fremont Ave													
Base	29	1124	237	47	967	38	29	55	6	193	197	19	2940
Added	0	31	0	0	71	0	0	0	0	0	0	0	102
Total	29	1155	237	47	1038	38	29	55	6	193	197	19	3042
#27 Westmont Dr and Valley Blvd													
Base	57	16	8	4	7	41	19	1078	16	3	2272	33	3554
Added	0	0	0	0	0	0	0	8	0	0	45	0	53
Total	57	16	8	4	7	41	19	1086	16	3	2317	33	3607
#135													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	22	0	0	66	0	88
Total	0	0	0	0	0	0	0	22	0	0	66	0	88

Intersection Volume Report
Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	247	1505	225	13	1454	49	69	374	530	397	871	48
2 Fremont Ave a	54	1446	131	4	1440	40	26	6	60	4	1	7
3 Fremont Ave a	2	1254	248	156	1473	2	1	1	0	60	0	59
4 Date Ave and	54	99	6	7	186	74	20	36	47	8	27	3
5 Palm Ave and	6	66	2	6	214	32	8	20	15	2	6	2
6 Chestnut St a	16	100	2	13	182	12	1	1	8	1	3	8
7 Fremont Ave a	100	1156	56	19	1564	17	21	116	73	59	118	20
8 Date Ave and	0	0	0	25	0	87	91	482	0	0	1349	175
9 Chestnut St a	85	161	9	13	151	59	0	0	0	2	3	2
10 Fremont Ave a	62	1214	41	4	1540	66	45	13	76	25	16	11
11 Fremont Ave a	762	288	45	4	89	667	452	58	683	56	104	11
12 Palm Ave and	20	36	4	44	240	281	67	237	31	15	289	42
13 Date Ave and	27	45	18	52	74	79	76	267	105	132	364	75
14 Fremont Ave a	44	1125	103	191	1456	69	30	150	18	120	173	119
15 Fremont Ave a	46	1021	29	83	898	1420	588	451	31	62	809	206
16 Palm Ave and	0	0	0	57	0	138	37	471	0	0	1433	94
17 Marengo Ave a	25	131	80	249	182	153	185	467	26	69	1067	210
18 Atlantic Blvd	172	1185	128	45	1052	274	98	576	75	195	1067	37
19 Marengo Ave a	95	426	175	48	562	74	49	392	95	303	1306	83
20 Marengo Ave a	2	567	3	11	550	399	90	12	8	2	84	38
21 I-710 NB Ramp	673	1	764	4	0	1	0	231	0	0	2428	7
22 I-710 SB Ramp	0	0	0	0	0	0	0	239	725	1777	1339	0
23 Fremont Ave a	158	1042	349	142	788	123	120	124	171	187	254	237
24 Elm St and He	399	61	23	87	16	223	57	182	365	444	68	15
25 Fremont Ave a	0	697	54	0	0	0	2	27	652	127	0	17
26 Ross Ave and	29	1124	237	47	967	38	29	55	6	193	197	19
27 Westmont Dr a	57	16	8	4	7	41	19	1078	16	3	2272	33

Intersection Volume Report
Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	247	1510	246	13	1496	73	86	375	530	454	880	48
2 Fremont Ave a	54	1468	131	4	1506	40	26	6	60	4	1	7
3 Fremont Ave a	2	1270	254	160	1488	2	1	1	0	110	0	88
4 Date Ave and	55	145	6	7	218	75	25	52	55	8	29	3
5 Palm Ave and	6	71	2	6	215	33	13	31	15	2	7	2
6 Chestnut St a	16	100	2	13	182	13	6	12	8	1	4	8
7 Fremont Ave a	109	1200	65	20	1590	17	21	125	74	60	125	24
8 Date Ave and	0	0	0	75	0	153	113	482	0	0	1349	195
9 Chestnut St a	95	194	9	13	190	61	14	16	76	2	5	2
10 Fremont Ave a	62	1259	41	4	1559	66	45	13	76	25	16	11
11 Fremont Ave a	788	292	45	4	93	677	479	58	698	56	104	11
12 Palm Ave and	20	46	4	44	241	322	115	275	31	15	329	42
13 Date Ave and	37	45	66	52	74	79	76	305	106	173	404	75
14 Fremont Ave a	44	1154	119	216	1460	69	30	150	18	135	173	152
15 Fremont Ave a	51	1043	33	83	960	1456	593	453	32	69	812	206
16 Palm Ave and	0	0	0	57	0	138	37	521	0	0	1453	94
17 Marengo Ave a	35	157	80	258	207	153	185	467	33	69	1067	211
18 Atlantic Blvd	172	1216	128	45	1075	275	101	593	75	195	1069	37
19 Marengo Ave a	119	426	178	48	562	75	53	409	128	304	1308	83
20 Marengo Ave a	2	595	3	11	584	399	90	12	8	2	84	38
21 I-710 NB Ramp	673	1	772	4	0	1	0	231	0	0	2473	7
22 I-710 SB Ramp	0	0	0	0	0	0	0	239	725	1822	1339	0
23 Fremont Ave a	158	1064	363	171	829	123	120	124	171	188	254	246
24 Elm St and He	409	61	23	87	16	223	57	182	408	444	68	15
25 Fremont Ave a	0	697	85	0	0	0	2	27	665	127	0	17
26 Ross Ave and	29	1155	237	47	1038	38	29	55	6	193	197	19
27 Westmont Dr a	57	16	8	4	7	41	19	1086	16	3	2317	33

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Fremont Ave and Mission Rd	F	xxxxxx 1.288	F	xxxxxx 1.337	+ 0.049 V/C
# 2 Fremont Ave and 1000 Fremont A	B	xxxxxx 0.628	B	xxxxxx 0.648	+ 0.021 V/C
# 3 Fremont Ave and Orange St	B	xxxxxx 0.628	B	xxxxxx 0.660	+ 0.032 V/C
# 4 Date Ave and Orange St	B	11.6 0.058	B	12.1 0.090	+ 0.543 D/V
# 5 Palm Ave and Orange St	A	8.7 0.289	A	8.7 0.295	+ 0.005 V/C
# 6 Chestnut St and Palm Ave	A	8.6 0.254	A	8.6 0.258	+ 0.003 V/C
# 7 Fremont Ave and Poplar Blvd	C	xxxxxx 0.766	C	xxxxxx 0.786	+ 0.020 V/C
# 8 Date Ave and Mission Rd	C	20.5 0.247	D	28.2 0.442	+ 7.713 D/V
# 9 Chestnut St and Date Ave	B	10.9 0.062	B	12.0 0.089	+ 1.074 D/V
# 10 Fremont Ave and Concord Ave	C	xxxxxx 0.704	C	xxxxxx 0.709	+ 0.006 V/C
# 11 Fremont Ave and Montezuma Ave	B	xxxxxx 0.657	B	xxxxxx 0.677	+ 0.020 V/C
# 12 Palm Ave and Commonwealth Ave	A	xxxxxx 0.420	A	xxxxxx 0.489	+ 0.068 V/C
# 13 Date Ave and Commonwealth Ave	A	xxxxxx 0.411	A	xxxxxx 0.455	+ 0.044 V/C
# 14 Fremont Ave and Commonwealth A	C	xxxxxx 0.784	C	xxxxxx 0.794	+ 0.011 V/C
# 15 Fremont Ave and Valley Blvd	F	xxxxxx 1.029	F	xxxxxx 1.046	+ 0.017 V/C
# 16 Palm Ave and Mission Rd	B	xxxxxx 0.686	B	xxxxxx 0.693	+ 0.006 V/C
# 17 Marengo Ave and Valley Blvd	C	xxxxxx 0.786	D	xxxxxx 0.808	+ 0.022 V/C
# 18 Atlantic Blvd and Mission Road	E	xxxxxx 0.942	E	xxxxxx 0.952	+ 0.010 V/C
# 19 Marengo Ave and Mission Road	F	xxxxxx 1.021	F	xxxxxx 1.040	+ 0.019 V/C
# 20 Marengo Ave and Front St	D	xxxxxx 0.805	D	xxxxxx 0.826	+ 0.021 V/C
# 21 I-710 NB Ramp and Valley Blvd	C	xxxxxx 0.767	C	xxxxxx 0.776	+ 0.009 V/C
# 22 I-710 SB Ramp and Valley Blvd	F	xxxxxx 1.170	F	xxxxxx 1.186	+ 0.016 V/C
# 23 Fremont Ave and Hellman Ave	D	xxxxxx 0.858	D	xxxxxx 0.887	+ 0.029 V/C
# 24 Elm St and Hellman Ave/Ramona	F	61.0 1.262	F	64.9 1.280	+ 0.018 V/C
# 25 Fremont Ave and Ramona Road/10	F	110.2 1.287	F	111.9 1.287	+ 0.000 V/C

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 26 Ross Ave and Fremont Ave	C	xxxxx 0.713	C	xxxxx 0.722	+ 0.010 V/C
# 27 Westmont Dr and Valley Blvd	D	xxxxx 0.890	E	xxxxx 0.904	+ 0.014 V/C

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Fremont Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.337

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Fremont Ave

Mission Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 1 1 0

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Volume Module:

Base Vol: 221 1349 202 12 1303 44 62 335 475 356 781 43

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 247 1505 225 13 1454 49 69 374 530 397 871 48

Added Vol: 0 5 21 0 42 24 17 1 0 57 9 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 247 1510 246 13 1496 73 86 375 530 454 880 48

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 247 1510 246 13 1496 73 86 375 530 454 880 48

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 247 1510 246 13 1496 73 86 375 530 454 880 48

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 247 1510 246 13 1496 73 86 375 530 454 880 48

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.72 0.28 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.90 0.10

Final Sat.: 1600 2751 449 1600 3200 1600 1600 3200 1600 1600 3035 165

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Capacity Analysis Module:

Vol/Sat: 0.15 0.55 0.55 0.01 0.47 0.05 0.05 0.12 0.33 0.28 0.29 0.29

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.648

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 44 Level Of Service: B

Street Name:	Fremont Ave						1000 Fremont Ave						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Permitted			Permitted			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	2

Volume Module:	Fremont Ave			Fremont Ave			1000 Fremont Ave			1000 Fremont Ave		
Base Vol:	48	1296	117	4	1291	36	23	5	54	4	1	6
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	54	1446	131	4	1440	40	26	6	60	4	1	7
Added Vol:	0	22	0	0	66	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	1468	131	4	1506	40	26	6	60	4	1	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	1468	131	4	1506	40	26	6	60	4	1	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	1468	131	4	1506	40	26	6	60	4	1	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	1468	131	4	1506	40	26	6	60	4	1	7

Saturation Flow Module:	Fremont Ave			Fremont Ave			1000 Fremont Ave			1000 Fremont Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.08	0.92	1.00	0.14	0.86
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	136	1464	1600	229	1371

Capacity Analysis Module:	Fremont Ave			Fremont Ave			1000 Fremont Ave			1000 Fremont Ave		
Vol/Sat:	0.03	0.46	0.08	0.00	0.47	0.03	0.02	0.04	0.04	0.00	0.00	0.00
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.660

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 45 Level Of Service: B

Street Name:	Fremont Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	0	1	0	1	0

Volume Module:

Base Vol:	2	1124	222	140	1320	2	1	1	0	54	0	53
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	2	1254	248	156	1473	2	1	1	0	60	0	59
Added Vol:	0	16	6	4	15	0	0	0	0	50	0	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	1270	254	160	1488	2	1	1	0	110	0	88
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1270	254	160	1488	2	1	1	0	110	0	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1270	254	160	1488	2	1	1	0	110	0	88
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	1270	254	160	1488	2	1	1	0	110	0	88

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.50	0.50	1.00	1.11	0.00	0.89
Final Sat.:	1600	3200	1600	1600	3195	5	800	800	1600	1778	0	1422

Capacity Analysis Module:

Vol/Sat:	0.00	0.40	0.16	0.10	0.47	0.47	0.00	0.00	0.00	0.06	0.00	0.06
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Date Ave and Orange St

Average Delay (sec/veh): 3.6 Worst Case Level Of Service: B[12.1]

Street Name:

Date Ave

Orange St

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	1	0	1	0	1	0	1	0	1	0	1	0	1

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol:	48	89	5	6	167	66	18	32	42	7	24	3
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	54	99	6	7	186	74	20	36	47	8	27	3
Added Vol:	1	46	0	0	32	1	5	16	8	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	145	6	7	218	75	25	52	55	8	29	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	145	6	7	218	75	25	52	55	8	29	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	55	145	6	7	218	75	25	52	55	8	29	3

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	293	xxxx	xxxxxx	151	xxxx	xxxxxx	505	492	218	577	561	145
Potent Cap.:	1280	xxxx	xxxxxx	1443	xxxx	xxxxxx	481	481	826	431	439	907
Move Cap.:	1280	xxxx	xxxxxx	1443	xxxx	xxxxxx	438	458	826	355	419	907
Total Cap:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	585	577	xxxxxx	489	533	xxxxxx
Volume/Cap:	0.04	xxxx	xxxxxx	0.00	xxxx	xxxxxx	0.04	0.09	0.07	0.02	0.05	0.00

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	0.2	xxxx	xxxx	0.0
Control Del:	7.9	xxxx	xxxxxx	7.5	xxxx	xxxxxx	xxxxxx	xxxx	9.7	xxxxxx	xxxx	9.0
LOS by Move:	A	*	*	A	*	*	*	*	A	*	*	A
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	580	xxxx	xxxxxx	523	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.5	xxxx	xxxxxx	0.2	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	12.2	xxxx	xxxxxx	12.4	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	B	*	*	B	*	*
ApproachDel:	xxxxxx			xxxxxx			11.1			12.1		
ApproachLOS:	*			*			B			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Palm Ave and Orange St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.295
Loss Time (sec):	0	Average Delay (sec/veh):	8.7
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Palm Ave				Orange St															
Approach:	North Bound		South Bound		East Bound		West Bound													
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Rights:	Include				Include				Include				Include							
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1

Volume Module: >> Count Date:	17 Nov 2015 << AM Peak											
Base Vol:	5	59	2	5	192	29	7	18	13	2	5	2
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	6	66	2	6	214	32	8	20	15	2	6	2
Added Vol:	0	5	0	0	1	1	5	11	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	71	2	6	215	33	13	31	15	2	7	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	71	2	6	215	33	13	31	15	2	7	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	71	2	6	215	33	13	31	15	2	7	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	71	2	6	215	33	13	31	15	2	7	2

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.07	0.93	1.00	0.03	0.97	1.00	0.29	0.71	1.00	0.25	0.75	1.00
Final Sat.:	53	669	845	19	730	877	184	447	740	158	466	728

Capacity Analysis Module:												
Vol/Sat:	0.11	0.11	0.00	0.29	0.29	0.04	0.07	0.07	0.02	0.01	0.01	0.00
Crit Moves:	****			****			****			****		
Delay/Veh:	8.2	8.2	6.9	9.4	9.4	6.9	8.5	8.5	7.4	8.2	8.2	7.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.2	8.2	6.9	9.4	9.4	6.9	8.5	8.5	7.4	8.2	8.2	7.3
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.1			9.1			8.2			8.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.1			9.1			8.2			8.1		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.0	0.4	0.4	0.0	0.1	0.1	0.0	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.258
 Loss Time (sec): 0 Average Delay (sec/veh): 8.6
 Optimal Cycle: 0 Level Of Service: A

Street Name:	Chestnut St				Palm Ave					
Approach:	North Bound		South Bound		East Bound		West Bound			
Movement:	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign		Stop Sign		Stop Sign		Stop Sign			
Rights:	Include		Include		Include		Include			
Min. Green:	0	0	0	0	0	0	0	0	0	
Lanes:	0	1	0	0	1	0	0	1	0	1

Volume Module:	>> Count	Date:	17 Nov 2015	<< AM Peak
Base Vol:	14 90 2	12 163 11	1 1 7	1 3 7
Growth Adj:	1.12 1.12 1.12	1.12 1.12 1.12	1.12 1.12 1.12	1.12 1.12 1.12
Initial Bse:	16 100 2	13 182 12	1 1 8	1 3 8
Added Vol:	0 0 0	0 0 1	5 11 0	0 1 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	16 100 2	13 182 13	6 12 8	1 4 8
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	16 100 2	13 182 13	6 12 8	1 4 8
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	16 100 2	13 182 13	6 12 8	1 4 8
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
FinalVolume:	16 100 2	13 182 13	6 12 8	1 4 8

Saturation Flow Module:	
Adjustment:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.13 0.87 1.00 0.07 0.93 1.00 0.34 0.66 1.00 0.20 0.80 1.00
Final Sat.:	100 641 878 52 705 893 211 418 739 129 503 736

Capacity Analysis Module:	
Vol/Sat:	0.16 0.16 0.00 0.26 0.26 0.01 0.03 0.03 0.01 0.01 0.01 0.01
Crit Moves:	**** **** **** ****
Delay/Veh:	8.4 8.4 6.8 9.0 9.0 6.7 8.3 8.3 7.3 8.1 8.1 7.3
Delay Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	8.4 8.4 6.8 9.0 9.0 6.7 8.3 8.3 7.3 8.1 8.1 7.3
LOS by Move:	A A A A A A A A A A A A
ApproachDel:	8.4 8.9 8.0 7.7
Delay Adj:	1.00 1.00 1.00 1.00
ApprAdjDel:	8.4 8.9 8.0 7.7
LOS by Appr:	A A A A
AllWayAvgQ:	0.2 0.2 0.0 0.3 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.786

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 64 Level Of Service: C

Street Name:	Fremont Ave						Poplar Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:	Fremont Ave			Fremont Ave			Poplar Blvd			Poplar Blvd		
Base Vol:	90	1036	50	17	1402	15	19	104	65	53	106	18
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	100	1156	56	19	1564	17	21	116	73	59	118	20
Added Vol:	9	44	9	1	26	0	0	9	1	1	7	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	109	1200	65	20	1590	17	21	125	74	60	125	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	109	1200	65	20	1590	17	21	125	74	60	125	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	109	1200	65	20	1590	17	21	125	74	60	125	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	109	1200	65	20	1590	17	21	125	74	60	125	24

Saturation Flow Module:	Fremont Ave			Fremont Ave			Poplar Blvd			Poplar Blvd		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.90	0.10	1.00	1.98	0.02	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	3036	164	1600	3167	33	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:	Fremont Ave			Fremont Ave			Poplar Blvd			Poplar Blvd		
Vol/Sat:	0.07	0.40	0.40	0.01	0.50	0.50	0.01	0.08	0.05	0.04	0.08	0.02
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Date Ave and Mission Rd

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: D[28.2]

Street Name:

Date Ave

Mission Rd

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Rights:	Include				Include				Include				Include							
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	0	0	1	1	0

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol:	0	0	0	22	0	78	82	432	0	0	1209	157
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	25	0	87	91	482	0	0	1349	175
Added Vol:	0	0	0	50	0	66	22	0	0	0	0	20
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	75	0	153	113	482	0	0	1349	195
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	75	0	153	113	482	0	0	1349	195
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	75	0	153	113	482	0	0	1349	195

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1914	xxxx	772	1544	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	61	xxxx	347	436	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	49	xxxx	347	436	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	117	64	xxxxx	184	194	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.41	xxxx	0.44	0.26	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	2.0	xxxx	2.3	1.1	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	37.8	xxxx	23.5	16.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	E	*	C	C	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			28.2			xxxxxx			xxxxxx					
ApproachLOS:	*			D			*			*					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 3.1 Worst Case Level Of Service: B[12.0]

Street Name: Chestnut St Date Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 1 0 1 1 0 1 0 1 0 0 1! 0 0 0 1 0 0 1
 -----|-----|-----|-----|-----|

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
 Base Vol: 76 144 8 12 135 53 0 0 0 2 3 2
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 85 161 9 13 151 59 0 0 0 2 3 2
 Added Vol: 10 33 0 0 39 2 14 16 76 0 2 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 95 194 9 13 190 61 14 16 76 2 5 2
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 95 194 9 13 190 61 14 16 76 2 5 2
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 95 194 9 13 190 61 14 16 76 2 5 2
 -----|-----|-----|-----|-----|

Critical Gap Module:
 Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
 FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
 -----|-----|-----|-----|-----|

Capacity Module:
 Cnflict Vol: 251 xxxx xxxxx 203 xxxx xxxxx 608 609 190 676 661 194
 Potent Cap.: 1326 xxxx xxxxx 1381 xxxx xxxxx 411 413 857 370 385 853
 Move Cap.: 1326 xxxx xxxxx 1381 xxxx xxxxx 380 379 857 306 354 853
 Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 518 501 xxxxx 454 477 xxxxx
 Volume/Cap: 0.07 xxxx xxxxx 0.01 xxxx xxxxx 0.03 0.03 0.09 0.00 0.01 0.00
 -----|-----|-----|-----|-----|

Level Of Service Module:
 2Way95thQ: 0.2 xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx 0.0
 Control Del: 7.9 xxxx xxxxx 7.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx 9.2
 LOS by Move: A * * A * * * * * * * A
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 718 xxxxx 470 xxxx xxxxx
 SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 0.5 xxxxx 0.0 xxxx xxxxx
 Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 10.9 xxxxx 12.8 xxxx xxxxx
 Shared LOS: * * * * * * * B * B * *
 ApproachDel: xxxxxx xxxxxx 10.9 12.0
 ApproachLOS: * * B B

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Fremont Ave and Concord Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.709

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 51 Level Of Service: C

Street Name:	Fremont Ave						Concord Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	1	0	1	0	1	0

Volume Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Base Vol:	56	1088	37	4	1380	59	40	12	68	22	14	10
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	62	1214	41	4	1540	66	45	13	76	25	16	11
Added Vol:	0	45	0	0	19	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	1259	41	4	1559	66	45	13	76	25	16	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	62	1259	41	4	1559	66	45	13	76	25	16	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	1259	41	4	1559	66	45	13	76	25	16	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	1259	41	4	1559	66	45	13	76	25	16	11

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.90	0.10	1.00	1.92	0.08	1.00	1.00	1.00	1.00	0.58	0.42
Final Sat.:	1600	4648	152	1600	3070	130	1600	1600	1600	1600	933	667

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Vol/Sat:	0.04	0.27	0.27	0.00	0.51	0.51	0.03	0.01	0.05	0.02	0.02	0.02
Crit Moves:	****			****			****		****	****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.677

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 47 Level Of Service: B

Street Name:	Fremont Ave						Montezuma Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	1	0	0	2	0	0	1	1	0

Volume Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Base Vol:	683	258	40	4	80	598	405	52	612	50	93	10
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	762	288	45	4	89	667	452	58	683	56	104	11
Added Vol:	26	4	0	0	4	10	27	0	15	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	788	292	45	4	93	677	479	58	698	56	104	11
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	788	292	45	4	93	0	479	58	698	56	104	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	788	292	45	4	93	0	479	58	698	56	104	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	788	292	45	4	93	0	479	58	698	56	104	11

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.87	0.13	0.09	1.91	1.00	2.00	0.15	1.85	0.33	0.61	0.06
Final Sat.:	2880	1388	212	146	3054	1600	2880	246	2954	523	973	105

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Vol/Sat:	0.27	0.21	0.21	0.00	0.03	0.00	0.17	0.24	0.24	0.03	0.11	0.11
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.489

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 33 Level Of Service: A

Street Name:	Palm Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

Volume Module:	Palm Ave			Palm Ave			Commonwealth Ave			Commonwealth Ave		
Base Vol:	18	32	4	39	215	252	60	212	28	13	259	38
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	20	36	4	44	240	281	67	237	31	15	289	42
Added Vol:	0	10	0	0	1	41	48	38	0	0	40	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	46	4	44	241	322	115	275	31	15	329	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	46	4	44	241	322	115	275	31	15	329	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	46	4	44	241	322	115	275	31	15	329	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	46	4	44	241	322	115	275	31	15	329	42

Saturation Flow Module:	Palm Ave			Palm Ave			Commonwealth Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.80	0.20	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2873	327	1600	3200	1600

Capacity Analysis Module:	Palm Ave			Palm Ave			Commonwealth Ave			Commonwealth Ave		
Vol/Sat:	0.01	0.03	0.00	0.03	0.15	0.20	0.07	0.10	0.10	0.01	0.10	0.03
Crit Moves:	****					****	****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.455

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 31 Level Of Service: A

Street Name:	Date Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

Volume Module:	Date Ave			Date Ave			Commonwealth Ave			Commonwealth Ave		
Base Vol:	24	40	16	47	66	71	68	239	94	118	326	67
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	27	45	18	52	74	79	76	267	105	132	364	75
Added Vol:	10	0	48	0	0	0	0	38	1	41	40	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	45	66	52	74	79	76	305	106	173	404	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	37	45	66	52	74	79	76	305	106	173	404	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	45	66	52	74	79	76	305	106	173	404	75
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	37	45	66	52	74	79	76	305	106	173	404	75

Saturation Flow Module:	Date Ave			Date Ave			Commonwealth Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.48	0.52	1.00	1.48	0.52	1.00	1.69	0.31
Final Sat.:	1600	1600	1600	1600	771	829	1600	2375	825	1600	2700	500

Capacity Analysis Module:	Date Ave			Date Ave			Commonwealth Ave			Commonwealth Ave		
Vol/Sat:	0.02	0.03	0.04	0.03	0.10	0.10	0.05	0.13	0.13	0.11	0.15	0.15
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.794

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 65 Level Of Service: C

Street Name:	Fremont Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:	Fremont Ave			Fremont Ave			Commonwealth Ave			Commonwealth Ave		
Base Vol:	39	1008	92	171	1305	62	27	134	16	108	155	107
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	44	1125	103	191	1456	69	30	150	18	120	173	119
Added Vol:	0	29	16	25	4	0	0	0	0	15	0	33
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	1154	119	216	1460	69	30	150	18	135	173	152
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	44	1154	119	216	1460	69	30	150	18	135	173	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	1154	119	216	1460	69	30	150	18	135	173	152
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	44	1154	119	216	1460	69	30	150	18	135	173	152

Saturation Flow Module:	Fremont Ave			Fremont Ave			Commonwealth Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.91	0.09	1.00	0.89	0.11	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3055	145	1600	1429	171	1600	1600	1600

Capacity Analysis Module:	Fremont Ave			Fremont Ave			Commonwealth Ave			Commonwealth Ave		
Vol/Sat:	0.03	0.36	0.07	0.13	0.48	0.48	0.02	0.10	0.10	0.08	0.11	0.10
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Fremont Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.046
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

 Street Name: Fremont Ave Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 2 2 0 2 0 1 1 0 2 0 1
 -----|-----|-----|-----|

Volume Module:
 Base Vol: 41 915 26 74 805 1273 527 404 28 56 725 185
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 46 1021 29 83 898 1420 588 451 31 62 809 206
 Added Vol: 5 22 4 0 62 36 5 2 1 7 3 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 51 1043 33 83 960 1456 593 453 32 69 812 206
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 51 1043 33 83 960 1456 593 453 32 69 812 206
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 51 1043 33 83 960 1456 593 453 32 69 812 206
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 51 1043 33 83 960 1456 593 453 32 69 812 206
 -----|-----|-----|-----|

Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.94 0.06 1.00 2.00 2.00 2.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1600 3102 98 1600 3200 3200 2880 3200 1600 1600 3200 1600
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: 0.03 0.34 0.34 0.05 0.30 0.46 0.21 0.14 0.02 0.04 0.25 0.13
 Crit Moves: **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.693

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 49 Level Of Service: B

Street Name:	Palm Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	AM Peak
Base Vol:	0	0	0	51	0	124
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	57	0	138
Added Vol:	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	0	0	0	57	0	138
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	57	0	138
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	0	0	0	57	0	138
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	57	0	138

Saturation Flow Module:	Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.88	0.12
Final Sat.:	0	0	0	1600	0	1600	1600	3200	0	0	3006	194

Capacity Analysis Module:	Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.09	0.02	0.16	0.00	0.00	0.48	0.48
Crit Moves:							****	****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.808
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 69 Level Of Service: D

Street Name: Marengo Ave Valley Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 0 1 0 1 0 2 0 1 1 0 2 0 1
 -----|-----|-----|-----|

Volume Module:
 Base Vol: 22 117 72 223 163 137 166 419 23 62 956 188
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 25 131 80 249 182 153 185 467 26 69 1067 210
 Added Vol: 10 26 0 9 25 0 0 0 7 0 0 1
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 35 157 80 258 207 153 185 467 33 69 1067 211
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 35 157 80 258 207 153 185 467 33 69 1067 211
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 35 157 80 258 207 153 185 467 33 69 1067 211
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 35 157 80 258 207 153 185 467 33 69 1067 211
 -----|-----|-----|-----|

Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.00 1.00 1.00 0.58 0.42 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1600 1600 1600 1600 920 680 1600 3200 1600 1600 3200 1600
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: 0.02 0.10 0.05 0.16 0.22 0.22 0.12 0.15 0.02 0.04 0.33 0.13
 Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.952

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 135 Level Of Service: E

Street Name: Atlantic Blvd Mission Road

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 1 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 154 1062 115 40 943 246 88 516 67 175 956 33

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 172 1185 128 45 1052 274 98 576 75 195 1067 37

Added Vol: 0 31 0 0 23 1 3 17 0 0 2 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 172 1216 128 45 1075 275 101 593 75 195 1069 37

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 172 1216 128 45 1075 275 101 593 75 195 1069 37

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 172 1216 128 45 1075 275 101 593 75 195 1069 37

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 172 1216 128 45 1075 275 101 593 75 195 1069 37

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.81 0.19 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.93 0.07

Final Sat.: 1600 2895 305 1600 3200 1600 1600 3200 1600 1600 3093 107

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.11 0.42 0.42 0.03 0.34 0.17 0.06 0.19 0.05 0.12 0.35 0.35

Crit Moves: ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 1.040

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Marengo Ave

Mission Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 0 1 1 0 1 0 1 1 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 85 382 157 43 504 66 44 351 85 272 1171 74

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 95 426 175 48 562 74 49 392 95 303 1306 83

Added Vol: 24 0 3 0 0 1 4 17 33 1 2 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 119 426 178 48 562 75 53 409 128 304 1308 83

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 119 426 178 48 562 75 53 409 128 304 1308 83

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 119 426 178 48 562 75 53 409 128 304 1308 83

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 119 426 178 48 562 75 53 409 128 304 1308 83

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.88 0.12 1.00 1.52 0.48 1.00 1.88 0.12

Final Sat.: 1600 1600 1600 1600 1413 187 1600 2437 763 1600 3010 190

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.07 0.27 0.11 0.03 0.40 0.40 0.03 0.17 0.17 0.19 0.43 0.43

Crit Moves: ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #20 Marengo Ave and Front St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.826

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 73 Level Of Service: D

Street Name: Marengo Ave Front St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 0 1 0 1 0 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 2 508 3 10 493 358 81 11 7 2 75 34

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 2 567 3 11 550 399 90 12 8 2 84 38

Added Vol: 0 28 0 0 34 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 2 595 3 11 584 399 90 12 8 2 84 38

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 2 595 3 11 584 399 90 12 8 2 84 38

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 2 595 3 11 584 399 90 12 8 2 84 38

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 2 595 3 11 584 399 90 12 8 2 84 38

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 0.99 0.01 1.00 0.59 0.41 0.88 0.12 1.00 0.03 0.97 1.00

Final Sat.: 1600 1591 9 1600 950 650 1409 191 1600 42 1558 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.37 0.37 0.01 0.61 0.61 0.06 0.06 0.00 0.00 0.05 0.02

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #21 I-710 NB Ramp and Valley Blvd

Cycle (sec): 120 Critical Vol./Cap.(X): 0.776

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 65 Level Of Service: C

Street Name:	I-710 NB Ramp						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	2	0	0	3

Volume Module:

Base Vol:	603	1	685	4	0	1	0	207	0	0	2176	6
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	673	1	764	4	0	1	0	231	0	0	2428	7
Added Vol:	0	0	8	0	0	0	0	0	0	0	45	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	673	1	772	4	0	1	0	231	0	0	2473	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	673	1	772	4	0	1	0	231	0	0	2473	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	673	1	772	4	0	1	0	231	0	0	2473	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	673	1	772	4	0	1	0	231	0	0	2473	7

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.39	0.01	1.60	0.79	0.01	0.20	0.00	2.00	0.00	0.00	3.99	0.01
Final Sat.:	2233	4	2563	1280	0	320	0	3200	0	0	6383	17

Capacity Analysis Module:

Vol/Sat: 0.30 0.30 0.30 0.00 0.00 0.00 0.00 0.07 0.00 0.00 0.39 0.39

Crit Moves: ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.186

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: I-710 SB Ramp

Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 0 0 0 2 0 1 2 0 2 0 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 0 0 0 0 0 0 0 0 214 650 1593 1200 0

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 0 0 0 0 0 0 0 0 239 725 1777 1339 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 45 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 0 0 0 0 0 239 725 1822 1339 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 0 0 0 0 0 239 725 1822 1339 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 0 0 0 0 0 239 725 1822 1339 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 0 0 0 0 0 0 0 239 725 1822 1339 0

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00

Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00

Final Sat.: 0 0 0 0 0 0 0 0 3200 1600 2880 3200 0

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.07 0.45 0.63 0.42 0.00

Crit Moves: **** *

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.887

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 94 Level Of Service: D

Street Name: Fremont Ave

Hellman Ave

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

-----|-----|-----|-----|-----|

Control: Protected

Protected

Protected

Protected

Rights: Include

Include

Include

Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 1 0 1

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 142 934 313 127 706 110 108 111 153 168 228 212

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 158 1042 349 142 788 123 120 124 171 187 254 237

Added Vol: 0 22 14 29 41 0 0 0 0 1 0 9

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 158 1064 363 171 829 123 120 124 171 188 254 246

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 158 1064 363 171 829 123 120 124 171 188 254 246

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 158 1064 363 171 829 123 120 124 171 188 254 246

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 158 1064 363 171 829 123 120 124 171 188 254 246

-----|-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.49 0.51 1.00 1.74 0.26 1.00 1.00 1.00 1.00 1.00 1.00

Final Sat.: 1600 2386 814 1600 2787 413 1600 1600 1600 1600 1600 1600

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.10 0.45 0.45 0.11 0.30 0.30 0.08 0.08 0.11 0.12 0.16 0.15

Crit Moves: ****

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	1.280
Loss Time (sec):	0	Average Delay (sec/veh):	64.9
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Elm St				Hellman Ave/Ramona Rd/ 10 WB ramp															
Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Rights:	Include				Include				Include				Include							
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1

Volume Module:AM Peak

Base Vol:	358	55	21	78	14	200	51	163	327	398	61	13
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	399	61	23	87	16	223	57	182	365	444	68	15
Added Vol:	10	0	0	0	0	0	0	0	43	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	409	61	23	87	16	223	57	182	408	444	68	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	409	61	23	87	16	223	57	182	408	444	68	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	409	61	23	87	16	223	57	182	408	444	68	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	409	61	23	87	16	223	57	182	408	444	68	15

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.66	0.25	0.09	0.85	0.15	1.00	0.24	0.76	1.00	0.87	0.13	1.00
Final Sat.:	1025	-286	36	318	57	425	100	320	465	347	53	445

Capacity Analysis Module:

Vol/Sat:	0.40-0.21	0.65	0.27	0.27	0.52	0.57	0.57	0.88	1.28	1.28	0.03	
Crit Moves:	****				****			****	****			
Delay/Veh:	26.9	27.5	27.5	15.6	15.6	19.6	21.8	21.8	43.9	169.7	170	10.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.9	27.5	27.5	15.6	15.6	19.6	21.8	21.8	43.9	169.7	170	10.8
LOS by Move:	D	D	D	C	C	C	C	C	E	F	F	B
ApproachDel:	26.7		18.3		35.7		165.3					
Delay Adj:	1.00		1.00		1.00		1.00					
ApprAdjDel:	26.7		18.3		35.7		165.3					
LOS by Appr:	D		C		E		F					
AllWayAvgQ:	1.6	1.6	1.6	0.4	0.4	1.0	1.2	1.2	4.3	17.6	17.6	0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 1.287

Loss Time (sec): 0 Average Delay (sec/veh): 111.9

Optimal Cycle: 0 Level Of Service: F

Street Name:	Fremont Ave					Ramona Road/10 EB ramp						
Approach:	North Bound		South Bound			East Bound		West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign					Stop Sign			Stop Sign		Stop Sign	
Rights:	Include					Include			Include		Include	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	0	1	0	0	0	0	0	1	0

Volume Module:AM Peak	Fremont Ave					Ramona Road/10 EB ramp						
Base Vol:	0	625	48	0	0	0	2	24	584	114	0	15
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	697	54	0	0	0	2	27	652	127	0	17
Added Vol:	0	0	31	0	0	0	0	0	13	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	697	85	0	0	0	2	27	665	127	0	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	697	85	0	0	0	2	27	665	127	0	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	697	85	0	0	0	2	27	665	127	0	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	697	85	0	0	0	2	27	665	127	0	17

Saturation Flow Module:	Fremont Ave					Ramona Road/10 EB ramp						
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	0.00	0.00	0.08	0.92	1.00	0.88	xxxx	0.12
Final Sat.:	0	542	605	0	0	0	41	488	594	421	0	55

Capacity Analysis Module:	Fremont Ave					Ramona Road/10 EB ramp						
Vol/Sat:	xxxx	1.29	0.14	xxxx	xxxx	xxxx	0.05	0.05	1.12	0.30	0.00	0.30
Crit Moves:	****					****						
Delay/Veh:	0.0	163	9.6	0.0	0.0	0.0	9.9	9.9	96.8	13.8	13.8	13.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	163	9.6	0.0	0.0	0.0	9.9	9.9	96.8	13.8	13.8	13.8
LOS by Move:	*	F	A	*	*	*	A	A	F	B	B	B
ApproachDel:	146.7			xxxxxx			93.1			13.8		
Delay Adj:	1.00			xxxxxx			1.00			1.00		
ApprAdjDel:	146.7			xxxxxx			93.1			13.8		
LOS by Appr:	F			*			F			B		
AllWayAvgQ:	0.0	23.2	0.2	0.0	0.0	0.0	0.1	0.1	14.5	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.722

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 53 Level Of Service: C

Street Name:	Fremont Ave						Ross Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	0	1	0	1

Volume Module:

Base Vol:	26	1007	212	42	867	34	26	49	5	173	177	17
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	29	1124	237	47	967	38	29	55	6	193	197	19
Added Vol:	0	31	0	0	71	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	1155	237	47	1038	38	29	55	6	193	197	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	1155	237	47	1038	38	29	55	6	193	197	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	1155	237	47	1038	38	29	55	6	193	197	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	1155	237	47	1038	38	29	55	6	193	197	19

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.66	0.34	1.00	1.93	0.07	1.00	0.91	0.09	1.00	1.00	1.00
Final Sat.:	1600	2656	544	1600	3087	113	1600	1452	148	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.43	0.43	0.03	0.34	0.34	0.02	0.04	0.04	0.12	0.12	0.01
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Westmont Dr and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.904

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 102 Level Of Service: E

Street Name:	Westmont Dr						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	1	0	2 0	1	1	0 2 0

Volume Module:

Base Vol:	51	14	7	4	6	37	17	966	14	3	2036	30
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	57	16	8	4	7	41	19	1078	16	3	2272	33
Added Vol:	0	0	0	0	0	0	0	8	0	0	45	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	16	8	4	7	41	19	1086	16	3	2317	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	16	8	4	7	41	19	1086	16	3	2317	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	16	8	4	7	41	19	1086	16	3	2317	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	16	8	4	7	41	19	1086	16	3	2317	33

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.71	0.19	0.10	0.08	0.13	0.79	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1133	311	156	136	204	1260	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.04	0.05	0.05	0.00	0.03	0.03	0.01	0.34	0.01	0.00	0.72	0.02
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Crit Moves:	****	****	****	****
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Scenario Report

Scenario: 2028 Cumulative PM

Command: 2028 Ambient Growth PM
Volume: 2028 PM
Geometry: Existing
Impact Fee: Default Impact Fee
Trip Generation: 2024 Cum + Project PM
Trip Distribution: Cum + Project
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

Turning Movement Report
Cum PM + Project 2024 PM

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Fremont Ave and Mission Rd													
Base	215	1551	214	56	1226	60	131	561	481	344	471	50	5360
Added	0	36	46	0	21	13	18	7	0	29	4	0	174
Total	215	1587	260	56	1247	73	149	568	481	373	475	50	5534
#2 Fremont Ave and 1000 Fremont Ave													
Base	60	1626	48	8	1242	67	90	3	77	44	4	28	3297
Added	0	53	0	0	34	0	0	0	0	0	0	0	87
Total	60	1679	48	8	1276	67	90	3	77	44	4	28	3384
#3 Fremont Ave and Orange St													
Base	2	1562	195	114	1061	2	10	6	6	271	2	322	3554
Added	0	10	43	25	9	0	0	0	0	25	0	14	126
Total	2	1572	238	139	1070	2	10	6	6	296	2	336	3680
#4 Date Ave and Orange St													
Base	35	190	3	28	298	46	75	172	173	1	22	7	1049
Added	7	28	0	0	30	4	2	8	4	0	13	0	96
Total	42	218	3	28	328	50	77	180	177	1	35	7	1145
#5 Palm Ave and Orange St													
Base	6	191	2	11	299	15	65	71	79	2	6	8	754
Added	0	2	0	0	4	4	2	5	0	0	9	0	26
Total	6	193	2	11	303	19	67	76	79	2	15	8	780
#6 Chestnut St and Palm Ave													
Base	6	163	10	16	377	9	8	8	88	7	1	8	700
Added	0	0	0	0	0	4	2	5	0	0	9	0	20
Total	6	163	10	16	377	13	10	13	88	7	10	8	720
#7 Fremont Ave and Poplar Blvd													
Base	170	1565	128	28	963	47	28	131	89	59	132	31	3371
Added	4	24	4	7	34	0	0	12	7	7	12	4	115
Total	174	1589	132	35	997	47	28	143	96	66	144	35	3486
#8 Date Ave and Mission Rd													
Base	0	0	0	218	0	177	94	821	0	0	628	124	2062
Added	0	0	0	26	0	34	53	0	0	0	0	39	152
Total	0	0	0	244	0	211	147	821	0	0	628	163	2214
#9 Chestnut St and Date Ave													
Base	20	199	13	42	416	11	0	0	0	11	2	19	734
Added	65	27	0	0	21	12	7	8	38	0	13	0	191
Total	85	226	13	42	437	23	7	8	38	11	15	19	925
#10 Fremont Ave and Concord Ave													
Base	57	1717	126	30	1002	79	88	48	52	84	67	84	3434
Added	0	25	0	0	33	0	0	0	0	0	0	0	58
Total	57	1742	126	30	1035	79	88	48	52	84	67	84	3492

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#11 Fremont Ave and Montezuma Ave													
Base	766	494	96	27	46	289	445	186	682	37	77	21	3166
Added	21	2	0	0	14	25	16	0	16	0	0	0	94
Total	787	496	96	27	60	314	461	186	698	37	77	21	3260
#12 Palm Ave and Commonwealth Ave													
Base	55	138	22	192	242	272	212	464	78	9	430	107	2221
Added	0	5	0	0	8	34	27	22	0	0	26	0	122
Total	55	143	22	192	250	306	239	486	78	9	456	107	2343
#13 Date Ave and Commonwealth Ave													
Base	70	142	64	129	90	161	230	573	108	57	543	128	2296
Added	5	0	27	0	0	0	0	22	8	34	26	0	122
Total	75	142	91	129	90	161	230	595	116	91	569	128	2418
#14 Fremont Ave and Commonwealth Ave													
Base	40	1585	289	222	891	28	33	153	16	175	176	266	3875
Added	0	14	10	24	25	0	0	0	0	9	0	18	100
Total	40	1599	299	246	916	28	33	153	16	184	176	284	3975
#15 Fremont Ave and Valley Blvd													
Base	31	896	37	208	1072	864	687	1003	28	139	389	344	5698
Added	3	50	8	0	32	18	31	4	5	9	4	0	164
Total	34	946	45	208	1104	882	718	1007	33	148	393	344	5862
#16 Palm Ave and Mission Rd													
Base	0	0	0	368	0	123	55	1002	0	0	636	114	2297
Added	0	0	0	0	0	0	0	26	0	0	39	0	65
Total	0	0	0	368	0	123	55	1028	0	0	675	114	2362
#17 Marengo Ave and Valley Blvd													
Base	19	177	71	318	224	218	343	970	9	54	621	152	3175
Added	13	25	0	4	23	0	0	0	12	0	0	7	84
Total	32	202	71	322	247	218	343	970	21	54	621	159	3259
#18 Atlantic Blvd and Mission Road													
Base	106	1184	153	47	1061	113	146	1077	148	203	628	67	4933
Added	0	27	0	0	34	4	2	8	0	0	15	0	90
Total	106	1211	153	47	1095	117	148	1085	148	203	643	67	5023
#19 Marengo Ave and Mission Road													
Base	81	575	251	65	520	51	59	1048	316	78	600	66	3710
Added	30	0	2	0	0	4	2	8	23	4	15	0	88
Total	111	575	253	65	520	55	61	1056	339	82	615	66	3798
#20 Marengo Ave and Front St													
Base	3	707	4	26	761	210	167	56	9	2	21	18	1985
Added	0	32	0	0	27	0	0	0	0	0	0	0	59
Total	3	739	4	26	788	210	167	56	9	2	21	18	2044

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#21 I-710 NB Ramp and Valley Blvd													
Base	652	0	1381	1	0	2	0	591	0	0	1247	0	3875
Added	0	0	40	0	0	0	0	0	0	0	25	0	65
Total	652	0	1421	1	0	2	0	591	0	0	1272	0	3940
#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	601	813	874	1049	0	3337
Added	0	0	0	0	0	0	0	0	0	25	0	0	25
Total	0	0	0	0	0	0	0	601	813	899	1049	0	3362
#23 Fremont Ave and Hellman Ave													
Base	95	826	270	164	907	76	143	193	241	230	202	264	3610
Added	0	38	8	17	28	0	0	0	0	4	0	24	119
Total	95	864	278	181	935	76	143	193	241	234	202	288	3729
#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	521	192	109	11	6	45	32	334	249	134	117	2	1752
Added	28	0	0	0	0	0	0	0	26	0	0	0	54
Total	549	192	109	11	6	45	32	334	275	134	117	2	1806
#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	816	129	0	0	0	4	102	322	52	0	87	1513
Added	0	0	19	0	0	0	0	0	40	0	0	0	59
Total	0	816	148	0	0	0	4	102	362	52	0	87	1572
#26 Ross Ave and Fremont Ave													
Base	33	947	187	29	1102	46	12	36	7	60	45	46	2550
Added	0	62	0	0	46	0	0	0	0	0	0	0	108
Total	33	1009	187	29	1148	46	12	36	7	60	45	46	2658
#27 Westmont Dr and Valley Blvd													
Base	18	11	12	27	10	16	62	1761	151	9	1160	37	3273
Added	0	0	0	0	0	0	0	40	0	0	25	0	65
Total	18	11	12	27	10	16	62	1801	151	9	1185	37	3338
#135													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	53	0	0	34	0	87
Total	0	0	0	0	0	0	0	53	0	0	34	0	87

Intersection Volume Report
Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	215	1551	214	56	1226	60	131	561	481	344	471	50
2 Fremont Ave a	60	1626	48	8	1242	67	90	3	77	44	4	28
3 Fremont Ave a	2	1562	195	114	1061	2	10	6	6	271	2	322
4 Date Ave and	35	190	3	28	298	46	75	172	173	1	22	7
5 Palm Ave and	6	191	2	11	299	15	65	71	79	2	6	8
6 Chestnut St a	6	163	10	16	377	9	8	8	88	7	1	8
7 Fremont Ave a	170	1565	128	28	963	47	28	131	89	59	132	31
8 Date Ave and	0	0	0	218	0	177	94	821	0	0	628	124
9 Chestnut St a	20	199	13	42	416	11	0	0	0	11	2	19
10 Fremont Ave a	57	1717	126	30	1002	79	88	48	52	84	67	84
11 Fremont Ave a	766	494	96	27	46	289	445	186	682	37	77	21
12 Palm Ave and	55	138	22	192	242	272	212	464	78	9	430	107
13 Date Ave and	70	142	64	129	90	161	230	573	108	57	543	128
14 Fremont Ave a	40	1585	289	222	891	28	33	153	16	175	176	266
15 Fremont Ave a	31	896	37	208	1072	864	687	1003	28	139	389	344
16 Palm Ave and	0	0	0	368	0	123	55	1002	0	0	636	114
17 Marengo Ave a	19	177	71	318	224	218	343	970	9	54	621	152
18 Atlantic Blvd	106	1184	153	47	1061	113	146	1077	148	203	628	67
19 Marengo Ave a	81	575	251	65	520	51	59	1048	316	78	600	66
20 Marengo Ave a	3	707	4	26	761	210	167	56	9	2	21	18
21 I-710 NB Ramp	652	0	1381	1	0	2	0	591	0	0	1247	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	601	813	874	1049	0
23 Fremont Ave a	95	826	270	164	907	76	143	193	241	230	202	264
24 Elm St and He	521	192	109	11	6	45	32	334	249	134	117	2
25 Fremont Ave a	0	816	129	0	0	0	4	102	322	52	0	87
26 Ross Ave and	33	947	187	29	1102	46	12	36	7	60	45	46
27 Westmont Dr a	18	11	12	27	10	16	62	1761	151	9	1160	37

Intersection Volume Report
Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	215	1587	260	56	1247	73	149	568	481	373	475	50
2 Fremont Ave a	60	1679	48	8	1276	67	90	3	77	44	4	28
3 Fremont Ave a	2	1572	238	139	1070	2	10	6	6	296	2	336
4 Date Ave and	42	218	3	28	328	50	77	180	177	1	35	7
5 Palm Ave and	6	193	2	11	303	19	67	76	79	2	15	8
6 Chestnut St a	6	163	10	16	377	13	10	13	88	7	10	8
7 Fremont Ave a	174	1589	132	35	997	47	28	143	96	66	144	35
8 Date Ave and	0	0	0	244	0	211	147	821	0	0	628	163
9 Chestnut St a	85	226	13	42	437	23	7	8	38	11	15	19
10 Fremont Ave a	57	1742	126	30	1035	79	88	48	52	84	67	84
11 Fremont Ave a	787	496	96	27	60	314	461	186	698	37	77	21
12 Palm Ave and	55	143	22	192	250	306	239	486	78	9	456	107
13 Date Ave and	75	142	91	129	90	161	230	595	116	91	569	128
14 Fremont Ave a	40	1599	299	246	916	28	33	153	16	184	176	284
15 Fremont Ave a	34	946	45	208	1104	882	718	1007	33	148	393	344
16 Palm Ave and	0	0	0	368	0	123	55	1028	0	0	675	114
17 Marengo Ave a	32	202	71	322	247	218	343	970	21	54	621	159
18 Atlantic Blvd	106	1211	153	47	1095	117	148	1085	148	203	643	67
19 Marengo Ave a	111	575	253	65	520	55	61	1056	339	82	615	66
20 Marengo Ave a	3	739	4	26	788	210	167	56	9	2	21	18
21 I-710 NB Ramp	652	0	1421	1	0	2	0	591	0	0	1272	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	601	813	899	1049	0
23 Fremont Ave a	95	864	278	181	935	76	143	193	241	234	202	288
24 Elm St and He	549	192	109	11	6	45	32	334	275	134	117	2
25 Fremont Ave a	0	816	148	0	0	0	4	102	362	52	0	87
26 Ross Ave and	33	1009	187	29	1148	46	12	36	7	60	45	46
27 Westmont Dr a	18	11	12	27	10	16	62	1801	151	9	1185	37

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Fremont Ave and Mission Rd	F	xxxxxx 1.202	F	xxxxxx 1.246	+ 0.044 V/C
# 2 Fremont Ave and 1000 Fremont A	B	xxxxxx 0.690	C	xxxxxx 0.706	+ 0.017 V/C
# 3 Fremont Ave and Orange St	D	xxxxxx 0.872	D	xxxxxx 0.899	+ 0.028 V/C
# 4 Date Ave and Orange St	C	15.1 0.328	C	16.6 0.362	+ 1.482 D/V
# 5 Palm Ave and Orange St	B	11.1 0.474	B	11.3 0.485	+ 0.011 V/C
# 6 Chestnut St and Palm Ave	B	11.6 0.552	B	11.7 0.558	+ 0.006 V/C
# 7 Fremont Ave and Poplar Blvd	C	xxxxxx 0.765	C	xxxxxx 0.790	+ 0.025 V/C
# 8 Date Ave and Mission Rd	C	18.7 0.528	D	25.8 0.683	+ 7.083 D/V
# 9 Chestnut St and Date Ave	B	10.6 0.031	B	13.2 0.077	+ 2.662 D/V
# 10 Fremont Ave and Concord Ave	B	xxxxxx 0.652	B	xxxxxx 0.657	+ 0.005 V/C
# 11 Fremont Ave and Montezuma Ave	C	xxxxxx 0.740	C	xxxxxx 0.746	+ 0.006 V/C
# 12 Palm Ave and Commonwealth Ave	A	xxxxxx 0.573	B	xxxxxx 0.617	+ 0.044 V/C
# 13 Date Ave and Commonwealth Ave	B	xxxxxx 0.654	B	xxxxxx 0.666	+ 0.011 V/C
# 14 Fremont Ave and Commonwealth A	E	xxxxxx 0.949	E	xxxxxx 0.974	+ 0.025 V/C
# 15 Fremont Ave and Valley Blvd	E	xxxxxx 0.975	F	xxxxxx 1.003	+ 0.029 V/C
# 16 Palm Ave and Mission Rd	B	xxxxxx 0.643	B	xxxxxx 0.651	+ 0.008 V/C
# 17 Marengo Ave and Valley Blvd	D	xxxxxx 0.818	D	xxxxxx 0.836	+ 0.018 V/C
# 18 Atlantic Blvd and Mission Road	F	xxxxxx 1.010	F	xxxxxx 1.021	+ 0.011 V/C
# 19 Marengo Ave and Mission Road	E	xxxxxx 0.983	F	xxxxxx 1.016	+ 0.033 V/C
# 20 Marengo Ave and Front St	D	xxxxxx 0.850	D	xxxxxx 0.866	+ 0.017 V/C
# 21 I-710 NB Ramp and Valley Blvd	C	xxxxxx 0.712	C	xxxxxx 0.728	+ 0.016 V/C
# 22 I-710 SB Ramp and Valley Blvd	E	xxxxxx 0.912	E	xxxxxx 0.920	+ 0.009 V/C
# 23 Fremont Ave and Hellman Ave	D	xxxxxx 0.839	D	xxxxxx 0.867	+ 0.028 V/C
# 24 Elm St and Hellman Ave/Ramona	D	32.1 0.870	E	35.3 0.906	+ 0.037 V/C
# 25 Fremont Ave and Ramona Road/10	F	111.4 1.370	F	113.5 1.394	+ 0.023 V/C

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 26 Ross Ave and Fremont Ave	A	xxxxx 0.544	A	xxxxx 0.558	+ 0.014 V/C
# 27 Westmont Dr and Valley Blvd	B	xxxxx 0.698	C	xxxxx 0.711	+ 0.012 V/C

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Fremont Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.246

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Fremont Ave Mission Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 1 0

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Volume Module:

Base Vol: 193 1390 192 50 1099 54 117 503 431 308 422 45

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 215 1551 214 56 1226 60 131 561 481 344 471 50

Added Vol: 0 36 46 0 21 13 18 7 0 29 4 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 215 1587 260 56 1247 73 149 568 481 373 475 50

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 215 1587 260 56 1247 73 149 568 481 373 475 50

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 215 1587 260 56 1247 73 149 568 481 373 475 50

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 215 1587 260 56 1247 73 149 568 481 373 475 50

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.72 0.28 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.81 0.19

Final Sat.: 1600 2749 451 1600 3200 1600 1600 3200 1600 1600 2894 306

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Capacity Analysis Module:

Vol/Sat: 0.13 0.58 0.58 0.03 0.39 0.05 0.09 0.18 0.30 0.23 0.16 0.16

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.706

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 51 Level Of Service: C

Street Name:	Fremont Ave						1000 Fremont Ave						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Permitted			Permitted			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	0

Volume Module:	Fremont Ave			Fremont Ave			1000 Fremont Ave			1000 Fremont Ave		
Base Vol:	54	1457	43	7	1113	60	81	3	69	39	4	25
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	60	1626	48	8	1242	67	90	3	77	44	4	28
Added Vol:	0	53	0	0	34	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	1679	48	8	1276	67	90	3	77	44	4	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	1679	48	8	1276	67	90	3	77	44	4	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	1679	48	8	1276	67	90	3	77	44	4	28
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60	1679	48	8	1276	67	90	3	77	44	4	28

Saturation Flow Module:	Fremont Ave			Fremont Ave			1000 Fremont Ave			1000 Fremont Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.04	0.96	1.00	0.14	0.86
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	67	1533	1600	221	1379

Capacity Analysis Module:	Fremont Ave			Fremont Ave			1000 Fremont Ave			1000 Fremont Ave		
Vol/Sat:	0.04	0.52	0.03	0.00	0.40	0.04	0.06	0.05	0.05	0.03	0.02	0.02
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.899

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 100 Level Of Service: D

Street Name:	Fremont Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	0	1	0	1	0

Volume Module:

Base Vol:	2	1400	175	102	951	2	9	5	5	243	2	289
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	2	1562	195	114	1061	2	10	6	6	271	2	322
Added Vol:	0	10	43	25	9	0	0	0	0	25	0	14
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	1572	238	139	1070	2	10	6	6	296	2	336
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1572	238	139	1070	2	10	6	6	296	2	336
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1572	238	139	1070	2	10	6	6	296	2	336
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	1572	238	139	1070	2	10	6	6	296	2	336

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.64	0.36	1.00	1.00	0.01	0.99
Final Sat.:	1600	3200	1600	1600	3193	7	1029	571	1600	1600	11	1589

Capacity Analysis Module:

Vol/Sat:	0.00	0.49	0.15	0.09	0.34	0.34	0.01	0.01	0.00	0.19	0.21	0.21
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Date Ave and Orange St

Average Delay (sec/veh): 7.2 Worst Case Level Of Service: C[16.6]

Street Name:	Date Ave						Orange St													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R					
Control:	Uncontrolled						Uncontrolled						Stop Sign							
Rights:	Include						Include						Include							
Lanes:	1	0	1	0	1	1	0	1	0	1	0	1	0	0	1	0	1	0	0	1

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak

Base Vol:	31	170	3	25	267	41	67	154	155	1	20	6
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	35	190	3	28	298	46	75	172	173	1	22	7
Added Vol:	7	28	0	0	30	4	2	8	4	0	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	42	218	3	28	328	50	77	180	177	1	35	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	42	218	3	28	328	50	77	180	177	1	35	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	42	218	3	28	328	50	77	180	177	1	35	7

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	378	xxxx	xxxxxx	221	xxxx	xxxxxx	707	688	328	888	734	218
Potent Cap.:	1192	xxxx	xxxxxx	1360	xxxx	xxxxxx	353	372	718	267	350	827
Move Cap.:	1192	xxxx	xxxxxx	1360	xxxx	xxxxxx	308	351	718	115	331	827
Total Cap:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	486	496	xxxxxx	203	466	xxxxxx
Volume/Cap:	0.03	xxxx	xxxxxx	0.02	xxxx	xxxxxx	0.16	0.36	0.25	0.01	0.08	0.01

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxx	xxxx	1.0	xxxx	xxxx	0.0			
Control Del:	8.1	xxxx	xxxxxx	7.7	xxxx	xxxxxx	xxxxxx	xxxx	11.6	xxxxxx	xxxx	9.4			
LOS by Move:	A	*	*	A	*	*	*	*	B	*	*	A			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	493	xxxx	xxxxxx	449	xxxx	xxxxxx			
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.0	xxxx	xxxxxx	0.3	xxxx	xxxxxx			
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	20.0	xxxx	xxxxxx	13.7	xxxx	xxxxxx			
Shared LOS:	*	*	*	*	*	*	C	*	*	B	*	*			
ApproachDel:	xxxxxxx			xxxxxxx			16.6			13.1					
ApproachLOS:	*			*			C			B					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #5 Palm Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.485
 Loss Time (sec): 0 Average Delay (sec/veh): 11.3
 Optimal Cycle: 0 Level Of Service: B

Street Name:	Palm Ave				Orange St					
Approach:	North Bound		South Bound		East Bound		West Bound			
Movement:	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign		Stop Sign		Stop Sign		Stop Sign			
Rights:	Include		Include		Include		Include			
Min. Green:	0	0	0	0	0	0	0	0	0	
Lanes:	0	1	0	0	1	0	0	1	0	1

Volume Module:	>> Count	Date:	17 Nov 2015	<< PM Peak
Base Vol:	5 171 2	10 268 13	58 64 71	2 5 7
Growth Adj:	1.12 1.12 1.12	1.12 1.12 1.12	1.12 1.12 1.12	1.12 1.12 1.12
Initial Bse:	6 191 2	11 299 15	65 71 79	2 6 8
Added Vol:	0 2 0	0 4 4	2 5 0	0 9 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	6 193 2	11 303 19	67 76 79	2 15 8
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	6 193 2	11 303 19	67 76 79	2 15 8
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	6 193 2	11 303 19	67 76 79	2 15 8
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
FinalVolume:	6 193 2	11 303 19	67 76 79	2 15 8

Saturation Flow Module:	
Adjustment:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.03 0.97 1.00 0.04 0.96 1.00 0.47 0.53 1.00 0.13 0.87 1.00
Final Sat.:	18 609 710 23 625 736 259 296 647 70 454 589

Capacity Analysis Module:	
Vol/Sat:	0.32 0.32 0.00 0.48 0.48 0.03 0.26 0.26 0.12 0.03 0.03 0.01
Crit Moves:	**** **** **** ****
Delay/Veh:	10.7 10.7 7.6 12.9 12.9 7.5 10.8 10.8 8.6 9.2 9.2 8.3
Delay Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	10.7 10.7 7.6 12.9 12.9 7.5 10.8 10.8 8.6 9.2 9.2 8.3
LOS by Move:	B B A B B A B B A A A A
ApproachDel:	10.7 12.6 10.0 8.9
Delay Adj:	1.00 1.00 1.00 1.00
ApprAdjDel:	10.7 12.6 10.0 8.9
LOS by Appr:	B B B A
AllWayAvgQ:	0.4 0.4 0.0 0.9 0.9 0.0 0.3 0.3 0.1 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.558
 Loss Time (sec): 0 Average Delay (sec/veh): 11.7
 Optimal Cycle: 0 Level Of Service: B

Street Name: Chestnut St Palm Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1
 -----|-----|-----|-----|

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
 Base Vol: 5 146 9 14 338 8 7 7 79 6 1 7
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 6 163 10 16 377 9 8 8 88 7 1 8
 Added Vol: 0 0 0 0 0 4 2 5 0 0 9 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 6 163 10 16 377 13 10 13 88 7 10 8
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 6 163 10 16 377 13 10 13 88 7 10 8
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 6 163 10 16 377 13 10 13 88 7 10 8
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 6 163 10 16 377 13 10 13 88 7 10 8
 -----|-----|-----|-----|

Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.03 0.97 1.00 0.04 0.96 1.00 0.43 0.57 1.00 0.40 0.60 1.00
 Final Sat.: 22 648 768 28 676 810 235 307 631 209 316 604
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: 0.25 0.25 0.01 0.56 0.56 0.02 0.04 0.04 0.14 0.03 0.03 0.01
 Crit Moves: **** **** ****
 Delay/Veh: 9.6 9.6 7.3 13.8 13.8 7.1 9.1 9.1 8.7 9.2 9.2 8.1
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 9.6 9.6 7.3 13.8 13.8 7.1 9.1 9.1 8.7 9.2 9.2 8.1
 LOS by Move: A A A B B A A A A A A A
 ApproachDel: 9.5 13.6 8.8 8.8
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 9.5 13.6 8.8 8.8
 LOS by Appr: A B A A
 AllWayAvgQ: 0.3 0.3 0.0 1.2 1.2 0.0 0.0 0.0 0.1 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.790

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 65 Level Of Service: C

Street Name:	Fremont Ave						Poplar Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:	Fremont Ave NB			Fremont Ave SB			Poplar Blvd EB			Poplar Blvd WB		
Base Vol:	152	1403	115	25	863	42	25	117	80	53	118	28
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	170	1565	128	28	963	47	28	131	89	59	132	31
Added Vol:	4	24	4	7	34	0	0	12	7	7	12	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	174	1589	132	35	997	47	28	143	96	66	144	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	174	1589	132	35	997	47	28	143	96	66	144	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	174	1589	132	35	997	47	28	143	96	66	144	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	174	1589	132	35	997	47	28	143	96	66	144	35

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Poplar Blvd EB			Poplar Blvd WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.85	0.15	1.00	1.91	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2954	246	1600	3056	144	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Poplar Blvd EB			Poplar Blvd WB		
Vol/Sat:	0.11	0.54	0.54	0.02	0.33	0.33	0.02	0.09	0.06	0.04	0.09	0.02
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Date Ave and Mission Rd

Average Delay (sec/veh): 6.0 Worst Case Level Of Service: D[25.8]

Street Name:

Date Ave

Mission Rd

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Rights:	Include				Include				Include				Include							
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	0	0	1	1	0

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak

Base Vol:	0	0	0	195	0	159	84	736	0	0	563	111
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	218	0	177	94	821	0	0	628	124
Added Vol:	0	0	0	26	0	34	53	0	0	0	0	39
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	244	0	211	147	821	0	0	628	163
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	244	0	211	147	821	0	0	628	163
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	244	0	211	147	821	0	0	628	163

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1414	xxxx	395	791	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	131	xxxx	609	838	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	113	xxxx	609	838	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	182	215	xxxxx	357	232	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.68	xxxx	0.35	0.18	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	5.8	xxxx	1.6	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	36.0	xxxx	14.0	10.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	E	*	B	B	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			25.8			xxxxxx			xxxxxx					
ApproachLOS:	*			D			*			*					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: B[13.2]

Street Name:

Chestnut St

Date Ave

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	1	0	1	0	0	1	0	0

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak

Base Vol:	18	178	12	38	373	10	0	0	0	10	2	17
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	20	199	13	42	416	11	0	0	0	11	2	19
Added Vol:	65	27	0	0	21	12	7	8	38	0	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	85	226	13	42	437	23	7	8	38	11	15	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	85	226	13	42	437	23	7	8	38	11	15	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	85	226	13	42	437	23	7	8	38	11	15	19

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	460	xxxx	xxxxxx	239	xxxx	xxxxxx	942	931	437	952	941	226
Potent Cap.:	1111	xxxx	xxxxxx	1340	xxxx	xxxxxx	245	269	624	241	265	819
Move Cap.:	1111	xxxx	xxxxxx	1340	xxxx	xxxxxx	210	240	624	203	237	819
Total Cap:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	389	401	xxxxxx	339	369	xxxxxx
Volume/Cap:	0.08	xxxx	xxxxxx	0.03	xxxx	xxxxxx	0.02	0.02	0.06	0.03	0.04	0.02

Level Of Service Module:

2Way95thQ:	0.2	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	0.1
Control Del:	8.5	xxxx	xxxxxx	7.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.5
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	A
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	536	xxxxxx	356	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.3	xxxxxx	0.2	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	12.4	xxxxxx	15.9	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	C	*	*
ApproachDel:	xxxxxxx			xxxxxxx			12.4			13.2		
ApproachLOS:	*			*			B			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Fremont Ave and Concord Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.657

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 45 Level Of Service: B

Street Name: Fremont Ave

Concord Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 1 0 1 0 1 1 0 1 0 1 0 1 0

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Volume Module:

Base Vol: 51 1539 113 27 898 71 79 43 47 75 60 75

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 57 1717 126 30 1002 79 88 48 52 84 67 84

Added Vol: 0 25 0 0 33 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 57 1742 126 30 1035 79 88 48 52 84 67 84

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 57 1742 126 30 1035 79 88 48 52 84 67 84

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 57 1742 126 30 1035 79 88 48 52 84 67 84

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 57 1742 126 30 1035 79 88 48 52 84 67 84

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.80 0.20 1.00 1.86 0.14 1.00 1.00 1.00 1.00 0.44 0.56

Final Sat.: 1600 4476 324 1600 2972 228 1600 1600 1600 1600 711 889

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Capacity Analysis Module:

Vol/Sat: 0.04 0.39 0.39 0.02 0.35 0.35 0.06 0.03 0.03 0.05 0.09 0.09

Crit Moves: ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.746

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 83 Level Of Service: C

Street Name:	Fremont Ave						Montezuma Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	1	0	0	2	0	0	1	1	0

Volume Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Base Vol:	687	443	86	24	41	259	399	167	611	33	69	19
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	766	494	96	27	46	289	445	186	682	37	77	21
Added Vol:	21	2	0	0	14	25	16	0	16	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	787	496	96	27	60	314	461	186	698	37	77	21
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	787	496	96	27	60	0	461	186	698	37	77	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	787	496	96	27	60	0	461	186	698	37	77	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	787	496	96	27	60	0	461	186	698	37	77	21

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.84	0.16	0.62	1.38	1.00	2.00	0.42	1.58	0.27	0.57	0.16
Final Sat.:	2880	1341	259	990	2210	1600	2880	674	2526	436	912	251

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Vol/Sat:	0.27	0.37	0.37	0.02	0.03	0.00	0.16	0.28	0.28	0.02	0.08	0.08
Crit Moves:	****						****					

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.617
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Street Name:	Palm Ave						Commonwealth Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted			Permitted			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	0	1	1	0	1	0	1	1	0	1	1	0

Volume Module:															
Base Vol:	49	124	20	172	217	244	190	416	70	8	385	96			
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12			
Initial Bse:	55	138	22	192	242	272	212	464	78	9	430	107			
Added Vol:	0	5	0	0	8	34	27	22	0	0	26	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	55	143	22	192	250	306	239	486	78	9	456	107			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	55	143	22	192	250	306	239	486	78	9	456	107			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	55	143	22	192	250	306	239	486	78	9	456	107			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	55	143	22	192	250	306	239	486	78	9	456	107			

Saturation Flow Module:															
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600			
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.72	0.28	1.00	2.00	1.00			
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2757	443	1600	3200	1600			

Capacity Analysis Module:															
Vol/Sat:	0.03	0.09	0.01	0.12	0.16	0.19	0.15	0.18	0.18	0.01	0.14	0.07			
Crit Moves:	****					****	****				****				

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.666

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 46 Level Of Service: B

Street Name:	Date Ave						Commonwealth Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted			Permitted			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	0	1	1	0	0	1	0	1	0	1	1	0

Volume Module:	Date Ave			Commonwealth Ave		
Base Vol:	63	127	57	116	81	144
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	70	142	64	129	90	161
Added Vol:	5	0	27	0	0	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	75	142	91	129	90	161
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	75	142	91	129	90	161
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	75	142	91	129	90	161
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	75	142	91	129	90	161

Saturation Flow Module:	Date Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.36	0.64
Final Sat.:	1600	1600	1600	1600	576	1024

Capacity Analysis Module:	Date Ave			Commonwealth Ave		
Vol/Sat:	0.05	0.09	0.06	0.08	0.16	0.16
Crit Moves:	****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.974

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 159 Level Of Service: E

Street Name:	Fremont Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	36	1421	259	199	799	25	30	137	14	157	158	238
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	40	1585	289	222	891	28	33	153	16	175	176	266
Added Vol:	0	14	10	24	25	0	0	0	0	9	0	18
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	1599	299	246	916	28	33	153	16	184	176	284
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	40	1599	299	246	916	28	33	153	16	184	176	284
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	1599	299	246	916	28	33	153	16	184	176	284
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	40	1599	299	246	916	28	33	153	16	184	176	284

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.94	0.06	1.00	0.91	0.09	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3105	95	1600	1452	148	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.50	0.19	0.15	0.30	0.30	0.02	0.11	0.11	0.12	0.11	0.18
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Fremont Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.003

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name:	Fremont Ave						Valley Blvd						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	2	0	2	2	0	2	0	1

Volume Module:	Fremont Ave			Fremont Ave			Valley Blvd			Valley Blvd		
Base Vol:	28	803	33	186	961	774	616	899	25	125	349	308
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	31	896	37	208	1072	864	687	1003	28	139	389	344
Added Vol:	3	50	8	0	32	18	31	4	5	9	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	946	45	208	1104	882	718	1007	33	148	393	344
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	34	946	45	208	1104	882	718	1007	33	148	393	344
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	946	45	208	1104	882	718	1007	33	148	393	344
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	34	946	45	208	1104	882	718	1007	33	148	393	344

Saturation Flow Module:	Fremont Ave			Fremont Ave			Valley Blvd			Valley Blvd		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.91	0.09	1.00	2.00	2.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3055	145	1600	3200	3200	2880	3200	1600	1600	3200	1600

Capacity Analysis Module:	Fremont Ave			Fremont Ave			Valley Blvd			Valley Blvd		
Vol/Sat:	0.02	0.31	0.31	0.13	0.35	0.28	0.25	0.31	0.02	0.09	0.12	0.21
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.651

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 45 Level Of Service: B

Street Name:	Palm Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak	Palm Ave			Mission Rd		
Base Vol:	0	0	0	330	0	110
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	368	0	123
Added Vol:	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	0	0	0	368	0	123
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	368	0	123
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	0	0	0	368	0	123
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	368	0	123

Saturation Flow Module:	Palm Ave			Mission Rd		
Sat/Lane:	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	0	0	1600	0	1600

Capacity Analysis Module:	Palm Ave			Mission Rd		
Vol/Sat:	0.00	0.00	0.00	0.23	0.00	0.08
Crit Moves:				****		****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.836

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 76 Level Of Service: D

Street Name: Marengo Ave Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 0 1 0 1 0 2 0 1 1 0 2 0 1

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Volume Module:

Base Vol: 17 159 64 285 201 195 307 869 8 48 557 136

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 19 177 71 318 224 218 343 970 9 54 621 152

Added Vol: 13 25 0 4 23 0 0 0 12 0 0 7

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 32 202 71 322 247 218 343 970 21 54 621 159

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 32 202 71 322 247 218 343 970 21 54 621 159

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 32 202 71 322 247 218 343 970 21 54 621 159

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 32 202 71 322 247 218 343 970 21 54 621 159

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.53 0.47 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 1600 1600 1600 851 749 1600 3200 1600 1600 3200 1600

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Capacity Analysis Module:

Vol/Sat: 0.02 0.13 0.04 0.20 0.29 0.29 0.21 0.30 0.01 0.03 0.19 0.10

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 1.021

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Atlantic Blvd Mission Road

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 1 1 0

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Volume Module:

Base Vol: 95 1061 137 42 951 101 131 965 133 182 563 60

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 106 1184 153 47 1061 113 146 1077 148 203 628 67

Added Vol: 0 27 0 0 34 4 2 8 0 0 15 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 106 1211 153 47 1095 117 148 1085 148 203 643 67

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 106 1211 153 47 1095 117 148 1085 148 203 643 67

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 106 1211 153 47 1095 117 148 1085 148 203 643 67

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 106 1211 153 47 1095 117 148 1085 148 203 643 67

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.78 0.22 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.81 0.19

Final Sat.: 1600 2841 359 1600 3200 1600 1600 3200 1600 1600 2898 302

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Capacity Analysis Module:

Vol/Sat: 0.07 0.43 0.43 0.03 0.34 0.07 0.09 0.34 0.09 0.13 0.22 0.22

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 1.016

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Marengo Ave

Mission Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 0 1 1 0 1 0 1 1 0

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Volume Module:

Base Vol: 73 515 225 58 466 46 53 939 283 70 538 59

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 81 575 251 65 520 51 59 1048 316 78 600 66

Added Vol: 30 0 2 0 0 4 2 8 23 4 15 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 111 575 253 65 520 55 61 1056 339 82 615 66

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 111 575 253 65 520 55 61 1056 339 82 615 66

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 111 575 253 65 520 55 61 1056 339 82 615 66

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 111 575 253 65 520 55 61 1056 339 82 615 66

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.90 0.10 1.00 1.51 0.49 1.00 1.81 0.19

Final Sat.: 1600 1600 1600 1600 1446 154 1600 2423 777 1600 2891 309

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Capacity Analysis Module:

Vol/Sat: 0.07 0.36 0.16 0.04 0.36 0.36 0.04 0.44 0.44 0.05 0.21 0.21

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #20 Marengo Ave and Front St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.866

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 86 Level Of Service: D

Street Name: Marengo Ave Front St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 0 1 0 1 0 0 1 0 0 1 0 0 1

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Volume Module:

Base Vol: 3 634 4 23 682 188 150 50 8 2 19 16

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 3 707 4 26 761 210 167 56 9 2 21 18

Added Vol: 0 32 0 0 27 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 3 739 4 26 788 210 167 56 9 2 21 18

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 3 739 4 26 788 210 167 56 9 2 21 18

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 3 739 4 26 788 210 167 56 9 2 21 18

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 3 739 4 26 788 210 167 56 9 2 21 18

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 0.99 0.01 1.00 0.79 0.21 0.75 0.25 1.00 0.10 0.90 1.00

Final Sat.: 1600 1590 10 1600 1264 336 1200 400 1600 152 1448 1600

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Capacity Analysis Module:

Vol/Sat: 0.00 0.46 0.46 0.02 0.62 0.62 0.10 0.14 0.01 0.00 0.01 0.01

Crit Moves: **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #21 I-710 NB Ramp and Valley Blvd

Cycle (sec): 120 Critical Vol./Cap.(X): 0.728

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 56 Level Of Service: C

Street Name:	I-710 NB Ramp						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	0	0	3	1

Volume Module:	I-710 NB Ramp			I-710 SB Ramp			Valley Blvd East			Valley Blvd West		
Base Vol:	584	0	1238	1	0	2	0	530	0	0	1118	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	652	0	1381	1	0	2	0	591	0	0	1247	0
Added Vol:	0	0	40	0	0	0	0	0	0	0	25	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	652	0	1421	1	0	2	0	591	0	0	1272	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	652	0	1421	1	0	2	0	591	0	0	1272	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	652	0	1421	1	0	2	0	591	0	0	1272	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	652	0	1421	1	0	2	0	591	0	0	1272	0

Saturation Flow Module:	I-710 NB Ramp			I-710 SB Ramp			Valley Blvd East			Valley Blvd West		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	2.00	0.33	0.00	0.67	0.00	2.00	0.00	0.00	4.00	0.00
Final Sat.:	1600	0	3200	533	0	1067	0	3200	0	0	6400	0

Capacity Analysis Module:	I-710 NB Ramp			I-710 SB Ramp			Valley Blvd East			Valley Blvd West		
Vol/Sat:	0.41	0.00	0.44	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.20	0.00
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.920

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 111 Level Of Service: E

Street Name: I-710 SB Ramp

Valley Blvd

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

Control: Protected

Protected

Protected

Protected

Rights: Include

Include

Include

Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 0 0 0 2 0 1 2 0 2 0 0

Volume Module:

Base Vol: 0 0 0 0 0 0 0 0 539 729 783 940 0

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 0 0 0 0 0 0 0 0 601 813 874 1049 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 25 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 0 0 0 0 0 601 813 899 1049 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 0 0 0 0 0 601 813 899 1049 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 0 0 0 0 0 601 813 899 1049 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 0 0 0 0 0 0 0 601 813 899 1049 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00

Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00

Final Sat.: 0 0 0 0 0 0 0 0 3200 1600 2880 3200 0

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.19 0.51 0.31 0.33 0.00

Crit Moves: *****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.867

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 86 Level Of Service: D

Street Name: Fremont Ave

Hellman Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 1 0 1 0 1

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 85 740 242 147 813 68 128 173 216 206 181 237

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 95 826 270 164 907 76 143 193 241 230 202 264

Added Vol: 0 38 8 17 28 0 0 0 0 4 0 24

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 95 864 278 181 935 76 143 193 241 234 202 288

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 95 864 278 181 935 76 143 193 241 234 202 288

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 95 864 278 181 935 76 143 193 241 234 202 288

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 95 864 278 181 935 76 143 193 241 234 202 288

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.51 0.49 1.00 1.85 0.15 1.00 1.00 1.00 1.00 1.00 1.00

Final Sat.: 1600 2421 779 1600 2960 240 1600 1600 1600 1600 1600 1600

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Capacity Analysis Module:

Vol/Sat: 0.06 0.36 0.36 0.11 0.32 0.32 0.09 0.12 0.15 0.15 0.13 0.18

Crit Moves: **** *

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.906

Loss Time (sec): 0 Average Delay (sec/veh): 35.3

Optimal Cycle: 0 Level Of Service: E

Street Name: Elm St Hellman Ave/Ramona Rd/ 10 WB ramp

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 1 0 0 0 0 1 0 0 0 1

-----|-----|-----|-----|-----|

Volume Module: PM Peak

Base Vol: 467 172 98 10 5 40 29 299 223 120 105 2

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 521 192 109 11 6 45 32 334 249 134 117 2

Added Vol: 28 0 0 0 0 0 0 0 0 26 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 549 192 109 11 6 45 32 334 275 134 117 2

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 549 192 109 11 6 45 32 334 275 134 117 2

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 549 192 109 11 6 45 32 334 275 134 117 2

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Volume: 549 192 109 11 6 45 32 334 275 134 117 2

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.29 0.45 0.26 0.67 0.33 1.00 0.09 0.91 1.00 0.53 0.47 1.00

Final Sat.: 1073 -257 121 256 128 434 42 432 523 226 197 466

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Capacity Analysis Module:

Vol/Sat: 0.51-0.75 0.91 0.04 0.04 0.10 0.77 0.77 0.53 0.59 0.59 0.00

Crit Moves: **** **** ****

Delay/Veh: 48.8 48.5 48.5 12.0 12.0 11.5 31.0 31.0 16.6 22.1 22.1 10.1

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 48.8 48.5 48.5 12.0 12.0 11.5 31.0 31.0 16.6 22.1 22.1 10.1

LOS by Move: E E E B B B D D C C C B

ApproachDel: 48.9 11.6 24.8 22.0

Delay Adj: 1.00 1.00 1.00 1.00

ApprAdjDel: 48.9 11.6 24.8 22.0

LOS by Appr: E B C C

AllWayAvgQ: 5.0 5.0 5.0 0.0 0.0 0.1 2.7 2.7 1.0 1.3 1.3 0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 1.394
 Loss Time (sec): 0 Average Delay (sec/veh): 113.5
 Optimal Cycle: 0 Level Of Service: F

Street Name:	Fremont Ave					Ramona Road/10 EB ramp							
Approach:	North Bound		South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign					Stop Sign			Stop Sign			Stop Sign	
Rights:	Include					Include			Include			Include	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Lanes:	0	0	1	0	1	0	0	0	0	0	1	0	0

Volume Module: PM Peak

Base Vol:	0	731	116	0	0	0	4	91	289	47	0	78
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	816	129	0	0	0	4	102	322	52	0	87
Added Vol:	0	0	19	0	0	0	0	0	40	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	816	148	0	0	0	4	102	362	52	0	87
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	816	148	0	0	0	4	102	362	52	0	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	816	148	0	0	0	4	102	362	52	0	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	816	148	0	0	0	4	102	362	52	0	87

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	0.00	0.00	0.04	0.96	1.00	0.38	0.00	0.62
Final Sat.:	0	585	650	0	0	0	22	505	590	197	0	327

Capacity Analysis Module:

Vol/Sat:	xxxx	1.39	0.23	xxxx	xxxx	xxxx	0.20	0.20	0.61	0.27	xxxx	0.27
Crit Moves:	****			****			****			****		
Delay/Veh:	0.0	206	9.7	0.0	0.0	0.0	11.2	11.2	17.9	12.2	0.0	12.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	206	9.7	0.0	0.0	0.0	11.2	11.2	17.9	12.2	0.0	12.2
LOS by Move:	*	F	A	*	*	*	B	B	C	B	*	B
ApproachDel:	175.4			xxxxxx			16.4			12.2		
Delay Adj:	1.00			xxxxxx			1.00			1.00		
ApprAdjDel:	175.4			xxxxxx			16.4			12.2		
LOS by Appr:	F			*			C			B		
AllWayAvgQ:	0.0	32.0	0.3	0.0	0.0	0.0	0.2	0.2	1.5	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.558

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 37 Level Of Service: A

Street Name:	Fremont Ave						Ross Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	0	1	0	1

Volume Module:	Fremont Ave			Fremont Ave			Ross Ave			Ross Ave		
Base Vol:	30	849	168	26	988	41	11	32	6	54	40	41
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	33	947	187	29	1102	46	12	36	7	60	45	46
Added Vol:	0	62	0	0	46	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	1009	187	29	1148	46	12	36	7	60	45	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	1009	187	29	1148	46	12	36	7	60	45	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	1009	187	29	1148	46	12	36	7	60	45	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	1009	187	29	1148	46	12	36	7	60	45	46

Saturation Flow Module:	Fremont Ave			Fremont Ave			Ross Ave			Ross Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	1.92	0.08	1.00	0.84	0.16	1.00	1.00	1.00
Final Sat.:	1600	2699	501	1600	3077	123	1600	1347	253	1600	1600	1600

Capacity Analysis Module:	Fremont Ave			Fremont Ave			Ross Ave			Ross Ave		
Vol/Sat:	0.02	0.37	0.37	0.02	0.37	0.37	0.01	0.03	0.03	0.04	0.03	0.03
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Westmont Dr and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.711

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 51 Level Of Service: C

Street Name:	Westmont Dr						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	1	0	2 0	1	1	0 2 0

Volume Module:	Westmont Dr			Westmont Dr			Valley Blvd			Valley Blvd		
Base Vol:	16	10	11	24	9	14	56	1578	135	8	1040	33
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	18	11	12	27	10	16	62	1761	151	9	1160	37
Added Vol:	0	0	0	0	0	0	0	40	0	0	25	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	11	12	27	10	16	62	1801	151	9	1185	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	11	12	27	10	16	62	1801	151	9	1185	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	11	12	27	10	16	62	1801	151	9	1185	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	11	12	27	10	16	62	1801	151	9	1185	37

Saturation Flow Module:	Westmont Dr			Westmont Dr			Valley Blvd			Valley Blvd		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.43	0.27	0.30	0.51	0.19	0.30	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	692	432	476	817	306	477	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:	Westmont Dr			Westmont Dr			Valley Blvd			Valley Blvd		
Vol/Sat:	0.01	0.03	0.03	0.02	0.03	0.03	0.04	0.56	0.09	0.01	0.37	0.02
Crit Moves:	****			****			****			****		

Intersection

Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗		↖	↗		↖	↗
Traffic Vol, veh/h	13	31	15	2	7	2	6	71	2	6	215	33
Future Vol, veh/h	13	31	15	2	7	2	6	71	2	6	215	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	34	16	2	8	2	7	77	2	7	234	36
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.4	8.2	8.4	9.4
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	8%	0%	30%	0%	22%	0%	3%	0%
Vol Thru, %	92%	0%	70%	0%	78%	0%	97%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	77	2	44	15	9	2	221	33
LT Vol	6	0	13	0	2	0	6	0
Through Vol	71	0	31	0	7	0	215	0
RT Vol	0	2	0	15	0	2	0	33
Lane Flow Rate	84	2	48	16	10	2	240	36
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.116	0.003	0.074	0.021	0.015	0.003	0.323	0.041
Departure Headway (Hd)	4.997	4.255	5.563	4.711	5.59	4.774	4.835	4.12
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	719	842	645	761	641	750	747	875
Service Time	2.716	1.974	3.287	2.434	3.318	2.502	2.535	1.82
HCM Lane V/C Ratio	0.117	0.002	0.074	0.021	0.016	0.003	0.321	0.041
HCM Control Delay	8.4	7	8.7	7.5	8.4	7.5	9.8	7
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0	0.2	0.1	0	0	1.4	0.1

Intersection

Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	6	12	8	1	4	8	16	100	2	13	182	13
Future Vol, veh/h	6	12	8	1	4	8	16	100	2	13	182	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	13	9	1	4	9	17	109	2	14	198	14
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.1	7.8	8.6	9.1
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	14%	0%	33%	0%	20%	0%	7%	0%
Vol Thru, %	86%	0%	67%	0%	80%	0%	93%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	116	2	18	8	5	8	195	13
LT Vol	16	0	6	0	1	0	13	0
Through Vol	100	0	12	0	4	0	182	0
RT Vol	0	2	0	8	0	8	0	13
Lane Flow Rate	126	2	20	9	5	9	212	14
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.168	0.002	0.03	0.011	0.008	0.011	0.277	0.016
Departure Headway (Hd)	4.788	4.018	5.574	4.702	5.526	4.721	4.703	3.969
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	739	875	646	766	651	763	757	890
Service Time	2.587	1.816	3.274	2.402	3.227	2.422	2.479	1.744
HCM Lane V/C Ratio	0.171	0.002	0.031	0.012	0.008	0.012	0.28	0.016
HCM Control Delay	8.6	6.8	8.4	7.5	8.3	7.5	9.3	6.8
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.6	0	0.1	0	0	0	1.1	0

Intersection

Intersection Delay, s/veh 102.9

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱			↱	↱
Traffic Vol, veh/h	57	182	408	444	68	15	409	61	23	87	16	223
Future Vol, veh/h	57	182	408	444	68	15	409	61	23	87	16	223
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	62	198	443	483	74	16	445	66	25	95	17	242
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	64.1	261.6	36.1	24.4
HCM LOS	F	F	E	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	66%	24%	0%	87%	0%	84%	0%
Vol Thru, %	0%	25%	76%	0%	13%	0%	16%	0%
Vol Right, %	0%	9%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	245	248	239	408	512	15	103	223
LT Vol	245	164	57	0	444	0	87	0
Through Vol	0	61	182	0	68	0	16	0
RT Vol	0	23	0	408	0	15	0	223
Lane Flow Rate	267	269	260	443	557	16	112	242
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.72	0.709	0.66	1.026	1.51	0.039	0.313	0.603
Departure Headway (Hd)	10.827	10.579	10.195	9.328	10.044	8.857	11.229	10.033
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	336	344	356	395	367	407	322	364
Service Time	8.527	8.279	7.895	7.028	7.744	6.557	8.929	7.733
HCM Lane V/C Ratio	0.795	0.782	0.73	1.122	1.518	0.039	0.348	0.665
HCM Control Delay	37	35.3	30.6	83.8	268.9	11.9	19	26.9
HCM Lane LOS	E	E	D	F	F	B	C	D
HCM 95th-tile Q	5.3	5.2	4.5	12.8	29.7	0.1	1.3	3.8

Intersection

Intersection Delay, s/veh 159.1

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↲			↱	↱			
Traffic Vol, veh/h	2	27	665	127	0	17	0	697	85	0	0	0
Future Vol, veh/h	2	27	665	127	0	17	0	697	85	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	29	723	138	0	18	0	758	92	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	139.8	16.7	202.5
HCM LOS	F	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	7%	0%	88%
Vol Thru, %	100%	0%	93%	0%	0%
Vol Right, %	0%	100%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	697	85	29	665	144
LT Vol	0	0	2	0	127
Through Vol	697	0	27	0	0
RT Vol	0	85	0	665	17
Lane Flow Rate	758	92	32	723	157
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.431	0.157	0.06	1.236	0.336
Departure Headway (Hd)	7.336	6.621	7.899	7.144	9.127
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	500	545	456	513	396
Service Time	5.036	4.321	5.599	4.844	7.127
HCM Lane V/C Ratio	1.516	0.169	0.07	1.409	0.396
HCM Control Delay	225.9	10.6	11.1	145.4	16.7
HCM Lane LOS	F	B	B	F	C
HCM 95th-tile Q	34.1	0.6	0.2	24.4	1.5

HCM 2010 TWSC

4: Date Ave & Orange St

04/04/2018

Intersection

Int Delay, s/veh 4.1










Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔	↔	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	25	52	55	8	29	3	55	145	6	7	218	75
Future Vol, veh/h	25	52	55	8	29	3	55	145	6	7	218	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	57	60	9	32	3	60	158	7	8	237	82

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	545	529	237	557	529	158	237	0	0	158	0	0
Stage 1	252	252	-	277	277	-	-	-	-	-	-	-
Stage 2	293	277	-	280	252	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	449	455	802	441	455	887	1330	-	-	1422	-	-
Stage 1	752	698	-	729	681	-	-	-	-	-	-	-
Stage 2	715	681	-	727	698	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	406	432	802	353	432	887	1330	-	-	1422	-	-
Mov Cap-2 Maneuver	406	432	-	353	432	-	-	-	-	-	-	-
Stage 1	718	694	-	696	650	-	-	-	-	-	-	-
Stage 2	647	650	-	615	694	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.2		14.3		2.1		0.2	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1330	-	-	423	802	412	887	1422	-	-
HCM Lane V/C Ratio	0.045	-	-	0.198	0.075	0.098	0.004	0.005	-	-
HCM Control Delay (s)	7.8	-	-	15.6	9.9	14.7	9.1	7.5	-	-
HCM Lane LOS	A	-	-	C	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.2	0.3	0	0	-	-

Intersection						
Int Delay, s/veh	6.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	113	482	1349	195	75	153
Future Vol, veh/h	113	482	1349	195	75	153
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	123	524	1466	212	82	166
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	1678	0	-	0	2080	839
Stage 1	-	-	-	-	1572	-
Stage 2	-	-	-	-	508	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	378	-	-	-	~ 46	309
Stage 1	-	-	-	-	156	-
Stage 2	-	-	-	-	569	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	378	-	-	-	~ 25	309
Mov Cap-2 Maneuver	-	-	-	-	105	-
Stage 1	-	-	-	-	156	-
Stage 2	-	-	-	-	308	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.6	0		55.7		
HCM LOS				F		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	378	-	-	-	105	309
HCM Lane V/C Ratio	0.325	-	-	-	0.776	0.538
HCM Control Delay (s)	19	-	-	-	109.4	29.4
HCM Lane LOS	C	-	-	-	F	D
HCM 95th %tile Q(veh)	1.4	-	-	-	4.3	3
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	16	76	2	5	2	95	194	9	13	190	61
Future Vol, veh/h	14	16	76	2	5	2	95	194	9	13	190	61
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	17	83	2	5	2	103	211	10	14	207	66
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	655	652	207	702	652	211	207	0	0	211	0	0
Stage 1	235	235	-	417	417	-	-	-	-	-	-	-
Stage 2	420	417	-	285	235	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	379	387	833	353	387	829	1364	-	-	1360	-	-
Stage 1	768	710	-	613	591	-	-	-	-	-	-	-
Stage 2	611	591	-	722	710	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	349	354	833	286	354	829	1364	-	-	1360	-	-
Mov Cap-2 Maneuver	349	354	-	286	354	-	-	-	-	-	-	-
Stage 1	710	703	-	567	546	-	-	-	-	-	-	-
Stage 2	558	546	-	628	703	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	12.4		14.6			2.5			0.4			
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1364	-	-	600	331	829	1360	-	-			
HCM Lane V/C Ratio	0.076	-	-	0.192	0.023	0.003	0.01	-	-			
HCM Control Delay (s)	7.9	-	-	12.4	16.1	9.4	7.7	-	-			
HCM Lane LOS	A	-	-	B	C	A	A	-	-			
HCM 95th %tile Q(veh)	0.2	-	-	0.7	0.1	0	0	-	-			

Intersection

Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	67	76	79	2	15	8	6	193	2	11	303	19
Future Vol, veh/h	67	76	79	2	15	8	6	193	2	11	303	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	83	86	2	16	9	7	210	2	12	329	21
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10.7	9.3	11.6	14.3
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	47%	0%	12%	0%	4%	0%
Vol Thru, %	97%	0%	53%	0%	88%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	199	2	143	79	17	8	314	19
LT Vol	6	0	67	0	2	0	11	0
Through Vol	193	0	76	0	15	0	303	0
RT Vol	0	2	0	79	0	8	0	19
Lane Flow Rate	216	2	155	86	18	9	341	21
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.349	0.003	0.277	0.131	0.034	0.014	0.535	0.028
Departure Headway (Hd)	5.815	5.092	6.422	5.476	6.651	5.879	5.646	4.922
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	619	703	561	655	538	608	642	728
Service Time	3.541	2.818	4.151	3.205	4.393	3.62	3.369	2.645
HCM Lane V/C Ratio	0.349	0.003	0.276	0.131	0.033	0.015	0.531	0.029
HCM Control Delay	11.6	7.8	11.6	9	9.6	8.7	14.7	7.8
HCM Lane LOS	B	A	B	A	A	A	B	A
HCM 95th-tile Q	1.6	0	1.1	0.4	0.1	0	3.2	0.1

Intersection

Intersection Delay, s/veh	12.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	10	13	88	7	10	8	6	163	10	16	377	13
Future Vol, veh/h	10	13	88	7	10	8	6	163	10	16	377	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	14	96	8	11	9	7	177	11	17	410	14
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.2	9.2	10	15.4
HCM LOS	A	A	A	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	4%	0%	43%	0%	41%	0%	4%	0%
Vol Thru, %	96%	0%	57%	0%	59%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	169	10	23	88	17	8	393	13
LT Vol	6	0	10	0	7	0	16	0
Through Vol	163	0	13	0	10	0	377	0
RT Vol	0	10	0	88	0	8	0	13
Lane Flow Rate	184	11	25	96	18	9	427	14
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.274	0.014	0.044	0.144	0.034	0.013	0.61	0.017
Departure Headway (Hd)	5.36	4.637	6.365	5.437	6.605	5.586	5.138	4.414
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	665	765	559	654	545	633	701	805
Service Time	3.131	2.408	4.146	3.217	4.305	3.386	2.896	2.172
HCM Lane V/C Ratio	0.277	0.014	0.045	0.147	0.033	0.014	0.609	0.017
HCM Control Delay	10.2	7.5	9.4	9.1	9.5	8.5	15.7	7.2
HCM Lane LOS	B	A	A	A	A	A	C	A
HCM 95th-tile Q	1.1	0	0.1	0.5	0.1	0	4.2	0.1

Intersection

Intersection Delay, s/veh 53.8

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱			↱	↱
Traffic Vol, veh/h	32	334	275	134	117	2	549	192	109	11	6	45
Future Vol, veh/h	32	334	275	134	117	2	549	192	109	11	6	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	363	299	146	127	2	597	209	118	12	7	49
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1






Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	35	28.8	78.4	12.8
HCM LOS	D	D	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	29%	9%	0%	53%	0%	65%	0%
Vol Thru, %	0%	46%	91%	0%	47%	0%	35%	0%
Vol Right, %	0%	26%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	428	422	366	275	251	2	17	45
LT Vol	428	121	32	0	134	0	11	0
Through Vol	0	192	334	0	117	0	6	0
RT Vol	0	109	0	275	0	2	0	45
Lane Flow Rate	465	458	398	299	273	2	18	49
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	1.069	0.983	0.879	0.597	0.677	0.005	0.05	0.118
Departure Headway (Hd)	8.27	7.717	8.066	7.3	9.113	8.113	9.908	8.837
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	442	472	454	496	398	444	364	408
Service Time	5.97	5.417	5.766	5	6.813	5.813	7.608	6.537
HCM Lane V/C Ratio	1.052	0.97	0.877	0.603	0.686	0.005	0.049	0.12
HCM Control Delay	91.5	65.1	46.2	20.2	28.9	10.9	13.1	12.7
HCM Lane LOS	F	F	E	C	D	B	B	B
HCM 95th-tile Q	15.2	12.6	9.2	3.8	4.8	0	0.2	0.4

Intersection

Intersection Delay, s/veh 162.5

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	102	362	52	0	87	0	816	148	0	0	0
Future Vol, veh/h	4	102	362	52	0	87	0	816	148	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	111	393	57	0	95	0	887	161	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	21.6	14.5	252.2
HCM LOS	C	B	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	4%	0%	37%
Vol Thru, %	100%	0%	96%	0%	0%
Vol Right, %	0%	100%	0%	100%	63%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	816	148	106	362	139
LT Vol	0	0	4	0	52
Through Vol	816	0	102	0	0
RT Vol	0	148	0	362	87
Lane Flow Rate	887	161	115	393	151
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.601	0.259	0.221	0.675	0.292
Departure Headway (Hd)	6.5	5.791	8.117	7.377	8.195
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	568	624	445	496	441
Service Time	4.2	3.491	5.817	5.077	6.195
HCM Lane V/C Ratio	1.562	0.258	0.258	0.792	0.342
HCM Control Delay	296	10.5	13.1	24.1	14.5
HCM Lane LOS	F	B	B	C	B
HCM 95th-tile Q	48.5	1	0.8	5	1.2

HCM 2010 TWSC
4: Date Ave & Orange St










04/04/2018

Intersection												
Int Delay, s/veh	18.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	77	180	177	1	35	7	42	218	3	28	328	50
Future Vol, veh/h	77	180	177	1	35	7	42	218	3	28	328	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	84	196	192	1	38	8	46	237	3	30	357	54
Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	764	745	357	843	745	237	357	0	0	237	0	0
Stage 1	417	417	-	328	328	-	-	-	-	-	-	-
Stage 2	347	328	-	515	417	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	321	342	687	284	342	802	1202	-	-	1330	-	-
Stage 1	613	591	-	685	647	-	-	-	-	-	-	-
Stage 2	669	647	-	543	591	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	276	321	687	101	321	802	1202	-	-	1330	-	-
Mov Cap-2 Maneuver	276	321	-	101	321	-	-	-	-	-	-	-
Stage 1	590	578	-	659	622	-	-	-	-	-	-	-
Stage 2	598	622	-	253	578	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB		SB		SB	
HCM Control Delay, s	46.1		17.1		1.3		0.5					
HCM LOS	E		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1202	-	-	306	687	303	802	1330	-	-		
HCM Lane V/C Ratio	0.038	-	-	0.913	0.28	0.129	0.009	0.023	-	-		
HCM Control Delay (s)	8.1	-	-	69.4	12.3	18.6	9.5	7.8	-	-		
HCM Lane LOS	A	-	-	F	B	C	A	A	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	8.7	1.1	0.4	0	0.1	-	-		

HCM 2010 TWSC
8: Mission Road & Date Ave

04/04/2018

Intersection						
Int Delay, s/veh	39.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	147	821	628	163	244	211
Future Vol, veh/h	147	821	628	163	244	211
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	160	892	683	177	265	229
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	860	0	-	0	1537	430
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	766	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	777	-	-	-	~ 107	573
Stage 1	-	-	-	-	417	-
Stage 2	-	-	-	-	419	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	777	-	-	-	~ 63	573
Mov Cap-2 Maneuver	-	-	-	-	~ 168	-
Stage 1	-	-	-	-	417	-
Stage 2	-	-	-	-	~ 248	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.6	0		187.3		
HCM LOS				F		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	777	-	-	-	168	573
HCM Lane V/C Ratio	0.206	-	-	-	1.579	0.4
HCM Control Delay (s)	10.8	-	-	-	\$ 336	15.4
HCM Lane LOS	B	-	-	-	F	C
HCM 95th %tile Q(veh)	0.8	-	-	-	17.8	1.9
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	8	38	11	15	19	85	226	13	42	437	23
Future Vol, veh/h	7	8	38	11	15	19	85	226	13	42	437	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	9	41	12	16	21	92	246	14	46	475	25
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1005	996	475	1021	996	246	475	0	0	246	0	0
Stage 1	566	566	-	430	430	-	-	-	-	-	-	-
Stage 2	439	430	-	591	566	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	220	244	590	215	244	793	1087	-	-	1320	-	-
Stage 1	509	507	-	603	583	-	-	-	-	-	-	-
Stage 2	597	583	-	493	507	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	184	216	590	177	216	793	1087	-	-	1320	-	-
Mov Cap-2 Maneuver	184	216	-	177	216	-	-	-	-	-	-	-
Stage 1	466	489	-	552	534	-	-	-	-	-	-	-
Stage 2	516	534	-	435	489	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	16.2		19.2			2.3			0.7			
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1087	-	-	380	198	793	1320	-	-			
HCM Lane V/C Ratio	0.085	-	-	0.152	0.143	0.026	0.035	-	-			
HCM Control Delay (s)	8.6	-	-	16.2	26.2	9.7	7.8	-	-			
HCM Lane LOS	A	-	-	C	D	A	A	-	-			
HCM 95th %tile Q(veh)	0.3	-	-	0.5	0.5	0.1	0.1	-	-			

Appendix O – Intersection Analysis Worksheets – Cumulative (2028) Plus Project Conditions (Scenario 2)

Scenario Report

Scenario: 2028 Cumulative + Project AM

Command: 2028 Ambient Growth + Proj AM

Volume: 2028 AM

Geometry: Existing

Impact Fee: Default Impact Fee

Trip Generation: 2028 Cum + Project AM

Trip Distribution: Cum + Project

Paths: Default Path

Routes: Default Route

Configuration: Default Configuration

Turning Movement Report
Cum AM + Project 2028 AM

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Fremont Ave and Mission Rd													
Base	247	1505	225	13	1454	49	69	374	530	397	871	48	5783
Added	0	10	31	1	71	29	18	3	0	107	18	9	297
Total	247	1515	256	14	1525	78	87	377	530	504	889	57	6080
#2 Fremont Ave and 1000 Fremont Ave													
Base	54	1446	131	4	1440	40	26	6	60	4	1	7	3219
Added	0	31	5	4	67	0	0	0	0	35	0	22	164
Total	54	1477	136	8	1507	40	26	6	60	39	1	29	3383
#3 Fremont Ave and Orange St													
Base	2	1254	248	156	1473	2	1	1	0	60	0	59	3257
Added	0	40	13	5	19	0	0	0	0	51	0	34	162
Total	2	1294	261	161	1492	2	1	1	0	111	0	93	3419
#4 Date Ave and Orange St													
Base	54	99	6	7	186	74	20	36	47	8	27	3	566
Added	6	53	0	0	34	1	5	22	9	0	3	0	133
Total	60	152	6	7	220	75	25	58	56	8	30	3	699
#5 Palm Ave and Orange St													
Base	6	66	2	6	214	32	8	20	15	2	6	2	378
Added	0	16	0	0	3	1	8	14	0	0	2	0	44
Total	6	82	2	6	217	33	16	34	15	2	8	2	422
#6 Chestnut St and Palm Ave													
Base	16	100	2	13	182	12	1	1	8	1	3	8	348
Added	0	9	0	0	1	1	7	16	0	0	3	0	37
Total	16	109	2	13	183	13	8	17	8	1	6	8	385
#7 Fremont Ave and Poplar Blvd													
Base	100	1156	56	19	1564	17	21	116	73	59	118	20	3319
Added	16	63	16	1	30	0	0	9	2	2	7	4	150
Total	116	1219	72	20	1594	17	21	125	75	61	125	24	3469
#8 Date Ave and Mission Rd													
Base	0	0	0	25	0	87	91	482	0	0	1349	175	2209
Added	0	0	0	57	0	91	29	36	0	0	6	22	241
Total	0	0	0	82	0	178	120	518	0	0	1355	197	2450
#9 Chestnut St and Date Ave													
Base	85	161	9	13	151	59	0	0	0	2	3	2	485
Added	10	45	8	0	42	2	14	16	76	2	2	0	217
Total	95	206	17	13	193	61	14	16	76	4	5	2	702
#10 Fremont Ave and Concord Ave													
Base	62	1214	41	4	1540	66	45	13	76	25	16	11	3113
Added	0	74	0	0	24	0	0	0	0	0	0	0	98
Total	62	1288	41	4	1564	66	45	13	76	25	16	11	3211

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#11 Fremont Ave and Montezuma Ave													
Base	762	288	45	4	89	667	452	58	683	56	104	11	3219
Added	27	4	0	0	4	13	44	0	21	0	0	0	113
Total	789	292	45	4	93	680	496	58	704	56	104	11	3332
#12 Palm Ave and Commonwealth Ave													
Base	20	36	4	44	240	281	67	237	31	15	289	42	1305
Added	0	24	0	0	4	41	50	38	0	0	40	0	197
Total	20	60	4	44	244	322	117	275	31	15	329	42	1502
#13 Date Ave and Commonwealth Ave													
Base	27	45	18	52	74	79	76	267	105	132	364	75	1312
Added	14	0	50	0	0	0	0	38	2	41	40	0	185
Total	41	45	68	52	74	79	76	305	107	173	404	75	1497
#14 Fremont Ave and Commonwealth Ave													
Base	44	1125	103	191	1456	69	30	150	18	120	173	119	3597
Added	0	58	16	26	9	0	0	0	0	15	0	37	161
Total	44	1183	119	217	1465	69	30	150	18	135	173	156	3758
#15 Fremont Ave and Valley Blvd													
Base	46	1021	29	83	898	1420	588	451	31	62	809	206	5644
Added	5	29	4	5	104	69	11	2	1	7	3	1	241
Total	51	1050	33	88	1002	1489	599	453	32	69	812	207	5885
#16 Palm Ave and Mission Rd													
Base	0	0	0	57	0	138	37	471	0	0	1433	94	2229
Added	0	0	0	0	0	1	9	83	0	0	26	0	119
Total	0	0	0	57	0	139	46	554	0	0	1459	94	2348
#17 Marengo Ave and Valley Blvd													
Base	25	131	80	249	182	153	185	467	26	69	1067	210	2843
Added	10	27	0	11	29	0	0	5	7	0	1	2	92
Total	35	158	80	260	211	153	185	472	33	69	1068	212	2935
#18 Atlantic Blvd and Mission Road													
Base	172	1185	128	45	1052	274	98	576	75	195	1067	37	4904
Added	0	31	0	0	23	1	3	32	0	0	5	0	95
Total	172	1216	128	45	1075	275	101	608	75	195	1072	37	4999
#19 Marengo Ave and Mission Road													
Base	95	426	175	48	562	74	49	392	95	303	1306	83	3608
Added	25	0	3	0	0	1	7	32	38	1	5	0	112
Total	120	426	178	48	562	75	56	424	133	304	1311	83	3720
#20 Marengo Ave and Front St													
Base	2	567	3	11	550	399	90	12	8	2	84	38	1767
Added	0	29	0	0	40	0	0	0	0	0	0	0	69
Total	2	596	3	11	590	399	90	12	8	2	84	38	1836

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#21 I-710 NB Ramp and Valley Blvd													
Base	673	1	764	4	0	1	0	231	0	0	2428	7	4109
Added	0	0	14	0	0	0	0	0	0	0	77	0	91
Total	673	1	778	4	0	1	0	231	0	0	2505	7	4200
#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	239	725	1777	1339	0	4080
Added	0	0	0	0	0	0	0	0	0	77	0	0	77
Total	0	0	0	0	0	0	0	239	725	1854	1339	0	4157
#23 Fremont Ave and Hellman Ave													
Base	158	1042	349	142	788	123	120	124	171	187	254	237	3695
Added	0	26	14	48	64	0	0	0	0	1	0	13	166
Total	158	1068	363	190	852	123	120	124	171	188	254	250	3861
#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	399	61	23	87	16	223	57	182	365	444	68	15	1940
Added	14	0	0	0	0	0	0	0	62	0	0	0	76
Total	413	61	23	87	16	223	57	182	427	444	68	15	2016
#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	697	54	0	0	0	2	27	652	127	0	17	1575
Added	0	0	48	0	0	0	0	0	17	0	0	0	65
Total	0	697	102	0	0	0	2	27	669	127	0	17	1640
#26 Ross Ave and Fremont Ave													
Base	29	1124	237	47	967	38	29	55	6	193	197	19	2940
Added	0	39	0	0	112	0	0	0	0	0	0	0	151
Total	29	1163	237	47	1079	38	29	55	6	193	197	19	3091
#27 Westmont Dr and Valley Blvd													
Base	57	16	8	4	7	41	19	1078	16	3	2272	33	3554
Added	0	0	0	0	0	0	0	14	0	0	77	0	91
Total	57	16	8	4	7	41	19	1092	16	3	2349	33	3645
#135													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	36	0	44	6	29	0	0	91	6	212
Total	0	0	0	36	0	44	6	29	0	0	91	6	212

Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	247	1505	225	13	1454	49	69	374	530	397	871	48
2 Fremont Ave a	54	1446	131	4	1440	40	26	6	60	4	1	7
3 Fremont Ave a	2	1254	248	156	1473	2	1	1	0	60	0	59
4 Date Ave and	54	99	6	7	186	74	20	36	47	8	27	3
5 Palm Ave and	6	66	2	6	214	32	8	20	15	2	6	2
6 Chestnut St a	16	100	2	13	182	12	1	1	8	1	3	8
7 Fremont Ave a	100	1156	56	19	1564	17	21	116	73	59	118	20
8 Date Ave and	0	0	0	25	0	87	91	482	0	0	1349	175
9 Chestnut St a	85	161	9	13	151	59	0	0	0	2	3	2
10 Fremont Ave a	62	1214	41	4	1540	66	45	13	76	25	16	11
11 Fremont Ave a	762	288	45	4	89	667	452	58	683	56	104	11
12 Palm Ave and	20	36	4	44	240	281	67	237	31	15	289	42
13 Date Ave and	27	45	18	52	74	79	76	267	105	132	364	75
14 Fremont Ave a	44	1125	103	191	1456	69	30	150	18	120	173	119
15 Fremont Ave a	46	1021	29	83	898	1420	588	451	31	62	809	206
16 Palm Ave and	0	0	0	57	0	138	37	471	0	0	1433	94
17 Marengo Ave a	25	131	80	249	182	153	185	467	26	69	1067	210
18 Atlantic Blvd	172	1185	128	45	1052	274	98	576	75	195	1067	37
19 Marengo Ave a	95	426	175	48	562	74	49	392	95	303	1306	83
20 Marengo Ave a	2	567	3	11	550	399	90	12	8	2	84	38
21 I-710 NB Ramp	673	1	764	4	0	1	0	231	0	0	2428	7
22 I-710 SB Ramp	0	0	0	0	0	0	0	239	725	1777	1339	0
23 Fremont Ave a	158	1042	349	142	788	123	120	124	171	187	254	237
24 Elm St and He	399	61	23	87	16	223	57	182	365	444	68	15
25 Fremont Ave a	0	697	54	0	0	0	2	27	652	127	0	17
26 Ross Ave and	29	1124	237	47	967	38	29	55	6	193	197	19
27 Westmont Dr a	57	16	8	4	7	41	19	1078	16	3	2272	33

Intersection Volume Report
 Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	247	1515	256	14	1525	78	87	377	530	504	889	57
2 Fremont Ave a	54	1477	136	8	1507	40	26	6	60	39	1	29
3 Fremont Ave a	2	1294	261	161	1492	2	1	1	0	111	0	93
4 Date Ave and	60	152	6	7	220	75	25	58	56	8	30	3
5 Palm Ave and	6	82	2	6	217	33	16	34	15	2	8	2
6 Chestnut St a	16	109	2	13	183	13	8	17	8	1	6	8
7 Fremont Ave a	116	1219	72	20	1594	17	21	125	75	61	125	24
8 Date Ave and	0	0	0	82	0	178	120	518	0	0	1355	197
9 Chestnut St a	95	206	17	13	193	61	14	16	76	4	5	2
10 Fremont Ave a	62	1288	41	4	1564	66	45	13	76	25	16	11
11 Fremont Ave a	789	292	45	4	93	680	496	58	704	56	104	11
12 Palm Ave and	20	60	4	44	244	322	117	275	31	15	329	42
13 Date Ave and	41	45	68	52	74	79	76	305	107	173	404	75
14 Fremont Ave a	44	1183	119	217	1465	69	30	150	18	135	173	156
15 Fremont Ave a	51	1050	33	88	1002	1489	599	453	32	69	812	207
16 Palm Ave and	0	0	0	57	0	139	46	554	0	0	1459	94
17 Marengo Ave a	35	158	80	260	211	153	185	472	33	69	1068	212
18 Atlantic Blvd	172	1216	128	45	1075	275	101	608	75	195	1072	37
19 Marengo Ave a	120	426	178	48	562	75	56	424	133	304	1311	83
20 Marengo Ave a	2	596	3	11	590	399	90	12	8	2	84	38
21 I-710 NB Ramp	673	1	778	4	0	1	0	231	0	0	2505	7
22 I-710 SB Ramp	0	0	0	0	0	0	0	239	725	1854	1339	0
23 Fremont Ave a	158	1068	363	190	852	123	120	124	171	188	254	250
24 Elm St and He	413	61	23	87	16	223	57	182	427	444	68	15
25 Fremont Ave a	0	697	102	0	0	0	2	27	669	127	0	17
26 Ross Ave and	29	1163	237	47	1079	38	29	55	6	193	197	19
27 Westmont Dr a	57	16	8	4	7	41	19	1092	16	3	2349	33

Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	LOS	Del/V/ Veh C	LOS	Del/V/ Veh C	
# 1 Fremont Ave and Mission Rd	F	xxxxxx 1.288	F	xxxxxx 1.377	+ 0.089 V/C
# 2 Fremont Ave and 1000 Fremont A	B	xxxxxx 0.628	B	xxxxxx 0.670	+ 0.043 V/C
# 3 Fremont Ave and Orange St	B	xxxxxx 0.628	B	xxxxxx 0.670	+ 0.042 V/C
# 4 Date Ave and Orange St	B	11.6 0.058	B	12.3 0.102	+ 0.719 D/V
# 5 Palm Ave and Orange St	A	8.7 0.289	A	8.8 0.299	+ 0.010 V/C
# 6 Chestnut St and Palm Ave	A	8.6 0.254	A	8.7 0.261	+ 0.007 V/C
# 7 Fremont Ave and Poplar Blvd	C	xxxxxx 0.766	C	xxxxxx 0.793	+ 0.026 V/C
# 8 Date Ave and Mission Rd	C	20.5 0.247	D	30.9 0.517	+10.412 D/V
# 9 Chestnut St and Date Ave	B	10.9 0.062	B	12.3 0.089	+ 1.374 D/V
# 10 Fremont Ave and Concord Ave	C	xxxxxx 0.704	C	xxxxxx 0.711	+ 0.008 V/C
# 11 Fremont Ave and Montezuma Ave	B	xxxxxx 0.657	B	xxxxxx 0.683	+ 0.026 V/C
# 12 Palm Ave and Commonwealth Ave	A	xxxxxx 0.420	A	xxxxxx 0.490	+ 0.069 V/C
# 13 Date Ave and Commonwealth Ave	A	xxxxxx 0.411	A	xxxxxx 0.458	+ 0.047 V/C
# 14 Fremont Ave and Commonwealth A	C	xxxxxx 0.784	C	xxxxxx 0.794	+ 0.011 V/C
# 15 Fremont Ave and Valley Blvd	F	xxxxxx 1.029	F	xxxxxx 1.059	+ 0.029 V/C
# 16 Palm Ave and Mission Rd	B	xxxxxx 0.686	C	xxxxxx 0.701	+ 0.014 V/C
# 17 Marengo Ave and Valley Blvd	C	xxxxxx 0.786	D	xxxxxx 0.810	+ 0.024 V/C
# 18 Atlantic Blvd and Mission Road	E	xxxxxx 0.942	E	xxxxxx 0.953	+ 0.011 V/C
# 19 Marengo Ave and Mission Road	F	xxxxxx 1.021	F	xxxxxx 1.044	+ 0.022 V/C
# 20 Marengo Ave and Front St	D	xxxxxx 0.805	D	xxxxxx 0.830	+ 0.025 V/C
# 21 I-710 NB Ramp and Valley Blvd	C	xxxxxx 0.767	C	xxxxxx 0.782	+ 0.015 V/C
# 22 I-710 SB Ramp and Valley Blvd	F	xxxxxx 1.170	F	xxxxxx 1.197	+ 0.027 V/C
# 23 Fremont Ave and Hellman Ave	D	xxxxxx 0.858	E	xxxxxx 0.900	+ 0.042 V/C
# 24 Elm St and Hellman Ave/Ramona	F	61.0 1.262	F	67.1 1.287	+ 0.026 V/C
# 25 Fremont Ave and Ramona Road/10	F	110.2 1.287	F	112.3 1.287	+ 0.000 V/C

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
	LOS Veh	C	LOS Veh	C	
# 26 Ross Ave and Fremont Ave	C xxxxx	0.713	C xxxxx	0.725	+ 0.012 V/C
# 27 Westmont Dr and Valley Blvd	D xxxxx	0.890	E xxxxx	0.914	+ 0.024 V/C

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Fremont Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.377
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

Street Name:	Fremont Ave						Mission Rd						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1	0

Volume Module:

Base Vol:	221	1349	202	12	1303	44	62	335	475	356	781	43
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	247	1505	225	13	1454	49	69	374	530	397	871	48
Added Vol:	0	10	31	1	71	29	18	3	0	107	18	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	247	1515	256	14	1525	78	87	377	530	504	889	57
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	247	1515	256	14	1525	78	87	377	530	504	889	57
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	247	1515	256	14	1525	78	87	377	530	504	889	57
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	247	1515	256	14	1525	78	87	377	530	504	889	57

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.71	0.29	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.88	0.12
Final Sat.:	1600	2737	463	1600	3200	1600	1600	3200	1600	1600	3007	193

Capacity Analysis Module:

Vol/Sat:	0.15	0.55	0.55	0.01	0.48	0.05	0.05	0.12	0.33	0.32	0.30	0.30
Crit Moves:	****			****			****		****	****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.670
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 47 Level Of Service: B

Street Name:	Fremont Ave						1000 Fremont Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	0	1	0	1	0

Volume Module:

Base Vol:	48	1296	117	4	1291	36	23	5	54	4	1	6
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	54	1446	131	4	1440	40	26	6	60	4	1	7
Added Vol:	0	31	5	4	67	0	0	0	0	35	0	22
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	1477	136	8	1507	40	26	6	60	39	1	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	1477	136	8	1507	40	26	6	60	39	1	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	1477	136	8	1507	40	26	6	60	39	1	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	1477	136	8	1507	40	26	6	60	39	1	29

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.08	0.92	1.00	0.04	0.96
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	136	1464	1600	60	1540

Capacity Analysis Module:

Vol/Sat:	0.03	0.46	0.08	0.01	0.47	0.03	0.02	0.04	0.04	0.02	0.02	0.02
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.670
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 47 Level Of Service: B

Street Name:	Fremont Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	0	1	0	1	0

Volume Module:

Base Vol:	2	1124	222	140	1320	2	1	1	0	54	0	53
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	2	1254	248	156	1473	2	1	1	0	60	0	59
Added Vol:	0	40	13	5	19	0	0	0	0	51	0	34
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	1294	261	161	1492	2	1	1	0	111	0	93
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1294	261	161	1492	2	1	1	0	111	0	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1294	261	161	1492	2	1	1	0	111	0	93
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	1294	261	161	1492	2	1	1	0	111	0	93

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.50	0.50	1.00	1.09	0.00	0.91
Final Sat.:	1600	3200	1600	1600	3195	5	800	800	1600	1742	0	1458

Capacity Analysis Module:

Vol/Sat:	0.00	0.40	0.16	0.10	0.47	0.47	0.00	0.00	0.00	0.06	0.00	0.06
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Date Ave and Orange St

Average Delay (sec/veh): 3.7 Worst Case Level Of Service: B[12.3]

Street Name:	Date Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	1	0	1	0	1	0	1	0

Volume Module:	>> Count	Date:	17 Nov 2015	<< AM Peak
Base Vol:	48	89	5	6 167 66 18 32 42 7 24 3
Growth Adj:	1.12	1.12	1.12	1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse:	54	99	6	7 186 74 20 36 47 8 27 3
Added Vol:	6	53	0	0 34 1 5 22 9 0 3 0
PasserByVol:	0	0	0	0 0 0 0 0 0 0 0 0
Initial Fut:	60	152	6	7 220 75 25 58 56 8 30 3
User Adj:	1.00	1.00	1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	1.00	1.00	1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:	60	152	6	7 220 75 25 58 56 8 30 3
Reduct Vol:	0	0	0	0 0 0 0 0 0 0 0 0
FinalVolume:	60	152	6	7 220 75 25 58 56 8 30 3

Critical Gap Module:	Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3	

Capacity Module:	Cnflict Vol:	295	xxxx	xxxxxx	158	xxxx	xxxxxx	524	511	220	599	580	152
Potent Cap.:	1278	xxxx	xxxxxx	1434	xxxx	xxxxxx	467	469	824	416	429	899	
Move Cap.:	1278	xxxx	xxxxxx	1434	xxxx	xxxxxx	422	445	824	336	407	899	
Total Cap:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	571	567	xxxxxx	474	524	xxxxxx	
Volume/Cap:	0.05	xxxx	xxxx	0.00	xxxx	xxxx	0.04	0.10	0.07	0.02	0.06	0.00	

Level Of Service Module:	2Way95thQ:	0.1	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	0.2	xxxx	xxxx	0.0
Control Del:	8.0	xxxx	xxxxxx	7.5	xxxx	xxxxxx	xxxxxx	xxxx	9.7	xxxxxx	xxxx	9.0	
LOS by Move:	A	*	*	A	*	*	*	*	A	*	*	A	
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT					
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	568	xxxx	xxxxxx	512	xxxx	xxxxxx	
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.5	xxxx	xxxxxx	0.2	xxxx	xxxxxx	
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	12.4	xxxx	xxxxxx	12.6	xxxx	xxxxxx	
Shared LOS:	*	*	*	*	*	*	B	*	*	B	*	*	
ApproachDel:	xxxxxx	xxxxxx	11.3	12.3									
ApproachLOS:	*	*	B	B									

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #5 Palm Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.299
 Loss Time (sec): 0 Average Delay (sec/veh): 8.8
 Optimal Cycle: 0 Level Of Service: A

Street Name:	Palm Ave						Orange St						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Lanes:	0	1	0	0	1	0	0	1	0	1	0	0	1

Volume Module:	>> Count	Date:	17 Nov 2015	<< AM Peak
Base Vol:	5	59	2	5
Growth Adj:	1.12	1.12	1.12	1.12
Initial Bse:	6	66	2	6
Added Vol:	0	16	0	0
PasserByVol:	0	0	0	0
Initial Fut:	6	82	2	6
User Adj:	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00
PHF Volume:	6	82	2	6
Reduct Vol:	0	0	0	0
Reduced Vol:	6	82	2	6
PCE Adj:	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00
FinalVolume:	6	82	2	6

Saturation Flow Module:	Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.06	0.94	1.00	0.03	0.97	1.00	0.32	0.68	1.00	0.23	0.77	1.00
Final Sat.:	46	672	840	19	725	869	198	427	733	141	478	720

Capacity Analysis Module:	Vol/Sat:	0.12	0.12	0.00	0.30	0.30	0.04	0.08	0.08	0.02	0.02	0.02
Crit Moves:	****				****			****				****
Delay/Veh:	8.3	8.3	6.9	9.5	9.5	6.9	8.6	8.6	7.4	8.3	8.3	7.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.3	8.3	6.9	9.5	9.5	6.9	8.6	8.6	7.4	8.3	8.3	7.4
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.3			9.2			8.3			8.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.3			9.2			8.3			8.1		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.0	0.4	0.4	0.0	0.1	0.1	0.0	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.261
 Loss Time (sec): 0 Average Delay (sec/veh): 8.7
 Optimal Cycle: 0 Level Of Service: A

Street Name:	Chestnut St						Palm Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0
Volume Module: >> Count Date: 17 Nov 2015 << AM Peak												
Base Vol:	14	90	2	12	163	11	1	1	7	1	3	7
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	16	100	2	13	182	12	1	1	8	1	3	8
Added Vol:	0	9	0	0	1	1	7	16	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	109	2	13	183	13	8	17	8	1	6	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	109	2	13	183	13	8	17	8	1	6	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	109	2	13	183	13	8	17	8	1	6	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	16	109	2	13	183	13	8	17	8	1	6	8
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.12	0.88	1.00	0.07	0.93	1.00	0.32	0.68	1.00	0.15	0.85	1.00
Final Sat.:	92	644	870	51	700	884	201	424	734	94	536	729
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.00	0.26	0.26	0.02	0.04	0.04	0.01	0.01	0.01	0.01
Crit Moves:	****			****			****			****		
Delay/Veh:	8.5	8.5	6.8	9.1	9.1	6.8	8.4	8.4	7.3	8.2	8.2	7.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.5	8.5	6.8	9.1	9.1	6.8	8.4	8.4	7.3	8.2	8.2	7.4
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.5			9.0			8.1			7.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.5			9.0			8.1			7.7		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.2	0.2	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.793
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 65 Level Of Service: C

Street Name:	Fremont Ave						Poplar Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:												
Base Vol:	90	1036	50	17	1402	15	19	104	65	53	106	18
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	100	1156	56	19	1564	17	21	116	73	59	118	20
Added Vol:	16	63	16	1	30	0	0	9	2	2	7	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	116	1219	72	20	1594	17	21	125	75	61	125	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	116	1219	72	20	1594	17	21	125	75	61	125	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	116	1219	72	20	1594	17	21	125	75	61	125	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	116	1219	72	20	1594	17	21	125	75	61	125	24

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.89	0.11	1.00	1.98	0.02	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	3022	178	1600	3167	33	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:												
Vol/Sat:	0.07	0.40	0.40	0.01	0.50	0.50	0.01	0.08	0.05	0.04	0.08	0.02
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #8 Date Ave and Mission Rd

Average Delay (sec/veh): 4.1 Worst Case Level Of Service: D[30.9]

Street Name:	Date Ave						Mission Rd														
Approach:	North Bound			South Bound			East Bound			West Bound											
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R						
Control:	Stop Sign						Stop Sign						Uncontrolled								
Rights:	Include						Include						Include								
Lanes:	0	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	0	0	1	1	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	AM Peak						
Base Vol:	0	0	0	22	0	78	82	432	0	0	1209	157
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	25	0	87	91	482	0	0	1349	175
Added Vol:	0	0	0	57	0	91	29	36	0	0	6	22
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	82	0	178	120	518	0	0	1355	197
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	82	0	178	120	518	0	0	1355	197
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	82	0	178	120	518	0	0	1355	197

Critical Gap Module:	Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	

Capacity Module:	Cnflct Vol:	xxxx	xxxx	xxxxx	1953	xxxx	776	1552	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx <td>xxxxx</td> <td>57</td> <td>xxxx</td> <td>344</td> <td>433</td> <td>xxxx</td> <td>xxxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> </td>	xxxxx	57	xxxx	344	433	xxxx	xxxxx	xxxx	xxxx <td>xxxxx</td>	xxxxx	
Move Cap.:	xxxx	xxxx <td>xxxxx</td> <td>45</td> <td>xxxx</td> <td>344</td> <td>433</td> <td>xxxx</td> <td>xxxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> </td>	xxxxx	45	xxxx	344	433	xxxx	xxxxx	xxxx	xxxx <td>xxxxx</td>	xxxxx	
Total Cap:	78	55	xxxxx	182	191	xxxxx	xxxx	xxxx <td>xxxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> </td>	xxxxx	xxxx	xxxx <td>xxxxx</td>	xxxxx	
Volume/Cap:	xxxx	xxxx <td>xxxx</td> <td>0.45</td> <td>xxxx</td> <td>0.52</td> <td>0.28</td> <td>xxxx <td>xxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> </td></td>	xxxx	0.45	xxxx	0.52	0.28	xxxx <td>xxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> </td>	xxxx	xxxx	xxxx <td>xxxxx</td>	xxxxx	

Level Of Service Module:	2Way95thQ:	xxxx	xxxx	xxxxx	2.3	xxxx	3.1	1.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx <td>xxxxx</td> <td>40.6</td> <td>xxxx</td> <td>26.5</td> <td>16.5</td> <td>xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> </td></td>	xxxxx	40.6	xxxx	26.5	16.5	xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> </td>	xxxxx	xxxxx	xxxx <td>xxxxx</td>	xxxxx	
LOS by Move:	*	*	*	E	*	D	C	*	*	*	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx <td>xxxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> </td></td></td>	xxxxx	xxxx	xxxx <td>xxxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> </td></td>	xxxxx	xxxx	xxxx <td>xxxxx</td> <td>xxxx</td> <td>xxxx <td>xxxxx</td> </td>	xxxxx	xxxx	xxxx <td>xxxxx</td>	xxxxx	
SharedQueue:	xxxxx	xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> </td></td></td>	xxxxx	xxxxx	xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> </td></td>	xxxxx	xxxxx	xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> </td>	xxxxx	xxxxx	xxxx <td>xxxxx</td>	xxxxx	
Shrd ConDel:	xxxxx	xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> </td></td></td>	xxxxx	xxxxx	xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> </td></td>	xxxxx	xxxxx	xxxx <td>xxxxx</td> <td>xxxxx</td> <td>xxxx <td>xxxxx</td> </td>	xxxxx	xxxxx	xxxx <td>xxxxx</td>	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx			30.9			xxxxxx				xxxxxx		
ApproachLOS:	*			D			*				*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 3.1 Worst Case Level Of Service: B[12.3]

Street Name:	Chestnut St						Date Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	1	0	1	0	0	1	0	0

Volume Module:	>> Count	Date:	17 Nov 2015	<< AM Peak
Base Vol:	76 144 8	12 135 53	0 0 0	2 3 2
Growth Adj:	1.12 1.12 1.12	1.12 1.12 1.12	1.12 1.12 1.12	1.12 1.12 1.12
Initial Bse:	85 161 9	13 151 59	0 0 0	2 3 2
Added Vol:	10 45 8	0 42 2	14 16 76	2 2 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	95 206 17	13 193 61	14 16 76	4 5 2
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	95 206 17	13 193 61	14 16 76	4 5 2
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
FinalVolume:	95 206 17	13 193 61	14 16 76	4 5 2

Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxxx 4.1 xxxx xxxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim: 2.2 xxxx xxxxxx 2.2 xxxx xxxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
Cnflct Vol: 254 xxxx xxxxxx 223 xxxx xxxxxx 627 632 193 691 676 206
Potent Cap.: 1323 xxxx xxxxxx 1358 xxxx xxxxxx 399 400 854 361 378 840
Move Cap.: 1323 xxxx xxxxxx 1358 xxxx xxxxxx 369 368 854 299 347 840
Total Cap: xxxx xxxx xxxxxx xxxx xxxx xxxxxx 508 491 xxxxxx 449 472 xxxxxx
Volume/Cap: 0.07 xxxx xxxx 0.01 xxxx xxxx 0.03 0.03 0.09 0.01 0.01 0.00

Level Of Service Module:
2Way95thQ: 0.2 xxxx xxxxxx 0.0 xxxx xxxxxx xxxx xxxx xxxxxx xxxx xxxx 0.0
Control Del: 7.9 xxxx xxxxxx 7.7 xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx 9.3
LOS by Move: A * * A * * * * * A
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxxx xxxx xxxx xxxxxx xxxx 711 xxxxxx 461 xxxx xxxxxx
SharedQueue:xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx 0.5 xxxxxx 0.1 xxxx xxxxxx
Shrd ConDel:xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx 11.0 xxxxxx 13.0 xxxx xxxxxx
Shared LOS: * * * * * * * B * B *
ApproachDel: xxxxxx xxxxxx 11.0 12.3
ApproachLOS: * * B B

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Fremont Ave and Concord Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.711
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 51 Level Of Service: C

Street Name:	Fremont Ave						Concord Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	1	0	1	0	1	0

Volume Module:	Fremont Ave North Bound			Fremont Ave South Bound			Concord Ave East Bound			Concord Ave West Bound		
Base Vol:	56	1088	37	4	1380	59	40	12	68	22	14	10
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	62	1214	41	4	1540	66	45	13	76	25	16	11
Added Vol:	0	74	0	0	24	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	1288	41	4	1564	66	45	13	76	25	16	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	62	1288	41	4	1564	66	45	13	76	25	16	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	1288	41	4	1564	66	45	13	76	25	16	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	1288	41	4	1564	66	45	13	76	25	16	11

Saturation Flow Module:	Fremont Ave North Bound			Fremont Ave South Bound			Concord Ave East Bound			Concord Ave West Bound		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.91	0.09	1.00	1.92	0.08	1.00	1.00	1.00	1.00	0.58	0.42
Final Sat.:	1600	4651	149	1600	3071	129	1600	1600	1600	1600	933	667

Capacity Analysis Module:	Fremont Ave North Bound			Fremont Ave South Bound			Concord Ave East Bound			Concord Ave West Bound		
Vol/Sat:	0.04	0.28	0.28	0.00	0.51	0.51	0.03	0.01	0.05	0.02	0.02	0.02
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.683
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 48 Level Of Service: B

Street Name:	Fremont Ave						Montezuma Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	1	0	1	0	1	1	0	0	1

Volume Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Base Vol:	683	258	40	4	80	598	405	52	612	50	93	10
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	762	288	45	4	89	667	452	58	683	56	104	11
Added Vol:	27	4	0	0	4	13	44	0	21	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	789	292	45	4	93	680	496	58	704	56	104	11
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	789	292	45	4	93	0	496	58	704	56	104	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	789	292	45	4	93	0	496	58	704	56	104	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	789	292	45	4	93	0	496	58	704	56	104	11

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.87	0.13	0.09	1.91	1.00	2.00	0.15	1.85	0.33	0.61	0.06
Final Sat.:	2880	1388	212	146	3054	1600	2880	244	2956	523	973	105

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Vol/Sat:	0.27	0.21	0.21	0.00	0.03	0.00	0.17	0.24	0.24	0.03	0.11	0.11
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.490

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 33 Level Of Service: A

Street Name:	Palm Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	-	T	-	R		L	-	T	-	R	
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1		1	0	1	1	0	

Volume Module:

Base Vol:	18	32	4	39	215	252	60	212	28	13	259	38
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	20	36	4	44	240	281	67	237	31	15	289	42
Added Vol:	0	24	0	0	4	41	50	38	0	0	40	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	60	4	44	244	322	117	275	31	15	329	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	60	4	44	244	322	117	275	31	15	329	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	60	4	44	244	322	117	275	31	15	329	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	60	4	44	244	322	117	275	31	15	329	42

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.80	0.20	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2873	327	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.01	0.04	0.00	0.03	0.15	0.20	0.07	0.10	0.10	0.01	0.10	0.03
Crit Moves:	****					****	****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.458

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 31 Level Of Service: A

Street Name:	Date Ave						Commonwealth Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
-----	-----			-----			-----			-----			-----		
Control:	Permitted			Permitted			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1	0	1	0	1	1	0	0	1	0	1	0	1	0	
-----	-----			-----			-----			-----			-----		

Volume Module:

Base Vol:	24	40	16	47	66	71	68	239	94	118	326	67
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	27	45	18	52	74	79	76	267	105	132	364	75
Added Vol:	14	0	50	0	0	0	0	38	2	41	40	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	41	45	68	52	74	79	76	305	107	173	404	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	41	45	68	52	74	79	76	305	107	173	404	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	45	68	52	74	79	76	305	107	173	404	75
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	41	45	68	52	74	79	76	305	107	173	404	75

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.48	0.52	1.00	1.48	0.52	1.00	1.69	0.31
Final Sat.:	1600	1600	1600	1600	771	829	1600	2369	831	1600	2700	500

Capacity Analysis Module:

Vol/Sat:	0.03	0.03	0.04	0.03	0.10	0.10	0.05	0.13	0.13	0.11	0.15	0.15
Crit Moves:	****			****			****			****		

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                        Level Of Service Computation Report
                    ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #14 Fremont Ave and Commonwealth Ave
*****
Cycle (sec):          100                Critical Vol./Cap.(X):          0.794
Loss Time (sec):      10                Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        65                Level Of Service:              C
*****
Street Name:          Fremont Ave                Commonwealth Ave
Approach:              North Bound                South Bound                East Bound                West Bound
Movement:              L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|
Control:               Protected                Protected                Protected                Protected
Rights:                Include                Include                Include                Include
Min. Green:            0    0    0                0    0    0                0    0    0                0    0    0
Y+R:                   4.0  4.0  4.0                4.0  4.0  4.0                4.0  4.0  4.0                4.0  4.0  4.0
Lanes:                 1  0  2  0  1                1  0  1  1  0                1  0  0  1  0                1  0  1  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:              39 1008    92    171 1305    62    27 134    16    108 155    107
Growth Adj:            1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12  1.12 1.12  1.12
Initial Bse:           44 1125    103    191 1456    69    30 150    18    120 173    119
Added Vol:              0    58    16    26    9    0    0    0    0    15    0    37
PasserByVol:           0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:           44 1183    119    217 1465    69    30 150    18    135 173    156
User Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:               1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:            44 1183    119    217 1465    69    30 150    18    135 173    156
Reduct Vol:            0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:           44 1183    119    217 1465    69    30 150    18    135 173    156
PCE Adj:               1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:               1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:           44 1183    119    217 1465    69    30 150    18    135 173    156
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1600 1600  1600  1600 1600  1600 1600  1600  1600 1600  1600
Adjustment:            1.00 1.00  1.00  1.00 1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:                 1.00 2.00  1.00  1.00 1.91  0.09 1.00  0.89  0.11  1.00 1.00  1.00
Final Sat.:           1600 3200  1600  1600 3056    144 1600 1429    171  1600 1600  1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:               0.03 0.37  0.07  0.14 0.48  0.48  0.02 0.10  0.10  0.08 0.11  0.10
Crit Moves:            ****                ****                ****                ****
*****
  
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                        Level Of Service Computation Report
                    ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #15 Fremont Ave and Valley Blvd
*****
Cycle (sec):          100                Critical Vol./Cap.(X):          1.059
Loss Time (sec):      10                Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        180                Level Of Service:              F
*****
Street Name:          Fremont Ave                Valley Blvd
Approach:              North Bound                South Bound                East Bound                West Bound
Movement:              L - T - R                L - T - R                L - T - R                L - T - R
-----|-----|-----|-----|
Control:               Protected                Protected                Protected                Protected
Rights:                Include                Include                Include                Include
Min. Green:            0    0    0                0    0    0                0    0    0                0    0    0
Y+R:                  4.0  4.0  4.0                4.0  4.0  4.0                4.0  4.0  4.0                4.0  4.0  4.0
Lanes:                 1  0  1  1  0                1  0  2  0  2                2  0  2  0  1                1  0  2  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:              41  915    26                74  805  1273                527  404    28                56  725  185
Growth Adj:            1.12 1.12  1.12                1.12 1.12  1.12                1.12 1.12  1.12                1.12 1.12  1.12
Initial Bse:           46 1021    29                83  898  1420                588  451    31                62  809  206
Added Vol:              5   29     4                5  104    69                11   2     1                7   3     1
PasserByVol:           0    0     0                0    0     0                0    0     0                0    0     0
Initial Fut:           51 1050    33                88 1002  1489                599  453    32                69  812  207
User Adj:              1.00 1.00  1.00                1.00 1.00  1.00                1.00 1.00  1.00                1.00 1.00  1.00
PHF Adj:               1.00 1.00  1.00                1.00 1.00  1.00                1.00 1.00  1.00                1.00 1.00  1.00
PHF Volume:            51 1050    33                88 1002  1489                599  453    32                69  812  207
Reduct Vol:            0    0     0                0    0     0                0    0     0                0    0     0
Reduced Vol:           51 1050    33                88 1002  1489                599  453    32                69  812  207
PCE Adj:               1.00 1.00  1.00                1.00 1.00  1.00                1.00 1.00  1.00                1.00 1.00  1.00
MLF Adj:               1.00 1.00  1.00                1.00 1.00  1.00                1.00 1.00  1.00                1.00 1.00  1.00
FinalVolume:           51 1050    33                88 1002  1489                599  453    32                69  812  207
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1600 1600  1600                1600 1600  1600                1600 1600  1600                1600 1600  1600
Adjustment:            1.00 1.00  1.00                1.00 1.00  1.00                0.90 1.00  1.00                1.00 1.00  1.00
Lanes:                 1.00 1.94  0.06                1.00 2.00  2.00                2.00 2.00  1.00                1.00 2.00  1.00
Final Sat.:            1600 3102    98                1600 3200  3200                2880 3200  1600                1600 3200  1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:               0.03 0.34  0.34                0.05 0.31  0.47                0.21 0.14  0.02                0.04 0.25  0.13
Crit Moves:           ****                        ****      ****                        ****
*****
  
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.701
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 50 Level Of Service: C

Street Name: Palm Ave Mission Rd

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol:	0	0	0	51	0	124	33	422	0	0	1284	84
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	57	0	138	37	471	0	0	1433	94
Added Vol:	0	0	0	0	0	1	9	83	0	0	26	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	57	0	139	46	554	0	0	1459	94
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	57	0	139	46	554	0	0	1459	94
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	57	0	139	46	554	0	0	1459	94
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	57	0	139	46	554	0	0	1459	94

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.88	0.12
Final Sat.:	0	0	0	1600	0	1600	1600	3200	0	0	3007	193

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.09	0.03	0.17	0.00	0.00	0.49	0.49
Crit Moves:				****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.810

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 69 Level Of Service: D

Street Name: Marengo Ave

Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 0 1 0 1 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 22 117 72 223 163 137 166 419 23 62 956 188

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 25 131 80 249 182 153 185 467 26 69 1067 210

Added Vol: 10 27 0 11 29 0 0 5 7 0 1 2

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 35 158 80 260 211 153 185 472 33 69 1068 212

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 35 158 80 260 211 153 185 472 33 69 1068 212

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 35 158 80 260 211 153 185 472 33 69 1068 212

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 35 158 80 260 211 153 185 472 33 69 1068 212

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.58 0.42 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 1600 1600 1600 928 672 1600 3200 1600 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.10 0.05 0.16 0.23 0.23 0.12 0.15 0.02 0.04 0.33 0.13

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.953
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 136 Level Of Service: E

Street Name:	Atlantic Blvd						Mission Road						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1	0

Volume Module:

Base Vol:	154	1062	115	40	943	246	88	516	67	175	956	33
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	172	1185	128	45	1052	274	98	576	75	195	1067	37
Added Vol:	0	31	0	0	23	1	3	32	0	0	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	172	1216	128	45	1075	275	101	608	75	195	1072	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	172	1216	128	45	1075	275	101	608	75	195	1072	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	172	1216	128	45	1075	275	101	608	75	195	1072	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	172	1216	128	45	1075	275	101	608	75	195	1072	37

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.81	0.19	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	1600	2895	305	1600	3200	1600	1600	3200	1600	1600	3094	106

Capacity Analysis Module:

Vol/Sat:	0.11	0.42	0.42	0.03	0.34	0.17	0.06	0.19	0.05	0.12	0.35	0.35
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 1.044

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name:	Marengo Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	0

Volume Module:

Base Vol:	85	382	157	43	504	66	44	351	85	272	1171	74
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	95	426	175	48	562	74	49	392	95	303	1306	83
Added Vol:	25	0	3	0	0	1	7	32	38	1	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	120	426	178	48	562	75	56	424	133	304	1311	83
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	120	426	178	48	562	75	56	424	133	304	1311	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	120	426	178	48	562	75	56	424	133	304	1311	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	120	426	178	48	562	75	56	424	133	304	1311	83

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.88	0.12	1.00	1.52	0.48	1.00	1.88	0.12
Final Sat.:	1600	1600	1600	1600	1413	187	1600	2436	764	1600	3010	190

Capacity Analysis Module:

Vol/Sat:	0.07	0.27	0.11	0.03	0.40	0.40	0.04	0.17	0.17	0.19	0.44	0.44
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #20 Marengo Ave and Front St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.830

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 74 Level Of Service: D

Street Name:	Marengo Ave						Front St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	2	508	3	10	493	358	81	11	7	2	75	34
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	2	567	3	11	550	399	90	12	8	2	84	38
Added Vol:	0	29	0	0	40	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	596	3	11	590	399	90	12	8	2	84	38
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	596	3	11	590	399	90	12	8	2	84	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	596	3	11	590	399	90	12	8	2	84	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	596	3	11	590	399	90	12	8	2	84	38

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.99	0.01	1.00	0.60	0.40	0.88	0.12	1.00	0.03	0.97	1.00
Final Sat.:	1600	1591	9	1600	954	646	1409	191	1600	42	1558	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.37	0.37	0.01	0.62	0.62	0.06	0.06	0.00	0.00	0.05	0.02
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #21 I-710 NB Ramp and Valley Blvd

Cycle (sec): 120 Critical Vol./Cap.(X): 0.782

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 66 Level Of Service: C

Street Name:	I-710 NB Ramp						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	2	0	0	0

Volume Module:

Base Vol:	603	1	685	4	0	1	0	207	0	0	2176	6
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	673	1	764	4	0	1	0	231	0	0	2428	7
Added Vol:	0	0	14	0	0	0	0	0	0	0	77	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	673	1	778	4	0	1	0	231	0	0	2505	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	673	1	778	4	0	1	0	231	0	0	2505	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	673	1	778	4	0	1	0	231	0	0	2505	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	673	1	778	4	0	1	0	231	0	0	2505	7

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.39	0.01	1.60	0.79	0.01	0.20	0.00	2.00	0.00	0.00	3.99	0.01
Final Sat.:	2224	4	2572	1280	0	320	0	3200	0	0	6383	17

Capacity Analysis Module:

Vol/Sat:	0.30	0.30	0.30	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.39	0.39
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.197

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name:	I-710 SB Ramp						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	0	0	2	0	1	2
	0	0	0	0	0	0	0	0	2	0	2	0

Volume Module:

Base Vol:	0	0	0	0	0	0	0	214	650	1593	1200	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	0	0	0	0	239	725	1777	1339	0
Added Vol:	0	0	0	0	0	0	0	0	0	77	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	239	725	1854	1339	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	239	725	1854	1339	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	239	725	1854	1339	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	0	0	239	725	1854	1339	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	0	0	0	0	0	0	0	3200	1600	2880	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.45	0.64	0.42	0.00
Crit Moves:									****	****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.900

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 100 Level Of Service: E

Street Name:	Fremont Ave						Hellman Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	142	934	313	127	706	110	108	111	153	168	228	212
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	158	1042	349	142	788	123	120	124	171	187	254	237
Added Vol:	0	26	14	48	64	0	0	0	0	1	0	13
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	158	1068	363	190	852	123	120	124	171	188	254	250
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	158	1068	363	190	852	123	120	124	171	188	254	250
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	158	1068	363	190	852	123	120	124	171	188	254	250
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	158	1068	363	190	852	123	120	124	171	188	254	250

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.49	0.51	1.00	1.75	0.25	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2388	812	1600	2797	403	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.10	0.45	0.45	0.12	0.30	0.30	0.08	0.08	0.11	0.12	0.16	0.16
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.287

Loss Time (sec): 0 Average Delay (sec/veh): 67.1

Optimal Cycle: 0 Level Of Service: F

Street Name: Elm St Hellman Ave/Ramona Rd/ 10 WB ramp

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 1 0 0 0 1 0 1 0 0 1

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Volume Module:AM Peak

Base Vol: 358 55 21 78 14 200 51 163 327 398 61 13

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 399 61 23 87 16 223 57 182 365 444 68 15

Added Vol: 14 0 0 0 0 0 0 0 0 62 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 413 61 23 87 16 223 57 182 427 444 68 15

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 413 61 23 87 16 223 57 182 427 444 68 15

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 413 61 23 87 16 223 57 182 427 444 68 15

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 413 61 23 87 16 223 57 182 427 444 68 15

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.66 0.25 0.09 0.85 0.15 1.00 0.24 0.76 1.00 0.87 0.13 1.00

Final Sat.: 1022 -286 36 316 57 423 100 320 465 345 53 442

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Capacity Analysis Module:

Vol/Sat: 0.40-0.21 0.66 0.28 0.28 0.53 0.57 0.57 0.92 1.29 1.29 0.03

Crit Moves: **** **** **** ****

Delay/Veh: 27.4 28.0 28.0 15.7 15.7 19.7 21.9 21.9 51.1 173.0 173 10.9

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 27.4 28.0 28.0 15.7 15.7 19.7 21.9 21.9 51.1 173.0 173 10.9

LOS by Move: D D D C C C C F F F B

ApproachDel: 27.2 18.5 40.6 168.5

Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	27.2			18.5			40.6			168.5		
LOS by Appr:	D			C			E			F		
AllWayAvgQ:	1.7	1.7	1.7	0.4	0.4	1.0	1.2	1.2	5.3	17.8	17.8	0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 1.287
 Loss Time (sec): 0 Average Delay (sec/veh): 112.3
 Optimal Cycle: 0 Level Of Service: F

Street Name:	Fremont Ave						Ramona Road/10 EB ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	0	0	1	0	0	0	0	1	0

Volume Module:AM Peak	Fremont Ave			Fremont Ave			Ramona Road/10 EB ramp			Ramona Road/10 EB ramp		
	L	T	R	L	T	R	L	T	R	L	T	R
Base Vol:	0	625	48	0	0	0	2	24	584	114	0	15
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	697	54	0	0	0	2	27	652	127	0	17
Added Vol:	0	0	48	0	0	0	0	0	17	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	697	102	0	0	0	2	27	669	127	0	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	697	102	0	0	0	2	27	669	127	0	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	697	102	0	0	0	2	27	669	127	0	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	697	102	0	0	0	2	27	669	127	0	17

Saturation Flow Module:	Fremont Ave			Fremont Ave			Ramona Road/10 EB ramp			Ramona Road/10 EB ramp		
	L	T	R	L	T	R	L	T	R	L	T	R
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	0.00	0.00	0.08	0.92	1.00	0.88	xxxx	0.12
Final Sat.:	0	542	605	0	0	0	41	487	592	421	0	55

Capacity Analysis Module:	Fremont Ave			Fremont Ave			Ramona Road/10 EB ramp			Ramona Road/10 EB ramp		
	L	T	R	L	T	R	L	T	R	L	T	R
Vol/Sat:	xxxx	1.29	0.17	xxxx	xxxx	xxxx	0.06	0.06	1.13	0.30	0.00	0.30
Crit Moves:	****			****			****			****		
Delay/Veh:	0.0	163	9.8	0.0	0.0	0.0	9.9	9.9	100.3	13.8	13.8	13.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	163	9.8	0.0	0.0	0.0	9.9	9.9	100.3	13.8	13.8	13.8
LOS by Move:	*	F	A	*	*	*	A	A	F	B	B	B
ApproachDel:	143.8			xxxxxx			96.6			13.8		
Delay Adj:	1.00			xxxxxx			1.00			1.00		
ApprAdjDel:	143.8			xxxxxx			96.6			13.8		
LOS by Appr:	F			*			F			B		
AllWayAvgQ:	0.0	23.2	0.2	0.0	0.0	0.0	0.1	0.1	15.1	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.725
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 53 Level Of Service: C

Street Name:	Fremont Ave						Ross Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	0	1	0	1

Volume Module:

Base Vol:	26	1007	212	42	867	34	26	49	5	173	177	17
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	29	1124	237	47	967	38	29	55	6	193	197	19
Added Vol:	0	39	0	0	112	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	1163	237	47	1079	38	29	55	6	193	197	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	1163	237	47	1079	38	29	55	6	193	197	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	1163	237	47	1079	38	29	55	6	193	197	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	1163	237	47	1079	38	29	55	6	193	197	19

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.66	0.34	1.00	1.93	0.07	1.00	0.91	0.09	1.00	1.00	1.00
Final Sat.:	1600	2659	541	1600	3091	109	1600	1452	148	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.44	0.44	0.03	0.35	0.35	0.02	0.04	0.04	0.12	0.12	0.01
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Westmont Dr and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.914

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 108 Level Of Service: E

Street Name:	Westmont Dr						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	0	0	0	1	0	2	0	1	1

Volume Module:

Base Vol:	51	14	7	4	6	37	17	966	14	3	2036	30
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	57	16	8	4	7	41	19	1078	16	3	2272	33
Added Vol:	0	0	0	0	0	0	0	14	0	0	77	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	16	8	4	7	41	19	1092	16	3	2349	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	16	8	4	7	41	19	1092	16	3	2349	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	16	8	4	7	41	19	1092	16	3	2349	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	16	8	4	7	41	19	1092	16	3	2349	33

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.71	0.19	0.10	0.08	0.13	0.79	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1133	311	156	136	204	1260	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.04	0.05	0.05	0.00	0.03	0.03	0.01	0.34	0.01	0.00	0.73	0.02
Crit Moves:	****			****			****			****		

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2028 Cumulative + Project PWed Apr 11, 2018 10:50:31

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Scenario Report
Scenario: 2028 Cumulative + Project PM
Command: 2028 Ambient Growth + Proj PM
Volume: 2028 PM
Geometry: Existing
Impact Fee: Default Impact Fee
Trip Generation: 2028 Cum + Project PM
Trip Distribution: Cum + Project
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

Turning Movement Report
Cum PM + Project 2028 PM

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Fremont Ave and Mission Rd													
Base	215	1551	214	56	1226	60	131	561	481	344	471	50	5360
Added	0	60	89	8	32	15	22	16	0	51	8	3	304
Total	215	1611	303	64	1258	75	153	577	481	395	479	53	5664
#2 Fremont Ave and 1000 Fremont Ave													
Base	60	1626	48	8	1242	67	90	3	77	44	4	28	3297
Added	0	56	29	18	41	0	0	0	0	14	0	9	167
Total	60	1682	77	26	1283	67	90	3	77	58	4	37	3464
#3 Fremont Ave and Orange St													
Base	2	1562	195	114	1061	2	10	6	6	271	2	322	3554
Added	0	20	46	29	29	0	0	0	0	30	0	17	171
Total	2	1582	241	143	1090	2	10	6	6	301	2	339	3725
#4 Date Ave and Orange St													
Base	35	190	3	28	298	46	75	172	173	1	22	7	1049
Added	9	31	0	0	36	4	2	10	8	0	19	0	119
Total	44	221	3	28	334	50	77	182	181	1	41	7	1168
#5 Palm Ave and Orange St													
Base	6	191	2	11	299	15	65	71	79	2	6	8	754
Added	0	7	0	0	14	7	4	7	0	0	12	0	51
Total	6	198	2	11	313	22	69	78	79	2	18	8	805
#6 Chestnut St and Palm Ave													
Base	6	163	10	16	377	9	8	8	88	7	1	8	700
Added	0	4	0	0	8	6	4	8	0	0	14	0	44
Total	6	167	10	16	385	15	12	16	88	7	15	8	744
#7 Fremont Ave and Poplar Blvd													
Base	170	1565	128	28	963	47	28	131	89	59	132	31	3371
Added	7	32	7	7	50	0	0	12	14	14	12	4	159
Total	177	1597	135	35	1013	47	28	143	103	73	144	35	3530
#8 Date Ave and Mission Rd													

Base	0	0	0	218	0	177	94	821	0	0	628	124	2062
Added	0	0	0	29	0	46	75	14	0	0	30	46	240
Total	0	0	0	247	0	223	169	835	0	0	658	170	2302

#9 Chestnut St and Date Ave

Base	20	199	13	42	416	11	0	0	0	11	2	19	734
Added	65	33	4	0	32	12	7	8	38	7	13	0	219
Total	85	232	17	42	448	23	7	8	38	18	15	19	953

#10 Fremont Ave and Concord Ave

Base	57	1717	126	30	1002	79	88	48	52	84	67	84	3434
Added	0	37	0	0	58	0	0	0	0	0	0	0	95
Total	57	1754	126	30	1060	79	88	48	52	84	67	84	3529

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#11 Fremont Ave and Montezuma Ave													
Base	766	494	96	27	46	289	445	186	682	37	77	21	3166
Added	26	2	0	0	14	42	24	0	19	0	0	0	127
Total	792	496	96	27	60	331	469	186	701	37	77	21	3293
#12 Palm Ave and Commonwealth Ave													
Base	55	138	22	192	242	272	212	464	78	9	430	107	2221
Added	0	11	0	0	21	36	28	22	0	0	26	0	144
Total	55	149	22	192	263	308	240	486	78	9	456	107	2365
#13 Date Ave and Commonwealth Ave													
Base	70	142	64	129	90	161	230	573	108	57	543	128	2296
Added	7	0	28	0	0	0	0	22	12	36	26	0	131
Total	77	142	92	129	90	161	230	595	120	93	569	128	2427
#14 Fremont Ave and Commonwealth Ave													
Base	40	1585	289	222	891	28	33	153	16	175	176	266	3875
Added	0	26	10	28	50	0	0	0	0	9	0	20	143
Total	40	1611	299	250	941	28	33	153	16	184	176	286	4018
#15 Fremont Ave and Valley Blvd													
Base	31	896	37	208	1072	864	687	1003	28	139	389	344	5698
Added	3	86	8	2	50	32	59	4	5	9	4	5	267
Total	34	982	45	210	1122	896	746	1007	33	148	393	349	5965
#16 Palm Ave and Mission Rd													
Base	0	0	0	368	0	123	55	1002	0	0	636	114	2297
Added	0	0	0	0	0	8	4	40	0	0	68	0	120
Total	0	0	0	368	0	131	59	1042	0	0	704	114	2417
#17 Marengo Ave and Valley Blvd													
Base	19	177	71	318	224	218	343	970	9	54	621	152	3175
Added	13	28	0	5	24	0	0	2	12	0	5	9	98
Total	32	205	71	323	248	218	343	972	21	54	626	161	3273
#18 Atlantic Blvd and Mission Road													
Base	106	1184	153	47	1061	113	146	1077	148	203	628	67	4933
Added	0	27	0	0	34	4	2	15	0	0	28	0	110
Total	106	1211	153	47	1095	117	148	1092	148	203	656	67	5043
#19 Marengo Ave and Mission Road													
Base	81	575	251	65	520	51	59	1048	316	78	600	66	3710
Added	35	0	2	0	0	6	3	15	26	4	28	0	119
Total	116	575	253	65	520	57	62	1063	342	82	628	66	3829
#20 Marengo Ave and Front St													
Base	3	707	4	26	761	210	167	56	9	2	21	18	1985
Added	0	37	0	0	29	0	0	0	0	0	0	0	66
Total	3	744	4	26	790	210	167	56	9	2	21	18	2051

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#21 I-710 NB Ramp and Valley Blvd													
Base	652	0	1381	1	0	2	0	591	0	0	1247	0	3875
Added	0	0	68	0	0	0	0	0	0	0	39	0	107
Total	652	0	1449	1	0	2	0	591	0	0	1286	0	3982
#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	601	813	874	1049	0	3337
Added	0	0	0	0	0	0	0	0	0	39	0	0	39
Total	0	0	0	0	0	0	0	601	813	913	1049	0	3376
#23 Fremont Ave and Hellman Ave													
Base	95	826	270	164	907	76	143	193	241	230	202	264	3610
Added	0	59	8	25	38	0	0	0	0	4	0	38	172
Total	95	885	278	189	945	76	143	193	241	234	202	302	3782
#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	521	192	109	11	6	45	32	334	249	134	117	2	1752
Added	42	0	0	0	0	0	0	0	34	0	0	0	76
Total	563	192	109	11	6	45	32	334	283	134	117	2	1828
#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	816	129	0	0	0	4	102	322	52	0	87	1513
Added	0	0	26	0	0	0	0	0	56	0	0	0	82
Total	0	816	155	0	0	0	4	102	378	52	0	87	1595
#26 Ross Ave and Fremont Ave													
Base	33	947	187	29	1102	46	12	36	7	60	45	46	2550
Added	0	97	0	0	63	0	0	0	0	0	0	0	160
Total	33	1044	187	29	1165	46	12	36	7	60	45	46	2710
#27 Westmont Dr and Valley Blvd													
Base	18	11	12	27	10	16	62	1761	151	9	1160	37	3273
Added	0	0	0	0	0	0	0	68	0	0	39	0	107
Total	18	11	12	27	10	16	62	1829	151	9	1199	37	3380
#135													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	14	0	17	37	75	0	0	46	30	219
Total	0	0	0	14	0	17	37	75	0	0	46	30	219

Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	215	1551	214	56	1226	60	131	561	481	344	471	50
2 Fremont Ave a	60	1626	48	8	1242	67	90	3	77	44	4	28
3 Fremont Ave a	2	1562	195	114	1061	2	10	6	6	271	2	322
4 Date Ave and	35	190	3	28	298	46	75	172	173	1	22	7
5 Palm Ave and	6	191	2	11	299	15	65	71	79	2	6	8
6 Chestnut St a	6	163	10	16	377	9	8	8	88	7	1	8
7 Fremont Ave a	170	1565	128	28	963	47	28	131	89	59	132	31
8 Date Ave and	0	0	0	218	0	177	94	821	0	0	628	124
9 Chestnut St a	20	199	13	42	416	11	0	0	0	11	2	19
10 Fremont Ave a	57	1717	126	30	1002	79	88	48	52	84	67	84
11 Fremont Ave a	766	494	96	27	46	289	445	186	682	37	77	21
12 Palm Ave and	55	138	22	192	242	272	212	464	78	9	430	107
13 Date Ave and	70	142	64	129	90	161	230	573	108	57	543	128
14 Fremont Ave a	40	1585	289	222	891	28	33	153	16	175	176	266
15 Fremont Ave a	31	896	37	208	1072	864	687	1003	28	139	389	344
16 Palm Ave and	0	0	0	368	0	123	55	1002	0	0	636	114
17 Marengo Ave a	19	177	71	318	224	218	343	970	9	54	621	152
18 Atlantic Blvd	106	1184	153	47	1061	113	146	1077	148	203	628	67
19 Marengo Ave a	81	575	251	65	520	51	59	1048	316	78	600	66
20 Marengo Ave a	3	707	4	26	761	210	167	56	9	2	21	18
21 I-710 NB Ramp	652	0	1381	1	0	2	0	591	0	0	1247	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	601	813	874	1049	0
23 Fremont Ave a	95	826	270	164	907	76	143	193	241	230	202	264
24 Elm St and He	521	192	109	11	6	45	32	334	249	134	117	2
25 Fremont Ave a	0	816	129	0	0	0	4	102	322	52	0	87
26 Ross Ave and	33	947	187	29	1102	46	12	36	7	60	45	46
27 Westmont Dr a	18	11	12	27	10	16	62	1761	151	9	1160	37

Intersection Volume Report
 Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	215	1611	303	64	1258	75	153	577	481	395	479	53
2 Fremont Ave a	60	1682	77	26	1283	67	90	3	77	58	4	37
3 Fremont Ave a	2	1582	241	143	1090	2	10	6	6	301	2	339
4 Date Ave and	44	221	3	28	334	50	77	182	181	1	41	7
5 Palm Ave and	6	198	2	11	313	22	69	78	79	2	18	8
6 Chestnut St a	6	167	10	16	385	15	12	16	88	7	15	8
7 Fremont Ave a	177	1597	135	35	1013	47	28	143	103	73	144	35
8 Date Ave and	0	0	0	247	0	223	169	835	0	0	658	170
9 Chestnut St a	85	232	17	42	448	23	7	8	38	18	15	19
10 Fremont Ave a	57	1754	126	30	1060	79	88	48	52	84	67	84
11 Fremont Ave a	792	496	96	27	60	331	469	186	701	37	77	21
12 Palm Ave and	55	149	22	192	263	308	240	486	78	9	456	107
13 Date Ave and	77	142	92	129	90	161	230	595	120	93	569	128
14 Fremont Ave a	40	1611	299	250	941	28	33	153	16	184	176	286
15 Fremont Ave a	34	982	45	210	1122	896	746	1007	33	148	393	349
16 Palm Ave and	0	0	0	368	0	131	59	1042	0	0	704	114
17 Marengo Ave a	32	205	71	323	248	218	343	972	21	54	626	161
18 Atlantic Blvd	106	1211	153	47	1095	117	148	1092	148	203	656	67
19 Marengo Ave a	116	575	253	65	520	57	62	1063	342	82	628	66
20 Marengo Ave a	3	744	4	26	790	210	167	56	9	2	21	18
21 I-710 NB Ramp	652	0	1449	1	0	2	0	591	0	0	1286	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	601	813	913	1049	0
23 Fremont Ave a	95	885	278	189	945	76	143	193	241	234	202	302
24 Elm St and He	563	192	109	11	6	45	32	334	283	134	117	2
25 Fremont Ave a	0	816	155	0	0	0	4	102	378	52	0	87
26 Ross Ave and	33	1044	187	29	1165	46	12	36	7	60	45	46
27 Westmont Dr a	18	11	12	27	10	16	62	1829	151	9	1199	37

Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Fremont Ave and Mission Rd	F	xxxxxx 1.202	F	xxxxxx 1.285	+ 0.083 V/C
# 2 Fremont Ave and 1000 Fremont A	B	xxxxxx 0.690	C	xxxxxx 0.724	+ 0.034 V/C
# 3 Fremont Ave and Orange St	D	xxxxxx 0.872	E	xxxxxx 0.907	+ 0.035 V/C
# 4 Date Ave and Orange St	C	15.1 0.328	C	16.9 0.370	+ 1.827 D/V
# 5 Palm Ave and Orange St	B	11.1 0.474	B	11.5 0.504	+ 0.030 V/C
# 6 Chestnut St and Palm Ave	B	11.6 0.552	B	11.9 0.574	+ 0.022 V/C
# 7 Fremont Ave and Poplar Blvd	C	xxxxxx 0.765	C	xxxxxx 0.798	+ 0.033 V/C
# 8 Date Ave and Mission Rd	C	18.7 0.528	D	32.2 0.756	+13.473 D/V
# 9 Chestnut St and Date Ave	B	10.6 0.031	B	14.0 0.077	+ 3.402 D/V
# 10 Fremont Ave and Concord Ave	B	xxxxxx 0.652	B	xxxxxx 0.660	+ 0.008 V/C
# 11 Fremont Ave and Montezuma Ave	C	xxxxxx 0.740	C	xxxxxx 0.747	+ 0.007 V/C
# 12 Palm Ave and Commonwealth Ave	A	xxxxxx 0.573	B	xxxxxx 0.619	+ 0.046 V/C
# 13 Date Ave and Commonwealth Ave	B	xxxxxx 0.654	B	xxxxxx 0.667	+ 0.013 V/C
# 14 Fremont Ave and Commonwealth A	E	xxxxxx 0.949	E	xxxxxx 0.980	+ 0.031 V/C
# 15 Fremont Ave and Valley Blvd	E	xxxxxx 0.975	F	xxxxxx 1.029	+ 0.054 V/C
# 16 Palm Ave and Mission Rd	B	xxxxxx 0.643	B	xxxxxx 0.656	+ 0.013 V/C
# 17 Marengo Ave and Valley Blvd	D	xxxxxx 0.818	D	xxxxxx 0.840	+ 0.022 V/C

# 18 Atlantic Blvd and Mission Road	F	xxxxx	1.010	F	xxxxx	1.023	+	0.013	V/C
# 19 Marengo Ave and Mission Road	E	xxxxx	0.983	F	xxxxx	1.024	+	0.041	V/C
# 20 Marengo Ave and Front St	D	xxxxx	0.850	D	xxxxx	0.868	+	0.018	V/C
# 21 I-710 NB Ramp and Valley Blvd	C	xxxxx	0.712	C	xxxxx	0.739	+	0.027	V/C
# 22 I-710 SB Ramp and Valley Blvd	E	xxxxx	0.912	E	xxxxx	0.925	+	0.014	V/C
# 23 Fremont Ave and Hellman Ave	D	xxxxx	0.839	D	xxxxx	0.878	+	0.039	V/C
# 24 Elm St and Hellman Ave/Ramona	D	32.1	0.870	E	37.1	0.924	+	0.054	V/C
# 25 Fremont Ave and Ramona Road/10	F	111.4	1.370	F	114.5	1.403	+	0.032	V/C

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
	LOS Veh	C	LOS Veh	C	
# 26 Ross Ave and Fremont Ave	A xxxxx	0.544	A xxxxx	0.564	+ 0.020 V/C
# 27 Westmont Dr and Valley Blvd	B xxxxx	0.698	C xxxxx	0.720	+ 0.021 V/C

Lanes:	1.00	1.68	0.32	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.80	0.20
Final Sat.:	1600	2693	507	1600	3200	1600	1600	3200	1600	1600	2880	320
----- ----- ----- ----- -----												
Capacity Analysis Module:												
Vol/Sat:	0.13	0.60	0.60	0.04	0.39	0.05	0.10	0.18	0.30	0.25	0.17	0.17
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.724

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 53 Level Of Service: C

Street Name:	Fremont Ave						1000 Fremont Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	0	1	0	1	0

Volume Module:

Base Vol:	54	1457	43	7	1113	60	81	3	69	39	4	25
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	60	1626	48	8	1242	67	90	3	77	44	4	28
Added Vol:	0	56	29	18	41	0	0	0	0	14	0	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	1682	77	26	1283	67	90	3	77	58	4	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	1682	77	26	1283	67	90	3	77	58	4	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	1682	77	26	1283	67	90	3	77	58	4	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60	1682	77	26	1283	67	90	3	77	58	4	37

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.04	0.96	1.00	0.11	0.89
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	67	1533	1600	173	1427

Capacity Analysis Module:

Vol/Sat:	0.04	0.53	0.05	0.02	0.40	0.04	0.06	0.05	0.05	0.04	0.03	0.03
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.907

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 104 Level Of Service: E

Street Name:	Fremont Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	0	1	0	0

Volume Module:

Base Vol:	2	1400	175	102	951	2	9	5	5	243	2	289
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	2	1562	195	114	1061	2	10	6	6	271	2	322
Added Vol:	0	20	46	29	29	0	0	0	0	30	0	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	1582	241	143	1090	2	10	6	6	301	2	339
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1582	241	143	1090	2	10	6	6	301	2	339
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1582	241	143	1090	2	10	6	6	301	2	339
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	1582	241	143	1090	2	10	6	6	301	2	339

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.64	0.36	1.00	1.00	0.01	0.99
Final Sat.:	1600	3200	1600	1600	3193	7	1029	571	1600	1600	10	1590

Capacity Analysis Module:

Vol/Sat:	0.00	0.49	0.15	0.09	0.34	0.34	0.01	0.01	0.00	0.19	0.21	0.21
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Date Ave and Orange St

Average Delay (sec/veh): 7.4 Worst Case Level Of Service: C[16.9]

Street Name:	Date Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	1		0	1	0	0	1	

Volume Module: >> Count Date:	17 Nov 2015 << PM Peak											
Base Vol:	31	170	3	25	267	41	67	154	155	1	20	6
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	35	190	3	28	298	46	75	172	173	1	22	7
Added Vol:	9	31	0	0	36	4	2	10	8	0	19	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	221	3	28	334	50	77	182	181	1	41	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	44	221	3	28	334	50	77	182	181	1	41	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	44	221	3	28	334	50	77	182	181	1	41	7

Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:												
Cnflict Vol:	384	xxxx	xxxxxx	224	xxxx	xxxxxx	723	701	334	904	747	221
Potent Cap.:	1186	xxxx	xxxxxx	1357	xxxx	xxxxxx	344	365	713	260	344	824
Move Cap.:	1186	xxxx	xxxxxx	1357	xxxx	xxxxxx	295	345	713	109	324	824
Total Cap:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	475	491	xxxxxx	195	461	xxxxxx
Volume/Cap:	0.04	xxxx	xxxx	0.02	xxxx	xxxx	0.16	0.37	0.25	0.01	0.09	0.01

Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxx	xxxx	1.0	xxxx	xxxx	0.0
Control Del:	8.2	xxxx	xxxxxx	7.7	xxxx	xxxxxx	xxxxxx	xxxx	11.8	xxxxxx	xxxx	9.4
LOS by Move:	A	*	*	A	*	*	*	*	B	*	*	A
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	486	xxxx	xxxxxx	445	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.1	xxxx	xxxxxx	0.3	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	20.5	xxxx	xxxxxx	13.9	xxxx	xxxxxx

Shared LOS: * * * * * * C * * B * *
ApproachDel: xxxxxx xxxxxx 16.9 13.3
ApproachLOS: * * C B

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #5 Palm Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.504
 Loss Time (sec): 0 Average Delay (sec/veh): 11.5
 Optimal Cycle: 0 Level Of Service: B

Street Name:	Palm Ave						Orange St						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Lanes:	0	1	0	0	1	0	0	1	0	1	0	0	1

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak

Base Vol:	5	171	2	10	268	13	58	64	71	2	5	7
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	6	191	2	11	299	15	65	71	79	2	6	8
Added Vol:	0	7	0	0	14	7	4	7	0	0	12	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	198	2	11	313	22	69	78	79	2	18	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	198	2	11	313	22	69	78	79	2	18	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	198	2	11	313	22	69	78	79	2	18	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	198	2	11	313	22	69	78	79	2	18	8

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.97	1.00	0.03	0.97	1.00	0.47	0.53	1.00	0.11	0.89	1.00
Final Sat.:	17	605	703	22	621	731	257	293	639	58	460	582

Capacity Analysis Module:

Vol/Sat:	0.33	0.33	0.00	0.50	0.50	0.03	0.27	0.27	0.12	0.04	0.04	0.01
Crit Moves:	****			****			****			****		
Delay/Veh:	10.9	10.9	7.6	13.3	13.3	7.6	11.0	11.0	8.6	9.2	9.2	8.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.9	10.9	7.6	13.3	13.3	7.6	11.0	11.0	8.6	9.2	9.2	8.3
LOS by Move:	B	B	A	B	B	A	B	B	A	A	A	A
ApproachDel:	10.8			13.0			10.2			9.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.8			13.0			10.2			9.0		
LOS by Appr:	B			B			B			A		
AllWayAvgQ:	0.4	0.4	0.0	0.9	0.9	0.0	0.3	0.3	0.1	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.574
 Loss Time (sec): 0 Average Delay (sec/veh): 11.9
 Optimal Cycle: 0 Level Of Service: B

Street Name:	Chestnut St						Palm Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0
Volume Module: >> Count Date: 17 Nov 2015 << PM Peak												
Base Vol:	5	146	9	14	338	8	7	79	6	1	7	
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	
Initial Bse:	6	163	10	16	377	9	8	88	7	1	8	
Added Vol:	0	4	0	0	8	6	4	8	0	14	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	6	167	10	16	385	15	12	16	88	7	15	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	167	10	16	385	15	12	16	88	7	15	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	167	10	16	385	15	12	16	88	7	15	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	6	167	10	16	385	15	12	16	88	7	15	8
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.97	1.00	0.04	0.96	1.00	0.43	0.57	1.00	0.31	0.69	1.00
Final Sat.:	21	641	759	27	670	803	230	308	624	161	363	598
Capacity Analysis Module:												
Vol/Sat:	0.26	0.26	0.01	0.57	0.57	0.02	0.05	0.05	0.14	0.04	0.04	0.01
Crit Moves:	****			****			****			****		
Delay/Veh:	9.8	9.8	7.3	14.2	14.2	7.2	9.2	9.2	8.8	9.2	9.2	8.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.8	9.8	7.3	14.2	14.2	7.2	9.2	9.2	8.8	9.2	9.2	8.2
LOS by Move:	A	A	A	B	B	A	A	A	A	A	A	A
ApproachDel:	9.6			14.0			8.9			8.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.6			14.0			8.9			8.9		
LOS by Appr:	A			B			A			A		
AllWayAvgQ:	0.3	0.3	0.0	1.2	1.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.798
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 66 Level Of Service: C

Street Name:	Fremont Ave						Poplar Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	152	1403	115	25	863	42	25	117	80	53	118	28
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	170	1565	128	28	963	47	28	131	89	59	132	31
Added Vol:	7	32	7	7	50	0	0	12	14	14	12	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	177	1597	135	35	1013	47	28	143	103	73	144	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	177	1597	135	35	1013	47	28	143	103	73	144	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	177	1597	135	35	1013	47	28	143	103	73	144	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	177	1597	135	35	1013	47	28	143	103	73	144	35

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.84	0.16	1.00	1.91	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2950	250	1600	3058	142	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.11	0.54	0.54	0.02	0.33	0.33	0.02	0.09	0.06	0.05	0.09	0.02
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Date Ave and Mission Rd

Average Delay (sec/veh): 7.4 Worst Case Level Of Service: D[32.2]

Street Name:	Date Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak												
Base Vol:	0	0	0	195	0	159	84	736	0	0	563	111
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	218	0	177	94	821	0	0	628	124
Added Vol:	0	0	0	29	0	46	75	14	0	0	30	46
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	247	0	223	169	835	0	0	658	170
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	247	0	223	169	835	0	0	658	170
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	247	0	223	169	835	0	0	658	170

Critical Gap Module:												
Critical Gp:xxxxx xxxxx xxxxx	6.8	xxxxx	6.9	4.1	xxxxx	xxxxxx	xxxxxx	xxxxx	xxxxx	xxxxxx	xxxxxx	xxxxxx
FollowUpTim:xxxxx xxxxx xxxxx	3.5	xxxxx	3.3	2.2	xxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxx	xxxxx	xxxxxx	xxxxxx

Capacity Module:												
Cnflct Vol: xxxxx xxxxx xxxxx	1498	xxxxx	414	828	xxxxx	xxxxxx	xxxxxx	xxxxx	xxxxx	xxxxxx	xxxxxx	xxxxxx
Potent Cap.: xxxxx xxxxx xxxxx	115	xxxxx	593	812	xxxxx	xxxxxx	xxxxxx	xxxxx	xxxxx	xxxxxx	xxxxxx	xxxxxx
Move Cap.: xxxxx xxxxx xxxxx	97	xxxxx	593	812	xxxxx	xxxxxx	xxxxxx	xxxxx	xxxxx	xxxxxx	xxxxxx	xxxxxx
Total Cap: 160 189 xxxxx	326	209	xxxxxx	xxxxx	xxxxx	xxxxxx	xxxxxx	xxxxx	xxxxx	xxxxxx	xxxxxx	xxxxxx
Volume/Cap: xxxxx xxxxx xxxxx	0.76	xxxxx	0.38	0.21	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx

Level Of Service Module:												
2Way95thQ: xxxxx xxxxx xxxxx	7.8	xxxxx	1.8	0.8	xxxxx	xxxxxx	xxxxxx	xxxxx	xxxxx	xxxxxx	xxxxxx	xxxxxx
Control Del:xxxxx xxxxx xxxxx	48.0	xxxxx	14.7	10.6	xxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxx	xxxxx	xxxxxx	xxxxxx
LOS by Move: * * *	E	*	B	B	*	*	*	*	*	*	*	*
Movement: LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx	xxxxx	xxxxx	xxxxxx	xxxxx	xxxxx	xxxxxx	xxxxxx	xxxxx	xxxxx	xxxxxx	xxxxxx	xxxxxx
SharedQueue:xxxxxx xxxxx xxxxx	xxxxxx	xxxxx	xxxxxx	xxxxxx	xxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxx	xxxxxx	xxxxxx	xxxxxx
Shrd ConDel:xxxxxx xxxxx xxxxx	xxxxxx	xxxxx	xxxxxx	xxxxxx	xxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxx	xxxxxx	xxxxxx	xxxxxx

Shared LOS: * * * * * * * * * * *
ApproachDel: xxxxxx 32.2 xxxxxx xxxxxx
ApproachLOS: * D * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: B[14.0]

Street Name: Chestnut St Date Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 1 0 1 1 0 1 0 1 0 0 1! 0 0 0 1 0 0 1
 -----|-----|-----|-----|

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
 Base Vol: 18 178 12 38 373 10 0 0 0 10 2 17
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 20 199 13 42 416 11 0 0 0 11 2 19
 Added Vol: 65 33 4 0 32 12 7 8 38 7 13 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 85 232 17 42 448 23 7 8 38 18 15 19
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 85 232 17 42 448 23 7 8 38 18 15 19
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 85 232 17 42 448 23 7 8 38 18 15 19
 -----|-----|-----|-----|

Critical Gap Module:
 Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
 FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
 -----|-----|-----|-----|

Capacity Module:
 Cnflct Vol: 471 xxxx xxxxx 249 xxxx xxxxx 961 952 448 969 958 232
 Potent Cap.: 1101 xxxx xxxxx 1328 xxxx xxxxx 238 261 615 235 259 813
 Move Cap.: 1101 xxxx xxxxx 1328 xxxx xxxxx 203 234 615 197 232 813
 Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 383 395 xxxxx 332 364 xxxxx
 Volume/Cap: 0.08 xxxx xxxx 0.03 xxxx xxxx 0.02 0.02 0.06 0.05 0.04 0.02
 -----|-----|-----|-----|

Level Of Service Module:
 2Way95thQ: 0.3 xxxx xxxxx 0.1 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx 0.1
 Control Del: 8.5 xxxx xxxxx 7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx 9.5
 LOS by Move: A * * A * * * * * * * A
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 528 xxxxx 346 xxxx xxxxx
 SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 0.3 xxxxx 0.3 xxxx xxxxx
 Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 12.6 xxxxx 16.5 xxxx xxxxx
 Shared LOS: * * * * * * * B * C * *
 ApproachDel: xxxxxx xxxxxx 12.6 14.0
 ApproachLOS: * * B B
 -----|-----|-----|-----|

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Fremont Ave and Concord Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.660
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 45 Level Of Service: B

Street Name:	Fremont Ave						Concord Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	1	0	1	0	1	0

Volume Module:

Base Vol:	51	1539	113	27	898	71	79	43	47	75	60	75
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	57	1717	126	30	1002	79	88	48	52	84	67	84
Added Vol:	0	37	0	0	58	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	1754	126	30	1060	79	88	48	52	84	67	84
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	1754	126	30	1060	79	88	48	52	84	67	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	1754	126	30	1060	79	88	48	52	84	67	84
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	1754	126	30	1060	79	88	48	52	84	67	84

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.80	0.20	1.00	1.86	0.14	1.00	1.00	1.00	1.00	0.44	0.56
Final Sat.:	1600	4478	322	1600	2977	223	1600	1600	1600	1600	711	889

Capacity Analysis Module:

Vol/Sat:	0.04	0.39	0.39	0.02	0.36	0.36	0.06	0.03	0.03	0.05	0.09	0.09
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.747

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 83 Level Of Service: C

Street Name:	Fremont Ave						Montezuma Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	1	0	1	2	0	0	1	0	0

Volume Module:

Base Vol:	687	443	86	24	41	259	399	167	611	33	69	19
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	766	494	96	27	46	289	445	186	682	37	77	21
Added Vol:	26	2	0	0	14	42	24	0	19	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	792	496	96	27	60	331	469	186	701	37	77	21
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	792	496	96	27	60	0	469	186	701	37	77	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	792	496	96	27	60	0	469	186	701	37	77	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	792	496	96	27	60	0	469	186	701	37	77	21

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.84	0.16	0.62	1.38	1.00	2.00	0.42	1.58	0.27	0.57	0.16
Final Sat.:	2880	1341	259	990	2210	1600	2880	672	2528	436	912	251

Capacity Analysis Module:

Vol/Sat:	0.28	0.37	0.37	0.02	0.03	0.00	0.16	0.28	0.28	0.02	0.08	0.08
Crit Moves:	****						****					

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.619

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 42 Level Of Service: B

Street Name:	Palm Ave						Commonwealth Ave								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
-----	-----					-----					-----				
Control:	Permitted			Permitted			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	1	0	1	1	0	1	0	1
-----	-----					-----					-----				

Volume Module:

Base Vol:	49	124	20	172	217	244	190	416	70	8	385	96
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	55	138	22	192	242	272	212	464	78	9	430	107
Added Vol:	0	11	0	0	21	36	28	22	0	0	26	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	149	22	192	263	308	240	486	78	9	456	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	149	22	192	263	308	240	486	78	9	456	107
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	149	22	192	263	308	240	486	78	9	456	107
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	149	22	192	263	308	240	486	78	9	456	107

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.72	0.28	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2757	443	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.09	0.01	0.12	0.16	0.19	0.15	0.18	0.18	0.01	0.14	0.07
Crit Moves:	****					****	****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.667

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 46 Level Of Service: B

Street Name:	Date Ave					Commonwealth Ave														
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R					
-----	-----					-----					-----					-----				
Control:	Permitted					Permitted					Permitted					Permitted				
Rights:	Include					Include					Include					Include				
Min. Green:	0		0		0		0		0		0		0		0		0			
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0			
Lanes:	1	0	1	0	1	1	0	0	1	0	1	0	1	1	0	1	0	1		
-----	-----					-----					-----					-----				

Volume Module:

Base Vol:	63	127	57	116	81	144	206	514	97	51	487	115
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	70	142	64	129	90	161	230	573	108	57	543	128
Added Vol:	7	0	28	0	0	0	0	22	12	36	26	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	77	142	92	129	90	161	230	595	120	93	569	128
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	77	142	92	129	90	161	230	595	120	93	569	128
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	142	92	129	90	161	230	595	120	93	569	128
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	77	142	92	129	90	161	230	595	120	93	569	128

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.36	0.64	1.00	1.66	0.34	1.00	1.63	0.37
Final Sat.:	1600	1600	1600	1600	576	1024	1600	2662	538	1600	2611	589

Capacity Analysis Module:

Vol/Sat:	0.05	0.09	0.06	0.08	0.16	0.16	0.14	0.22	0.22	0.06	0.22	0.22
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.980

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 167 Level Of Service: E

Street Name:	Fremont Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	36	1421	259	199	799	25	30	137	14	157	158	238
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	40	1585	289	222	891	28	33	153	16	175	176	266
Added Vol:	0	26	10	28	50	0	0	0	0	9	0	20
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	1611	299	250	941	28	33	153	16	184	176	286
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	40	1611	299	250	941	28	33	153	16	184	176	286
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	1611	299	250	941	28	33	153	16	184	176	286
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	40	1611	299	250	941	28	33	153	16	184	176	286

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.94	0.06	1.00	0.91	0.09	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3108	92	1600	1452	148	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.50	0.19	0.16	0.30	0.30	0.02	0.11	0.11	0.12	0.11	0.18
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Fremont Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.029

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name:	Fremont Ave						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	2	2	0	2	1	0	2

Volume Module:

Base Vol:	28	803	33	186	961	774	616	899	25	125	349	308
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	31	896	37	208	1072	864	687	1003	28	139	389	344
Added Vol:	3	86	8	2	50	32	59	4	5	9	4	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	982	45	210	1122	896	746	1007	33	148	393	349
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	34	982	45	210	1122	896	746	1007	33	148	393	349
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	982	45	210	1122	896	746	1007	33	148	393	349
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	34	982	45	210	1122	896	746	1007	33	148	393	349

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.91	0.09	1.00	2.00	2.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3060	140	1600	3200	3200	2880	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.32	0.32	0.13	0.35	0.28	0.26	0.31	0.02	0.09	0.12	0.22
Crit Moves:	****			****			****					****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.656

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 45 Level Of Service: B

Street Name:	Palm Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak												
Base Vol:	0	0	0	330	0	110	49	898	0	0	570	102
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	368	0	123	55	1002	0	0	636	114
Added Vol:	0	0	0	0	0	8	4	40	0	0	68	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	368	0	131	59	1042	0	0	704	114
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	368	0	131	59	1042	0	0	704	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	368	0	131	59	1042	0	0	704	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	368	0	131	59	1042	0	0	704	114

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.72	0.28
Final Sat.:	0	0	0	1600	0	1600	1600	3200	0	0	2755	445

Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.23	0.00	0.08	0.04	0.33	0.00	0.00	0.26	0.26
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.840

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 77 Level Of Service: D

Street Name:	Marengo Ave						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	2	0	1	0

Volume Module:

Base Vol:	17	159	64	285	201	195	307	869	8	48	557	136
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	19	177	71	318	224	218	343	970	9	54	621	152
Added Vol:	13	28	0	5	24	0	0	2	12	0	5	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	32	205	71	323	248	218	343	972	21	54	626	161
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	205	71	323	248	218	343	972	21	54	626	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	205	71	323	248	218	343	972	21	54	626	161
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	32	205	71	323	248	218	343	972	21	54	626	161

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.53	0.47	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	853	747	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.13	0.04	0.20	0.29	0.29	0.21	0.30	0.01	0.03	0.20	0.10
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 1.023
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

Street Name:	Atlantic Blvd						Mission Road						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1	0

Volume Module:

Base Vol:	95	1061	137	42	951	101	131	965	133	182	563	60
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	106	1184	153	47	1061	113	146	1077	148	203	628	67
Added Vol:	0	27	0	0	34	4	2	15	0	0	28	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	106	1211	153	47	1095	117	148	1092	148	203	656	67
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	106	1211	153	47	1095	117	148	1092	148	203	656	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	106	1211	153	47	1095	117	148	1092	148	203	656	67
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	106	1211	153	47	1095	117	148	1092	148	203	656	67

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.78	0.22	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.81	0.19
Final Sat.:	1600	2841	359	1600	3200	1600	1600	3200	1600	1600	2904	296

Capacity Analysis Module:

Vol/Sat:	0.07	0.43	0.43	0.03	0.34	0.07	0.09	0.34	0.09	0.13	0.23	0.23
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 1.024

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name:	Marengo Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	0

Volume Module:

Base Vol:	73	515	225	58	466	46	53	939	283	70	538	59
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	81	575	251	65	520	51	59	1048	316	78	600	66
Added Vol:	35	0	2	0	0	6	3	15	26	4	28	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	116	575	253	65	520	57	62	1063	342	82	628	66
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	116	575	253	65	520	57	62	1063	342	82	628	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	116	575	253	65	520	57	62	1063	342	82	628	66
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	116	575	253	65	520	57	62	1063	342	82	628	66

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.90	0.10	1.00	1.51	0.49	1.00	1.81	0.19
Final Sat.:	1600	1600	1600	1600	1441	159	1600	2421	779	1600	2897	303

Capacity Analysis Module:

Vol/Sat:	0.07	0.36	0.16	0.04	0.36	0.36	0.04	0.44	0.44	0.05	0.22	0.22
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #20 Marengo Ave and Front St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.868

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 86 Level Of Service: D

Street Name:	Marengo Ave						Front St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	3	634	4	23	682	188	150	50	8	2	19	16
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	3	707	4	26	761	210	167	56	9	2	21	18
Added Vol:	0	37	0	0	29	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	744	4	26	790	210	167	56	9	2	21	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	744	4	26	790	210	167	56	9	2	21	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	744	4	26	790	210	167	56	9	2	21	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	744	4	26	790	210	167	56	9	2	21	18

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.99	0.01	1.00	0.79	0.21	0.75	0.25	1.00	0.10	0.90	1.00
Final Sat.:	1600	1590	10	1600	1264	336	1200	400	1600	152	1448	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.47	0.47	0.02	0.62	0.62	0.10	0.14	0.01	0.00	0.01	0.01
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #21 I-710 NB Ramp and Valley Blvd

Cycle (sec): 120 Critical Vol./Cap.(X): 0.739
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 58 Level Of Service: C

Street Name:	I-710 NB Ramp						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	2	0	0	3

Volume Module:

Base Vol:	584	0	1238	1	0	2	0	530	0	0	1118	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	652	0	1381	1	0	2	0	591	0	0	1247	0
Added Vol:	0	0	68	0	0	0	0	0	0	0	39	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	652	0	1449	1	0	2	0	591	0	0	1286	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	652	0	1449	1	0	2	0	591	0	0	1286	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	652	0	1449	1	0	2	0	591	0	0	1286	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	652	0	1449	1	0	2	0	591	0	0	1286	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	2.00	0.33	0.00	0.67	0.00	2.00	0.00	0.00	4.00	0.00
Final Sat.:	1600	0	3200	533	0	1067	0	3200	0	0	6400	0

Capacity Analysis Module:

Vol/Sat:	0.41	0.00	0.45	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.20	0.00
Crit Moves:	****		****	****		****		****		****		****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.925

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 114 Level Of Service: E

Street Name:	I-710 SB Ramp						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	0	0	2	0	1	2
	0	0	0	0	0	0	0	0	2	0	2	0

Volume Module:

Base Vol:	0	0	0	0	0	0	0	539	729	783	940	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	0	0	0	0	601	813	874	1049	0
Added Vol:	0	0	0	0	0	0	0	0	0	39	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	601	813	913	1049	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	601	813	913	1049	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	601	813	913	1049	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	0	0	601	813	913	1049	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	0	0	0	0	0	0	0	3200	1600	2880	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.51	0.32	0.33	0.00
Crit Moves:									****	****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.878

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 90 Level Of Service: D

Street Name:	Fremont Ave						Hellman Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	85	740	242	147	813	68	128	173	216	206	181	237
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	95	826	270	164	907	76	143	193	241	230	202	264
Added Vol:	0	59	8	25	38	0	0	0	0	4	0	38
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	95	885	278	189	945	76	143	193	241	234	202	302
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	95	885	278	189	945	76	143	193	241	234	202	302
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	885	278	189	945	76	143	193	241	234	202	302
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	95	885	278	189	945	76	143	193	241	234	202	302

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.52	0.48	1.00	1.85	0.15	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2435	765	1600	2962	238	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.06	0.36	0.36	0.12	0.32	0.32	0.09	0.12	0.15	0.15	0.13	0.19
Crit Moves:	****			****			****		****	****		

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.924

Loss Time (sec): 0 Average Delay (sec/veh): 37.1

Optimal Cycle: 0 Level Of Service: E

Street Name: Elm St Hellman Ave/Ramona Rd/ 10 WB ramp

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 1 0 0 0 1 0 1 0 0 1

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Volume Module:PM Peak

Base Vol: 467 172 98 10 5 40 29 299 223 120 105 2

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 521 192 109 11 6 45 32 334 249 134 117 2

Added Vol: 42 0 0 0 0 0 0 0 0 34 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 563 192 109 11 6 45 32 334 283 134 117 2

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 563 192 109 11 6 45 32 334 283 134 117 2

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 563 192 109 11 6 45 32 334 283 134 117 2

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 563 192 109 11 6 45 32 334 283 134 117 2

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.31 0.44 0.25 0.67 0.33 1.00 0.09 0.91 1.00 0.53 0.47 1.00

Final Sat.: 1076 -260 118 256 128 432 42 431 522 224 196 465

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Capacity Analysis Module:

Vol/Sat: 0.52-0.74 0.92 0.04 0.04 0.10 0.77 0.77 0.54 0.60 0.60 0.00

Crit Moves: **** **** **** ****

Delay/Veh: 52.1 51.8 51.8 12.1 12.1 11.5 31.3 31.3 17.1 22.3 22.3 10.2

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 52.1 51.8 51.8 12.1 12.1 11.5 31.3 31.3 17.1 22.3 22.3 10.2

LOS by Move: F F F B B B D D C C C B

ApproachDel: 52.2 11.7 25.1 22.2

Delay Adj:	1.00			1.00				1.00			1.00	
ApprAdjDel:	52.2			11.7				25.1			22.2	
LOS by Appr:	F			B				D			C	
AllWayAvgQ:	5.4	5.4	5.4	0.0	0.0	0.1	2.8	2.8	1.1	1.3	1.3	0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 1.403
 Loss Time (sec): 0 Average Delay (sec/veh): 114.5
 Optimal Cycle: 0 Level Of Service: F

Street Name:	Fremont Ave						Ramona Road/10 EB ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	0	0	1	0	0	0	0	1	0

Volume Module:PM Peak	Fremont Ave			Fremont Ave			Ramona Road/10 EB ramp			Ramona Road/10 EB ramp		
Base Vol:	0	731	116	0	0	0	4	91	289	47	0	78
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	816	129	0	0	0	4	102	322	52	0	87
Added Vol:	0	0	26	0	0	0	0	0	56	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	816	155	0	0	0	4	102	378	52	0	87
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	816	155	0	0	0	4	102	378	52	0	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	816	155	0	0	0	4	102	378	52	0	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	816	155	0	0	0	4	102	378	52	0	87

Saturation Flow Module:	Fremont Ave			Fremont Ave			Ramona Road/10 EB ramp			Ramona Road/10 EB ramp		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	0.00	0.00	0.04	0.96	1.00	0.38	0.00	0.62
Final Sat.:	0	581	645	0	0	0	22	504	589	196	0	325

Capacity Analysis Module:	Fremont Ave			Fremont Ave			Ramona Road/10 EB ramp			Ramona Road/10 EB ramp		
Vol/Sat:	xxxx	1.40	0.24	xxxx	xxxx	xxxx	0.20	0.20	0.64	0.27	xxxx	0.27
Crit Moves:	****			****			****			****		
Delay/Veh:	0.0	210	9.9	0.0	0.0	0.0	11.2	11.2	18.9	12.3	0.0	12.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	210	9.9	0.0	0.0	0.0	11.2	11.2	18.9	12.3	0.0	12.3
LOS by Move:	*	F	A	*	*	*	B	B	C	B	*	B
ApproachDel:	177.6			xxxxxx			17.2			12.3		
Delay Adj:	1.00			xxxxxx			1.00			1.00		
ApprAdjDel:	177.6			xxxxxx			17.2			12.3		
LOS by Appr:	F			*			C			B		
AllWayAvgQ:	0.0	32.4	0.3	0.0	0.0	0.0	0.2	0.2	1.7	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.564
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: A

Street Name:	Fremont Ave						Ross Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	0	1	0	1

Volume Module:	Fremont Ave NB			Fremont Ave SB			Ross Ave EB			Ross Ave WB		
Base Vol:	30	849	168	26	988	41	11	32	6	54	40	41
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	33	947	187	29	1102	46	12	36	7	60	45	46
Added Vol:	0	97	0	0	63	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	1044	187	29	1165	46	12	36	7	60	45	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	1044	187	29	1165	46	12	36	7	60	45	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	1044	187	29	1165	46	12	36	7	60	45	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	1044	187	29	1165	46	12	36	7	60	45	46

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Ross Ave EB			Ross Ave WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.70	0.30	1.00	1.92	0.08	1.00	0.84	0.16	1.00	1.00	1.00
Final Sat.:	1600	2713	487	1600	3079	121	1600	1347	253	1600	1600	1600

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Ross Ave EB			Ross Ave WB		
Vol/Sat:	0.02	0.38	0.38	0.02	0.38	0.38	0.01	0.03	0.03	0.04	0.03	0.03
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Westmont Dr and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.720

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 53 Level Of Service: C

Street Name:	Westmont Dr						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	0	0	0	1	0	2	0	1	1

Volume Module:

Base Vol:	16	10	11	24	9	14	56	1578	135	8	1040	33
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	18	11	12	27	10	16	62	1761	151	9	1160	37
Added Vol:	0	0	0	0	0	0	0	68	0	0	39	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	11	12	27	10	16	62	1829	151	9	1199	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	11	12	27	10	16	62	1829	151	9	1199	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	11	12	27	10	16	62	1829	151	9	1199	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	11	12	27	10	16	62	1829	151	9	1199	37

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.43	0.27	0.30	0.51	0.19	0.30	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	692	432	476	817	306	477	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.01	0.03	0.03	0.02	0.03	0.03	0.04	0.57	0.09	0.01	0.37	0.02
Crit Moves:	****			****			****			****		

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Intersection

Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	16	34	15	2	8	2	6	82	2	6	217	33
Future Vol, veh/h	16	34	15	2	8	2	6	82	2	6	217	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	37	16	2	9	2	7	89	2	7	236	36
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.6	8.4	8.5	9.5
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	7%	0%	32%	0%	20%	0%	3%	0%
Vol Thru, %	93%	0%	68%	0%	80%	0%	97%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	88	2	50	15	10	2	223	33
LT Vol	6	0	16	0	2	0	6	0
Through Vol	82	0	34	0	8	0	217	0
RT Vol	0	2	0	15	0	2	0	33
Lane Flow Rate	96	2	54	16	11	2	242	36
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.133	0.003	0.085	0.021	0.017	0.003	0.327	0.041
Departure Headway (Hd)	5.02	4.283	5.612	4.747	5.624	4.818	4.854	4.139
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	715	836	639	755	637	742	742	867
Service Time	2.741	2.004	3.338	2.472	3.355	2.549	2.571	1.856
HCM Lane V/C Ratio	0.134	0.002	0.085	0.021	0.017	0.003	0.326	0.042
HCM Control Delay	8.5	7	8.9	7.6	8.5	7.6	9.9	7
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.5	0	0.3	0.1	0.1	0	1.4	0.1

Intersection												
Intersection Delay, s/veh	8.9											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	8	17	8	1	6	8	16	109	2	13	183	13
Future Vol, veh/h	8	17	8	1	6	8	16	109	2	13	183	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	18	9	1	7	9	17	118	2	14	199	14
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.3	7.9	8.7	9.2
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	13%	0%	32%	0%	14%	0%	7%	0%
Vol Thru, %	87%	0%	68%	0%	86%	0%	93%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	125	2	25	8	7	8	196	13
LT Vol	16	0	8	0	1	0	13	0
Through Vol	109	0	17	0	6	0	183	0
RT Vol	0	2	0	8	0	8	0	13
Lane Flow Rate	136	2	27	9	8	9	213	14
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.185	0.003	0.042	0.011	0.012	0.011	0.28	0.016
Departure Headway (Hd)	4.911	4.145	5.598	4.733	5.535	4.759	4.726	3.992
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	734	867	642	759	649	755	750	881
Service Time	2.617	1.851	3.308	2.443	3.246	2.469	2.522	1.787
HCM Lane V/C Ratio	0.185	0.002	0.042	0.012	0.012	0.012	0.284	0.016
HCM Control Delay	8.7	6.9	8.6	7.5	8.3	7.5	9.4	6.9
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.7	0	0.1	0	0	0	1.1	0

Intersection

Intersection Delay, s/veh 106.7

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱			↱	↱
Traffic Vol, veh/h	57	182	427	444	68	15	413	61	23	87	16	223
Future Vol, veh/h	57	182	427	444	68	15	413	61	23	87	16	223
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	62	198	464	483	74	16	449	66	25	95	17	242
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	74.2	265.4	36.2	24.3
HCM LOS	F	F	E	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	66%	24%	0%	87%	0%	84%	0%
Vol Thru, %	0%	24%	76%	0%	13%	0%	16%	0%
Vol Right, %	0%	9%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	248	249	239	427	512	15	103	223
LT Vol	248	165	57	0	444	0	87	0
Through Vol	0	61	182	0	68	0	16	0
RT Vol	0	23	0	427	0	15	0	223
Lane Flow Rate	269	271	260	464	557	16	112	242
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.721	0.708	0.662	1.076	1.519	0.039	0.311	0.599
Departure Headway (Hd)	10.859	10.612	10.2	9.333	10.081	8.894	11.274	10.078
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	337	344	356	395	367	405	321	361
Service Time	8.559	8.312	7.9	7.033	7.781	6.594	8.974	7.778
HCM Lane V/C Ratio	0.798	0.788	0.73	1.175	1.518	0.04	0.349	0.67
HCM Control Delay	37.2	35.3	30.8	98.5	272.8	12	19	26.8
HCM Lane LOS	E	E	D	F	F	B	C	D
HCM 95th-tile Q	5.3	5.1	4.5	14.4	30	0.1	1.3	3.7

Intersection

Intersection Delay, s/veh 159.3

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱↲			↱	↱			
Traffic Vol, veh/h	2	27	669	127	0	17	0	697	102	0	0	0
Future Vol, veh/h	2	27	669	127	0	17	0	697	102	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	29	727	138	0	18	0	758	111	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	143.9	16.6	198.5
HCM LOS	F	C	F










Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	7%	0%	88%
Vol Thru, %	100%	0%	93%	0%	0%
Vol Right, %	0%	100%	0%	100%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	697	102	29	669	144
LT Vol	0	0	2	0	127
Through Vol	697	0	27	0	0
RT Vol	0	102	0	669	17
Lane Flow Rate	758	111	32	727	157
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.431	0.188	0.06	1.247	0.336
Departure Headway (Hd)	7.354	6.639	7.896	7.141	9.108
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	500	544	456	516	398
Service Time	5.054	4.339	5.596	4.841	7.108
HCM Lane V/C Ratio	1.516	0.204	0.07	1.409	0.394
HCM Control Delay	225.9	10.9	11.1	149.7	16.6
HCM Lane LOS	F	B	B	F	C
HCM 95th-tile Q	34.1	0.7	0.2	25	1.5

HCM 2010 TWSC
4: Date Ave & Orange St

04/04/2018

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	25	58	56	8	30	3	60	152	6	7	220	75
Future Vol, veh/h	25	58	56	8	30	3	60	152	6	7	220	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	63	61	9	33	3	65	165	7	8	239	82
Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	566	550	239	582	550	165	239	0	0	165	0	0
Stage 1	254	254	-	296	296	-	-	-	-	-	-	-
Stage 2	312	296	-	286	254	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	435	443	800	424	443	879	1328	-	-	1413	-	-
Stage 1	750	697	-	712	668	-	-	-	-	-	-	-
Stage 2	699	668	-	721	697	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	391	419	800	332	419	879	1328	-	-	1413	-	-
Mov Cap-2 Maneuver	391	419	-	332	419	-	-	-	-	-	-	-
Stage 1	713	693	-	677	635	-	-	-	-	-	-	-
Stage 2	628	635	-	602	693	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB		SB		SB	
HCM Control Delay, s	13.7		14.7		2.2		0.2					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1328	-	-	410	800	397	879	1413	-	-		
HCM Lane V/C Ratio	0.049	-	-	0.22	0.076	0.104	0.004	0.005	-	-		
HCM Control Delay (s)	7.9	-	-	16.2	9.9	15.1	9.1	7.6	-	-		
HCM Lane LOS	A	-	-	C	A	C	A	A	-	-		
HCM 95th %tile Q(veh)	0.2	-	-	0.8	0.2	0.3	0	0	-	-		

Intersection						
Int Delay, s/veh	8.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Traffic Vol, veh/h	120	518	1355	197	82	178
Future Vol, veh/h	120	518	1355	197	82	178
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	130	563	1473	214	89	193
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	1687	0	-	0	2122	843
Stage 1	-	-	-	-	1580	-
Stage 2	-	-	-	-	542	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	375	-	-	-	~ 43	307
Stage 1	-	-	-	-	155	-
Stage 2	-	-	-	-	547	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	375	-	-	-	~ 21	307
Mov Cap-2 Maneuver	-	-	-	-	99	-
Stage 1	-	-	-	-	155	-
Stage 2	-	-	-	-	271	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.7	0		68.7		
HCM LOS				F		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	375	-	-	-	99	307
HCM Lane V/C Ratio	0.348	-	-	-	0.9	0.63
HCM Control Delay (s)	19.6	-	-	-	142.4	34.8
HCM Lane LOS	C	-	-	-	F	D
HCM 95th %tile Q(veh)	1.5	-	-	-	5.2	4
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	16	76	4	5	2	95	206	17	13	193	61
Future Vol, veh/h	14	16	76	4	5	2	95	206	17	13	193	61
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	17	83	4	5	2	103	224	18	14	210	66
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	671	668	210	718	668	224	210	0	0	224	0	0
Stage 1	238	238	-	430	430	-	-	-	-	-	-	-
Stage 2	433	430	-	288	238	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	370	379	830	344	379	815	1361	-	-	1345	-	-
Stage 1	765	708	-	603	583	-	-	-	-	-	-	-
Stage 2	601	583	-	720	708	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	341	347	830	279	347	815	1361	-	-	1345	-	-
Mov Cap-2 Maneuver	341	347	-	279	347	-	-	-	-	-	-	-
Stage 1	707	701	-	557	539	-	-	-	-	-	-	-
Stage 2	548	539	-	626	701	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	12.5		15.5			2.3			0.4			
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1361	-	-	593	313	815	1345	-	-			
HCM Lane V/C Ratio	0.076	-	-	0.194	0.031	0.003	0.011	-	-			
HCM Control Delay (s)	7.9	-	-	12.5	16.9	9.4	7.7	-	-			
HCM Lane LOS	A	-	-	B	C	A	A	-	-			
HCM 95th %tile Q(veh)	0.2	-	-	0.7	0.1	0	0	-	-			

Intersection

Intersection Delay, s/veh	12.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	69	78	79	2	18	8	6	198	2	11	313	22
Future Vol, veh/h	69	78	79	2	18	8	6	198	2	11	313	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	75	85	86	2	20	9	7	215	2	12	340	24
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10.9	9.5	11.9	14.8
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	47%	0%	10%	0%	3%	0%
Vol Thru, %	97%	0%	53%	0%	90%	0%	97%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	204	2	147	79	20	8	324	22
LT Vol	6	0	69	0	2	0	11	0
Through Vol	198	0	78	0	18	0	313	0
RT Vol	0	2	0	79	0	8	0	22
Lane Flow Rate	222	2	160	86	22	9	352	24
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.361	0.003	0.288	0.132	0.041	0.014	0.556	0.033
Departure Headway (Hd)	5.869	5.146	6.488	5.541	6.721	5.957	5.688	4.965
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	614	695	554	647	532	600	634	722
Service Time	3.601	2.878	4.221	3.274	4.466	3.702	3.415	2.691
HCM Lane V/C Ratio	0.362	0.003	0.289	0.133	0.041	0.015	0.555	0.033
HCM Control Delay	11.9	7.9	11.8	9.1	9.8	8.8	15.3	7.9
HCM Lane LOS	B	A	B	A	A	A	C	A
HCM 95th-tile Q	1.6	0	1.2	0.5	0.1	0	3.4	0.1

Intersection

Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗		↖	↗		↖	↗
Traffic Vol, veh/h	12	16	88	7	15	8	6	167	10	16	385	15
Future Vol, veh/h	12	16	88	7	15	8	6	167	10	16	385	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	17	96	8	16	9	7	182	11	17	418	16
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.3	9.3	10.2	16
HCM LOS	A	A	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	3%	0%	43%	0%	32%	0%	4%	0%
Vol Thru, %	97%	0%	57%	0%	68%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	173	10	28	88	22	8	401	15
LT Vol	6	0	12	0	7	0	16	0
Through Vol	167	0	16	0	15	0	385	0
RT Vol	0	10	0	88	0	8	0	15
Lane Flow Rate	188	11	30	96	24	9	436	16
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.283	0.014	0.054	0.146	0.044	0.014	0.627	0.02
Departure Headway (Hd)	5.414	4.69	6.412	5.486	6.621	5.749	5.18	4.456
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	658	755	554	647	544	626	693	796
Service Time	3.196	2.472	4.204	3.278	4.321	3.449	2.947	2.223
HCM Lane V/C Ratio	0.286	0.015	0.054	0.148	0.044	0.014	0.629	0.02
HCM Control Delay	10.4	7.5	9.6	9.2	9.6	8.5	16.3	7.3
HCM Lane LOS	B	A	A	A	A	A	C	A
HCM 95th-tile Q	1.2	0	0.2	0.5	0.1	0	4.4	0.1

Intersection

Intersection Delay, s/veh 53.9

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↱			↰	↱
Traffic Vol, veh/h	32	334	283	134	117	2	563	192	109	11	6	45
Future Vol, veh/h	32	334	283	134	117	2	563	192	109	11	6	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	363	308	146	127	2	612	209	118	12	7	49
Number of Lanes	0	1	1	0	1	1	1	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	33.9	28.2	79.5	12.8
HCM LOS	D	D	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	30%	9%	0%	53%	0%	65%	0%
Vol Thru, %	0%	45%	91%	0%	47%	0%	35%	0%
Vol Right, %	0%	25%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	434	430	366	283	251	2	17	45
LT Vol	434	129	32	0	134	0	11	0
Through Vol	0	192	334	0	117	0	6	0
RT Vol	0	109	0	283	0	2	0	45
Lane Flow Rate	471	468	398	308	273	2	18	49
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	1.07	0.992	0.866	0.606	0.667	0.005	0.049	0.116
Departure Headway (Hd)	8.171	7.63	8.055	7.29	9.111	8.111	9.888	8.817
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	443	473	454	498	398	444	364	409
Service Time	5.947	5.405	5.755	4.99	6.811	5.811	7.588	6.517
HCM Lane V/C Ratio	1.063	0.989	0.877	0.618	0.686	0.005	0.049	0.12
HCM Control Delay	91.7	67.3	44.2	20.6	28.3	10.9	13.1	12.7
HCM Lane LOS	F	F	E	C	D	B	B	B
HCM 95th-tile Q	15.3	13	8.9	4	4.7	0	0.2	0.4

Intersection

Intersection Delay, s/veh 163.7

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰↱			↑	↱			
Traffic Vol, veh/h	4	102	378	52	0	87	0	816	155	0	0	0
Future Vol, veh/h	4	102	378	52	0	87	0	816	155	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	111	411	57	0	95	0	887	168	0	0	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	23.2	14.6	255
HCM LOS	C	B	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	0%	0%	4%	0%	37%
Vol Thru, %	100%	0%	96%	0%	0%
Vol Right, %	0%	100%	0%	100%	63%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	816	155	106	378	139
LT Vol	0	0	4	0	52
Through Vol	816	0	102	0	0
RT Vol	0	155	0	378	87
Lane Flow Rate	887	168	115	411	151
Geometry Grp	7	7	7	7	6
Degree of Util (X)	1.613	0.273	0.221	0.706	0.293
Departure Headway (Hd)	6.548	5.838	8.135	7.395	8.232
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	559	620	445	493	440
Service Time	4.248	3.538	5.835	5.095	6.232
HCM Lane V/C Ratio	1.587	0.271	0.258	0.834	0.343
HCM Control Delay	301.4	10.7	13.1	26	14.6
HCM Lane LOS	F	B	B	D	B
HCM 95th-tile Q	48.9	1.1	0.8	5.5	1.2

HCM 2010 TWSC

4: Date Ave & Orange St

04/04/2018










Intersection												
Int Delay, s/veh	20.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱	↱	↱	↱	↱	↱	↱
Traffic Vol, veh/h	77	182	181	1	41	7	44	221	3	28	334	50
Future Vol, veh/h	77	182	181	1	41	7	44	221	3	28	334	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	84	198	197	1	45	8	48	240	3	30	363	54

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	782	760	363	859	760	240	363	0	0	240	0	0
Stage 1	424	424	-	336	336	-	-	-	-	-	-	-
Stage 2	358	336	-	523	424	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	312	336	682	277	336	799	1196	-	-	1327	-	-
Stage 1	608	587	-	678	642	-	-	-	-	-	-	-
Stage 2	660	642	-	537	587	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	263	315	682	94	315	799	1196	-	-	1327	-	-
Mov Cap-2 Maneuver	263	315	-	94	315	-	-	-	-	-	-	-
Stage 1	584	574	-	651	616	-	-	-	-	-	-	-
Stage 2	582	616	-	245	574	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	50.7		17.9		1.3		0.5	
HCM LOS	F		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1196	-	-	298	682	298	799	1327	-	-
HCM Lane V/C Ratio	0.04	-	-	0.945	0.288	0.153	0.01	0.023	-	-
HCM Control Delay (s)	8.1	-	-	77.4	12.4	19.3	9.5	7.8	-	-
HCM Lane LOS	A	-	-	F	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	9.3	1.2	0.5	0	0.1	-	-

Intersection						
Int Delay, s/veh	55.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↘	↗
Traffic Vol, veh/h	169	835	658	170	247	223
Future Vol, veh/h	169	835	658	170	247	223
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	70	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	184	908	715	185	268	242
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	900	0	-	0	1629	450
Stage 1	-	-	-	-	808	-
Stage 2	-	-	-	-	821	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	751	-	-	-	~ 93	556
Stage 1	-	-	-	-	399	-
Stage 2	-	-	-	-	393	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	751	-	-	-	~ 47	556
Mov Cap-2 Maneuver	-	-	-	-	~ 140	-
Stage 1	-	-	-	-	399	-
Stage 2	-	-	-	-	~ 199	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.9	0		266.2		
HCM LOS	F					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	751	-	-	-	140	556
HCM Lane V/C Ratio	0.245	-	-	-	1.918	0.436
HCM Control Delay (s)	11.3	-	-	-	\$ 491.8	16.4
HCM Lane LOS	B	-	-	-	F	C
HCM 95th %tile Q(veh)	1	-	-	-	20.9	2.2
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	8	38	18	15	19	85	232	17	42	448	23
Future Vol, veh/h	7	8	38	18	15	19	85	232	17	42	448	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	30	-	25	30	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	9	41	20	16	21	92	252	18	46	487	25
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1023	1015	487	1040	1015	252	487	0	0	252	0	0
Stage 1	578	578	-	437	437	-	-	-	-	-	-	-
Stage 2	445	437	-	603	578	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	214	238	581	208	238	787	1076	-	-	1313	-	-
Stage 1	501	501	-	598	579	-	-	-	-	-	-	-
Stage 2	592	579	-	486	501	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	179	210	581	170	210	787	1076	-	-	1313	-	-
Mov Cap-2 Maneuver	179	210	-	170	210	-	-	-	-	-	-	-
Stage 1	458	483	-	547	529	-	-	-	-	-	-	-
Stage 2	511	529	-	428	483	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	16.4		21.9		2.2		0.6					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1076	-	-	372	186	787	1313	-	-			
HCM Lane V/C Ratio	0.086	-	-	0.155	0.193	0.026	0.035	-	-			
HCM Control Delay (s)	8.7	-	-	16.4	28.9	9.7	7.8	-	-			
HCM Lane LOS	A	-	-	C	D	A	A	-	-			
HCM 95th %tile Q(veh)	0.3	-	-	0.5	0.7	0.1	0.1	-	-			

Appendix P – Intersection Analysis Worksheets – Cumulative (2028) Plus Project Plus Mitigations Conditions

Scenario Report

Scenario:	2028 Cum + Project AM - Mitigated
Command:	2028 Cum + Proj AM - Mitigated
Volume:	2028 AM
Geometry:	Mitigated
Impact Fee:	Default Impact Fee
Trip Generation:	2028 Cum + Project AM
Trip Distribution:	Cum + Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Turning Movement Report
Cum AM + Project 2028 AM

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Fremont Ave and Mission Rd													
Base	247	1505	225	13	1454	49	69	374	530	397	871	48	5783
Added	0	10	31	1	71	29	18	3	0	107	18	9	297
Total	247	1515	256	14	1525	78	87	377	530	504	889	57	6080
#2 Fremont Ave and 1000 Fremont Ave													
Base	54	1446	131	4	1440	40	26	6	60	4	1	7	3219
Added	0	31	5	4	67	0	0	0	0	35	0	22	164
Total	54	1477	136	8	1507	40	26	6	60	39	1	29	3383
#3 Fremont Ave and Orange St													
Base	2	1254	248	156	1473	2	1	1	0	60	0	59	3257
Added	0	40	13	5	19	0	0	0	0	51	0	34	162
Total	2	1294	261	161	1492	2	1	1	0	111	0	93	3419
#4 Date Ave and Orange St													
Base	54	99	6	7	186	74	20	36	47	8	27	3	566
Added	6	53	0	0	34	1	5	22	9	0	3	0	133
Total	60	152	6	7	220	75	25	58	56	8	30	3	699
#5 Palm Ave and Orange St													
Base	6	66	2	6	214	32	8	20	15	2	6	2	378
Added	0	16	0	0	3	1	8	14	0	0	2	0	44
Total	6	82	2	6	217	33	16	34	15	2	8	2	422
#6 Chestnut St and Palm Ave													
Base	16	100	2	13	182	12	1	1	8	1	3	8	348
Added	0	9	0	0	1	1	7	16	0	0	3	0	37
Total	16	109	2	13	183	13	8	17	8	1	6	8	385
#7 Fremont Ave and Poplar Blvd													
Base	100	1156	56	19	1564	17	21	116	73	59	118	20	3319
Added	16	63	16	1	30	0	0	9	2	2	7	4	150
Total	116	1219	72	20	1594	17	21	125	75	61	125	24	3469
#8 Date Ave and Mission Rd													
Base	0	0	0	25	0	87	91	482	0	0	1349	175	2209
Added	0	0	0	57	0	91	29	36	0	0	6	22	241
Total	0	0	0	82	0	178	120	518	0	0	1355	197	2450
#9 Chestnut St and Date Ave													
Base	85	161	9	13	151	59	0	0	0	2	3	2	485
Added	10	45	8	0	42	2	14	16	76	2	2	0	217
Total	95	206	17	13	193	61	14	16	76	4	5	2	702
#10 Fremont Ave and Concord Ave													
Base	62	1214	41	4	1540	66	45	13	76	25	16	11	3113
Added	0	74	0	0	24	0	0	0	0	0	0	0	98
Total	62	1288	41	4	1564	66	45	13	76	25	16	11	3211

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#11 Fremont Ave and Montezuma Ave													
Base	762	288	45	4	89	667	452	58	683	56	104	11	3219
Added	27	4	0	0	4	13	44	0	21	0	0	0	113
Total	789	292	45	4	93	680	496	58	704	56	104	11	3332
#12 Palm Ave and Commonwealth Ave													
Base	20	36	4	44	240	281	67	237	31	15	289	42	1305
Added	0	24	0	0	4	41	50	38	0	0	40	0	197
Total	20	60	4	44	244	322	117	275	31	15	329	42	1502
#13 Date Ave and Commonwealth Ave													
Base	27	45	18	52	74	79	76	267	105	132	364	75	1312
Added	14	0	50	0	0	0	0	38	2	41	40	0	185
Total	41	45	68	52	74	79	76	305	107	173	404	75	1497
#14 Fremont Ave and Commonwealth Ave													
Base	44	1125	103	191	1456	69	30	150	18	120	173	119	3597
Added	0	58	16	26	9	0	0	0	0	15	0	37	161
Total	44	1183	119	217	1465	69	30	150	18	135	173	156	3758
#15 Fremont Ave and Valley Blvd													
Base	46	1021	29	83	898	1420	588	451	31	62	809	206	5644
Added	5	29	4	5	104	69	11	2	1	7	3	1	241
Total	51	1050	33	88	1002	1489	599	453	32	69	812	207	5885
#16 Palm Ave and Mission Rd													
Base	0	0	0	57	0	138	37	471	0	0	1433	94	2229
Added	0	0	0	0	0	1	9	83	0	0	26	0	119
Total	0	0	0	57	0	139	46	554	0	0	1459	94	2348
#17 Marengo Ave and Valley Blvd													
Base	25	131	80	249	182	153	185	467	26	69	1067	210	2843
Added	10	27	0	11	29	0	0	5	7	0	1	2	92
Total	35	158	80	260	211	153	185	472	33	69	1068	212	2935
#18 Atlantic Blvd and Mission Road													
Base	172	1185	128	45	1052	274	98	576	75	195	1067	37	4904
Added	0	31	0	0	23	1	3	32	0	0	5	0	95
Total	172	1216	128	45	1075	275	101	608	75	195	1072	37	4999
#19 Marengo Ave and Mission Road													
Base	95	426	175	48	562	74	49	392	95	303	1306	83	3608
Added	25	0	3	0	0	1	7	32	38	1	5	0	112
Total	120	426	178	48	562	75	56	424	133	304	1311	83	3720
#20 Marengo Ave and Front St													
Base	2	567	3	11	550	399	90	12	8	2	84	38	1767
Added	0	29	0	0	40	0	0	0	0	0	0	0	69
Total	2	596	3	11	590	399	90	12	8	2	84	38	1836

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#21 I-710 NB Ramp and Valley Blvd													
Base	673	1	764	4	0	1	0	231	0	0	2428	7	4109
Added	0	0	14	0	0	0	0	0	0	0	77	0	91
Total	673	1	778	4	0	1	0	231	0	0	2505	7	4200
#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	239	725	1777	1339	0	4080
Added	0	0	0	0	0	0	0	0	0	77	0	0	77
Total	0	0	0	0	0	0	0	239	725	1854	1339	0	4157
#23 Fremont Ave and Hellman Ave													
Base	158	1042	349	142	788	123	120	124	171	187	254	237	3695
Added	0	26	14	48	64	0	0	0	0	1	0	13	166
Total	158	1068	363	190	852	123	120	124	171	188	254	250	3861
#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	399	61	23	87	16	223	57	182	365	444	68	15	1940
Added	14	0	0	0	0	0	0	0	62	0	0	0	76
Total	413	61	23	87	16	223	57	182	427	444	68	15	2016
#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	697	54	0	0	0	2	27	652	127	0	17	1575
Added	0	0	48	0	0	0	0	0	17	0	0	0	65
Total	0	697	102	0	0	0	2	27	669	127	0	17	1640
#26 Ross Ave and Fremont Ave													
Base	29	1124	237	47	967	38	29	55	6	193	197	19	2940
Added	0	39	0	0	112	0	0	0	0	0	0	0	151
Total	29	1163	237	47	1079	38	29	55	6	193	197	19	3091
#27 Westmont Dr and Valley Blvd													
Base	57	16	8	4	7	41	19	1078	16	3	2272	33	3554
Added	0	0	0	0	0	0	0	14	0	0	77	0	91
Total	57	16	8	4	7	41	19	1092	16	3	2349	33	3645
#135													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	36	0	44	6	29	0	0	91	6	212
Total	0	0	0	36	0	44	6	29	0	0	91	6	212

Intersection Volume Report
Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	247	1505	225	13	1454	49	69	374	530	397	871	48
2 Fremont Ave a	54	1446	131	4	1440	40	26	6	60	4	1	7
3 Fremont Ave a	2	1254	248	156	1473	2	1	1	0	60	0	59
4 Date Ave and	54	99	6	7	186	74	20	36	47	8	27	3
5 Palm Ave and	6	66	2	6	214	32	8	20	15	2	6	2
6 Chestnut St a	16	100	2	13	182	12	1	1	8	1	3	8
7 Fremont Ave a	100	1156	56	19	1564	17	21	116	73	59	118	20
8 Date Ave and	0	0	0	25	0	87	91	482	0	0	1349	175
9 Chestnut St a	85	161	9	13	151	59	0	0	0	2	3	2
10 Fremont Ave a	62	1214	41	4	1540	66	45	13	76	25	16	11
11 Fremont Ave a	762	288	45	4	89	667	452	58	683	56	104	11
12 Palm Ave and	20	36	4	44	240	281	67	237	31	15	289	42
13 Date Ave and	27	45	18	52	74	79	76	267	105	132	364	75
14 Fremont Ave a	44	1125	103	191	1456	69	30	150	18	120	173	119
15 Fremont Ave a	46	1021	29	83	898	1420	588	451	31	62	809	206
16 Palm Ave and	0	0	0	57	0	138	37	471	0	0	1433	94
17 Marengo Ave a	25	131	80	249	182	153	185	467	26	69	1067	210
18 Atlantic Blvd	172	1185	128	45	1052	274	98	576	75	195	1067	37
19 Marengo Ave a	95	426	175	48	562	74	49	392	95	303	1306	83
20 Marengo Ave a	2	567	3	11	550	399	90	12	8	2	84	38
21 I-710 NB Ramp	673	1	764	4	0	1	0	231	0	0	2428	7
22 I-710 SB Ramp	0	0	0	0	0	0	0	239	725	1777	1339	0
23 Fremont Ave a	158	1042	349	142	788	123	120	124	171	187	254	237
24 Elm St and He	399	61	23	87	16	223	57	182	365	444	68	15
25 Fremont Ave a	0	697	54	0	0	0	2	27	652	127	0	17
26 Ross Ave and	29	1124	237	47	967	38	29	55	6	193	197	19
27 Westmont Dr a	57	16	8	4	7	41	19	1078	16	3	2272	33

Intersection Volume Report
Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	247	1515	256	14	1525	78	87	377	530	504	889	57
2 Fremont Ave a	54	1477	136	8	1507	40	26	6	60	39	1	29
3 Fremont Ave a	2	1294	261	161	1492	2	1	1	0	111	0	93
4 Date Ave and	60	152	6	7	220	75	25	58	56	8	30	3
5 Palm Ave and	6	82	2	6	217	33	16	34	15	2	8	2
6 Chestnut St a	16	109	2	13	183	13	8	17	8	1	6	8
7 Fremont Ave a	116	1219	72	20	1594	17	21	125	75	61	125	24
8 Date Ave and	0	0	0	82	0	178	120	518	0	0	1355	197
9 Chestnut St a	95	206	17	13	193	61	14	16	76	4	5	2
10 Fremont Ave a	62	1288	41	4	1564	66	45	13	76	25	16	11
11 Fremont Ave a	789	292	45	4	93	680	496	58	704	56	104	11
12 Palm Ave and	20	60	4	44	244	322	117	275	31	15	329	42
13 Date Ave and	41	45	68	52	74	79	76	305	107	173	404	75
14 Fremont Ave a	44	1183	119	217	1465	69	30	150	18	135	173	156
15 Fremont Ave a	51	1050	33	88	1002	1489	599	453	32	69	812	207
16 Palm Ave and	0	0	0	57	0	139	46	554	0	0	1459	94
17 Marengo Ave a	35	158	80	260	211	153	185	472	33	69	1068	212
18 Atlantic Blvd	172	1216	128	45	1075	275	101	608	75	195	1072	37
19 Marengo Ave a	120	426	178	48	562	75	56	424	133	304	1311	83
20 Marengo Ave a	2	596	3	11	590	399	90	12	8	2	84	38
21 I-710 NB Ramp	673	1	778	4	0	1	0	231	0	0	2505	7
22 I-710 SB Ramp	0	0	0	0	0	0	0	239	725	1854	1339	0
23 Fremont Ave a	158	1068	363	190	852	123	120	124	171	188	254	250
24 Elm St and He	413	61	23	87	16	223	57	182	427	444	68	15
25 Fremont Ave a	0	697	102	0	0	0	2	27	669	127	0	17
26 Ross Ave and	29	1163	237	47	1079	38	29	55	6	193	197	19
27 Westmont Dr a	57	16	8	4	7	41	19	1092	16	3	2349	33

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Fremont Ave and Mission Rd	F	xxxxxx 1.073	F	xxxxxx 1.163	+ 0.090 V/C
# 2 Fremont Ave and 1000 Fremont A	B	xxxxxx 0.628	B	xxxxxx 0.670	+ 0.043 V/C
# 3 Fremont Ave and Orange St	B	xxxxxx 0.628	B	xxxxxx 0.670	+ 0.042 V/C
# 4 Date Ave and Orange St	A	xxxxxx 0.284	A	xxxxxx 0.332	+ 0.047 V/C
# 5 Palm Ave and Orange St	A	8.7 0.289	A	8.8 0.299	+ 0.010 V/C
# 6 Chestnut St and Palm Ave	A	8.6 0.254	A	8.7 0.261	+ 0.007 V/C
# 7 Fremont Ave and Poplar Blvd	C	xxxxxx 0.766	C	xxxxxx 0.793	+ 0.026 V/C
# 8 Date Ave and Mission Rd	B	xxxxxx 0.688	C	xxxxxx 0.772	+ 0.084 V/C
# 9 Chestnut St and Date Ave	B	10.9 0.062	B	12.3 0.089	+ 1.374 D/V
# 10 Fremont Ave and Concord Ave	C	xxxxxx 0.704	C	xxxxxx 0.711	+ 0.008 V/C
# 11 Fremont Ave and Montezuma Ave	B	xxxxxx 0.657	B	xxxxxx 0.683	+ 0.026 V/C
# 12 Palm Ave and Commonwealth Ave	A	xxxxxx 0.420	A	xxxxxx 0.490	+ 0.069 V/C
# 13 Date Ave and Commonwealth Ave	A	xxxxxx 0.411	A	xxxxxx 0.458	+ 0.047 V/C
# 14 Fremont Ave and Commonwealth A	C	xxxxxx 0.784	C	xxxxxx 0.794	+ 0.011 V/C
# 15 Fremont Ave and Valley Blvd	F	xxxxxx 1.029	F	xxxxxx 1.059	+ 0.029 V/C
# 16 Palm Ave and Mission Rd	B	xxxxxx 0.686	C	xxxxxx 0.701	+ 0.014 V/C
# 17 Marengo Ave and Valley Blvd	C	xxxxxx 0.786	D	xxxxxx 0.810	+ 0.024 V/C
# 18 Atlantic Blvd and Mission Road	E	xxxxxx 0.942	E	xxxxxx 0.953	+ 0.011 V/C
# 19 Marengo Ave and Mission Road	F	xxxxxx 1.021	F	xxxxxx 1.044	+ 0.022 V/C
# 20 Marengo Ave and Front St	D	xxxxxx 0.805	D	xxxxxx 0.830	+ 0.025 V/C
# 21 I-710 NB Ramp and Valley Blvd	C	xxxxxx 0.767	C	xxxxxx 0.782	+ 0.015 V/C
# 22 I-710 SB Ramp and Valley Blvd	E	xxxxxx 0.944	E	xxxxxx 0.970	+ 0.027 V/C
# 23 Fremont Ave and Hellman Ave	D	xxxxxx 0.858	E	xxxxxx 0.900	+ 0.042 V/C
# 24 Elm St and Hellman Ave/Ramona	F	61.0 1.262	F	67.1 1.287	+ 0.026 V/C
# 25 Fremont Ave and Ramona Road/10	F	110.2 1.287	F	112.3 1.287	+ 0.000 V/C

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
	LOS Veh	C	LOS Veh	C	
# 26 Ross Ave and Fremont Ave	C xxxxx	0.713	C xxxxx	0.725	+ 0.012 V/C
# 27 Westmont Dr and Valley Blvd	D xxxxx	0.890	E xxxxx	0.914	+ 0.024 V/C

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Fremont Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.163

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Fremont Ave Mission Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Ovl Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 2 1 0 1 1 0

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Volume Module:

Base Vol: 221 1349 202 12 1303 44 62 335 475 356 781 43

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 247 1505 225 13 1454 49 69 374 530 397 871 48

Added Vol: 0 10 31 1 71 29 18 3 0 107 18 9

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 247 1515 256 14 1525 78 87 377 530 504 889 57

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 247 1515 256 14 1525 78 87 377 530 504 889 57

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 247 1515 256 14 1525 78 87 377 530 504 889 57

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 247 1515 256 14 1525 78 87 377 530 504 889 57

OvlAdjVol: 37

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.71 0.29 1.00 2.00 1.00 1.00 2.00 2.00 1.00 1.88 0.12

Final Sat.: 1600 2737 463 1600 3200 1600 1600 3200 3200 1600 3007 193

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Capacity Analysis Module:

Vol/Sat: 0.15 0.55 0.55 0.01 0.48 0.05 0.05 0.12 0.17 0.32 0.30 0.30

OvlAdjV/S: 0.01

Crit Moves: ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.670

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 47 Level Of Service: B

Street Name:	Fremont Ave						1000 Fremont Ave						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Permitted			Permitted			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	2

Volume Module:

Base Vol:	48	1296	117	4	1291	36	23	5	54	4	1	6
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	54	1446	131	4	1440	40	26	6	60	4	1	7
Added Vol:	0	31	5	4	67	0	0	0	0	35	0	22
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	1477	136	8	1507	40	26	6	60	39	1	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	1477	136	8	1507	40	26	6	60	39	1	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	1477	136	8	1507	40	26	6	60	39	1	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	1477	136	8	1507	40	26	6	60	39	1	29

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.08	0.92	1.00	0.04	0.96
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	136	1464	1600	60	1540

Capacity Analysis Module:

Vol/Sat:	0.03	0.46	0.08	0.01	0.47	0.03	0.02	0.04	0.04	0.02	0.02	0.02
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.670

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 47 Level Of Service: B

Street Name:	Fremont Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	0	1	0	1	0

Volume Module:	Fremont Ave NB			Fremont Ave SB			Orange St EB			Orange St WB		
Base Vol:	2	1124	222	140	1320	2	1	1	0	54	0	53
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	2	1254	248	156	1473	2	1	1	0	60	0	59
Added Vol:	0	40	13	5	19	0	0	0	0	51	0	34
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	1294	261	161	1492	2	1	1	0	111	0	93
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1294	261	161	1492	2	1	1	0	111	0	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1294	261	161	1492	2	1	1	0	111	0	93
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	1294	261	161	1492	2	1	1	0	111	0	93

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Orange St EB			Orange St WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.50	0.50	1.00	1.09	0.00	0.91
Final Sat.:	1600	3200	1600	1600	3195	5	800	800	1600	1742	0	1458

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Orange St EB			Orange St WB		
Vol/Sat:	0.00	0.40	0.16	0.10	0.47	0.47	0.00	0.00	0.00	0.06	0.00	0.06
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Date Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.332

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 26 Level Of Service: A

Street Name:	Date Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	0	1	0	0	1	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	AM Peak
Base Vol:	48	89	5	6	167	66
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	54	99	6	7	186	74
Added Vol:	6	53	0	0	34	1
PasserByVol:	0	0	0	0	0	0
Initial Fut:	60	152	6	7	220	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	152	6	7	220	75
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	60	152	6	7	220	75
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60	152	6	7	220	75

Saturation Flow Module:	Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	0.30	0.70	1.00	0.21	0.79	1.00	
Final Sat.:	1600	1600	1600	1600	1600	1600	485	1115	1600	332	1268	1600	

Capacity Analysis Module:	Vol/Sat:	0.04	0.10	0.00	0.00	0.14	0.05	0.02	0.05	0.03	0.00	0.02	0.00
Crit Moves:	****					****		****			****		

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Palm Ave and Orange St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.299
Loss Time (sec):	0	Average Delay (sec/veh):	8.8
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Palm Ave				Orange St															
Approach:	North Bound		South Bound		East Bound		West Bound													
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Rights:	Include				Include				Include				Include							
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol: 5 59 2 5 192 29 7 18 13 2 5 2
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 6 66 2 6 214 32 8 20 15 2 6 2
Added Vol: 0 16 0 0 3 1 8 14 0 0 2 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 6 82 2 6 217 33 16 34 15 2 8 2
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 6 82 2 6 217 33 16 34 15 2 8 2
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 6 82 2 6 217 33 16 34 15 2 8 2
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 6 82 2 6 217 33 16 34 15 2 8 2

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.06 0.94 1.00 0.03 0.97 1.00 0.32 0.68 1.00 0.23 0.77 1.00
Final Sat.: 46 672 840 19 725 869 198 427 733 141 478 720

Capacity Analysis Module:
Vol/Sat: 0.12 0.12 0.00 0.30 0.30 0.04 0.08 0.08 0.02 0.02 0.02 0.00
Crit Moves: ****
Delay/Veh: 8.3 8.3 6.9 9.5 9.5 6.9 8.6 8.6 7.4 8.3 8.3 7.4
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 8.3 8.3 6.9 9.5 9.5 6.9 8.6 8.6 7.4 8.3 8.3 7.4
LOS by Move: A A A A A A A A A A A A
ApproachDel: 8.3 9.2 8.3 8.1
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 8.3 9.2 8.3 8.1
LOS by Appr: A A A A
AllWayAvgQ: 0.1 0.1 0.0 0.4 0.4 0.0 0.1 0.1 0.0 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.261
Loss Time (sec):	0	Average Delay (sec/veh):	8.7
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Chestnut St				Palm Ave															
Approach:	North Bound		South Bound		East Bound		West Bound													
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Rights:	Include				Include				Include				Include							
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak
Base Vol: 14 90 2 12 163 11 1 1 7 1 3 7
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 16 100 2 13 182 12 1 1 8 1 3 8
Added Vol: 0 9 0 0 1 1 7 16 0 0 3 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 16 109 2 13 183 13 8 17 8 1 6 8
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 16 109 2 13 183 13 8 17 8 1 6 8
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 16 109 2 13 183 13 8 17 8 1 6 8
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 16 109 2 13 183 13 8 17 8 1 6 8

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.12 0.88 1.00 0.07 0.93 1.00 0.32 0.68 1.00 0.15 0.85 1.00
Final Sat.: 92 644 870 51 700 884 201 424 734 94 536 729

Capacity Analysis Module:
Vol/Sat: 0.17 0.17 0.00 0.26 0.26 0.02 0.04 0.04 0.01 0.01 0.01 0.01
Crit Moves: ****
Delay/Veh: 8.5 8.5 6.8 9.1 9.1 6.8 8.4 8.4 7.3 8.2 8.2 7.4
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 8.5 8.5 6.8 9.1 9.1 6.8 8.4 8.4 7.3 8.2 8.2 7.4
LOS by Move: A A A A A A A A A A A A
ApproachDel: 8.5 9.0 8.1 7.7
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 8.5 9.0 8.1 7.7
LOS by Appr: A A A A
AllWayAvgQ: 0.2 0.2 0.0 0.3 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.793

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 65 Level Of Service: C

Street Name: Fremont Ave Poplar Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 1 0 1 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 90 1036 50 17 1402 15 19 104 65 53 106 18

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 100 1156 56 19 1564 17 21 116 73 59 118 20

Added Vol: 16 63 16 1 30 0 0 9 2 2 7 4

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 116 1219 72 20 1594 17 21 125 75 61 125 24

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 116 1219 72 20 1594 17 21 125 75 61 125 24

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 116 1219 72 20 1594 17 21 125 75 61 125 24

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 116 1219 72 20 1594 17 21 125 75 61 125 24

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.89 0.11 1.00 1.98 0.02 1.00 1.00 1.00 1.00 1.00

Final Sat.: 1600 3022 178 1600 3167 33 1600 1600 1600 1600 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.07 0.40 0.40 0.01 0.50 0.50 0.01 0.08 0.05 0.04 0.08 0.02

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Date Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.772

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 61 Level Of Service: C

Street Name:	Date Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	AM Peak
Base Vol:	0	0	0	22	0	78
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	25	0	87
Added Vol:	0	0	0	57	0	91
PasserByVol:	0	0	0	0	0	0
Initial Fut:	0	0	0	82	0	178
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	82	0	178
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	0	0	0	82	0	178
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	82	0	178

Saturation Flow Module:
Sat/Lane:
Adjustment:
Lanes:
Final Sat.:

Capacity Analysis Module:
Vol/Sat:
Crit Moves:

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 3.1 Worst Case Level Of Service: B[12.3]

Street Name:	Chestnut St						Date Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	1	0	1	0	0	0	1	0

Volume Module:	>> Count	Date:	17 Nov 2015	<< AM Peak								
Base Vol:	76	144	8	12	135	53	0	0	0	2	3	2
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	85	161	9	13	151	59	0	0	0	2	3	2
Added Vol:	10	45	8	0	42	2	14	16	76	2	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	95	206	17	13	193	61	14	16	76	4	5	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	95	206	17	13	193	61	14	16	76	4	5	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	95	206	17	13	193	61	14	16	76	4	5	2

Critical Gap Module:	Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3	

Capacity Module:	Cnflict Vol:	254	xxxx	xxxxx	223	xxxx	xxxxx	627	632	193	691	676	206
Potent Cap.:	1323	xxxx	xxxxx	1358	xxxx	xxxxx	399	400	854	361	378	840	
Move Cap.:	1323	xxxx	xxxxx	1358	xxxx	xxxxx	369	368	854	299	347	840	
Total Cap:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	508	491	xxxxx	449	472	xxxxx	
Volume/Cap:	0.07	xxxx	xxxxx	0.01	xxxx	xxxxx	0.03	0.03	0.09	0.01	0.01	0.00	

Level Of Service Module:	2Way95thQ:	0.2	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0
Control Del:	7.9	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.3	
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	A	
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	711	xxxxx	461	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.5	xxxxx	0.1	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	11.0	xxxxx	13.0	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	B	*	B	*	*	
ApproachDel:	xxxxxxx			xxxxxxx			11.0			12.3			
ApproachLOS:	*			*			B			B			

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Fremont Ave and Concord Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.711

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 51 Level Of Service: C

Street Name: Fremont Ave

Concord Ave

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

Control: Protected

Protected

Permitted

Permitted

Rights: Include

Include

Include

Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 1 0 1 0 1 1 0 1 1 0 0 1 0

Volume Module:

Base Vol: 56 1088 37 4 1380 59 40 12 68 22 14 10

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 62 1214 41 4 1540 66 45 13 76 25 16 11

Added Vol: 0 74 0 0 24 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 62 1288 41 4 1564 66 45 13 76 25 16 11

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 62 1288 41 4 1564 66 45 13 76 25 16 11

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 62 1288 41 4 1564 66 45 13 76 25 16 11

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 62 1288 41 4 1564 66 45 13 76 25 16 11

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.91 0.09 1.00 1.92 0.08 1.00 1.00 1.00 1.00 0.58 0.42

Final Sat.: 1600 4651 149 1600 3071 129 1600 1600 1600 1600 933 667

Capacity Analysis Module:

Vol/Sat: 0.04 0.28 0.28 0.00 0.51 0.51 0.03 0.01 0.05 0.02 0.02 0.02

Crit Moves: ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.683

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 48 Level Of Service: B

Street Name:	Fremont Ave						Montezuma Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	1	0	0	2	0	0	1	1	0

Volume Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Base Vol:	683	258	40	4	80	598	405	52	612	50	93	10
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	762	288	45	4	89	667	452	58	683	56	104	11
Added Vol:	27	4	0	0	4	13	44	0	21	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	789	292	45	4	93	680	496	58	704	56	104	11
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	789	292	45	4	93	0	496	58	704	56	104	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	789	292	45	4	93	0	496	58	704	56	104	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	789	292	45	4	93	0	496	58	704	56	104	11

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.87	0.13	0.09	1.91	1.00	2.00	0.15	1.85	0.33	0.61	0.06
Final Sat.:	2880	1388	212	146	3054	1600	2880	244	2956	523	973	105

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Vol/Sat:	0.27	0.21	0.21	0.00	0.03	0.00	0.17	0.24	0.24	0.03	0.11	0.11
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.490

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 33 Level Of Service: A

Street Name:	Palm Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	1	0	1	0	2

Volume Module:

Base Vol:	18	32	4	39	215	252	60	212	28	13	259	38
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	20	36	4	44	240	281	67	237	31	15	289	42
Added Vol:	0	24	0	0	4	41	50	38	0	0	40	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	60	4	44	244	322	117	275	31	15	329	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	60	4	44	244	322	117	275	31	15	329	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	60	4	44	244	322	117	275	31	15	329	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	60	4	44	244	322	117	275	31	15	329	42

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.80	0.20	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2873	327	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.01	0.04	0.00	0.03	0.15	0.20	0.07	0.10	0.10	0.01	0.10	0.03
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Crit Moves:	****					****	****			****		
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.458

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 31 Level Of Service: A

Street Name:	Date Ave						Commonwealth Ave						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Permitted			Permitted			Permitted			Permitted			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1	0

Volume Module:	Date Ave			Date Ave			Commonwealth Ave			Commonwealth Ave		
Base Vol:	24	40	16	47	66	71	68	239	94	118	326	67
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	27	45	18	52	74	79	76	267	105	132	364	75
Added Vol:	14	0	50	0	0	0	0	38	2	41	40	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	41	45	68	52	74	79	76	305	107	173	404	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	41	45	68	52	74	79	76	305	107	173	404	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	45	68	52	74	79	76	305	107	173	404	75
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	41	45	68	52	74	79	76	305	107	173	404	75

Saturation Flow Module:	Date Ave			Date Ave			Commonwealth Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.48	0.52	1.00	1.48	0.52	1.00	1.69	0.31
Final Sat.:	1600	1600	1600	1600	771	829	1600	2369	831	1600	2700	500

Capacity Analysis Module:	Date Ave			Date Ave			Commonwealth Ave			Commonwealth Ave		
Vol/Sat:	0.03	0.03	0.04	0.03	0.10	0.10	0.05	0.13	0.13	0.11	0.15	0.15
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.794

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 65 Level Of Service: C

Street Name:	Fremont Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:	Fremont Ave			Fremont Ave			Commonwealth Ave			Commonwealth Ave		
Base Vol:	39	1008	92	171	1305	62	27	134	16	108	155	107
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	44	1125	103	191	1456	69	30	150	18	120	173	119
Added Vol:	0	58	16	26	9	0	0	0	0	15	0	37
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	1183	119	217	1465	69	30	150	18	135	173	156
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	44	1183	119	217	1465	69	30	150	18	135	173	156
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	1183	119	217	1465	69	30	150	18	135	173	156
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	44	1183	119	217	1465	69	30	150	18	135	173	156

Saturation Flow Module:	Fremont Ave			Fremont Ave			Commonwealth Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.91	0.09	1.00	0.89	0.11	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3056	144	1600	1429	171	1600	1600	1600

Capacity Analysis Module:	Fremont Ave			Fremont Ave			Commonwealth Ave			Commonwealth Ave		
Vol/Sat:	0.03	0.37	0.07	0.14	0.48	0.48	0.02	0.10	0.10	0.08	0.11	0.10
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Fremont Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.059

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Fremont Ave Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 2 2 0 2 1 1 0 1 1 1

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Volume Module:

Base Vol: 41 915 26 74 805 1273 527 404 28 56 725 185

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 46 1021 29 83 898 1420 588 451 31 62 809 206

Added Vol: 5 29 4 5 104 69 11 2 1 7 3 1

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 51 1050 33 88 1002 1489 599 453 32 69 812 207

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 51 1050 33 88 1002 1489 599 453 32 69 812 207

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 51 1050 33 88 1002 1489 599 453 32 69 812 207

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 51 1050 33 88 1002 1489 599 453 32 69 812 207

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.94 0.06 1.00 2.00 2.00 2.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 3102 98 1600 3200 3200 2880 3200 1600 1600 3200 1600

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Capacity Analysis Module:

Vol/Sat: 0.03 0.34 0.34 0.05 0.31 0.47 0.21 0.14 0.02 0.04 0.25 0.13

Crit Moves: **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.701

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 50 Level Of Service: C

Street Name:	Palm Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	AM Peak
Base Vol:	0	0	0	51	0	124
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	57	0	138
Added Vol:	0	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0
Initial Fut:	0	0	0	57	0	139
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	57	0	139
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	0	0	0	57	0	139
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	57	0	139

Saturation Flow Module:	Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.88	0.12
Final Sat.:	0	0	0	1600	0	1600	1600	3200	0	0	3007	193

Capacity Analysis Module:	Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.09	0.03	0.17	0.00	0.00	0.49	0.49
Crit Moves:							****	****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.810
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Street Name:	Marengo Ave						Valley Blvd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	0	1	1	0	0	1	0	1	0	2	0	1

Volume Module:															
Base Vol:	22	117	72	223	163	137	166	419	23	62	956	188			
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12			
Initial Bse:	25	131	80	249	182	153	185	467	26	69	1067	210			
Added Vol:	10	27	0	11	29	0	0	5	7	0	1	2			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	35	158	80	260	211	153	185	472	33	69	1068	212			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	35	158	80	260	211	153	185	472	33	69	1068	212			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	35	158	80	260	211	153	185	472	33	69	1068	212			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	35	158	80	260	211	153	185	472	33	69	1068	212			

Saturation Flow Module:															
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600			
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Lanes:	1.00	1.00	1.00	1.00	0.58	0.42	1.00	2.00	1.00	1.00	2.00	1.00			
Final Sat.:	1600	1600	1600	1600	928	672	1600	3200	1600	1600	3200	1600			

Capacity Analysis Module:															
Vol/Sat:	0.02	0.10	0.05	0.16	0.23	0.23	0.12	0.15	0.02	0.04	0.33	0.13			
Crit Moves:	****			****			****			****					

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.953

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 136 Level Of Service: E

Street Name:	Atlantic Blvd						Mission Road						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1	0

Volume Module:	Atlantic Blvd			Atlantic Blvd			Mission Road			Mission Road		
Base Vol:	154	1062	115	40	943	246	88	516	67	175	956	33
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	172	1185	128	45	1052	274	98	576	75	195	1067	37
Added Vol:	0	31	0	0	23	1	3	32	0	0	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	172	1216	128	45	1075	275	101	608	75	195	1072	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	172	1216	128	45	1075	275	101	608	75	195	1072	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	172	1216	128	45	1075	275	101	608	75	195	1072	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	172	1216	128	45	1075	275	101	608	75	195	1072	37

Saturation Flow Module:	Atlantic Blvd			Atlantic Blvd			Mission Road			Mission Road		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.81	0.19	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	1600	2895	305	1600	3200	1600	1600	3200	1600	1600	3094	106

Capacity Analysis Module:	Atlantic Blvd			Atlantic Blvd			Mission Road			Mission Road		
Vol/Sat:	0.11	0.42	0.42	0.03	0.34	0.17	0.06	0.19	0.05	0.12	0.35	0.35
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 1.044

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Marengo Ave

Mission Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 0 1 1 0 1 0

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Volume Module:

Base Vol: 85 382 157 43 504 66 44 351 85 272 1171 74

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 95 426 175 48 562 74 49 392 95 303 1306 83

Added Vol: 25 0 3 0 0 1 7 32 38 1 5 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 120 426 178 48 562 75 56 424 133 304 1311 83

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 120 426 178 48 562 75 56 424 133 304 1311 83

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 120 426 178 48 562 75 56 424 133 304 1311 83

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 120 426 178 48 562 75 56 424 133 304 1311 83

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.88 0.12 1.00 1.52 0.48 1.00 1.88 0.12

Final Sat.: 1600 1600 1600 1600 1413 187 1600 2436 764 1600 3010 190

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Capacity Analysis Module:

Vol/Sat: 0.07 0.27 0.11 0.03 0.40 0.40 0.04 0.17 0.17 0.19 0.44 0.44

Crit Moves: ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #20 Marengo Ave and Front St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.830

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 74 Level Of Service: D

Street Name:	Marengo Ave						Front St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	0	1	0	0	1	0

Volume Module:	Marengo Ave			Front St		
Base Vol:	2	508	3	10	493	358
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	2	567	3	11	550	399
Added Vol:	0	29	0	0	40	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	2	596	3	11	590	399
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	596	3	11	590	399
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	2	596	3	11	590	399
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	596	3	11	590	399

Saturation Flow Module:	Marengo Ave			Front St		
Sat/Lane:	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.99	0.01	1.00	0.60	0.40
Final Sat.:	1600	1591	9	1600	954	646

Capacity Analysis Module:	Marengo Ave			Front St		
Vol/Sat:	0.00	0.37	0.37	0.01	0.62	0.62
Crit Moves:	****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #21 I-710 NB Ramp and Valley Blvd

Cycle (sec): 120 Critical Vol./Cap.(X): 0.782

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 66 Level Of Service: C

Street Name:	I-710 NB Ramp						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	2	0	0	3

Volume Module:	I-710 NB Ramp			I-710 SB Ramp			Valley Blvd East			Valley Blvd West		
Base Vol:	603	1	685	4	0	1	0	207	0	0	2176	6
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	673	1	764	4	0	1	0	231	0	0	2428	7
Added Vol:	0	0	14	0	0	0	0	0	0	0	77	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	673	1	778	4	0	1	0	231	0	0	2505	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	673	1	778	4	0	1	0	231	0	0	2505	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	673	1	778	4	0	1	0	231	0	0	2505	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	673	1	778	4	0	1	0	231	0	0	2505	7

Saturation Flow Module:	I-710 NB Ramp			I-710 SB Ramp			Valley Blvd East			Valley Blvd West		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.39	0.01	1.60	0.79	0.01	0.20	0.00	2.00	0.00	0.00	3.99	0.01
Final Sat.:	2224	4	2572	1280	0	320	0	3200	0	0	6383	17

Capacity Analysis Module:	I-710 NB Ramp			I-710 SB Ramp			Valley Blvd East			Valley Blvd West		
Vol/Sat:	0.30	0.30	0.30	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.39	0.39
Crit Moves:	****			****			****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.970

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 154 Level Of Service: E

Street Name:	I-710 SB Ramp						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	0	0	1	1	1	2

Volume Module:	I-710 SB Ramp			I-710 SB Ramp			Valley Blvd			Valley Blvd		
Base Vol:	0	0	0	0	0	0	0	214	650	1593	1200	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	0	0	0	0	239	725	1777	1339	0
Added Vol:	0	0	0	0	0	0	0	0	0	77	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	239	725	1854	1339	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	239	725	1854	1339	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	239	725	1854	1339	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	0	0	239	725	1854	1339	0

Saturation Flow Module:	I-710 SB Ramp			I-710 SB Ramp			Valley Blvd			Valley Blvd		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	2.00	2.00	2.00	0.00
Final Sat.:	0	0	0	0	0	0	0	1600	3200	2880	3200	0

Capacity Analysis Module:	I-710 SB Ramp			I-710 SB Ramp			Valley Blvd			Valley Blvd		
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.23	0.64	0.42	0.00
Crit Moves:							****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.900

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 100 Level Of Service: E

Street Name: Fremont Ave

Hellman Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 1 0 1 0 1

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 142 934 313 127 706 110 108 111 153 168 228 212

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 158 1042 349 142 788 123 120 124 171 187 254 237

Added Vol: 0 26 14 48 64 0 0 0 0 1 0 13

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 158 1068 363 190 852 123 120 124 171 188 254 250

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 158 1068 363 190 852 123 120 124 171 188 254 250

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 158 1068 363 190 852 123 120 124 171 188 254 250

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 158 1068 363 190 852 123 120 124 171 188 254 250

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.49 0.51 1.00 1.75 0.25 1.00 1.00 1.00 1.00 1.00 1.00

Final Sat.: 1600 2388 812 1600 2797 403 1600 1600 1600 1600 1600 1600

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Capacity Analysis Module:

Vol/Sat: 0.10 0.45 0.45 0.12 0.30 0.30 0.08 0.08 0.11 0.12 0.16 0.16

Crit Moves: **** **** **** ****

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.287

Loss Time (sec): 0 Average Delay (sec/veh): 67.1

Optimal Cycle: 0 Level Of Service: F

Street Name: Elm St Hellman Ave/Ramona Rd/ 10 WB ramp

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 1 0 0 0 0 1 0 0 0 1

-----|-----|-----|-----|-----|

Volume Module:AM Peak

Base Vol: 358 55 21 78 14 200 51 163 327 398 61 13

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 399 61 23 87 16 223 57 182 365 444 68 15

Added Vol: 14 0 0 0 0 0 0 0 0 62 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 413 61 23 87 16 223 57 182 427 444 68 15

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 413 61 23 87 16 223 57 182 427 444 68 15

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 413 61 23 87 16 223 57 182 427 444 68 15

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 413 61 23 87 16 223 57 182 427 444 68 15

-----|-----|-----|-----|-----|

Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.66 0.25 0.09 0.85 0.15 1.00 0.24 0.76 1.00 0.87 0.13 1.00

Final Sat.: 1022 -286 36 316 57 423 100 320 465 345 53 442

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Capacity Analysis Module:

Vol/Sat: 0.40-0.21 0.66 0.28 0.28 0.53 0.57 0.57 0.92 1.29 1.29 0.03

Crit Moves: **** **** **** ****

Delay/Veh: 27.4 28.0 28.0 15.7 15.7 19.7 21.9 21.9 51.1 173.0 173 10.9

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 27.4 28.0 28.0 15.7 15.7 19.7 21.9 21.9 51.1 173.0 173 10.9

LOS by Move: D D D C C C C C F F F B

ApproachDel: 27.2 18.5 40.6 168.5

Delay Adj: 1.00 1.00 1.00 1.00

ApprAdjDel: 27.2 18.5 40.6 168.5

LOS by Appr: D C E F

AllWayAvgQ: 1.7 1.7 1.7 0.4 0.4 1.0 1.2 1.2 5.3 17.8 17.8 0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 1.287

Loss Time (sec): 0 Average Delay (sec/veh): 112.3

Optimal Cycle: 0 Level Of Service: F

Street Name:	Fremont Ave						Ramona Road/10 EB ramp					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	0	0	0	0	1	0	0	1	0

Volume Module:AM Peak

Base Vol:	0	625	48	0	0	0	2	24	584	114	0	15
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	697	54	0	0	0	2	27	652	127	0	17
Added Vol:	0	0	48	0	0	0	0	0	17	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	697	102	0	0	0	2	27	669	127	0	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	697	102	0	0	0	2	27	669	127	0	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	697	102	0	0	0	2	27	669	127	0	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	697	102	0	0	0	2	27	669	127	0	17

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	0.00	0.00	0.08	0.92	1.00	0.88	xxxx	0.12
Final Sat.:	0	542	605	0	0	0	41	487	592	421	0	55

Capacity Analysis Module:

Vol/Sat:	xxxx	1.29	0.17	xxxx	xxxx	xxxx	0.06	0.06	1.13	0.30	0.00	0.30
Crit Moves:	****			****			****			****		
Delay/Veh:	0.0	163	9.8	0.0	0.0	0.0	9.9	9.9	100.3	13.8	13.8	13.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	163	9.8	0.0	0.0	0.0	9.9	9.9	100.3	13.8	13.8	13.8
LOS by Move:	*	F	A	*	*	*	A	A	F	B	B	B
ApproachDel:	143.8			xxxxxx			96.6			13.8		
Delay Adj:	1.00			xxxxxx			1.00			1.00		
ApprAdjDel:	143.8			xxxxxx			96.6			13.8		
LOS by Appr:	F			*			F			B		
AllWayAvgQ:	0.0	23.2	0.2	0.0	0.0	0.0	0.1	0.1	15.1	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.725

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 53 Level Of Service: C

Street Name:	Fremont Ave						Ross Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	0	1	0	1

Volume Module:	Fremont Ave NB			Fremont Ave SB			Ross Ave EB			Ross Ave WB		
Base Vol:	26	1007	212	42	867	34	26	49	5	173	177	17
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	29	1124	237	47	967	38	29	55	6	193	197	19
Added Vol:	0	39	0	0	112	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	1163	237	47	1079	38	29	55	6	193	197	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	1163	237	47	1079	38	29	55	6	193	197	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	1163	237	47	1079	38	29	55	6	193	197	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	1163	237	47	1079	38	29	55	6	193	197	19

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Ross Ave EB			Ross Ave WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.66	0.34	1.00	1.93	0.07	1.00	0.91	0.09	1.00	1.00	1.00
Final Sat.:	1600	2659	541	1600	3091	109	1600	1452	148	1600	1600	1600

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Ross Ave EB			Ross Ave WB		
Vol/Sat:	0.02	0.44	0.44	0.03	0.35	0.35	0.02	0.04	0.04	0.12	0.12	0.01
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Westmont Dr and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.914

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 108 Level Of Service: E

Street Name:	Westmont Dr						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0 0	0	0	1! 0 0	1	0	2 0 1	1	0	2 0 1

Volume Module:	Westmont Dr			Westmont Dr			Valley Blvd			Valley Blvd		
Base Vol:	51	14	7	4	6	37	17	966	14	3	2036	30
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	57	16	8	4	7	41	19	1078	16	3	2272	33
Added Vol:	0	0	0	0	0	0	0	14	0	0	77	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	16	8	4	7	41	19	1092	16	3	2349	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	16	8	4	7	41	19	1092	16	3	2349	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	16	8	4	7	41	19	1092	16	3	2349	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	16	8	4	7	41	19	1092	16	3	2349	33

Saturation Flow Module:	Westmont Dr			Westmont Dr			Valley Blvd			Valley Blvd		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.71	0.19	0.10	0.08	0.13	0.79	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1133	311	156	136	204	1260	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:	Westmont Dr			Westmont Dr			Valley Blvd			Valley Blvd		
Vol/Sat:	0.04	0.05	0.05	0.00	0.03	0.03	0.01	0.34	0.01	0.00	0.73	0.02
Crit Moves:	****			****			****			****		

Scenario Report

Scenario:	2028 Cum + Project PM - Mitigated
Command:	2028 Cum + Proj PM - Mitigated
Volume:	2028 PM
Geometry:	Mitigated
Impact Fee:	Default Impact Fee
Trip Generation:	2028 Cum + Project PM
Trip Distribution:	Cum + Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Turning Movement Report
Cum PM + Project 2028 PM

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Fremont Ave and Mission Rd													
Base	215	1551	214	56	1226	60	131	561	481	344	471	50	5360
Added	0	60	89	8	32	15	22	16	0	51	8	3	304
Total	215	1611	303	64	1258	75	153	577	481	395	479	53	5664
#2 Fremont Ave and 1000 Fremont Ave													
Base	60	1626	48	8	1242	67	90	3	77	44	4	28	3297
Added	0	56	29	18	41	0	0	0	0	14	0	9	167
Total	60	1682	77	26	1283	67	90	3	77	58	4	37	3464
#3 Fremont Ave and Orange St													
Base	2	1562	195	114	1061	2	10	6	6	271	2	322	3554
Added	0	20	46	29	29	0	0	0	0	30	0	17	171
Total	2	1582	241	143	1090	2	10	6	6	301	2	339	3725
#4 Date Ave and Orange St													
Base	35	190	3	28	298	46	75	172	173	1	22	7	1049
Added	9	31	0	0	36	4	2	10	8	0	19	0	119
Total	44	221	3	28	334	50	77	182	181	1	41	7	1168
#5 Palm Ave and Orange St													
Base	6	191	2	11	299	15	65	71	79	2	6	8	754
Added	0	7	0	0	14	7	4	7	0	0	12	0	51
Total	6	198	2	11	313	22	69	78	79	2	18	8	805
#6 Chestnut St and Palm Ave													
Base	6	163	10	16	377	9	8	8	88	7	1	8	700
Added	0	4	0	0	8	6	4	8	0	0	14	0	44
Total	6	167	10	16	385	15	12	16	88	7	15	8	744
#7 Fremont Ave and Poplar Blvd													
Base	170	1565	128	28	963	47	28	131	89	59	132	31	3371
Added	7	32	7	7	50	0	0	12	14	14	12	4	159
Total	177	1597	135	35	1013	47	28	143	103	73	144	35	3530
#8 Date Ave and Mission Rd													
Base	0	0	0	218	0	177	94	821	0	0	628	124	2062
Added	0	0	0	29	0	46	75	14	0	0	30	46	240
Total	0	0	0	247	0	223	169	835	0	0	658	170	2302
#9 Chestnut St and Date Ave													
Base	20	199	13	42	416	11	0	0	0	11	2	19	734
Added	65	33	4	0	32	12	7	8	38	7	13	0	219
Total	85	232	17	42	448	23	7	8	38	18	15	19	953
#10 Fremont Ave and Concord Ave													
Base	57	1717	126	30	1002	79	88	48	52	84	67	84	3434
Added	0	37	0	0	58	0	0	0	0	0	0	0	95
Total	57	1754	126	30	1060	79	88	48	52	84	67	84	3529

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#11 Fremont Ave and Montezuma Ave													
Base	766	494	96	27	46	289	445	186	682	37	77	21	3166
Added	26	2	0	0	14	42	24	0	19	0	0	0	127
Total	792	496	96	27	60	331	469	186	701	37	77	21	3293
#12 Palm Ave and Commonwealth Ave													
Base	55	138	22	192	242	272	212	464	78	9	430	107	2221
Added	0	11	0	0	21	36	28	22	0	0	26	0	144
Total	55	149	22	192	263	308	240	486	78	9	456	107	2365
#13 Date Ave and Commonwealth Ave													
Base	70	142	64	129	90	161	230	573	108	57	543	128	2296
Added	7	0	28	0	0	0	0	22	12	36	26	0	131
Total	77	142	92	129	90	161	230	595	120	93	569	128	2427
#14 Fremont Ave and Commonwealth Ave													
Base	40	1585	289	222	891	28	33	153	16	175	176	266	3875
Added	0	26	10	28	50	0	0	0	0	9	0	20	143
Total	40	1611	299	250	941	28	33	153	16	184	176	286	4018
#15 Fremont Ave and Valley Blvd													
Base	31	896	37	208	1072	864	687	1003	28	139	389	344	5698
Added	3	86	8	2	50	32	59	4	5	9	4	5	267
Total	34	982	45	210	1122	896	746	1007	33	148	393	349	5965
#16 Palm Ave and Mission Rd													
Base	0	0	0	368	0	123	55	1002	0	0	636	114	2297
Added	0	0	0	0	0	8	4	40	0	0	68	0	120
Total	0	0	0	368	0	131	59	1042	0	0	704	114	2417
#17 Marengo Ave and Valley Blvd													
Base	19	177	71	318	224	218	343	970	9	54	621	152	3175
Added	13	28	0	5	24	0	0	2	12	0	5	9	98
Total	32	205	71	323	248	218	343	972	21	54	626	161	3273
#18 Atlantic Blvd and Mission Road													
Base	106	1184	153	47	1061	113	146	1077	148	203	628	67	4933
Added	0	27	0	0	34	4	2	15	0	0	28	0	110
Total	106	1211	153	47	1095	117	148	1092	148	203	656	67	5043
#19 Marengo Ave and Mission Road													
Base	81	575	251	65	520	51	59	1048	316	78	600	66	3710
Added	35	0	2	0	0	6	3	15	26	4	28	0	119
Total	116	575	253	65	520	57	62	1063	342	82	628	66	3829
#20 Marengo Ave and Front St													
Base	3	707	4	26	761	210	167	56	9	2	21	18	1985
Added	0	37	0	0	29	0	0	0	0	0	0	0	66
Total	3	744	4	26	790	210	167	56	9	2	21	18	2051

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#21 I-710 NB Ramp and Valley Blvd													
Base	652	0	1381	1	0	2	0	591	0	0	1247	0	3875
Added	0	0	68	0	0	0	0	0	0	0	39	0	107
Total	652	0	1449	1	0	2	0	591	0	0	1286	0	3982
#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	601	813	874	1049	0	3337
Added	0	0	0	0	0	0	0	0	0	39	0	0	39
Total	0	0	0	0	0	0	0	601	813	913	1049	0	3376
#23 Fremont Ave and Hellman Ave													
Base	95	826	270	164	907	76	143	193	241	230	202	264	3610
Added	0	59	8	25	38	0	0	0	0	4	0	38	172
Total	95	885	278	189	945	76	143	193	241	234	202	302	3782
#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	521	192	109	11	6	45	32	334	249	134	117	2	1752
Added	42	0	0	0	0	0	0	0	34	0	0	0	76
Total	563	192	109	11	6	45	32	334	283	134	117	2	1828
#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	816	129	0	0	0	4	102	322	52	0	87	1513
Added	0	0	26	0	0	0	0	0	56	0	0	0	82
Total	0	816	155	0	0	0	4	102	378	52	0	87	1595
#26 Ross Ave and Fremont Ave													
Base	33	947	187	29	1102	46	12	36	7	60	45	46	2550
Added	0	97	0	0	63	0	0	0	0	0	0	0	160
Total	33	1044	187	29	1165	46	12	36	7	60	45	46	2710
#27 Westmont Dr and Valley Blvd													
Base	18	11	12	27	10	16	62	1761	151	9	1160	37	3273
Added	0	0	0	0	0	0	0	68	0	0	39	0	107
Total	18	11	12	27	10	16	62	1829	151	9	1199	37	3380
#135													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	14	0	17	37	75	0	0	46	30	219
Total	0	0	0	14	0	17	37	75	0	0	46	30	219

Intersection Volume Report
Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	215	1551	214	56	1226	60	131	561	481	344	471	50
2 Fremont Ave a	60	1626	48	8	1242	67	90	3	77	44	4	28
3 Fremont Ave a	2	1562	195	114	1061	2	10	6	6	271	2	322
4 Date Ave and	35	190	3	28	298	46	75	172	173	1	22	7
5 Palm Ave and	6	191	2	11	299	15	65	71	79	2	6	8
6 Chestnut St a	6	163	10	16	377	9	8	8	88	7	1	8
7 Fremont Ave a	170	1565	128	28	963	47	28	131	89	59	132	31
8 Date Ave and	0	0	0	218	0	177	94	821	0	0	628	124
9 Chestnut St a	20	199	13	42	416	11	0	0	0	11	2	19
10 Fremont Ave a	57	1717	126	30	1002	79	88	48	52	84	67	84
11 Fremont Ave a	766	494	96	27	46	289	445	186	682	37	77	21
12 Palm Ave and	55	138	22	192	242	272	212	464	78	9	430	107
13 Date Ave and	70	142	64	129	90	161	230	573	108	57	543	128
14 Fremont Ave a	40	1585	289	222	891	28	33	153	16	175	176	266
15 Fremont Ave a	31	896	37	208	1072	864	687	1003	28	139	389	344
16 Palm Ave and	0	0	0	368	0	123	55	1002	0	0	636	114
17 Marengo Ave a	19	177	71	318	224	218	343	970	9	54	621	152
18 Atlantic Blvd	106	1184	153	47	1061	113	146	1077	148	203	628	67
19 Marengo Ave a	81	575	251	65	520	51	59	1048	316	78	600	66
20 Marengo Ave a	3	707	4	26	761	210	167	56	9	2	21	18
21 I-710 NB Ramp	652	0	1381	1	0	2	0	591	0	0	1247	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	601	813	874	1049	0
23 Fremont Ave a	95	826	270	164	907	76	143	193	241	230	202	264
24 Elm St and He	521	192	109	11	6	45	32	334	249	134	117	2
25 Fremont Ave a	0	816	129	0	0	0	4	102	322	52	0	87
26 Ross Ave and	33	947	187	29	1102	46	12	36	7	60	45	46
27 Westmont Dr a	18	11	12	27	10	16	62	1761	151	9	1160	37

Intersection Volume Report
Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	215	1611	303	64	1258	75	153	577	481	395	479	53
2 Fremont Ave a	60	1682	77	26	1283	67	90	3	77	58	4	37
3 Fremont Ave a	2	1582	241	143	1090	2	10	6	6	301	2	339
4 Date Ave and	44	221	3	28	334	50	77	182	181	1	41	7
5 Palm Ave and	6	198	2	11	313	22	69	78	79	2	18	8
6 Chestnut St a	6	167	10	16	385	15	12	16	88	7	15	8
7 Fremont Ave a	177	1597	135	35	1013	47	28	143	103	73	144	35
8 Date Ave and	0	0	0	247	0	223	169	835	0	0	658	170
9 Chestnut St a	85	232	17	42	448	23	7	8	38	18	15	19
10 Fremont Ave a	57	1754	126	30	1060	79	88	48	52	84	67	84
11 Fremont Ave a	792	496	96	27	60	331	469	186	701	37	77	21
12 Palm Ave and	55	149	22	192	263	308	240	486	78	9	456	107
13 Date Ave and	77	142	92	129	90	161	230	595	120	93	569	128
14 Fremont Ave a	40	1611	299	250	941	28	33	153	16	184	176	286
15 Fremont Ave a	34	982	45	210	1122	896	746	1007	33	148	393	349
16 Palm Ave and	0	0	0	368	0	131	59	1042	0	0	704	114
17 Marengo Ave a	32	205	71	323	248	218	343	972	21	54	626	161
18 Atlantic Blvd	106	1211	153	47	1095	117	148	1092	148	203	656	67
19 Marengo Ave a	116	575	253	65	520	57	62	1063	342	82	628	66
20 Marengo Ave a	3	744	4	26	790	210	167	56	9	2	21	18
21 I-710 NB Ramp	652	0	1449	1	0	2	0	591	0	0	1286	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	601	813	913	1049	0
23 Fremont Ave a	95	885	278	189	945	76	143	193	241	234	202	302
24 Elm St and He	563	192	109	11	6	45	32	334	283	134	117	2
25 Fremont Ave a	0	816	155	0	0	0	4	102	378	52	0	87
26 Ross Ave and	33	1044	187	29	1165	46	12	36	7	60	45	46
27 Westmont Dr a	18	11	12	27	10	16	62	1829	151	9	1199	37

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
	LOS	Veh C	LOS	Veh C	
# 1 Fremont Ave and Mission Rd	F	xxxxxx 1.077	F	xxxxxx 1.165	+ 0.088 V/C
# 2 Fremont Ave and 1000 Fremont A	B	xxxxxx 0.690	C	xxxxxx 0.724	+ 0.034 V/C
# 3 Fremont Ave and Orange St	D	xxxxxx 0.872	E	xxxxxx 0.907	+ 0.035 V/C
# 4 Date Ave and Orange St	A	xxxxxx 0.463	A	xxxxxx 0.498	+ 0.036 V/C
# 5 Palm Ave and Orange St	B	11.1 0.474	B	11.5 0.504	+ 0.030 V/C
# 6 Chestnut St and Palm Ave	B	11.6 0.552	B	11.9 0.574	+ 0.022 V/C
# 7 Fremont Ave and Poplar Blvd	C	xxxxxx 0.765	C	xxxxxx 0.798	+ 0.033 V/C
# 8 Date Ave and Mission Rd	A	xxxxxx 0.530	B	xxxxxx 0.618	+ 0.089 V/C
# 9 Chestnut St and Date Ave	B	10.6 0.031	B	14.0 0.077	+ 3.402 D/V
# 10 Fremont Ave and Concord Ave	B	xxxxxx 0.652	B	xxxxxx 0.660	+ 0.008 V/C
# 11 Fremont Ave and Montezuma Ave	C	xxxxxx 0.740	C	xxxxxx 0.747	+ 0.007 V/C
# 12 Palm Ave and Commonwealth Ave	A	xxxxxx 0.573	B	xxxxxx 0.619	+ 0.046 V/C
# 13 Date Ave and Commonwealth Ave	B	xxxxxx 0.654	B	xxxxxx 0.667	+ 0.013 V/C
# 14 Fremont Ave and Commonwealth A	E	xxxxxx 0.949	E	xxxxxx 0.980	+ 0.031 V/C
# 15 Fremont Ave and Valley Blvd	E	xxxxxx 0.922	E	xxxxxx 0.966	+ 0.044 V/C
# 16 Palm Ave and Mission Rd	B	xxxxxx 0.643	B	xxxxxx 0.656	+ 0.013 V/C
# 17 Marengo Ave and Valley Blvd	D	xxxxxx 0.818	D	xxxxxx 0.840	+ 0.022 V/C
# 18 Atlantic Blvd and Mission Road	F	xxxxxx 1.010	F	xxxxxx 1.023	+ 0.013 V/C
# 19 Marengo Ave and Mission Road	E	xxxxxx 0.983	F	xxxxxx 1.024	+ 0.041 V/C
# 20 Marengo Ave and Front St	D	xxxxxx 0.850	D	xxxxxx 0.868	+ 0.018 V/C
# 21 I-710 NB Ramp and Valley Blvd	C	xxxxxx 0.712	C	xxxxxx 0.739	+ 0.027 V/C
# 22 I-710 SB Ramp and Valley Blvd	B	xxxxxx 0.698	C	xxxxxx 0.712	+ 0.014 V/C
# 23 Fremont Ave and Hellman Ave	D	xxxxxx 0.839	D	xxxxxx 0.878	+ 0.039 V/C
# 24 Elm St and Hellman Ave/Ramona	D	32.1 0.870	E	37.1 0.924	+ 0.054 V/C
# 25 Fremont Ave and Ramona Road/10	F	111.4 1.370	F	114.5 1.403	+ 0.032 V/C

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
	LOS Veh	C	LOS Veh	C	
# 26 Ross Ave and Fremont Ave	A xxxxx	0.544	A xxxxx	0.564	+ 0.020 V/C
# 27 Westmont Dr and Valley Blvd	B xxxxx	0.698	C xxxxx	0.720	+ 0.021 V/C

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Fremont Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.165

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Fremont Ave

Mission Rd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Ovl Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 2 1 0 1 1 0

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Volume Module:

Base Vol: 193 1390 192 50 1099 54 117 503 431 308 422 45

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 215 1551 214 56 1226 60 131 561 481 344 471 50

Added Vol: 0 60 89 8 32 15 22 16 0 51 8 3

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 215 1611 303 64 1258 75 153 577 481 395 479 53

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 215 1611 303 64 1258 75 153 577 481 395 479 53

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 215 1611 303 64 1258 75 153 577 481 395 479 53

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 215 1611 303 64 1258 75 153 577 481 395 479 53

OvlAdjVol: 50

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.68 0.32 1.00 2.00 1.00 1.00 2.00 2.00 1.00 1.80 0.20

Final Sat.: 1600 2693 507 1600 3200 1600 1600 3200 3200 1600 2880 320

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Capacity Analysis Module:

Vol/Sat: 0.13 0.60 0.60 0.04 0.39 0.05 0.10 0.18 0.15 0.25 0.17 0.17

OvlAdjV/S: 0.02

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.724

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 53 Level Of Service: C

Street Name: Fremont Ave 1000 Fremont Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0

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Volume Module:

Base Vol: 54 1457 43 7 1113 60 81 3 69 39 4 25

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 60 1626 48 8 1242 67 90 3 77 44 4 28

Added Vol: 0 56 29 18 41 0 0 0 0 14 0 9

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 60 1682 77 26 1283 67 90 3 77 58 4 37

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 60 1682 77 26 1283 67 90 3 77 58 4 37

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 60 1682 77 26 1283 67 90 3 77 58 4 37

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 60 1682 77 26 1283 67 90 3 77 58 4 37

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.04 0.96 1.00 0.11 0.89

Final Sat.: 1600 3200 1600 1600 3200 1600 1600 67 1533 1600 173 1427

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Capacity Analysis Module:

Vol/Sat: 0.04 0.53 0.05 0.02 0.40 0.04 0.06 0.05 0.05 0.04 0.03 0.03

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.907

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 104 Level Of Service: E

Street Name:	Fremont Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	0	1	0	1	0

Volume Module:	Fremont Ave NB			Fremont Ave SB			Orange St EB			Orange St WB		
Base Vol:	2	1400	175	102	951	2	9	5	5	243	2	289
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	2	1562	195	114	1061	2	10	6	6	271	2	322
Added Vol:	0	20	46	29	29	0	0	0	0	30	0	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	1582	241	143	1090	2	10	6	6	301	2	339
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1582	241	143	1090	2	10	6	6	301	2	339
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1582	241	143	1090	2	10	6	6	301	2	339
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	1582	241	143	1090	2	10	6	6	301	2	339

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Orange St EB			Orange St WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.64	0.36	1.00	1.00	0.01	0.99
Final Sat.:	1600	3200	1600	1600	3193	7	1029	571	1600	1600	10	1590

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Orange St EB			Orange St WB		
Vol/Sat:	0.00	0.49	0.15	0.09	0.34	0.34	0.01	0.01	0.00	0.19	0.21	0.21
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Date Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.498

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 33 Level Of Service: A

Street Name:	Date Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	0	1	0	0	1	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	PM Peak
Base Vol:	31	170	3	25	267	41
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	35	190	3	28	298	46
Added Vol:	9	31	0	0	36	4
PasserByVol:	0	0	0	0	0	0
Initial Fut:	44	221	3	28	334	50
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	44	221	3	28	334	50
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	44	221	3	28	334	50
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	44	221	3	28	334	50

Saturation Flow Module:
Sat/Lane:
Adjustment:
Lanes:
Final Sat.:

Capacity Analysis Module:
Vol/Sat:
Crit Moves:

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Palm Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.504
 Loss Time (sec): 0 Average Delay (sec/veh): 11.5
 Optimal Cycle: 0 Level Of Service: B

Street Name: Palm Ave Orange St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
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 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1
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Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
 Base Vol: 5 171 2 10 268 13 58 64 71 2 5 7
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Bse: 6 191 2 11 299 15 65 71 79 2 6 8
 Added Vol: 0 7 0 0 14 7 4 7 0 0 12 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 6 198 2 11 313 22 69 78 79 2 18 8
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 6 198 2 11 313 22 69 78 79 2 18 8
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 6 198 2 11 313 22 69 78 79 2 18 8
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 6 198 2 11 313 22 69 78 79 2 18 8
 -----|-----|-----|-----|

Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.03 0.97 1.00 0.03 0.97 1.00 0.47 0.53 1.00 0.11 0.89 1.00
 Final Sat.: 17 605 703 22 621 731 257 293 639 58 460 582
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: 0.33 0.33 0.00 0.50 0.50 0.03 0.27 0.27 0.12 0.04 0.04 0.01
 Crit Moves: **** **** **** ****
 Delay/Veh: 10.9 10.9 7.6 13.3 13.3 7.6 11.0 11.0 8.6 9.2 9.2 8.3
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 10.9 10.9 7.6 13.3 13.3 7.6 11.0 11.0 8.6 9.2 9.2 8.3
 LOS by Move: B B A B B A B B A A A A
 ApproachDel: 10.8 13.0 10.2 9.0
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 10.8 13.0 10.2 9.0
 LOS by Appr: B B B A
 AllWayAvgQ: 0.4 0.4 0.0 0.9 0.9 0.0 0.3 0.3 0.1 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.574

Loss Time (sec): 0 Average Delay (sec/veh): 11.9

Optimal Cycle: 0 Level Of Service: B

Street Name:	Chestnut St				Palm Ave					
Approach:	North Bound		South Bound		East Bound		West Bound			
Movement:	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign		Stop Sign		Stop Sign		Stop Sign			
Rights:	Include		Include		Include		Include			
Min. Green:	0	0	0	0	0	0	0	0	0	
Lanes:	0	1	0	0	1	0	1	0	0	1

Volume Module:	>> Count	Date:	17 Nov 2015	<< PM Peak
Base Vol:	5 146 9	14 338 8	7 7 79	6 1 7
Growth Adj:	1.12 1.12 1.12	1.12 1.12 1.12	1.12 1.12 1.12	1.12 1.12 1.12
Initial Bse:	6 163 10	16 377 9	8 8 88	7 1 8
Added Vol:	0 4 0	0 8 6	4 8 0	0 14 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	6 167 10	16 385 15	12 16 88	7 15 8
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	6 167 10	16 385 15	12 16 88	7 15 8
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	6 167 10	16 385 15	12 16 88	7 15 8
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
FinalVolume:	6 167 10	16 385 15	12 16 88	7 15 8

Saturation Flow Module:	
Adjustment:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.03 0.97 1.00 0.04 0.96 1.00 0.43 0.57 1.00 0.31 0.69 1.00
Final Sat.:	21 641 759 27 670 803 230 308 624 161 363 598

Capacity Analysis Module:	
Vol/Sat:	0.26 0.26 0.01 0.57 0.57 0.02 0.05 0.05 0.14 0.04 0.04 0.01
Crit Moves:	**** **** **** ****
Delay/Veh:	9.8 9.8 7.3 14.2 14.2 7.2 9.2 9.2 8.8 9.2 9.2 8.2
Delay Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	9.8 9.8 7.3 14.2 14.2 7.2 9.2 9.2 8.8 9.2 9.2 8.2
LOS by Move:	A A A B B A A A A A A A
ApproachDel:	9.6 14.0 8.9 8.9
Delay Adj:	1.00 1.00 1.00 1.00
ApprAdjDel:	9.6 14.0 8.9 8.9
LOS by Appr:	A B A A
AllWayAvgQ:	0.3 0.3 0.0 1.2 1.2 0.0 0.0 0.0 0.1 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.798

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 66 Level Of Service: C

Street Name:	Fremont Ave						Poplar Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	1	0

Volume Module:	Fremont Ave NB			Fremont Ave SB			Poplar Blvd EB			Poplar Blvd WB		
Base Vol:	152	1403	115	25	863	42	25	117	80	53	118	28
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	170	1565	128	28	963	47	28	131	89	59	132	31
Added Vol:	7	32	7	7	50	0	0	12	14	14	12	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	177	1597	135	35	1013	47	28	143	103	73	144	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	177	1597	135	35	1013	47	28	143	103	73	144	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	177	1597	135	35	1013	47	28	143	103	73	144	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	177	1597	135	35	1013	47	28	143	103	73	144	35

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Poplar Blvd EB			Poplar Blvd WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.84	0.16	1.00	1.91	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2950	250	1600	3058	142	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Poplar Blvd EB			Poplar Blvd WB		
Vol/Sat:	0.11	0.54	0.54	0.02	0.33	0.33	0.02	0.09	0.06	0.05	0.09	0.02
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Date Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.618

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 42 Level Of Service: B

Street Name:	Date Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	PM Peak
Base Vol:	0	0	0	195	0	159
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	218	0	177
Added Vol:	0	0	0	29	0	46
PasserByVol:	0	0	0	0	0	0
Initial Fut:	0	0	0	247	0	223
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	247	0	223
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	0	0	0	247	0	223
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	247	0	223

Saturation Flow Module:
Sat/Lane:
Adjustment:
Lanes:
Final Sat.:

Capacity Analysis Module:
Vol/Sat:
Crit Moves:

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: B[14.0]

Street Name:	Chestnut St						Date Ave													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R					
Control:	Uncontrolled						Uncontrolled						Stop Sign							
Rights:	Include						Include						Include							
Lanes:	1	0	1	0	1	1	0	1	0	1	0	0	1	0	0	0	1	0	0	1

Volume Module:	>> Count	Date:	17 Nov 2015	<< PM Peak								
Base Vol:	18	178	12	38	373	10	0	0	0	10	2	17
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	20	199	13	42	416	11	0	0	0	11	2	19
Added Vol:	65	33	4	0	32	12	7	8	38	7	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	85	232	17	42	448	23	7	8	38	18	15	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	85	232	17	42	448	23	7	8	38	18	15	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	85	232	17	42	448	23	7	8	38	18	15	19

Critical Gap Module:	Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3	

Capacity Module:	Cnflict Vol:	471	xxxx	xxxxx	249	xxxx	xxxxx	961	952	448	969	958	232
Potent Cap.:	1101	xxxx	xxxxx	1328	xxxx	xxxxx	238	261	615	235	259	813	
Move Cap.:	1101	xxxx	xxxxx	1328	xxxx	xxxxx	203	234	615	197	232	813	
Total Cap:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	383	395	xxxxx	332	364	xxxxx	
Volume/Cap:	0.08	xxxx	xxxxx	0.03	xxxx	xxxxx	0.02	0.02	0.06	0.05	0.04	0.02	

Level Of Service Module:	2Way95thQ:	0.3	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.1
Control Del:	8.5	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.5	
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	A	
Movement:	LT - LTR - RT				LT - LTR - RT				LT - LTR - RT				
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	528	xxxxx	346	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.3	xxxxx	0.3	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	12.6	xxxxx	16.5	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	B	*	C	*	*	
ApproachDel:	xxxxxxx			xxxxxxx			12.6			14.0			
ApproachLOS:	*			*			B			B			

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Fremont Ave and Concord Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.660

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 45 Level Of Service: B

Street Name: Fremont Ave

Concord Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 1 0 1 0 1 1 0 1 0 1 0 1 0

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Volume Module:

Base Vol: 51 1539 113 27 898 71 79 43 47 75 60 75

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 57 1717 126 30 1002 79 88 48 52 84 67 84

Added Vol: 0 37 0 0 58 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 57 1754 126 30 1060 79 88 48 52 84 67 84

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 57 1754 126 30 1060 79 88 48 52 84 67 84

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 57 1754 126 30 1060 79 88 48 52 84 67 84

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 57 1754 126 30 1060 79 88 48 52 84 67 84

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.80 0.20 1.00 1.86 0.14 1.00 1.00 1.00 1.00 0.44 0.56

Final Sat.: 1600 4478 322 1600 2977 223 1600 1600 1600 1600 711 889

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Capacity Analysis Module:

Vol/Sat: 0.04 0.39 0.39 0.02 0.36 0.36 0.06 0.03 0.03 0.05 0.09 0.09

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.747

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 83 Level Of Service: C

Street Name:	Fremont Ave						Montezuma Ave						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Permitted			Protected			Permitted			
Rights:	Include			Ignore			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	0	1	0	0	2	0	0	1	1	0	0

Volume Module:	Fremont Ave			Fremont Ave			Montezuma Ave			Montezuma Ave		
Base Vol:	687	443	86	24	41	259	399	167	611	33	69	19
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	766	494	96	27	46	289	445	186	682	37	77	21
Added Vol:	26	2	0	0	14	42	24	0	19	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	792	496	96	27	60	331	469	186	701	37	77	21
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	792	496	96	27	60	0	469	186	701	37	77	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	792	496	96	27	60	0	469	186	701	37	77	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	792	496	96	27	60	0	469	186	701	37	77	21

Saturation Flow Module:	Fremont Ave			Fremont Ave			Montezuma Ave			Montezuma Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.84	0.16	0.62	1.38	1.00	2.00	0.42	1.58	0.27	0.57	0.16
Final Sat.:	2880	1341	259	990	2210	1600	2880	672	2528	436	912	251

Capacity Analysis Module:	Fremont Ave			Fremont Ave			Montezuma Ave			Montezuma Ave		
Vol/Sat:	0.28	0.37	0.37	0.02	0.03	0.00	0.16	0.28	0.28	0.02	0.08	0.08
Crit Moves:	****						****					

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.619

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 42 Level Of Service: B

Street Name:	Palm Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

Volume Module:	Palm Ave			Palm Ave			Commonwealth Ave			Commonwealth Ave		
Base Vol:	49	124	20	172	217	244	190	416	70	8	385	96
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	55	138	22	192	242	272	212	464	78	9	430	107
Added Vol:	0	11	0	0	21	36	28	22	0	0	26	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	149	22	192	263	308	240	486	78	9	456	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	149	22	192	263	308	240	486	78	9	456	107
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	149	22	192	263	308	240	486	78	9	456	107
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	149	22	192	263	308	240	486	78	9	456	107

Saturation Flow Module:	Palm Ave			Palm Ave			Commonwealth Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.72	0.28	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2757	443	1600	3200	1600

Capacity Analysis Module:	Palm Ave			Palm Ave			Commonwealth Ave			Commonwealth Ave		
Vol/Sat:	0.03	0.09	0.01	0.12	0.16	0.19	0.15	0.18	0.18	0.01	0.14	0.07
Crit Moves:	****					****	****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.667

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 46 Level Of Service: B

Street Name:	Date Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	0	1	1

Volume Module:	Date Ave			Date Ave			Commonwealth Ave			Commonwealth Ave		
Base Vol:	63	127	57	116	81	144	206	514	97	51	487	115
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	70	142	64	129	90	161	230	573	108	57	543	128
Added Vol:	7	0	28	0	0	0	0	22	12	36	26	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	77	142	92	129	90	161	230	595	120	93	569	128
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	77	142	92	129	90	161	230	595	120	93	569	128
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	142	92	129	90	161	230	595	120	93	569	128
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	77	142	92	129	90	161	230	595	120	93	569	128

Saturation Flow Module:	Date Ave			Date Ave			Commonwealth Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.36	0.64	1.00	1.66	0.34	1.00	1.63	0.37
Final Sat.:	1600	1600	1600	1600	576	1024	1600	2662	538	1600	2611	589

Capacity Analysis Module:	Date Ave			Date Ave			Commonwealth Ave			Commonwealth Ave		
Vol/Sat:	0.05	0.09	0.06	0.08	0.16	0.16	0.14	0.22	0.22	0.06	0.22	0.22
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.980

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 167 Level Of Service: E

Street Name:	Fremont Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:	Fremont Ave			Fremont Ave			Commonwealth Ave			Commonwealth Ave		
Base Vol:	36	1421	259	199	799	25	30	137	14	157	158	238
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	40	1585	289	222	891	28	33	153	16	175	176	266
Added Vol:	0	26	10	28	50	0	0	0	0	9	0	20
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	1611	299	250	941	28	33	153	16	184	176	286
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	40	1611	299	250	941	28	33	153	16	184	176	286
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	1611	299	250	941	28	33	153	16	184	176	286
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	40	1611	299	250	941	28	33	153	16	184	176	286

Saturation Flow Module:	Fremont Ave			Fremont Ave			Commonwealth Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.94	0.06	1.00	0.91	0.09	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3108	92	1600	1452	148	1600	1600	1600

Capacity Analysis Module:	Fremont Ave			Fremont Ave			Commonwealth Ave			Commonwealth Ave		
Vol/Sat:	0.03	0.50	0.19	0.16	0.30	0.30	0.02	0.11	0.11	0.12	0.11	0.18
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Fremont Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.966

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 149 Level Of Service: E

Street Name: Fremont Ave Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 2 2 0 2 0 1 1 0 1 1 1

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Volume Module:

Base Vol: 28 803 33 186 961 774 616 899 25 125 349 308

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 31 896 37 208 1072 864 687 1003 28 139 389 344

Added Vol: 3 86 8 2 50 32 59 4 5 9 4 5

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 34 982 45 210 1122 896 746 1007 33 148 393 349

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 34 982 45 210 1122 896 746 1007 33 148 393 349

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 34 982 45 210 1122 896 746 1007 33 148 393 349

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 34 982 45 210 1122 896 746 1007 33 148 393 349

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.91 0.09 1.00 2.00 2.00 2.00 2.00 1.00 1.00 1.59 1.41

Final Sat.: 1600 3060 140 1600 3200 3200 2880 3200 1600 1600 2545 2255

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Capacity Analysis Module:

Vol/Sat: 0.02 0.32 0.32 0.13 0.35 0.28 0.26 0.31 0.02 0.09 0.15 0.15

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.656

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 45 Level Of Service: B

Street Name:	Palm Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	PM Peak
Base Vol:	0	0	0	330	0	110
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	368	0	123
Added Vol:	0	0	0	0	0	8
PasserByVol:	0	0	0	0	0	0
Initial Fut:	0	0	0	368	0	131
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	368	0	131
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	0	0	0	368	0	131
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	368	0	131

Saturation Flow Module:
Sat/Lane:
Adjustment:
Lanes:
Final Sat.:

Capacity Analysis Module:
Vol/Sat:
Crit Moves:

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.840

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 77 Level Of Service: D

Street Name: Marengo Ave Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 0 1 0 1 0 2 0 1 1 0 2 0 1

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Volume Module:

Base Vol: 17 159 64 285 201 195 307 869 8 48 557 136

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 19 177 71 318 224 218 343 970 9 54 621 152

Added Vol: 13 28 0 5 24 0 0 2 12 0 5 9

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 32 205 71 323 248 218 343 972 21 54 626 161

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 32 205 71 323 248 218 343 972 21 54 626 161

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 32 205 71 323 248 218 343 972 21 54 626 161

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 32 205 71 323 248 218 343 972 21 54 626 161

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.53 0.47 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 1600 1600 1600 853 747 1600 3200 1600 1600 3200 1600

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Capacity Analysis Module:

Vol/Sat: 0.02 0.13 0.04 0.20 0.29 0.29 0.21 0.30 0.01 0.03 0.20 0.10

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 1.023
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

Street Name:	Atlantic Blvd						Mission Road						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1	0

Volume Module:

Base Vol:	95	1061	137	42	951	101	131	965	133	182	563	60
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	106	1184	153	47	1061	113	146	1077	148	203	628	67
Added Vol:	0	27	0	0	34	4	2	15	0	0	28	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	106	1211	153	47	1095	117	148	1092	148	203	656	67
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	106	1211	153	47	1095	117	148	1092	148	203	656	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	106	1211	153	47	1095	117	148	1092	148	203	656	67
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	106	1211	153	47	1095	117	148	1092	148	203	656	67

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.78	0.22	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.81	0.19
Final Sat.:	1600	2841	359	1600	3200	1600	1600	3200	1600	1600	2904	296

Capacity Analysis Module:

Vol/Sat:	0.07	0.43	0.43	0.03	0.34	0.07	0.09	0.34	0.09	0.13	0.23	0.23
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 1.024

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Marengo Ave

Mission Rd

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

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Control: Permitted

Permitted

Permitted

Permitted

Rights: Include

Include

Include

Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 0 1 1 0 1 0 1 1 0

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Volume Module:

Base Vol: 73 515 225 58 466 46 53 939 283 70 538 59

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 81 575 251 65 520 51 59 1048 316 78 600 66

Added Vol: 35 0 2 0 0 6 3 15 26 4 28 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 116 575 253 65 520 57 62 1063 342 82 628 66

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 116 575 253 65 520 57 62 1063 342 82 628 66

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 116 575 253 65 520 57 62 1063 342 82 628 66

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 116 575 253 65 520 57 62 1063 342 82 628 66

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.90 0.10 1.00 1.51 0.49 1.00 1.81 0.19

Final Sat.: 1600 1600 1600 1600 1441 159 1600 2421 779 1600 2897 303

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Capacity Analysis Module:

Vol/Sat: 0.07 0.36 0.16 0.04 0.36 0.36 0.04 0.44 0.44 0.05 0.22 0.22

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #20 Marengo Ave and Front St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.868

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 86 Level Of Service: D

Street Name: Marengo Ave Front St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 0 1 0 1 0 0 1 0 0 1 0 0 0 1

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Volume Module:

Base Vol: 3 634 4 23 682 188 150 50 8 2 19 16

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 3 707 4 26 761 210 167 56 9 2 21 18

Added Vol: 0 37 0 0 29 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 3 744 4 26 790 210 167 56 9 2 21 18

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 3 744 4 26 790 210 167 56 9 2 21 18

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 3 744 4 26 790 210 167 56 9 2 21 18

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 3 744 4 26 790 210 167 56 9 2 21 18

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 0.99 0.01 1.00 0.79 0.21 0.75 0.25 1.00 0.10 0.90 1.00

Final Sat.: 1600 1590 10 1600 1264 336 1200 400 1600 152 1448 1600

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Capacity Analysis Module:

Vol/Sat: 0.00 0.47 0.47 0.02 0.62 0.62 0.10 0.14 0.01 0.00 0.01 0.01

Crit Moves: **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #21 I-710 NB Ramp and Valley Blvd

Cycle (sec): 120 Critical Vol./Cap.(X): 0.739

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 58 Level Of Service: C

Street Name:	I-710 NB Ramp						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	0	0	2	0

Volume Module:	I-710 NB Ramp			I-710 SB Ramp			Valley Blvd East			Valley Blvd West		
Base Vol:	584	0	1238	1	0	2	0	530	0	0	1118	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	652	0	1381	1	0	2	0	591	0	0	1247	0
Added Vol:	0	0	68	0	0	0	0	0	0	0	39	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	652	0	1449	1	0	2	0	591	0	0	1286	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	652	0	1449	1	0	2	0	591	0	0	1286	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	652	0	1449	1	0	2	0	591	0	0	1286	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	652	0	1449	1	0	2	0	591	0	0	1286	0

Saturation Flow Module:	I-710 NB Ramp			I-710 SB Ramp			Valley Blvd East			Valley Blvd West		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	2.00	0.33	0.00	0.67	0.00	2.00	0.00	0.00	4.00	0.00
Final Sat.:	1600	0	3200	533	0	1067	0	3200	0	0	6400	0

Capacity Analysis Module:	I-710 NB Ramp			I-710 SB Ramp			Valley Blvd East			Valley Blvd West		
Vol/Sat:	0.41	0.00	0.45	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.20	0.00
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.712

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 51 Level Of Service: C

Street Name: I-710 SB Ramp Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 0 0 0 1 1 1 2 0 2 0 0

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Volume Module:

Base Vol: 0 0 0 0 0 0 0 0 539 729 783 940 0

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 0 0 0 0 0 0 0 0 601 813 874 1049 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 39 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 0 0 0 0 0 601 813 913 1049 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 0 0 0 0 0 601 813 913 1049 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 0 0 0 0 0 601 813 913 1049 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 0 0 0 0 0 0 0 601 813 913 1049 0

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00

Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.28 1.72 2.00 2.00 0.00

Final Sat.: 0 0 0 0 0 0 0 0 2040 2760 2880 3200 0

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Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.29 0.29 0.32 0.33 0.00

Crit Moves: **** *

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.878

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 90 Level Of Service: D

Street Name: Fremont Ave

Hellman Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 1 0 1 0 1

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Volume Module:

Base Vol: 85 740 242 147 813 68 128 173 216 206 181 237

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 95 826 270 164 907 76 143 193 241 230 202 264

Added Vol: 0 59 8 25 38 0 0 0 0 4 0 38

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 95 885 278 189 945 76 143 193 241 234 202 302

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 95 885 278 189 945 76 143 193 241 234 202 302

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 95 885 278 189 945 76 143 193 241 234 202 302

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 95 885 278 189 945 76 143 193 241 234 202 302

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.52 0.48 1.00 1.85 0.15 1.00 1.00 1.00 1.00 1.00 1.00

Final Sat.: 1600 2435 765 1600 2962 238 1600 1600 1600 1600 1600 1600

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Capacity Analysis Module:

Vol/Sat: 0.06 0.36 0.36 0.12 0.32 0.32 0.09 0.12 0.15 0.15 0.13 0.19

Crit Moves: **** **** **** ****

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.924
 Loss Time (sec): 0 Average Delay (sec/veh): 37.1
 Optimal Cycle: 0 Level Of Service: E

Street Name:	Elm St						Hellman Ave/Ramona Rd/ 10 WB ramp											
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
Control:	Stop Sign						Stop Sign						Stop Sign					
Rights:	Include						Include						Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	1	0	0	0	0	1	0	0	1	0	1	0	0	1		

Volume Module:PM Peak

Base Vol:	467	172	98	10	5	40	29	299	223	120	105	2
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	521	192	109	11	6	45	32	334	249	134	117	2
Added Vol:	42	0	0	0	0	0	0	0	34	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	563	192	109	11	6	45	32	334	283	134	117	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	563	192	109	11	6	45	32	334	283	134	117	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	563	192	109	11	6	45	32	334	283	134	117	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	563	192	109	11	6	45	32	334	283	134	117	2

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.31	0.44	0.25	0.67	0.33	1.00	0.09	0.91	1.00	0.53	0.47	1.00
Final Sat.:	1076	-260	118	256	128	432	42	431	522	224	196	465

Capacity Analysis Module:

Vol/Sat:	0.52-0.74	0.92	0.04	0.04	0.10	0.77	0.77	0.54	0.60	0.60	0.00	
Crit Moves:	***			***			***			***		
Delay/Veh:	52.1	51.8	51.8	12.1	12.1	11.5	31.3	31.3	17.1	22.3	22.3	10.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.1	51.8	51.8	12.1	12.1	11.5	31.3	31.3	17.1	22.3	22.3	10.2
LOS by Move:	F	F	F	B	B	B	D	D	C	C	C	B
ApproachDel:	52.2			11.7			25.1			22.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	52.2			11.7			25.1			22.2		
LOS by Appr:	F			B			D			C		
AllWayAvgQ:	5.4	5.4	5.4	0.0	0.0	0.1	2.8	2.8	1.1	1.3	1.3	0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 1.403
 Loss Time (sec): 0 Average Delay (sec/veh): 114.5
 Optimal Cycle: 0 Level Of Service: F

Street Name:	Fremont Ave					Ramona Road/10 EB ramp							
Approach:	North Bound		South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign					Stop Sign			Stop Sign			Stop Sign	
Rights:	Include					Include			Include			Include	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Lanes:	0	0	1	0	1	0	0	0	0	0	1	0	0

Volume Module:PM Peak

Base Vol:	0	731	116	0	0	0	4	91	289	47	0	78
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	816	129	0	0	0	4	102	322	52	0	87
Added Vol:	0	0	26	0	0	0	0	0	56	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	816	155	0	0	0	4	102	378	52	0	87
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	816	155	0	0	0	4	102	378	52	0	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	816	155	0	0	0	4	102	378	52	0	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	816	155	0	0	0	4	102	378	52	0	87

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	0.00	0.00	0.04	0.96	1.00	0.38	0.00	0.62
Final Sat.:	0	581	645	0	0	0	22	504	589	196	0	325

Capacity Analysis Module:

Vol/Sat:	xxxx	1.40	0.24	xxxx	xxxx	xxxx	0.20	0.20	0.64	0.27	xxxx	0.27
Crit Moves:	****			****			****			****		
Delay/Veh:	0.0	210	9.9	0.0	0.0	0.0	11.2	11.2	18.9	12.3	0.0	12.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	210	9.9	0.0	0.0	0.0	11.2	11.2	18.9	12.3	0.0	12.3
LOS by Move:	*	F	A	*	*	*	B	B	C	B	*	B
ApproachDel:	177.6			xxxxxx			17.2			12.3		
Delay Adj:	1.00			xxxxxx			1.00			1.00		
ApprAdjDel:	177.6			xxxxxx			17.2			12.3		
LOS by Appr:	F			*			C			B		
AllWayAvgQ:	0.0	32.4	0.3	0.0	0.0	0.0	0.2	0.2	1.7	0.4	0.4	0.4

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.564

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 37 Level Of Service: A

Street Name: Fremont Ave Ross Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Permitted Permitted Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1

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Volume Module:

Base Vol: 30 849 168 26 988 41 11 32 6 54 40 41

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 33 947 187 29 1102 46 12 36 7 60 45 46

Added Vol: 0 97 0 0 63 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 33 1044 187 29 1165 46 12 36 7 60 45 46

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 33 1044 187 29 1165 46 12 36 7 60 45 46

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 33 1044 187 29 1165 46 12 36 7 60 45 46

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 33 1044 187 29 1165 46 12 36 7 60 45 46

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.70 0.30 1.00 1.92 0.08 1.00 0.84 0.16 1.00 1.00 1.00

Final Sat.: 1600 2713 487 1600 3079 121 1600 1347 253 1600 1600 1600

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Capacity Analysis Module:

Vol/Sat: 0.02 0.38 0.38 0.02 0.38 0.38 0.01 0.03 0.03 0.04 0.03 0.03

Crit Moves: **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Westmont Dr and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.720

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 53 Level Of Service: C

Street Name:	Westmont Dr						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1! 0	1	0	2 0	1	1	0 2 0

Volume Module:	Westmont Dr			Westmont Dr			Valley Blvd			Valley Blvd		
Base Vol:	16	10	11	24	9	14	56	1578	135	8	1040	33
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	18	11	12	27	10	16	62	1761	151	9	1160	37
Added Vol:	0	0	0	0	0	0	0	68	0	0	39	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	11	12	27	10	16	62	1829	151	9	1199	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	11	12	27	10	16	62	1829	151	9	1199	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	11	12	27	10	16	62	1829	151	9	1199	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	11	12	27	10	16	62	1829	151	9	1199	37

Saturation Flow Module:	Westmont Dr			Westmont Dr			Valley Blvd			Valley Blvd		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.43	0.27	0.30	0.51	0.19	0.30	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	692	432	476	817	306	477	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:	Westmont Dr			Westmont Dr			Valley Blvd			Valley Blvd		
Vol/Sat:	0.01	0.03	0.03	0.02	0.03	0.03	0.04	0.57	0.09	0.01	0.37	0.02
Crit Moves:	****			****			****			****		

Scenario Report

Scenario:	2024 Cum + Proj AM - Mitigated
Command:	2024 Cum + Proj AM - Mitigated
Volume:	2024 AM
Geometry:	Mitigated
Impact Fee:	Default Impact Fee
Trip Generation:	2024 Cum + Project AM
Trip Distribution:	Cum + Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Turning Movement Report
Cum AM + Project 2024 AM

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Fremont Ave and Mission Rd													
Base	237	1446	217	13	1397	47	66	359	509	382	837	46	5557
Added	0	5	21	0	42	24	17	1	0	57	9	0	176
Total	237	1451	238	13	1439	71	83	360	509	439	846	46	5733
#2 Fremont Ave and 1000 Fremont Ave													
Base	51	1389	125	4	1384	39	25	5	58	4	1	6	3093
Added	0	22	0	0	66	0	0	0	0	0	0	0	88
Total	51	1411	125	4	1450	39	25	5	58	4	1	6	3181
#3 Fremont Ave and Orange St													
Base	2	1205	238	150	1415	2	1	1	0	58	0	57	3129
Added	0	16	6	4	15	0	0	0	0	50	0	29	120
Total	2	1221	244	154	1430	2	1	1	0	108	0	86	3249
#4 Date Ave and Orange St													
Base	51	95	5	6	179	71	19	34	45	8	26	3	544
Added	1	46	0	0	32	1	5	16	8	0	2	0	111
Total	52	141	5	6	211	72	24	50	53	8	28	3	655
#5 Palm Ave and Orange St													
Base	5	63	2	5	206	31	8	19	14	2	5	2	363
Added	0	5	0	0	1	1	5	11	0	0	1	0	24
Total	5	68	2	5	207	32	13	30	14	2	6	2	387
#6 Chestnut St and Palm Ave													
Base	15	96	2	13	175	12	1	1	8	1	3	8	334
Added	0	0	0	0	0	1	5	11	0	0	1	0	18
Total	15	96	2	13	175	13	6	12	8	1	4	8	352
#7 Fremont Ave and Poplar Blvd													
Base	96	1111	54	18	1503	16	20	111	70	57	114	19	3189
Added	9	44	9	1	26	0	0	9	1	1	7	4	111
Total	105	1155	63	19	1529	16	20	120	71	58	121	23	3300
#8 Date Ave and Mission Rd													
Base	0	0	0	24	0	84	88	463	0	0	1296	168	2123
Added	0	0	0	50	0	66	22	0	0	0	0	20	158
Total	0	0	0	74	0	150	110	463	0	0	1296	188	2281
#9 Chestnut St and Date Ave													
Base	81	154	9	13	145	57	0	0	0	2	3	2	466
Added	10	33	0	0	39	2	14	16	76	0	2	0	192
Total	91	187	9	13	184	59	14	16	76	2	5	2	658
#10 Fremont Ave and Concord Ave													
Base	60	1166	40	4	1479	63	43	13	73	24	15	11	2991
Added	0	45	0	0	19	0	0	0	0	0	0	0	64
Total	60	1211	40	4	1498	63	43	13	73	24	15	11	3055

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#11 Fremont Ave and Montezuma Ave													
Base	732	277	43	4	86	641	434	56	656	54	100	11	3093
Added	26	4	0	0	4	10	27	0	15	0	0	0	86
Total	758	281	43	4	90	651	461	56	671	54	100	11	3179
#12 Palm Ave and Commonwealth Ave													
Base	19	34	4	42	231	270	64	227	30	14	278	41	1254
Added	0	10	0	0	1	41	48	38	0	0	40	0	178
Total	19	44	4	42	232	311	112	265	30	14	318	41	1432
#13 Date Ave and Commonwealth Ave													
Base	26	43	17	50	71	76	73	256	101	127	350	72	1261
Added	10	0	48	0	0	0	0	38	1	41	40	0	178
Total	36	43	65	50	71	76	73	294	102	168	390	72	1439
#14 Fremont Ave and Commonwealth Ave													
Base	42	1081	99	183	1399	66	29	144	17	116	166	115	3456
Added	0	29	16	25	4	0	0	0	0	15	0	33	122
Total	42	1110	115	208	1403	66	29	144	17	131	166	148	3578
#15 Fremont Ave and Valley Blvd													
Base	44	981	28	79	863	1365	565	433	30	60	777	198	5424
Added	5	22	4	0	62	36	5	2	1	7	3	0	147
Total	49	1003	32	79	925	1401	570	435	31	67	780	198	5571
#16 Palm Ave and Mission Rd													
Base	0	0	0	55	0	133	35	452	0	0	1377	90	2142
Added	0	0	0	0	0	0	0	50	0	0	20	0	70
Total	0	0	0	55	0	133	35	502	0	0	1397	90	2212
#17 Marengo Ave and Valley Blvd													
Base	24	125	77	239	175	147	178	449	25	66	1025	202	2732
Added	10	26	0	9	25	0	0	0	7	0	0	1	78
Total	34	151	77	248	200	147	178	449	32	66	1025	203	2810
#18 Atlantic Blvd and Mission Road													
Base	165	1139	123	43	1011	264	94	553	72	188	1025	35	4712
Added	0	31	0	0	23	1	3	17	0	0	2	0	77
Total	165	1170	123	43	1034	265	97	570	72	188	1027	35	4789
#19 Marengo Ave and Mission Road													
Base	91	410	168	46	540	71	47	376	91	292	1255	79	3467
Added	24	0	3	0	0	1	4	17	33	1	2	0	85
Total	115	410	171	46	540	72	51	393	124	293	1257	79	3552
#20 Marengo Ave and Front St													
Base	2	545	3	11	529	384	87	12	8	2	80	36	1698
Added	0	28	0	0	34	0	0	0	0	0	0	0	62
Total	2	573	3	11	563	384	87	12	8	2	80	36	1760

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#21 I-710 NB Ramp and Valley Blvd													
Base	646	1	734	4	0	1	0	222	0	0	2333	6	3949
Added	0	0	8	0	0	0	0	0	0	0	45	0	53
Total	646	1	742	4	0	1	0	222	0	0	2378	6	4002
#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	229	697	1708	1287	0	3921
Added	0	0	0	0	0	0	0	0	0	45	0	0	45
Total	0	0	0	0	0	0	0	229	697	1753	1287	0	3966
#23 Fremont Ave and Hellman Ave													
Base	152	1001	336	136	757	118	116	119	164	180	244	227	3551
Added	0	22	14	29	41	0	0	0	0	1	0	9	116
Total	152	1023	350	165	798	118	116	119	164	181	244	236	3667
#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	384	59	23	84	15	214	55	175	351	427	65	14	1864
Added	10	0	0	0	0	0	0	0	43	0	0	0	53
Total	394	59	23	84	15	214	55	175	394	427	65	14	1917
#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	670	51	0	0	0	2	26	626	122	0	16	1514
Added	0	0	31	0	0	0	0	0	13	0	0	0	44
Total	0	670	82	0	0	0	2	26	639	122	0	16	1558
#26 Ross Ave and Fremont Ave													
Base	28	1080	227	45	930	36	28	53	5	185	190	18	2825
Added	0	31	0	0	71	0	0	0	0	0	0	0	102
Total	28	1111	227	45	1001	36	28	53	5	185	190	18	2927
#27 Westmont Dr and Valley Blvd													
Base	55	15	8	4	6	40	18	1036	15	3	2183	32	3415
Added	0	0	0	0	0	0	0	8	0	0	45	0	53
Total	55	15	8	4	6	40	18	1044	15	3	2228	32	3468
#135													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	22	0	0	66	0	88
Total	0	0	0	0	0	0	0	22	0	0	66	0	88

Intersection Volume Report
Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	237	1446	217	13	1397	47	66	359	509	382	837	46
2 Fremont Ave a	51	1389	125	4	1384	39	25	5	58	4	1	6
3 Fremont Ave a	2	1205	238	150	1415	2	1	1	0	58	0	57
4 Date Ave and	51	95	5	6	179	71	19	34	45	8	26	3
5 Palm Ave and	5	63	2	5	206	31	8	19	14	2	5	2
6 Chestnut St a	15	96	2	13	175	12	1	1	8	1	3	8
7 Fremont Ave a	96	1111	54	18	1503	16	20	111	70	57	114	19
8 Date Ave and	0	0	0	24	0	84	88	463	0	0	1296	168
9 Chestnut St a	81	154	9	13	145	57	0	0	0	2	3	2
10 Fremont Ave a	60	1166	40	4	1479	63	43	13	73	24	15	11
11 Fremont Ave a	732	277	43	4	86	641	434	56	656	54	100	11
12 Palm Ave and	19	34	4	42	231	270	64	227	30	14	278	41
13 Date Ave and	26	43	17	50	71	76	73	256	101	127	350	72
14 Fremont Ave a	42	1081	99	183	1399	66	29	144	17	116	166	115
15 Fremont Ave a	44	981	28	79	863	1365	565	433	30	60	777	198
16 Palm Ave and	0	0	0	55	0	133	35	452	0	0	1377	90
17 Marengo Ave a	24	125	77	239	175	147	178	449	25	66	1025	202
18 Atlantic Blvd	165	1139	123	43	1011	264	94	553	72	188	1025	35
19 Marengo Ave a	91	410	168	46	540	71	47	376	91	292	1255	79
20 Marengo Ave a	2	545	3	11	529	384	87	12	8	2	80	36
21 I-710 NB Ramp	646	1	734	4	0	1	0	222	0	0	2333	6
22 I-710 SB Ramp	0	0	0	0	0	0	0	229	697	1708	1287	0
23 Fremont Ave a	152	1001	336	136	757	118	116	119	164	180	244	227
24 Elm St and He	384	59	23	84	15	214	55	175	351	427	65	14
25 Fremont Ave a	0	670	51	0	0	0	2	26	626	122	0	16
26 Ross Ave and	28	1080	227	45	930	36	28	53	5	185	190	18
27 Westmont Dr a	55	15	8	4	6	40	18	1036	15	3	2183	32

Intersection Volume Report
Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	237	1451	238	13	1439	71	83	360	509	439	846	46
2 Fremont Ave a	51	1411	125	4	1450	39	25	5	58	4	1	6
3 Fremont Ave a	2	1221	244	154	1430	2	1	1	0	108	0	86
4 Date Ave and	52	141	5	6	211	72	24	50	53	8	28	3
5 Palm Ave and	5	68	2	5	207	32	13	30	14	2	6	2
6 Chestnut St a	15	96	2	13	175	13	6	12	8	1	4	8
7 Fremont Ave a	105	1155	63	19	1529	16	20	120	71	58	121	23
8 Date Ave and	0	0	0	74	0	150	110	463	0	0	1296	188
9 Chestnut St a	91	187	9	13	184	59	14	16	76	2	5	2
10 Fremont Ave a	60	1211	40	4	1498	63	43	13	73	24	15	11
11 Fremont Ave a	758	281	43	4	90	651	461	56	671	54	100	11
12 Palm Ave and	19	44	4	42	232	311	112	265	30	14	318	41
13 Date Ave and	36	43	65	50	71	76	73	294	102	168	390	72
14 Fremont Ave a	42	1110	115	208	1403	66	29	144	17	131	166	148
15 Fremont Ave a	49	1003	32	79	925	1401	570	435	31	67	780	198
16 Palm Ave and	0	0	0	55	0	133	35	502	0	0	1397	90
17 Marengo Ave a	34	151	77	248	200	147	178	449	32	66	1025	203
18 Atlantic Blvd	165	1170	123	43	1034	265	97	570	72	188	1027	35
19 Marengo Ave a	115	410	171	46	540	72	51	393	124	293	1257	79
20 Marengo Ave a	2	573	3	11	563	384	87	12	8	2	80	36
21 I-710 NB Ramp	646	1	742	4	0	1	0	222	0	0	2378	6
22 I-710 SB Ramp	0	0	0	0	0	0	0	229	697	1753	1287	0
23 Fremont Ave a	152	1023	350	165	798	118	116	119	164	181	244	236
24 Elm St and He	394	59	23	84	15	214	55	175	394	427	65	14
25 Fremont Ave a	0	670	82	0	0	0	2	26	639	122	0	16
26 Ross Ave and	28	1111	227	45	1001	36	28	53	5	185	190	18
27 Westmont Dr a	55	15	8	4	6	40	18	1044	15	3	2228	32

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Fremont Ave and Mission Rd	F	xxxxxx 1.035	F	xxxxxx 1.084	+ 0.049 V/C
# 2 Fremont Ave and 1000 Fremont A	B	xxxxxx 0.607	B	xxxxxx 0.628	+ 0.021 V/C
# 3 Fremont Ave and Orange St	B	xxxxxx 0.608	B	xxxxxx 0.640	+ 0.032 V/C
# 4 Date Ave and Orange St	A	xxxxxx 0.277	A	xxxxxx 0.316	+ 0.039 V/C
# 5 Palm Ave and Orange St	A	8.6 0.278	A	8.7 0.283	+ 0.005 V/C
# 6 Chestnut St and Palm Ave	A	8.5 0.244	A	8.5 0.247	+ 0.003 V/C
# 7 Fremont Ave and Poplar Blvd	C	xxxxxx 0.740	C	xxxxxx 0.760	+ 0.020 V/C
# 8 Date Ave and Mission Rd	B	xxxxxx 0.665	C	xxxxxx 0.726	+ 0.061 V/C
# 9 Chestnut St and Date Ave	B	10.8 0.059	B	11.8 0.088	+ 1.046 D/V
# 10 Fremont Ave and Concord Ave	B	xxxxxx 0.680	B	xxxxxx 0.686	+ 0.006 V/C
# 11 Fremont Ave and Montezuma Ave	B	xxxxxx 0.636	B	xxxxxx 0.655	+ 0.020 V/C
# 12 Palm Ave and Commonwealth Ave	A	xxxxxx 0.408	A	xxxxxx 0.476	+ 0.068 V/C
# 13 Date Ave and Commonwealth Ave	A	xxxxxx 0.399	A	xxxxxx 0.443	+ 0.044 V/C
# 14 Fremont Ave and Commonwealth A	C	xxxxxx 0.757	C	xxxxxx 0.768	+ 0.011 V/C
# 15 Fremont Ave and Valley Blvd	E	xxxxxx 0.993	F	xxxxxx 1.010	+ 0.017 V/C
# 16 Palm Ave and Mission Rd	B	xxxxxx 0.664	B	xxxxxx 0.670	+ 0.006 V/C
# 17 Marengo Ave and Valley Blvd	C	xxxxxx 0.759	C	xxxxxx 0.781	+ 0.022 V/C
# 18 Atlantic Blvd and Mission Road	E	xxxxxx 0.909	E	xxxxxx 0.924	+ 0.014 V/C
# 19 Marengo Ave and Mission Road	E	xxxxxx 0.985	F	xxxxxx 1.004	+ 0.019 V/C
# 20 Marengo Ave and Front St	C	xxxxxx 0.777	C	xxxxxx 0.799	+ 0.021 V/C
# 21 I-710 NB Ramp and Valley Blvd	C	xxxxxx 0.740	C	xxxxxx 0.749	+ 0.009 V/C
# 22 I-710 SB Ramp and Valley Blvd	E	xxxxxx 0.911	E	xxxxxx 0.926	+ 0.016 V/C
# 23 Fremont Ave and Hellman Ave	D	xxxxxx 0.828	D	xxxxxx 0.857	+ 0.029 V/C
# 24 Elm St and Hellman Ave/Ramona	F	52.4 1.191	F	55.8 1.208	+ 0.017 V/C
# 25 Fremont Ave and Ramona Road/10	F	95.0 1.234	F	96.6 1.234	+ 0.000 V/C

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
	LOS Veh	C	LOS Veh	C	
# 26 Ross Ave and Fremont Ave	B xxxxx	0.689	B xxxxx	0.698	+ 0.010 V/C
# 27 Westmont Dr and Valley Blvd	D xxxxx	0.859	D xxxxx	0.873	+ 0.014 V/C

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Fremont Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.084

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Fremont Ave

Mission Rd

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

Control: Protected

Protected

Protected

Protected

Rights: Include

Include

Ovl

Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 2 1 0 1 1 0

Volume Module:

Base Vol: 221 1349 202 12 1303 44 62 335 475 356 781 43

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 237 1446 217 13 1397 47 66 359 509 382 837 46

Added Vol: 0 5 21 0 42 24 17 1 0 57 9 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 237 1451 238 13 1439 71 83 360 509 439 846 46

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 237 1451 238 13 1439 71 83 360 509 439 846 46

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 237 1451 238 13 1439 71 83 360 509 439 846 46

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 237 1451 238 13 1439 71 83 360 509 439 846 46

OvlAdjVol: 35

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.72 0.28 1.00 2.00 1.00 1.00 2.00 2.00 1.00 1.90 0.10

Final Sat.: 1600 2750 450 1600 3200 1600 1600 3200 3200 1600 3035 165

Capacity Analysis Module:

Vol/Sat: 0.15 0.53 0.53 0.01 0.45 0.04 0.05 0.11 0.16 0.27 0.28 0.28

OvlAdjV/S: 0.01

Crit Moves: ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.628

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 42 Level Of Service: B

Street Name: Fremont Ave 1000 Fremont Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 0 1 0 1 0 0 1 0

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Volume Module:

Base Vol: 48 1296 117 4 1291 36 23 5 54 4 1 6

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 51 1389 125 4 1384 39 25 5 58 4 1 6

Added Vol: 0 22 0 0 66 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 51 1411 125 4 1450 39 25 5 58 4 1 6

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 51 1411 125 4 1450 39 25 5 58 4 1 6

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 51 1411 125 4 1450 39 25 5 58 4 1 6

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 51 1411 125 4 1450 39 25 5 58 4 1 6

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 0.08 0.92 1.00 0.14 0.86

Final Sat.: 1600 3200 1600 1600 3200 1600 1600 136 1464 1600 229 1371

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Capacity Analysis Module:

Vol/Sat: 0.03 0.44 0.08 0.00 0.45 0.02 0.02 0.04 0.04 0.00 0.00 0.00

Crit Moves: **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.640

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 43 Level Of Service: B

Street Name:	Fremont Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	0	1	0	1	0

Volume Module:	Fremont Ave NB			Fremont Ave SB			Orange St EB			Orange St WB		
Base Vol:	2	1124	222	140	1320	2	1	1	0	54	0	53
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	2	1205	238	150	1415	2	1	1	0	58	0	57
Added Vol:	0	16	6	4	15	0	0	0	0	50	0	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	1221	244	154	1430	2	1	1	0	108	0	86
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1221	244	154	1430	2	1	1	0	108	0	86
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1221	244	154	1430	2	1	1	0	108	0	86
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	1221	244	154	1430	2	1	1	0	108	0	86

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Orange St EB			Orange St WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.50	0.50	1.00	1.11	0.00	0.89
Final Sat.:	1600	3200	1600	1600	3195	5	800	800	1600	1782	0	1418

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Orange St EB			Orange St WB		
Vol/Sat:	0.00	0.38	0.15	0.10	0.45	0.45	0.00	0.00	0.00	0.06	0.00	0.06
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Date Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.316

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 26 Level Of Service: A

Street Name: Date Ave Orange St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 1 0 1 0 1 0 0 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module: >> Count Date: 17 Nov 2015 << AM Peak

Base Vol: 48 89 5 6 167 66 18 32 42 7 24 3

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 51 95 5 6 179 71 19 34 45 8 26 3

Added Vol: 1 46 0 0 32 1 5 16 8 0 2 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 52 141 5 6 211 72 24 50 53 8 28 3

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 52 141 5 6 211 72 24 50 53 8 28 3

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 52 141 5 6 211 72 24 50 53 8 28 3

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 52 141 5 6 211 72 24 50 53 8 28 3

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 0.33 0.67 1.00 0.21 0.79 1.00

Final Sat.: 1600 1600 1600 1600 1600 1600 521 1079 1600 341 1259 1600

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Capacity Analysis Module:

Vol/Sat: 0.03 0.09 0.00 0.00 0.13 0.04 0.02 0.05 0.03 0.00 0.02 0.00

Crit Moves: **** **** ****

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #5 Palm Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.283
 Loss Time (sec): 0 Average Delay (sec/veh): 8.7
 Optimal Cycle: 0 Level Of Service: A

Street Name:	Palm Ave				Orange St				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Stop Sign		Stop Sign		Stop Sign		Stop Sign		
Rights:	Include		Include		Include		Include		
Min. Green:	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	0	1	0

Volume Module:	>> Count	Date:	17 Nov 2015	<< AM Peak
Base Vol:	5 59 2	5 192 29	7 18 13	2 5 2
Growth Adj:	1.07 1.07 1.07	1.07 1.07 1.07	1.07 1.07 1.07	1.07 1.07 1.07
Initial Bse:	5 63 2	5 206 31	8 19 14	2 5 2
Added Vol:	0 5 0	0 1 1	5 11 0	0 1 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	5 68 2	5 207 32	13 30 14	2 6 2
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	5 68 2	5 207 32	13 30 14	2 6 2
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	5 68 2	5 207 32	13 30 14	2 6 2
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
FinalVolume:	5 68 2	5 207 32	13 30 14	2 6 2

Saturation Flow Module:	
Adjustment:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.07 0.93 1.00 0.03 0.97 1.00 0.29 0.71 1.00 0.25 0.75 1.00
Final Sat.:	53 671 849 19 731 879 186 450 746 159 470 734

Capacity Analysis Module:	
Vol/Sat:	0.10 0.10 0.00 0.28 0.28 0.04 0.07 0.07 0.02 0.01 0.01 0.00
Crit Moves:	**** **** **** ****
Delay/Veh:	8.1 8.1 6.9 9.3 9.3 6.9 8.5 8.5 7.3 8.2 8.2 7.3
Delay Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	8.1 8.1 6.9 9.3 9.3 6.9 8.5 8.5 7.3 8.2 8.2 7.3
LOS by Move:	A A A A A A A A A A A A
ApproachDel:	8.1 9.0 8.2 8.0
Delay Adj:	1.00 1.00 1.00 1.00
ApprAdjDel:	8.1 9.0 8.2 8.0
LOS by Appr:	A A A A
AllWayAvgQ:	0.1 0.1 0.0 0.4 0.4 0.0 0.1 0.1 0.0 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.247
 Loss Time (sec): 0 Average Delay (sec/veh): 8.5
 Optimal Cycle: 0 Level Of Service: A

Street Name:	Chestnut St				Palm Ave			
Approach:	North Bound		South Bound		East Bound		West Bound	
Movement:	L	T	R	L	T	R	L	T
Control:	Stop Sign		Stop Sign		Stop Sign		Stop Sign	
Rights:	Include		Include		Include		Include	
Min. Green:	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	0	1

Volume Module:	>> Count	Date:	17 Nov 2015	<< AM Peak
Base Vol:	14 90 2	12 163 11	1 1 7	1 3 7
Growth Adj:	1.07 1.07 1.07	1.07 1.07 1.07	1.07 1.07 1.07	1.07 1.07 1.07
Initial Bse:	15 96 2	13 175 12	1 1 8	1 3 8
Added Vol:	0 0 0	0 0 1	5 11 0	0 1 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	15 96 2	13 175 13	6 12 8	1 4 8
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	15 96 2	13 175 13	6 12 8	1 4 8
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	15 96 2	13 175 13	6 12 8	1 4 8
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
FinalVolume:	15 96 2	13 175 13	6 12 8	1 4 8

Saturation Flow Module:
Adjustment:
Lanes:
Final Sat.:

Capacity Analysis Module:
Vol/Sat:
Crit Moves:
Delay/Veh:
Delay Adj:
AdjDel/Veh:
LOS by Move:
ApproachDel:
Delay Adj:
ApprAdjDel:
LOS by Appr:
AllWayAvgQ:

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.760

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 59 Level Of Service: C

Street Name:	Fremont Ave						Poplar Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:	Fremont Ave			Fremont Ave			Poplar Blvd			Poplar Blvd		
Base Vol:	90	1036	50	17	1402	15	19	104	65	53	106	18
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	96	1111	54	18	1503	16	20	111	70	57	114	19
Added Vol:	9	44	9	1	26	0	0	9	1	1	7	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	105	1155	63	19	1529	16	20	120	71	58	121	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	105	1155	63	19	1529	16	20	120	71	58	121	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	1155	63	19	1529	16	20	120	71	58	121	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	105	1155	63	19	1529	16	20	120	71	58	121	23

Saturation Flow Module:	Fremont Ave			Fremont Ave			Poplar Blvd			Poplar Blvd		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.90	0.10	1.00	1.98	0.02	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	3035	165	1600	3167	33	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:	Fremont Ave			Fremont Ave			Poplar Blvd			Poplar Blvd		
Vol/Sat:	0.07	0.38	0.38	0.01	0.48	0.48	0.01	0.08	0.04	0.04	0.08	0.01
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Date Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.726

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 53 Level Of Service: C

Street Name:	Date Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	AM Peak
Base Vol:	0	0	0	22	0	78
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	0	0	24	0	84
Added Vol:	0	0	0	50	0	66
PasserByVol:	0	0	0	0	0	0
Initial Fut:	0	0	0	74	0	150
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	74	0	150
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	0	0	0	74	0	150
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	74	0	150

Saturation Flow Module:	Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.75	0.25
Final Sat.:	0	0	0	1600	0	1600	1600	3200	0	0	2794	406

Capacity Analysis Module:	Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.09	0.07	0.14	0.00	0.00	0.46	0.46
Crit Moves:							****	****				****	

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: B[11.8]

Street Name:	Chestnut St						Date Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	0	1	0	1	0	0	0	1	0

Volume Module:	>> Count	Date:	17 Nov 2015	<< AM Peak
Base Vol:	76	144	8	12
Growth Adj:	1.07	1.07	1.07	1.07
Initial Bse:	81	154	9	13
Added Vol:	10	33	0	0
PasserByVol:	0	0	0	0
Initial Fut:	91	187	9	13
User Adj:	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00
PHF Volume:	91	187	9	13
Reduct Vol:	0	0	0	0
FinalVolume:	91	187	9	13

Critical Gap Module:	Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3	

Capacity Module:	Cnflict Vol:	243	xxxx	xxxxx	196	xxxx	xxxxx	588	588	184	655	639	187
Potent Cap.:	1336	xxxx	xxxxx	1389	xxxx	xxxxx	424	424	864	382	397	860	
Move Cap.:	1336	xxxx	xxxxx	1389	xxxx	xxxxx	393	391	864	318	366	860	
Total Cap:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	529	510	xxxxx	465	487	xxxxx	
Volume/Cap:	0.07	xxxx	xxxxx	0.01	xxxx	xxxxx	0.03	0.03	0.09	0.00	0.01	0.00	

Level Of Service Module:	2Way95thQ:	0.2	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0
Control Del:	7.9	xxxx	xxxxx	7.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxxx	xxxx	9.2	
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	A	
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	727	xxxxx	480	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxxx	xxxx	xxxxx	xxxxxx	0.5	xxxxx	0.0	xxxx	xxxxx	
Shrd ConDel:	xxxxxx	xxxx	xxxxx	xxxxxx	xxxx	xxxxx	xxxxxx	10.8	xxxxxx	12.6	xxxx	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	B	*	B	*	*	
ApproachDel:	xxxxxxx	xxxxxxx	xxxxxxx	10.8	11.8								
ApproachLOS:	*	*	*	B	B								

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Fremont Ave and Concord Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.686

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 48 Level Of Service: B

Street Name:	Fremont Ave						Concord Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	1	0	1	0	1	0

Volume Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Base Vol:	56	1088	37	4	1380	59	40	12	68	22	14	10
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	60	1166	40	4	1479	63	43	13	73	24	15	11
Added Vol:	0	45	0	0	19	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	1211	40	4	1498	63	43	13	73	24	15	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	1211	40	4	1498	63	43	13	73	24	15	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	1211	40	4	1498	63	43	13	73	24	15	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60	1211	40	4	1498	63	43	13	73	24	15	11

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.90	0.10	1.00	1.92	0.08	1.00	1.00	1.00	1.00	0.58	0.42
Final Sat.:	1600	4648	152	1600	3070	130	1600	1600	1600	1600	933	667

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Vol/Sat:	0.04	0.26	0.26	0.00	0.49	0.49	0.03	0.01	0.05	0.01	0.02	0.02
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.655

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 45 Level Of Service: B

Street Name:	Fremont Ave						Montezuma Ave						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Permitted			Protected			Permitted			
Rights:	Include			Ignore			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	0	1	0	0	2	0	0	1	1	0	0

Volume Module:	Fremont Ave			Fremont Ave			Montezuma Ave			Montezuma Ave		
Base Vol:	683	258	40	4	80	598	405	52	612	50	93	10
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	732	277	43	4	86	641	434	56	656	54	100	11
Added Vol:	26	4	0	0	4	10	27	0	15	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	758	281	43	4	90	651	461	56	671	54	100	11
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	758	281	43	4	90	0	461	56	671	54	100	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	758	281	43	4	90	0	461	56	671	54	100	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	758	281	43	4	90	0	461	56	671	54	100	11

Saturation Flow Module:	Fremont Ave			Fremont Ave			Montezuma Ave			Montezuma Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.87	0.13	0.09	1.91	1.00	2.00	0.15	1.85	0.33	0.61	0.06
Final Sat.:	2880	1388	212	146	3054	1600	2880	245	2955	523	973	105

Capacity Analysis Module:	Fremont Ave			Fremont Ave			Montezuma Ave			Montezuma Ave		
Vol/Sat:	0.26	0.20	0.20	0.00	0.03	0.00	0.16	0.23	0.23	0.03	0.10	0.10
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.476

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 32 Level Of Service: A

Street Name:	Palm Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	2

Volume Module:	Palm Ave			Palm Ave			Commonwealth Ave			Commonwealth Ave		
Base Vol:	18	32	4	39	215	252	60	212	28	13	259	38
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	19	34	4	42	231	270	64	227	30	14	278	41
Added Vol:	0	10	0	0	1	41	48	38	0	0	40	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	44	4	42	232	311	112	265	30	14	318	41
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	44	4	42	232	311	112	265	30	14	318	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	44	4	42	232	311	112	265	30	14	318	41
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	19	44	4	42	232	311	112	265	30	14	318	41

Saturation Flow Module:	Palm Ave			Palm Ave			Commonwealth Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.80	0.20	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2875	325	1600	3200	1600

Capacity Analysis Module:	Palm Ave			Palm Ave			Commonwealth Ave			Commonwealth Ave		
Vol/Sat:	0.01	0.03	0.00	0.03	0.14	0.19	0.07	0.09	0.09	0.01	0.10	0.03
Crit Moves:	****				****	****				****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.443

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 30 Level Of Service: A

Street Name:	Date Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	0	1	1

Volume Module:	Date Ave			Date Ave			Commonwealth Ave			Commonwealth Ave		
Base Vol:	24	40	16	47	66	71	68	239	94	118	326	67
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	26	43	17	50	71	76	73	256	101	127	350	72
Added Vol:	10	0	48	0	0	0	0	38	1	41	40	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	43	65	50	71	76	73	294	102	168	390	72
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	43	65	50	71	76	73	294	102	168	390	72
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	43	65	50	71	76	73	294	102	168	390	72
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	43	65	50	71	76	73	294	102	168	390	72

Saturation Flow Module:	Date Ave			Date Ave			Commonwealth Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.48	0.52	1.00	1.49	0.51	1.00	1.69	0.31
Final Sat.:	1600	1600	1600	1600	771	829	1600	2378	822	1600	2702	498

Capacity Analysis Module:	Date Ave			Date Ave			Commonwealth Ave			Commonwealth Ave		
Vol/Sat:	0.02	0.03	0.04	0.03	0.09	0.09	0.05	0.12	0.12	0.10	0.14	0.14
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.768

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 60 Level Of Service: C

Street Name:	Fremont Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:	Fremont Ave			Fremont Ave			Commonwealth Ave			Commonwealth Ave		
Base Vol:	39	1008	92	171	1305	62	27	134	16	108	155	107
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	42	1081	99	183	1399	66	29	144	17	116	166	115
Added Vol:	0	29	16	25	4	0	0	0	0	15	0	33
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	42	1110	115	208	1403	66	29	144	17	131	166	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	42	1110	115	208	1403	66	29	144	17	131	166	148
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	1110	115	208	1403	66	29	144	17	131	166	148
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	42	1110	115	208	1403	66	29	144	17	131	166	148

Saturation Flow Module:	Fremont Ave			Fremont Ave			Commonwealth Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.91	0.09	1.00	0.89	0.11	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3055	145	1600	1429	171	1600	1600	1600

Capacity Analysis Module:	Fremont Ave			Fremont Ave			Commonwealth Ave			Commonwealth Ave		
Vol/Sat:	0.03	0.35	0.07	0.13	0.46	0.46	0.02	0.10	0.10	0.08	0.10	0.09
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Fremont Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.010

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name:	Fremont Ave						Valley Blvd						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	2	0	2	2	0	2	0	1

Volume Module:	Fremont Ave			Fremont Ave			Valley Blvd			Valley Blvd		
Base Vol:	41	915	26	74	805	1273	527	404	28	56	725	185
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	44	981	28	79	863	1365	565	433	30	60	777	198
Added Vol:	5	22	4	0	62	36	5	2	1	7	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	1003	32	79	925	1401	570	435	31	67	780	198
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	49	1003	32	79	925	1401	570	435	31	67	780	198
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	1003	32	79	925	1401	570	435	31	67	780	198
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	1003	32	79	925	1401	570	435	31	67	780	198

Saturation Flow Module:	Fremont Ave			Fremont Ave			Valley Blvd			Valley Blvd		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.94	0.06	1.00	2.00	2.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3101	99	1600	3200	3200	2880	3200	1600	1600	3200	1600

Capacity Analysis Module:	Fremont Ave			Fremont Ave			Valley Blvd			Valley Blvd		
Vol/Sat:	0.03	0.32	0.32	0.05	0.29	0.44	0.20	0.14	0.02	0.04	0.24	0.12
Crit Moves:	****					****	****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.670
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 46 Level Of Service: B

Street Name:	Palm Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	AM Peak
Base Vol:	0	0	0	51	0	124
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	0	0	55	0	133
Added Vol:	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	0	0	0	55	0	133
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	55	0	133
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	0	0	0	55	0	133
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	55	0	133

Saturation Flow Module:	Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.88	0.12
Final Sat.:	0	0	0	1600	0	1600	1600	3200	0	0	3006	194

Capacity Analysis Module:	Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.08	0.02	0.16	0.00	0.00	0.46	0.46
Crit Moves:							****	****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.781

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 63 Level Of Service: C

Street Name:	Marengo Ave						Valley Blvd						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	0	1	0	1	0	1	0	2	0	1

Volume Module:	Marengo Ave			Marengo Ave			Valley Blvd			Valley Blvd		
Base Vol:	22	117	72	223	163	137	166	419	23	62	956	188
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	24	125	77	239	175	147	178	449	25	66	1025	202
Added Vol:	10	26	0	9	25	0	0	0	7	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	151	77	248	200	147	178	449	32	66	1025	203
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	34	151	77	248	200	147	178	449	32	66	1025	203
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	151	77	248	200	147	178	449	32	66	1025	203
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	34	151	77	248	200	147	178	449	32	66	1025	203

Saturation Flow Module:	Marengo Ave			Marengo Ave			Valley Blvd			Valley Blvd		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.58	0.42	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	922	678	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:	Marengo Ave			Marengo Ave			Valley Blvd			Valley Blvd		
Vol/Sat:	0.02	0.09	0.05	0.16	0.22	0.22	0.11	0.14	0.02	0.04	0.32	0.13
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.924

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 113 Level Of Service: E

Street Name:	Atlantic Blvd						Mission Road						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1	0

Volume Module:	Atlantic Blvd			Atlantic Blvd			Mission Road			Mission Road		
Base Vol:	154	1062	115	40	943	246	88	516	67	175	956	33
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	165	1139	123	43	1011	264	94	553	72	188	1025	35
Added Vol:	0	31	0	0	23	1	3	17	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	165	1170	123	43	1034	265	97	570	72	188	1027	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	165	1170	123	43	1034	265	97	570	72	188	1027	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	165	1170	123	43	1034	265	97	570	72	188	1027	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	165	1170	123	43	1034	265	97	570	72	188	1027	35

Saturation Flow Module:	Atlantic Blvd			Atlantic Blvd			Mission Road			Mission Road		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.81	0.19	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	1600	2895	305	1600	3200	1600	1600	3200	1600	1600	3093	107

Capacity Analysis Module:	Atlantic Blvd			Atlantic Blvd			Mission Road			Mission Road		
Vol/Sat:	0.10	0.40	0.40	0.03	0.32	0.17	0.06	0.18	0.04	0.12	0.33	0.33
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 1.004

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Marengo Ave

Mission Rd

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

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Control: Permitted

Permitted

Permitted

Permitted

Rights: Include

Include

Include

Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 0 1 1 0 1 0

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Volume Module:

Base Vol: 85 382 157 43 504 66 44 351 85 272 1171 74

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 91 410 168 46 540 71 47 376 91 292 1255 79

Added Vol: 24 0 3 0 0 1 4 17 33 1 2 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 115 410 171 46 540 72 51 393 124 293 1257 79

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 115 410 171 46 540 72 51 393 124 293 1257 79

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 115 410 171 46 540 72 51 393 124 293 1257 79

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 115 410 171 46 540 72 51 393 124 293 1257 79

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.88 0.12 1.00 1.52 0.48 1.00 1.88 0.12

Final Sat.: 1600 1600 1600 1600 1412 188 1600 2432 768 1600 3010 190

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Capacity Analysis Module:

Vol/Sat: 0.07 0.26 0.11 0.03 0.38 0.38 0.03 0.16 0.16 0.18 0.42 0.42

Crit Moves: ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #20 Marengo Ave and Front St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.799

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 66 Level Of Service: C

Street Name: Marengo Ave Front St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 0 1 0 1 0 0 1 0 0 1 0 0 0 1

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Volume Module:

Base Vol: 2 508 3 10 493 358 81 11 7 2 75 34

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 2 545 3 11 529 384 87 12 8 2 80 36

Added Vol: 0 28 0 0 34 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 2 573 3 11 563 384 87 12 8 2 80 36

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 2 573 3 11 563 384 87 12 8 2 80 36

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 2 573 3 11 563 384 87 12 8 2 80 36

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 2 573 3 11 563 384 87 12 8 2 80 36

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 0.99 0.01 1.00 0.59 0.41 0.88 0.12 1.00 0.03 0.97 1.00

Final Sat.: 1600 1591 9 1600 951 649 1409 191 1600 42 1558 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.36 0.36 0.01 0.59 0.59 0.05 0.06 0.00 0.00 0.05 0.02

Crit Moves: ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #21 I-710 NB Ramp and Valley Blvd

Cycle (sec): 120 Critical Vol./Cap.(X): 0.749

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 60 Level Of Service: C

Street Name: I-710 NB Ramp Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Split Phase Split Phase Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1! 0 1 0 0 1! 0 0 0 0 2 0 0 0 0 3 1 0

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Volume Module:

Base Vol: 603 1 685 4 0 1 0 207 0 0 2176 6

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 646 1 734 4 0 1 0 222 0 0 2333 6

Added Vol: 0 0 8 0 0 0 0 0 0 0 45 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 646 1 742 4 0 1 0 222 0 0 2378 6

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 646 1 742 4 0 1 0 222 0 0 2378 6

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 646 1 742 4 0 1 0 222 0 0 2378 6

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 646 1 742 4 0 1 0 222 0 0 2378 6

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.39 0.01 1.60 0.80 0.00 0.20 0.00 2.00 0.00 0.00 3.99 0.01

Final Sat.: 2233 4 2564 1280 0 320 0 3200 0 0 6383 17

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Capacity Analysis Module:

Vol/Sat: 0.29 0.29 0.29 0.00 0.00 0.00 0.00 0.07 0.00 0.00 0.37 0.37

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.926

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 115 Level Of Service: E

Street Name: I-710 SB Ramp Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 0 0 0 1 1 1 2 0 2 0 0

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Volume Module:

Base Vol: 0 0 0 0 0 0 0 0 214 650 1593 1200 0

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 0 0 0 0 0 0 0 0 229 697 1708 1287 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 45 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 0 0 0 0 0 229 697 1753 1287 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 0 0 0 0 0 229 697 1753 1287 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 0 0 0 0 0 229 697 1753 1287 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 0 0 0 0 0 0 0 229 697 1753 1287 0

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00

Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.00 2.00 2.00 2.00 0.00

Final Sat.: 0 0 0 0 0 0 0 0 1600 3200 2880 3200 0

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Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.14 0.22 0.61 0.40 0.00

Crit Moves: **** *

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.857

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 82 Level Of Service: D

Street Name: Fremont Ave

Hellman Ave

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

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Control: Protected

Protected

Protected

Protected

Rights: Include

Include

Include

Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 1

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Volume Module:

Base Vol: 142 934 313 127 706 110 108 111 153 168 228 212

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 152 1001 336 136 757 118 116 119 164 180 244 227

Added Vol: 0 22 14 29 41 0 0 0 0 1 0 9

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 152 1023 350 165 798 118 116 119 164 181 244 236

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 152 1023 350 165 798 118 116 119 164 181 244 236

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 152 1023 350 165 798 118 116 119 164 181 244 236

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 152 1023 350 165 798 118 116 119 164 181 244 236

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.49 0.51 1.00 1.74 0.26 1.00 1.00 1.00 1.00 1.00 1.00

Final Sat.: 1600 2385 815 1600 2788 412 1600 1600 1600 1600 1600 1600

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Capacity Analysis Module:

Vol/Sat: 0.10 0.43 0.43 0.10 0.29 0.29 0.07 0.07 0.10 0.11 0.15 0.15

Crit Moves: **** **** **** ****

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.208
 Loss Time (sec): 0 Average Delay (sec/veh): 55.8
 Optimal Cycle: 0 Level Of Service: F

Street Name:	Elm St						Hellman Ave/Ramona Rd/ 10 WB ramp											
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
Control:	Stop Sign						Stop Sign						Stop Sign					
Rights:	Include						Include						Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	1	0	0	0	0	1	0	0	1	0	1	0	0	1		

Volume Module:AM Peak

Base Vol:	358	55	21	78	14	200	51	163	327	398	61	13
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	384	59	23	84	15	214	55	175	351	427	65	14
Added Vol:	10	0	0	0	0	0	0	0	43	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	394	59	23	84	15	214	55	175	394	427	65	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	394	59	23	84	15	214	55	175	394	427	65	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	394	59	23	84	15	214	55	175	394	427	65	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	394	59	23	84	15	214	55	175	394	427	65	14

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.66	0.25	0.09	0.85	0.15	1.00	0.24	0.76	1.00	0.87	0.13	1.00
Final Sat.:	1034	-289	36	320	58	429	101	323	470	353	54	455

Capacity Analysis Module:

Vol/Sat:	0.38-0.20	0.62	0.26	0.26	0.50	0.54	0.54	0.84	1.21	1.21	0.03	
Crit Moves:	****				****			****	****			
Delay/Veh:	25.1	25.6	25.6	15.3	15.3	18.6	20.5	20.5	37.9	142.0	142	10.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.1	25.6	25.6	15.3	15.3	18.6	20.5	20.5	37.9	142.0	142	10.6
LOS by Move:	D	D	D	C	C	C	C	C	E	F	F	B
ApproachDel:	24.9				17.5	31.5				138.3		
Delay Adj:	1.00				1.00	1.00				1.00		
ApprAdjDel:	24.9				17.5	31.5				138.3		
LOS by Appr:	C				C	D				F		
AllWayAvgQ:	1.5	1.5	1.5	0.3	0.3	0.9	1.1	1.1	3.6	14.8	14.8	0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 1.234

Loss Time (sec): 0 Average Delay (sec/veh): 96.6

Optimal Cycle: 0 Level Of Service: F

Street Name: Fremont Ave Ramona Road/10 EB ramp

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 0 1 0 1 0 0 0 0 0 0 0

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Volume Module:AM Peak

Base Vol: 0 625 48 0 0 0 2 24 584 114 0 15

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 0 670 51 0 0 0 2 26 626 122 0 16

Added Vol: 0 0 31 0 0 0 0 0 13 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 670 82 0 0 0 2 26 639 122 0 16

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 670 82 0 0 0 2 26 639 122 0 16

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 670 82 0 0 0 2 26 639 122 0 16

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 670 82 0 0 0 2 26 639 122 0 16

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 1.00 1.00 0.00 0.00 0.00 0.08 0.92 1.00 0.88 0.00 0.12

Final Sat.: 0 543 606 0 0 0 41 489 596 421 0 55

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Capacity Analysis Module:

Vol/Sat: xxxx 1.23 0.14 xxxx xxxx xxxx 0.05 0.05 1.07 0.29 xxxx 0.29

Crit Moves: **** **** ****

Delay/Veh: 0.0 142 9.6 0.0 0.0 0.0 9.9 9.9 81.7 13.6 0.0 13.6

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 0.0 142 9.6 0.0 0.0 0.0 9.9 9.9 81.7 13.6 0.0 13.6

LOS by Move: * F A * * * A A F B * B

ApproachDel: 127.7 xxxxxx 78.7 13.6

Delay Adj: 1.00 xxxxxx 1.00 1.00

ApprAdjDel: 127.7 xxxxxx 78.7 13.6

LOS by Appr: F * F B

AllWayAvgQ: 0.0 20.1 0.2 0.0 0.0 0.0 0.1 0.1 12.1 0.4 0.4 0.4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.698

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 50 Level Of Service: B

Street Name:	Fremont Ave						Ross Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	0	1	0	1

Volume Module:	Fremont Ave NB			Fremont Ave SB			Ross Ave EB			Ross Ave WB		
Base Vol:	26	1007	212	42	867	34	26	49	5	173	177	17
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	28	1080	227	45	930	36	28	53	5	185	190	18
Added Vol:	0	31	0	0	71	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	1111	227	45	1001	36	28	53	5	185	190	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	28	1111	227	45	1001	36	28	53	5	185	190	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	1111	227	45	1001	36	28	53	5	185	190	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	28	1111	227	45	1001	36	28	53	5	185	190	18

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Ross Ave EB			Ross Ave WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.66	0.34	1.00	1.93	0.07	1.00	0.91	0.09	1.00	1.00	1.00
Final Sat.:	1600	2656	544	1600	3088	112	1600	1452	148	1600	1600	1600

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Ross Ave EB			Ross Ave WB		
Vol/Sat:	0.02	0.42	0.42	0.03	0.32	0.32	0.02	0.04	0.04	0.12	0.12	0.01
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Westmont Dr and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.873

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 88 Level Of Service: D

Street Name:	Westmont Dr						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0 0	0	0	1! 0 0	1	0	2 0 1	1	0	2 0 1

Volume Module:	Westmont Dr			Westmont Dr			Valley Blvd			Valley Blvd		
Base Vol:	51	14	7	4	6	37	17	966	14	3	2036	30
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	55	15	8	4	6	40	18	1036	15	3	2183	32
Added Vol:	0	0	0	0	0	0	0	8	0	0	45	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	15	8	4	6	40	18	1044	15	3	2228	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	15	8	4	6	40	18	1044	15	3	2228	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	15	8	4	6	40	18	1044	15	3	2228	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	15	8	4	6	40	18	1044	15	3	2228	32

Saturation Flow Module:	Westmont Dr			Westmont Dr			Valley Blvd			Valley Blvd		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.71	0.19	0.10	0.08	0.13	0.79	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1133	311	156	136	204	1260	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:	Westmont Dr			Westmont Dr			Valley Blvd			Valley Blvd		
Vol/Sat:	0.03	0.05	0.05	0.00	0.03	0.03	0.01	0.33	0.01	0.00	0.70	0.02
Crit Moves:	****			****			****			****		

Scenario Report

Scenario:	2024 Cum + Proj PM - Mitigated
Command:	2024 Cum + Proj PM - Mitigated
Volume:	2024 PM
Geometry:	Mitigated
Impact Fee:	Default Impact Fee
Trip Generation:	2024 Cum + Project PM
Trip Distribution:	Cum + Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Turning Movement Report
Cum PM + Project 2024 PM

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Fremont Ave and Mission Rd													
Base	207	1490	206	54	1178	58	125	539	462	330	452	48	5150
Added	0	36	46	0	21	13	18	7	0	29	4	0	174
Total	207	1526	252	54	1199	71	143	546	462	359	456	48	5324
#2 Fremont Ave and 1000 Fremont Ave													
Base	58	1562	46	8	1193	64	87	3	74	42	4	27	3168
Added	0	53	0	0	34	0	0	0	0	0	0	0	87
Total	58	1615	46	8	1227	64	87	3	74	42	4	27	3255
#3 Fremont Ave and Orange St													
Base	2	1501	188	109	1020	2	10	5	5	261	2	310	3415
Added	0	10	43	25	9	0	0	0	0	25	0	14	126
Total	2	1511	231	134	1029	2	10	5	5	286	2	324	3541
#4 Date Ave and Orange St													
Base	33	182	3	27	286	44	72	165	166	1	21	6	1008
Added	7	28	0	0	30	4	2	8	4	0	13	0	96
Total	40	210	3	27	316	48	74	173	170	1	34	6	1104
#5 Palm Ave and Orange St													
Base	5	183	2	11	287	14	62	69	76	2	5	8	725
Added	0	2	0	0	4	4	2	5	0	0	9	0	26
Total	5	185	2	11	291	18	64	74	76	2	14	8	751
#6 Chestnut St and Palm Ave													
Base	5	157	10	15	362	9	8	8	85	6	1	8	672
Added	0	0	0	0	0	4	2	5	0	0	9	0	20
Total	5	157	10	15	362	13	10	13	85	6	10	8	692
#7 Fremont Ave and Poplar Blvd													
Base	163	1504	123	27	925	45	27	125	86	57	127	30	3239
Added	4	24	4	7	34	0	0	12	7	7	12	4	115
Total	167	1528	127	34	959	45	27	137	93	64	139	34	3354
#8 Date Ave and Mission Rd													
Base	0	0	0	209	0	170	90	789	0	0	604	119	1981
Added	0	0	0	26	0	34	53	0	0	0	0	39	152
Total	0	0	0	235	0	204	143	789	0	0	604	158	2133
#9 Chestnut St and Date Ave													
Base	19	191	13	41	400	11	0	0	0	11	2	18	705
Added	65	27	0	0	21	12	7	8	38	0	13	0	191
Total	84	218	13	41	421	23	7	8	38	11	15	18	896
#10 Fremont Ave and Concord Ave													
Base	55	1650	121	29	963	76	85	46	50	80	64	80	3300
Added	0	25	0	0	33	0	0	0	0	0	0	0	58
Total	55	1675	121	29	996	76	85	46	50	80	64	80	3358

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#11 Fremont Ave and Montezuma Ave													
Base	737	475	92	26	44	278	428	179	655	35	74	20	3043
Added	21	2	0	0	14	25	16	0	16	0	0	0	94
Total	758	477	92	26	58	303	444	179	671	35	74	20	3137
#12 Palm Ave and Commonwealth Ave													
Base	53	133	21	184	233	262	204	446	75	9	413	103	2135
Added	0	5	0	0	8	34	27	22	0	0	26	0	122
Total	53	138	21	184	241	296	231	468	75	9	439	103	2257
#13 Date Ave and Commonwealth Ave													
Base	68	136	61	124	87	154	221	551	104	55	522	123	2206
Added	5	0	27	0	0	0	0	22	8	34	26	0	122
Total	73	136	88	124	87	154	221	573	112	89	548	123	2328
#14 Fremont Ave and Commonwealth Ave													
Base	39	1523	278	213	857	27	32	147	15	168	169	255	3723
Added	0	14	10	24	25	0	0	0	0	9	0	18	100
Total	39	1537	288	237	882	27	32	147	15	177	169	273	3823
#15 Fremont Ave and Valley Blvd													
Base	30	861	35	199	1030	830	660	964	27	134	374	330	5475
Added	3	50	8	0	32	18	31	4	5	9	4	0	164
Total	33	911	43	199	1062	848	691	968	32	143	378	330	5639
#16 Palm Ave and Mission Rd													
Base	0	0	0	354	0	118	53	963	0	0	611	109	2207
Added	0	0	0	0	0	0	0	26	0	0	39	0	65
Total	0	0	0	354	0	118	53	989	0	0	650	109	2272
#17 Marengo Ave and Valley Blvd													
Base	18	170	69	306	215	209	329	932	9	51	597	146	3051
Added	13	25	0	4	23	0	0	0	12	0	0	7	84
Total	31	195	69	310	238	209	329	932	21	51	597	153	3135
#18 Atlantic Blvd and Mission Road													
Base	102	1137	147	45	1020	108	140	1035	143	195	604	64	4740
Added	0	27	0	0	34	4	2	8	0	0	15	0	90
Total	102	1164	147	45	1054	112	142	1043	143	195	619	64	4830
#19 Marengo Ave and Mission Road													
Base	78	552	241	62	500	49	57	1007	303	75	577	63	3565
Added	30	0	2	0	0	4	2	8	23	4	15	0	88
Total	108	552	243	62	500	53	59	1015	326	79	592	63	3653
#20 Marengo Ave and Front St													
Base	3	680	4	25	731	202	161	54	9	2	20	17	1907
Added	0	32	0	0	27	0	0	0	0	0	0	0	59
Total	3	712	4	25	758	202	161	54	9	2	20	17	1966

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#21 I-710 NB Ramp and Valley Blvd													
Base	626	0	1327	1	0	2	0	568	0	0	1199	0	3723
Added	0	0	40	0	0	0	0	0	0	0	25	0	65
Total	626	0	1367	1	0	2	0	568	0	0	1224	0	3788
#22 I-710 SB Ramp and Valley Blvd													
Base	0	0	0	0	0	0	0	578	782	839	1008	0	3207
Added	0	0	0	0	0	0	0	0	0	25	0	0	25
Total	0	0	0	0	0	0	0	578	782	864	1008	0	3232
#23 Fremont Ave and Hellman Ave													
Base	91	793	259	158	872	73	137	185	232	221	194	254	3469
Added	0	38	8	17	28	0	0	0	0	4	0	24	119
Total	91	831	267	175	900	73	137	185	232	225	194	278	3588
#24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps													
Base	501	184	105	11	5	43	31	321	239	129	113	2	1683
Added	28	0	0	0	0	0	0	0	26	0	0	0	54
Total	529	184	105	11	5	43	31	321	265	129	113	2	1737
#25 Fremont Ave and Ramona Road/10 EB ramp													
Base	0	784	124	0	0	0	4	98	310	50	0	84	1454
Added	0	0	19	0	0	0	0	0	40	0	0	0	59
Total	0	784	143	0	0	0	4	98	350	50	0	84	1513
#26 Ross Ave and Fremont Ave													
Base	32	910	180	28	1059	44	12	34	6	58	43	44	2451
Added	0	62	0	0	46	0	0	0	0	0	0	0	108
Total	32	972	180	28	1105	44	12	34	6	58	43	44	2559
#27 Westmont Dr and Valley Blvd													
Base	17	11	12	26	10	15	60	1692	145	9	1115	35	3146
Added	0	0	0	0	0	0	0	40	0	0	25	0	65
Total	17	11	12	26	10	15	60	1732	145	9	1140	35	3211
#135													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	53	0	0	34	0	87
Total	0	0	0	0	0	0	0	53	0	0	34	0	87

Intersection Volume Report
Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	207	1490	206	54	1178	58	125	539	462	330	452	48
2 Fremont Ave a	58	1562	46	8	1193	64	87	3	74	42	4	27
3 Fremont Ave a	2	1501	188	109	1020	2	10	5	5	261	2	310
4 Date Ave and	33	182	3	27	286	44	72	165	166	1	21	6
5 Palm Ave and	5	183	2	11	287	14	62	69	76	2	5	8
6 Chestnut St a	5	157	10	15	362	9	8	8	85	6	1	8
7 Fremont Ave a	163	1504	123	27	925	45	27	125	86	57	127	30
8 Date Ave and	0	0	0	209	0	170	90	789	0	0	604	119
9 Chestnut St a	19	191	13	41	400	11	0	0	0	11	2	18
10 Fremont Ave a	55	1650	121	29	963	76	85	46	50	80	64	80
11 Fremont Ave a	737	475	92	26	44	278	428	179	655	35	74	20
12 Palm Ave and	53	133	21	184	233	262	204	446	75	9	413	103
13 Date Ave and	68	136	61	124	87	154	221	551	104	55	522	123
14 Fremont Ave a	39	1523	278	213	857	27	32	147	15	168	169	255
15 Fremont Ave a	30	861	35	199	1030	830	660	964	27	134	374	330
16 Palm Ave and	0	0	0	354	0	118	53	963	0	0	611	109
17 Marengo Ave a	18	170	69	306	215	209	329	932	9	51	597	146
18 Atlantic Blvd	102	1137	147	45	1020	108	140	1035	143	195	604	64
19 Marengo Ave a	78	552	241	62	500	49	57	1007	303	75	577	63
20 Marengo Ave a	3	680	4	25	731	202	161	54	9	2	20	17
21 I-710 NB Ramp	626	0	1327	1	0	2	0	568	0	0	1199	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	578	782	839	1008	0
23 Fremont Ave a	91	793	259	158	872	73	137	185	232	221	194	254
24 Elm St and He	501	184	105	11	5	43	31	321	239	129	113	2
25 Fremont Ave a	0	784	124	0	0	0	4	98	310	50	0	84
26 Ross Ave and	32	910	180	28	1059	44	12	34	6	58	43	44
27 Westmont Dr a	17	11	12	26	10	15	60	1692	145	9	1115	35

Intersection Volume Report
Future Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 Fremont Ave a	207	1526	252	54	1199	71	143	546	462	359	456	48
2 Fremont Ave a	58	1615	46	8	1227	64	87	3	74	42	4	27
3 Fremont Ave a	2	1511	231	134	1029	2	10	5	5	286	2	324
4 Date Ave and	40	210	3	27	316	48	74	173	170	1	34	6
5 Palm Ave and	5	185	2	11	291	18	64	74	76	2	14	8
6 Chestnut St a	5	157	10	15	362	13	10	13	85	6	10	8
7 Fremont Ave a	167	1528	127	34	959	45	27	137	93	64	139	34
8 Date Ave and	0	0	0	235	0	204	143	789	0	0	604	158
9 Chestnut St a	84	218	13	41	421	23	7	8	38	11	15	18
10 Fremont Ave a	55	1675	121	29	996	76	85	46	50	80	64	80
11 Fremont Ave a	758	477	92	26	58	303	444	179	671	35	74	20
12 Palm Ave and	53	138	21	184	241	296	231	468	75	9	439	103
13 Date Ave and	73	136	88	124	87	154	221	573	112	89	548	123
14 Fremont Ave a	39	1537	288	237	882	27	32	147	15	177	169	273
15 Fremont Ave a	33	911	43	199	1062	848	691	968	32	143	378	330
16 Palm Ave and	0	0	0	354	0	118	53	989	0	0	650	109
17 Marengo Ave a	31	195	69	310	238	209	329	932	21	51	597	153
18 Atlantic Blvd	102	1164	147	45	1054	112	142	1043	143	195	619	64
19 Marengo Ave a	108	552	243	62	500	53	59	1015	326	79	592	63
20 Marengo Ave a	3	712	4	25	758	202	161	54	9	2	20	17
21 I-710 NB Ramp	626	0	1367	1	0	2	0	568	0	0	1224	0
22 I-710 SB Ramp	0	0	0	0	0	0	0	578	782	864	1008	0
23 Fremont Ave a	91	831	267	175	900	73	137	185	232	225	194	278
24 Elm St and He	529	184	105	11	5	43	31	321	265	129	113	2
25 Fremont Ave a	0	784	143	0	0	0	4	98	350	50	0	84
26 Ross Ave and	32	972	180	28	1105	44	12	34	6	58	43	44
27 Westmont Dr a	17	11	12	26	10	15	60	1732	145	9	1140	35

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
	LOS	Veh C	LOS	Veh C	
# 1 Fremont Ave and Mission Rd	F	xxxxxx 1.038	F	xxxxxx 1.084	+ 0.046 V/C
# 2 Fremont Ave and 1000 Fremont A	B	xxxxxx 0.667	B	xxxxxx 0.684	+ 0.017 V/C
# 3 Fremont Ave and Orange St	D	xxxxxx 0.842	D	xxxxxx 0.869	+ 0.027 V/C
# 4 Date Ave and Orange St	A	xxxxxx 0.448	A	xxxxxx 0.478	+ 0.029 V/C
# 5 Palm Ave and Orange St	B	10.8 0.451	B	11.0 0.463	+ 0.012 V/C
# 6 Chestnut St and Palm Ave	B	11.2 0.527	B	11.3 0.534	+ 0.007 V/C
# 7 Fremont Ave and Poplar Blvd	C	xxxxxx 0.739	C	xxxxxx 0.764	+ 0.025 V/C
# 8 Date Ave and Mission Rd	A	xxxxxx 0.513	A	xxxxxx 0.574	+ 0.062 V/C
# 9 Chestnut St and Date Ave	B	10.5 0.030	B	13.0 0.075	+ 2.559 D/V
# 10 Fremont Ave and Concord Ave	B	xxxxxx 0.630	B	xxxxxx 0.636	+ 0.005 V/C
# 11 Fremont Ave and Montezuma Ave	C	xxxxxx 0.715	C	xxxxxx 0.721	+ 0.006 V/C
# 12 Palm Ave and Commonwealth Ave	A	xxxxxx 0.555	A	xxxxxx 0.583	+ 0.028 V/C
# 13 Date Ave and Commonwealth Ave	B	xxxxxx 0.633	B	xxxxxx 0.644	+ 0.011 V/C
# 14 Fremont Ave and Commonwealth A	E	xxxxxx 0.916	E	xxxxxx 0.941	+ 0.025 V/C
# 15 Fremont Ave and Valley Blvd	D	xxxxxx 0.881	E	xxxxxx 0.910	+ 0.030 V/C
# 16 Palm Ave and Mission Rd	B	xxxxxx 0.622	B	xxxxxx 0.630	+ 0.008 V/C
# 17 Marengo Ave and Valley Blvd	C	xxxxxx 0.790	D	xxxxxx 0.808	+ 0.018 V/C
# 18 Atlantic Blvd and Mission Road	E	xxxxxx 0.975	E	xxxxxx 0.986	+ 0.011 V/C
# 19 Marengo Ave and Mission Road	E	xxxxxx 0.948	E	xxxxxx 0.982	+ 0.033 V/C
# 20 Marengo Ave and Front St	D	xxxxxx 0.820	D	xxxxxx 0.837	+ 0.017 V/C
# 21 I-710 NB Ramp and Valley Blvd	B	xxxxxx 0.687	C	xxxxxx 0.704	+ 0.016 V/C
# 22 I-710 SB Ramp and Valley Blvd	B	xxxxxx 0.675	B	xxxxxx 0.683	+ 0.009 V/C
# 23 Fremont Ave and Hellman Ave	D	xxxxxx 0.810	D	xxxxxx 0.838	+ 0.028 V/C
# 24 Elm St and Hellman Ave/Ramona	D	28.2 0.826	D	30.8 0.862	+ 0.037 V/C
# 25 Fremont Ave and Ramona Road/10	F	96.4 1.305	F	98.7 1.327	+ 0.022 V/C

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 26 Ross Ave and Fremont Ave	A xxxxx	0.526	A xxxxx	0.541	+ 0.014 V/C
# 27 Westmont Dr and Valley Blvd	B xxxxx	0.675	B xxxxx	0.687	+ 0.012 V/C

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Fremont Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.084

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Fremont Ave

Mission Rd

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

Control: Protected

Protected

Protected

Protected

Rights: Include

Include

Ovl

Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 2 1 0 1 1 0

Volume Module:

Base Vol: 193 1390 192 50 1099 54 117 503 431 308 422 45

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 207 1490 206 54 1178 58 125 539 462 330 452 48

Added Vol: 0 36 46 0 21 13 18 7 0 29 4 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 207 1526 252 54 1199 71 143 546 462 359 456 48

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 207 1526 252 54 1199 71 143 546 462 359 456 48

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 207 1526 252 54 1199 71 143 546 462 359 456 48

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 207 1526 252 54 1199 71 143 546 462 359 456 48

OvlAdjVol: 48

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.72 0.28 1.00 2.00 1.00 1.00 2.00 2.00 1.00 1.81 0.19

Final Sat.: 1600 2747 453 1600 3200 1600 1600 3200 3200 1600 2894 306

Capacity Analysis Module:

Vol/Sat: 0.13 0.56 0.56 0.03 0.37 0.04 0.09 0.17 0.14 0.22 0.16 0.16

OvlAdjV/S: 0.02

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Fremont Ave and 1000 Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.684

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 48 Level Of Service: B

Street Name:	Fremont Ave						1000 Fremont Ave						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Permitted			Permitted			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	2

Volume Module:	Fremont Ave			Fremont Ave			1000 Fremont Ave			1000 Fremont Ave		
Base Vol:	54	1457	43	7	1113	60	81	3	69	39	4	25
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	58	1562	46	8	1193	64	87	3	74	42	4	27
Added Vol:	0	53	0	0	34	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	58	1615	46	8	1227	64	87	3	74	42	4	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	58	1615	46	8	1227	64	87	3	74	42	4	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	1615	46	8	1227	64	87	3	74	42	4	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	58	1615	46	8	1227	64	87	3	74	42	4	27

Saturation Flow Module:	Fremont Ave			Fremont Ave			1000 Fremont Ave			1000 Fremont Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.04	0.96	1.00	0.14	0.86
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	67	1533	1600	221	1379

Capacity Analysis Module:	Fremont Ave			Fremont Ave			1000 Fremont Ave			1000 Fremont Ave		
Vol/Sat:	0.04	0.50	0.03	0.00	0.38	0.04	0.05	0.05	0.05	0.03	0.02	0.02
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Fremont Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.869

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 87 Level Of Service: D

Street Name:	Fremont Ave						Orange St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	0	1	0	1	0

Volume Module:	Fremont Ave NB			Fremont Ave SB			Orange St EB			Orange St WB		
Base Vol:	2	1400	175	102	951	2	9	5	5	243	2	289
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	2	1501	188	109	1020	2	10	5	5	261	2	310
Added Vol:	0	10	43	25	9	0	0	0	0	25	0	14
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	1511	231	134	1029	2	10	5	5	286	2	324
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1511	231	134	1029	2	10	5	5	286	2	324
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1511	231	134	1029	2	10	5	5	286	2	324
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	1511	231	134	1029	2	10	5	5	286	2	324

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Orange St EB			Orange St WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.64	0.36	1.00	1.00	0.01	0.99
Final Sat.:	1600	3200	1600	1600	3193	7	1029	571	1600	1600	11	1589

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Orange St EB			Orange St WB		
Vol/Sat:	0.00	0.47	0.14	0.08	0.32	0.32	0.01	0.01	0.00	0.18	0.20	0.20
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Date Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.478

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 32 Level Of Service: A

Street Name:	Date Ave						Orange St								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted			Permitted			Permitted			Permitted					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	1	0	1	1	0	1	0	1	0	1	0	0	1

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	PM Peak
Base Vol:	31	170	3	25	267	41
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	33	182	3	27	286	44
Added Vol:	7	28	0	0	30	4
PasserByVol:	0	0	0	0	0	0
Initial Fut:	40	210	3	27	316	48
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	40	210	3	27	316	48
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	40	210	3	27	316	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	40	210	3	27	316	48

Saturation Flow Module:	Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	0.30	0.70	1.00	0.03	0.97	1.00	
Final Sat.:	1600	1600	1600	1600	1600	1600	478	1122	1600	48	1552	1600	

Capacity Analysis Module:	Vol/Sat:	0.03	0.13	0.00	0.02	0.20	0.03	0.05	0.15	0.11	0.00	0.02	0.00
Crit Moves:	****				****			****			****		

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #5 Palm Ave and Orange St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.463
 Loss Time (sec): 0 Average Delay (sec/veh): 11.0
 Optimal Cycle: 0 Level Of Service: B

Street Name: Palm Ave Orange St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1
 -----|-----|-----|-----|

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
 Base Vol: 5 171 2 10 268 13 58 64 71 2 5 7
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 5 183 2 11 287 14 62 69 76 2 5 8
 Added Vol: 0 2 0 0 4 4 2 5 0 0 9 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 5 185 2 11 291 18 64 74 76 2 14 8
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 5 185 2 11 291 18 64 74 76 2 14 8
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 5 185 2 11 291 18 64 74 76 2 14 8
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 5 185 2 11 291 18 64 74 76 2 14 8
 -----|-----|-----|-----|

Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.03 0.97 1.00 0.04 0.96 1.00 0.47 0.53 1.00 0.13 0.87 1.00
 Final Sat.: 18 615 717 23 629 743 261 300 654 69 463 600
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: 0.30 0.30 0.00 0.46 0.46 0.02 0.25 0.25 0.12 0.03 0.03 0.01
 Crit Moves: **** **** **** ****
 Delay/Veh: 10.5 10.5 7.5 12.5 12.5 7.5 10.6 10.6 8.5 9.1 9.1 8.2
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 10.5 10.5 7.5 12.5 12.5 7.5 10.6 10.6 8.5 9.1 9.1 8.2
 LOS by Move: B B A B B A B B A A A A
 ApproachDel: 10.4 12.2 9.8 8.8
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 10.4 12.2 9.8 8.8
 LOS by Appr: B B A A
 AllWayAvgQ: 0.4 0.4 0.0 0.8 0.8 0.0 0.3 0.3 0.1 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Chestnut St and Palm Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.534

Loss Time (sec): 0 Average Delay (sec/veh): 11.3

Optimal Cycle: 0 Level Of Service: B

Street Name:	Chestnut St				Palm Ave					
Approach:	North Bound		South Bound		East Bound		West Bound			
Movement:	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign		Stop Sign		Stop Sign		Stop Sign			
Rights:	Include		Include		Include		Include			
Min. Green:	0	0	0	0	0	0	0	0	0	
Lanes:	0	1	0	0	1	0	1	0	0	1

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	PM Peak
Base Vol:	5	146	9	14	338	8
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	5	157	10	15	362	9
Added Vol:	0	0	0	0	0	4
PasserByVol:	0	0	0	0	0	0
Initial Fut:	5	157	10	15	362	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	157	10	15	362	13
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	5	157	10	15	362	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	157	10	15	362	13

Saturation Flow Module:	Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.97	1.00	0.04	0.96	1.00	0.43	0.57	1.00	0.39	0.61
Final Sat.:	22	653	776	28	679	815	237	312	639	208	325

Capacity Analysis Module:	Vol/Sat:	0.24	0.24	0.01	0.53	0.53	0.02	0.04	0.04	0.13	0.03	0.03
Crit Moves:	****				****					****		
Delay/Veh:	9.5	9.5	7.2	13.2	13.2	7.1	9.0	9.0	8.6	9.1	9.1	8.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.5	9.5	7.2	13.2	13.2	7.1	9.0	9.0	8.6	9.1	9.1	8.1
LOS by Move:	A	A	A	B	B	A	A	A	A	A	A	A
ApproachDel:	9.4			13.0			8.7			8.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.4			13.0			8.7			8.8		
LOS by Appr:	A			B			A			A		
AllWayAvgQ:	0.3	0.3	0.0	1.1	1.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Fremont Ave and Poplar Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.764

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 60 Level Of Service: C

Street Name:	Fremont Ave						Poplar Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:	Fremont Ave			Fremont Ave			Poplar Blvd			Poplar Blvd		
Base Vol:	152	1403	115	25	863	42	25	117	80	53	118	28
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	163	1504	123	27	925	45	27	125	86	57	127	30
Added Vol:	4	24	4	7	34	0	0	12	7	7	12	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	167	1528	127	34	959	45	27	137	93	64	139	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	167	1528	127	34	959	45	27	137	93	64	139	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	167	1528	127	34	959	45	27	137	93	64	139	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	167	1528	127	34	959	45	27	137	93	64	139	34

Saturation Flow Module:	Fremont Ave			Fremont Ave			Poplar Blvd			Poplar Blvd		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.85	0.15	1.00	1.91	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	2954	246	1600	3057	143	1600	1600	1600	1600	1600	1600

Capacity Analysis Module:	Fremont Ave			Fremont Ave			Poplar Blvd			Poplar Blvd		
Vol/Sat:	0.10	0.52	0.52	0.02	0.31	0.31	0.02	0.09	0.06	0.04	0.09	0.02
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Date Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.574

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 38 Level Of Service: A

Street Name:	Date Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	0	1	0	2	0	0	1

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	PM Peak
Base Vol:	0	0	0	195	0	159
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	0	0	209	0	170
Added Vol:	0	0	0	26	0	34
PasserByVol:	0	0	0	0	0	0
Initial Fut:	0	0	0	235	0	204
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	235	0	204
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	0	0	0	235	0	204
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	235	0	204

Saturation Flow Module:	Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.59	0.41	
Final Sat.:	0	0	0	1600	0	1600	1600	3200	0	0	2536	664	

Capacity Analysis Module:	Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.13	0.09	0.25	0.00	0.00	0.24	0.24
Crit Moves:					****			****			****		

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #9 Chestnut St and Date Ave

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: B[13.0]

Street Name: Chestnut St Date Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 1 0 1 1 0 1 0 1 0 0 1! 0 0 0 1 0 0 1
 -----|-----|-----|-----|-----|

Volume Module: >> Count Date: 17 Nov 2015 << PM Peak
 Base Vol: 18 178 12 38 373 10 0 0 0 10 2 17
 Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07
 Initial Bse: 19 191 13 41 400 11 0 0 0 11 2 18
 Added Vol: 65 27 0 0 21 12 7 8 38 0 13 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 84 218 13 41 421 23 7 8 38 11 15 18
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 84 218 13 41 421 23 7 8 38 11 15 18
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 84 218 13 41 421 23 7 8 38 11 15 18
 -----|-----|-----|-----|-----|

Critical Gap Module:
 Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
 FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
 -----|-----|-----|-----|-----|

Capacity Module:
 Cnflct Vol: 444 xxxx xxxxx 231 xxxx xxxxx 912 902 421 923 912 218
 Potent Cap.: 1127 xxxx xxxxx 1349 xxxx xxxxx 257 280 637 252 276 827
 Move Cap.: 1127 xxxx xxxxx 1349 xxxx xxxxx 221 251 637 213 248 827
 Total Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx 400 411 xxxxx 351 380 xxxxx
 Volume/Cap: 0.07 xxxx xxxxx 0.03 xxxx xxxxx 0.02 0.02 0.06 0.03 0.04 0.02
 -----|-----|-----|-----|-----|

Level Of Service Module:
 2Way95thQ: 0.2 xxxx xxxxx 0.1 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx 0.1
 Control Del: 8.5 xxxx xxxxx 7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx 9.5
 LOS by Move: A * * A * * * * * A
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 549 xxxxx 367 xxxx xxxxx
 SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 0.3 xxxxx 0.2 xxxx xxxxx
 Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 12.3 xxxxx 15.5 xxxx xxxxx
 Shared LOS: * * * * * * * B * C * *
 ApproachDel: xxxxxx xxxxxx 12.3 13.0
 ApproachLOS: * * B B

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Fremont Ave and Concord Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.636

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 43 Level Of Service: B

Street Name:	Fremont Ave						Concord Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	1	0	1	0	1	0

Volume Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Base Vol:	51	1539	113	27	898	71	79	43	47	75	60	75
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	55	1650	121	29	963	76	85	46	50	80	64	80
Added Vol:	0	25	0	0	33	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	1675	121	29	996	76	85	46	50	80	64	80
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	1675	121	29	996	76	85	46	50	80	64	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	1675	121	29	996	76	85	46	50	80	64	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	1675	121	29	996	76	85	46	50	80	64	80

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.80	0.20	1.00	1.86	0.14	1.00	1.00	1.00	1.00	0.44	0.56
Final Sat.:	1600	4476	324	1600	2973	227	1600	1600	1600	1600	711	889

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Concord Ave EB			Concord Ave WB		
Vol/Sat:	0.03	0.37	0.37	0.02	0.33	0.33	0.05	0.03	0.03	0.05	0.09	0.09
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Fremont Ave and Montezuma Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.721

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 74 Level Of Service: C

Street Name:	Fremont Ave						Montezuma Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Protected			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	1	0	0	2	0	0	1	1	0

Volume Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Base Vol:	687	443	86	24	41	259	399	167	611	33	69	19
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	737	475	92	26	44	278	428	179	655	35	74	20
Added Vol:	21	2	0	0	14	25	16	0	16	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	758	477	92	26	58	303	444	179	671	35	74	20
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	758	477	92	26	58	0	444	179	671	35	74	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	758	477	92	26	58	0	444	179	671	35	74	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	758	477	92	26	58	0	444	179	671	35	74	20

Saturation Flow Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.84	0.16	0.61	1.39	1.00	2.00	0.42	1.58	0.27	0.57	0.16
Final Sat.:	2880	1341	259	984	2216	1600	2880	674	2526	436	912	251

Capacity Analysis Module:	Fremont Ave NB			Fremont Ave SB			Montezuma Ave EB			Montezuma Ave WB		
Vol/Sat:	0.26	0.36	0.36	0.02	0.03	0.00	0.15	0.27	0.27	0.02	0.08	0.08
Crit Moves:	****						****					

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Palm Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.583

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 39 Level Of Service: A

Street Name:	Palm Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	1	0	1	0	2

Volume Module:	Palm Ave			Palm Ave			Commonwealth Ave			Commonwealth Ave		
Base Vol:	49	124	20	172	217	244	190	416	70	8	385	96
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	53	133	21	184	233	262	204	446	75	9	413	103
Added Vol:	0	5	0	0	8	34	27	22	0	0	26	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	53	138	21	184	241	296	231	468	75	9	439	103
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	53	138	21	184	241	296	231	468	75	9	439	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	138	21	184	241	296	231	468	75	9	439	103
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	53	138	21	184	241	296	231	468	75	9	439	103

Saturation Flow Module:	Palm Ave			Palm Ave			Commonwealth Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.72	0.28	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2758	442	1600	3200	1600

Capacity Analysis Module:	Palm Ave			Palm Ave			Commonwealth Ave			Commonwealth Ave		
Vol/Sat:	0.03	0.09	0.01	0.12	0.15	0.18	0.14	0.17	0.17	0.01	0.14	0.06
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Date Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.644

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 44 Level Of Service: B

Street Name:	Date Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

Volume Module:	Date Ave			Commonwealth Ave		
Base Vol:	63	127	57	116	81	144
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	68	136	61	124	87	154
Added Vol:	5	0	27	0	0	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	73	136	88	124	87	154
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	73	136	88	124	87	154
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	73	136	88	124	87	154
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	73	136	88	124	87	154

Saturation Flow Module:	Date Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.36	0.64
Final Sat.:	1600	1600	1600	1600	576	1024

Capacity Analysis Module:	Date Ave			Commonwealth Ave		
Vol/Sat:	0.05	0.09	0.06	0.08	0.15	0.15
Crit Moves:	****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Fremont Ave and Commonwealth Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.941

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 126 Level Of Service: E

Street Name:	Fremont Ave						Commonwealth Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	0	0	1	0

Volume Module:	Fremont Ave			Fremont Ave			Commonwealth Ave			Commonwealth Ave		
Base Vol:	36	1421	259	199	799	25	30	137	14	157	158	238
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	39	1523	278	213	857	27	32	147	15	168	169	255
Added Vol:	0	14	10	24	25	0	0	0	0	9	0	18
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	39	1537	288	237	882	27	32	147	15	177	169	273
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	39	1537	288	237	882	27	32	147	15	177	169	273
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	1537	288	237	882	27	32	147	15	177	169	273
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	39	1537	288	237	882	27	32	147	15	177	169	273

Saturation Flow Module:	Fremont Ave			Fremont Ave			Commonwealth Ave			Commonwealth Ave		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.94	0.06	1.00	0.91	0.09	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3106	94	1600	1452	148	1600	1600	1600

Capacity Analysis Module:	Fremont Ave			Fremont Ave			Commonwealth Ave			Commonwealth Ave		
Vol/Sat:	0.02	0.48	0.18	0.15	0.28	0.28	0.02	0.10	0.10	0.11	0.11	0.17
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Fremont Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.910

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 106 Level Of Service: E

Street Name: Fremont Ave Valley Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 2 0 2 2 0 2 1 1 0 1 1 1

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Volume Module:

Base Vol: 28 803 33 186 961 774 616 899 25 125 349 308

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 30 861 35 199 1030 830 660 964 27 134 374 330

Added Vol: 3 50 8 0 32 18 31 4 5 9 4 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 33 911 43 199 1062 848 691 968 32 143 378 330

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 33 911 43 199 1062 848 691 968 32 143 378 330

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 33 911 43 199 1062 848 691 968 32 143 378 330

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 33 911 43 199 1062 848 691 968 32 143 378 330

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.91 0.09 1.00 2.00 2.00 2.00 2.00 1.00 1.00 1.60 1.40

Final Sat.: 1600 3055 145 1600 3200 3200 2880 3200 1600 1600 2562 2238

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Capacity Analysis Module:

Vol/Sat: 0.02 0.30 0.30 0.12 0.33 0.26 0.24 0.30 0.02 0.09 0.15 0.15

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Palm Ave and Mission Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.630

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 43 Level Of Service: B

Street Name:	Palm Ave						Mission Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module:	>>	Count	Date:	17 Nov 2015	<<	PM Peak
Base Vol:	0	0	0	330	0	110
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	0	0	354	0	118
Added Vol:	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0
Initial Fut:	0	0	0	354	0	118
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	354	0	118
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	0	0	0	354	0	118
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	354	0	118

Saturation Flow Module:
Sat/Lane:
Adjustment:
Lanes:
Final Sat.:

Capacity Analysis Module:
Vol/Sat:
Crit Moves:

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Marengo Ave and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.808

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 68 Level Of Service: D

Street Name:	Marengo Ave						Valley Blvd						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	0	1	0	1	0	1	0	2	0	1

Volume Module:	Marengo Ave			Marengo Ave			Valley Blvd			Valley Blvd		
Base Vol:	17	159	64	285	201	195	307	869	8	48	557	136
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	18	170	69	306	215	209	329	932	9	51	597	146
Added Vol:	13	25	0	4	23	0	0	0	12	0	0	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	195	69	310	238	209	329	932	21	51	597	153
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	31	195	69	310	238	209	329	932	21	51	597	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	195	69	310	238	209	329	932	21	51	597	153
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	31	195	69	310	238	209	329	932	21	51	597	153

Saturation Flow Module:	Marengo Ave			Marengo Ave			Valley Blvd			Valley Blvd		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.53	0.47	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	853	747	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:	Marengo Ave			Marengo Ave			Valley Blvd			Valley Blvd		
Vol/Sat:	0.02	0.12	0.04	0.19	0.28	0.28	0.21	0.29	0.01	0.03	0.19	0.10
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #18 Atlantic Blvd and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.986

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 175 Level Of Service: E

Street Name:	Atlantic Blvd						Mission Road						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1	0

Volume Module:	Atlantic Blvd			Atlantic Blvd			Mission Road			Mission Road		
Base Vol:	95	1061	137	42	951	101	131	965	133	182	563	60
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	102	1137	147	45	1020	108	140	1035	143	195	604	64
Added Vol:	0	27	0	0	34	4	2	8	0	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	102	1164	147	45	1054	112	142	1043	143	195	619	64
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	102	1164	147	45	1054	112	142	1043	143	195	619	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	102	1164	147	45	1054	112	142	1043	143	195	619	64
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	102	1164	147	45	1054	112	142	1043	143	195	619	64

Saturation Flow Module:	Atlantic Blvd			Atlantic Blvd			Mission Road			Mission Road		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.78	0.22	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.81	0.19
Final Sat.:	1600	2842	358	1600	3200	1600	1600	3200	1600	1600	2899	301

Capacity Analysis Module:	Atlantic Blvd			Atlantic Blvd			Mission Road			Mission Road		
Vol/Sat:	0.06	0.41	0.41	0.03	0.33	0.07	0.09	0.33	0.09	0.12	0.21	0.21
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #19 Marengo Ave and Mission Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.982

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 169 Level Of Service: E

Street Name: Marengo Ave

Mission Rd

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

Control: Permitted

Permitted

Permitted

Permitted

Rights: Include

Include

Include

Include

Min. Green: 0 0 0

0 0 0

0 0 0

0 0 0

Y+R: 4.0 4.0 4.0

4.0 4.0 4.0

4.0 4.0 4.0

4.0 4.0 4.0

Lanes: 1 0 1 0 1

1 0 0 1 0

1 0 1 1 0

1 0 1 1 0

Volume Module:

Base Vol: 73 515 225 58 466 46 53 939 283 70 538 59

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 78 552 241 62 500 49 57 1007 303 75 577 63

Added Vol: 30 0 2 0 0 4 2 8 23 4 15 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 108 552 243 62 500 53 59 1015 326 79 592 63

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 108 552 243 62 500 53 59 1015 326 79 592 63

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 108 552 243 62 500 53 59 1015 326 79 592 63

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 108 552 243 62 500 53 59 1015 326 79 592 63

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.90 0.10 1.00 1.51 0.49 1.00 1.81 0.19

Final Sat.: 1600 1600 1600 1600 1446 154 1600 2421 779 1600 2891 309

Capacity Analysis Module:

Vol/Sat: 0.07 0.35 0.15 0.04 0.35 0.35 0.04 0.42 0.42 0.05 0.20 0.20

Crit Moves: ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #20 Marengo Ave and Front St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.837

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 76 Level Of Service: D

Street Name: Marengo Ave Front St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 0 1 0 1 0 0 1 0 0 1 0 0 0 1

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Volume Module:

Base Vol: 3 634 4 23 682 188 150 50 8 2 19 16

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 3 680 4 25 731 202 161 54 9 2 20 17

Added Vol: 0 32 0 0 27 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 3 712 4 25 758 202 161 54 9 2 20 17

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 3 712 4 25 758 202 161 54 9 2 20 17

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 3 712 4 25 758 202 161 54 9 2 20 17

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 3 712 4 25 758 202 161 54 9 2 20 17

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 0.99 0.01 1.00 0.79 0.21 0.75 0.25 1.00 0.10 0.90 1.00

Final Sat.: 1600 1590 10 1600 1264 336 1200 400 1600 152 1448 1600

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Capacity Analysis Module:

Vol/Sat: 0.00 0.45 0.45 0.02 0.60 0.60 0.10 0.13 0.01 0.00 0.01 0.01

Crit Moves: **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #21 I-710 NB Ramp and Valley Blvd

Cycle (sec): 120 Critical Vol./Cap.(X): 0.704
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 53 Level Of Service: C

Street Name:	I-710 NB Ramp						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	0	0	2	0

Volume Module:	I-710 NB Ramp			I-710 SB Ramp			Valley Blvd East			Valley Blvd West		
Base Vol:	584	0	1238	1	0	2	0	530	0	0	1118	0
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	626	0	1327	1	0	2	0	568	0	0	1199	0
Added Vol:	0	0	40	0	0	0	0	0	0	0	25	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	626	0	1367	1	0	2	0	568	0	0	1224	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	626	0	1367	1	0	2	0	568	0	0	1224	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	626	0	1367	1	0	2	0	568	0	0	1224	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	626	0	1367	1	0	2	0	568	0	0	1224	0

Saturation Flow Module:	I-710 NB Ramp			I-710 SB Ramp			Valley Blvd East			Valley Blvd West		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	2.00	0.33	0.00	0.67	0.00	2.00	0.00	0.00	4.00	0.00
Final Sat.:	1600	0	3200	533	0	1067	0	3200	0	0	6400	0

Capacity Analysis Module:	I-710 NB Ramp			I-710 SB Ramp			Valley Blvd East			Valley Blvd West		
Vol/Sat:	0.39	0.00	0.43	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.19	0.00
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #22 I-710 SB Ramp and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.683

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 48 Level Of Service: B

Street Name:	I-710 SB Ramp						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	0	0	1	1	1	2

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	0	0	0	539	729	783	940	0
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	0	0	0	0	0	0	578	782	839	1008	0
Added Vol:	0	0	0	0	0	0	0	0	0	25	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	578	782	864	1008	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	578	782	864	1008	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	578	782	864	1008	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	0	0	578	782	864	1008	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.28	1.72	2.00	2.00	0.00
Final Sat.:	0	0	0	0	0	0	0	2040	2760	2880	3200	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.28	0.30	0.31	0.00
Crit Moves:							****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #23 Fremont Ave and Hellman Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.838

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 76 Level Of Service: D

Street Name: Fremont Ave

Hellman Ave

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

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Control: Protected

Protected

Protected

Protected

Rights: Include

Include

Include

Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 1 0 1 0 1

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Volume Module:

Base Vol: 85 740 242 147 813 68 128 173 216 206 181 237

Growth Adj: 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.07

Initial Bse: 91 793 259 158 872 73 137 185 232 221 194 254

Added Vol: 0 38 8 17 28 0 0 0 0 4 0 24

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 91 831 267 175 900 73 137 185 232 225 194 278

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 91 831 267 175 900 73 137 185 232 225 194 278

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 91 831 267 175 900 73 137 185 232 225 194 278

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 91 831 267 175 900 73 137 185 232 225 194 278

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.51 0.49 1.00 1.85 0.15 1.00 1.00 1.00 1.00 1.00 1.00

Final Sat.: 1600 2421 779 1600 2960 240 1600 1600 1600 1600 1600 1600

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Capacity Analysis Module:

Vol/Sat: 0.06 0.34 0.34 0.11 0.30 0.30 0.09 0.12 0.14 0.14 0.12 0.17

Crit Moves: **** **** **** ****

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #24 Elm St and Hellman Ave/Ramona Rd/ 10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.862
 Loss Time (sec): 0 Average Delay (sec/veh): 30.8
 Optimal Cycle: 0 Level Of Service: D

Street Name:	Elm St						Hellman Ave/Ramona Rd/ 10 WB ramp											
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
Control:	Stop Sign						Stop Sign						Stop Sign					
Rights:	Include						Include						Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	1	0	0	0	0	1	0	0	1	0	1	0	0	1		

Volume Module:PM Peak

Base Vol:	467	172	98	10	5	40	29	299	223	120	105	2
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	501	184	105	11	5	43	31	321	239	129	113	2
Added Vol:	28	0	0	0	0	0	0	0	26	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	529	184	105	11	5	43	31	321	265	129	113	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	529	184	105	11	5	43	31	321	265	129	113	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	529	184	105	11	5	43	31	321	265	129	113	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	529	184	105	11	5	43	31	321	265	129	113	2

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.29	0.45	0.26	0.67	0.33	1.00	0.09	0.91	1.00	0.53	0.47	1.00
Final Sat.:	1086	-260	122	259	130	438	42	436	529	229	200	474

Capacity Analysis Module:

Vol/Sat:	0.49-0.71	0.86	0.04	0.04	0.10	0.73	0.73	0.50	0.56	0.56	0.00	
Crit Moves:	***				***	***				***		
Delay/Veh:	41.4	41.1	41.1	11.8	11.8	11.2	27.7	27.7	15.8	20.6	20.6	10.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.4	41.1	41.1	11.8	11.8	11.2	27.7	27.7	15.8	20.6	20.6	10.0
LOS by Move:	E	E	E	B	B	B	D	D	C	C	C	A
ApproachDel:	41.4		11.4		22.6		20.5					
Delay Adj:	1.00		1.00		1.00		1.00					
ApprAdjDel:	41.4		11.4		22.6		20.5					
LOS by Appr:	E		B		C		C					
AllWayAvgQ:	4.1	4.1	4.1	0.0	0.0	0.1	2.3	2.3	0.9	1.2	1.2	0.0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

 Intersection #25 Fremont Ave and Ramona Road/10 EB ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 1.327
 Loss Time (sec): 0 Average Delay (sec/veh): 98.7
 Optimal Cycle: 0 Level Of Service: F

Street Name:	Fremont Ave					Ramona Road/10 EB ramp							
Approach:	North Bound		South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Stop Sign					Stop Sign			Stop Sign			Stop Sign	
Rights:	Include					Include			Include			Include	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Lanes:	0	0	1	0	1	0	0	0	0	0	1	0	0

Volume Module: PM Peak

Base Vol:	0	731	116	0	0	0	4	91	289	47	0	78
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	784	124	0	0	0	4	98	310	50	0	84
Added Vol:	0	0	19	0	0	0	0	0	40	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	784	143	0	0	0	4	98	350	50	0	84
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	784	143	0	0	0	4	98	350	50	0	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	784	143	0	0	0	4	98	350	50	0	84
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	784	143	0	0	0	4	98	350	50	0	84

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.00	0.00	0.00	0.04	0.96	1.00	0.38	xxxx	0.62
Final Sat.:	0	590	656	0	0	0	22	506	591	197	0	328

Capacity Analysis Module:

Vol/Sat:	xxxx	1.33	0.22	xxxx	xxxx	xxxx	0.19	0.19	0.59	0.26	0.00	0.26
Crit Moves:	****			****			****			****		
Delay/Veh:	0.0	178	9.6	0.0	0.0	0.0	11.1	11.1	17.1	12.1	12.1	12.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	178	9.6	0.0	0.0	0.0	11.1	11.1	17.1	12.1	12.1	12.1
LOS by Move:	*	F	A	*	*	*	B	B	C	B	B	B
ApproachDel:	151.6			xxxxxx			15.7			12.1		
Delay Adj:	1.00			xxxxxx			1.00			1.00		
ApprAdjDel:	151.6			xxxxxx			15.7			12.1		
LOS by Appr:	F			*			C			B		
AllWayAvgQ:	0.0	27.7	0.3	0.0	0.0	0.0	0.2	0.2	1.4	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #26 Ross Ave and Fremont Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.541

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 36 Level Of Service: A

Street Name:	Fremont Ave						Ross Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	0	1	0	1

Volume Module:

Base Vol:	30	849	168	26	988	41	11	32	6	54	40	41
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	32	910	180	28	1059	44	12	34	6	58	43	44
Added Vol:	0	62	0	0	46	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	32	972	180	28	1105	44	12	34	6	58	43	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	972	180	28	1105	44	12	34	6	58	43	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	972	180	28	1105	44	12	34	6	58	43	44
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	32	972	180	28	1105	44	12	34	6	58	43	44

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	1.92	0.08	1.00	0.84	0.16	1.00	1.00	1.00
Final Sat.:	1600	2700	500	1600	3078	122	1600	1347	253	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.36	0.36	0.02	0.36	0.36	0.01	0.03	0.03	0.04	0.03	0.03
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #27 Westmont Dr and Valley Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.687

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 48 Level Of Service: B

Street Name:	Westmont Dr						Valley Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0 0	0	0	1! 0 0	1	0	2 0 1	1	0	2 0 1

Volume Module:	Westmont Dr			Westmont Dr			Valley Blvd			Valley Blvd		
Base Vol:	16	10	11	24	9	14	56	1578	135	8	1040	33
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	17	11	12	26	10	15	60	1692	145	9	1115	35
Added Vol:	0	0	0	0	0	0	0	40	0	0	25	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	11	12	26	10	15	60	1732	145	9	1140	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	11	12	26	10	15	60	1732	145	9	1140	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	11	12	26	10	15	60	1732	145	9	1140	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	17	11	12	26	10	15	60	1732	145	9	1140	35

Saturation Flow Module:	Westmont Dr			Westmont Dr			Valley Blvd			Valley Blvd		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.43	0.27	0.30	0.51	0.19	0.30	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	692	432	476	817	306	477	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:	Westmont Dr			Westmont Dr			Valley Blvd			Valley Blvd		
Vol/Sat:	0.01	0.02	0.02	0.02	0.03	0.03	0.04	0.54	0.09	0.01	0.36	0.02
Crit Moves:	****			****			****			****		

Appendix Q – Traffic Signal Peak Hour Warrant Analysis Worksheets

TRAFFIC SIGNAL WARRANT SUMMARY

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Cumulative + Project (2028) - AM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: Date Ave
Minor Street: Orange St

Lanes: 2 Critical Approach Speed: 30
Lanes: 1

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph)? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Unusual condition justifying
use of warrant:

Record hour when criteria are fulfilled
and the corresponding delay or volume
in boxes provided.

Peak Hour		
AM	520	139

Criteria

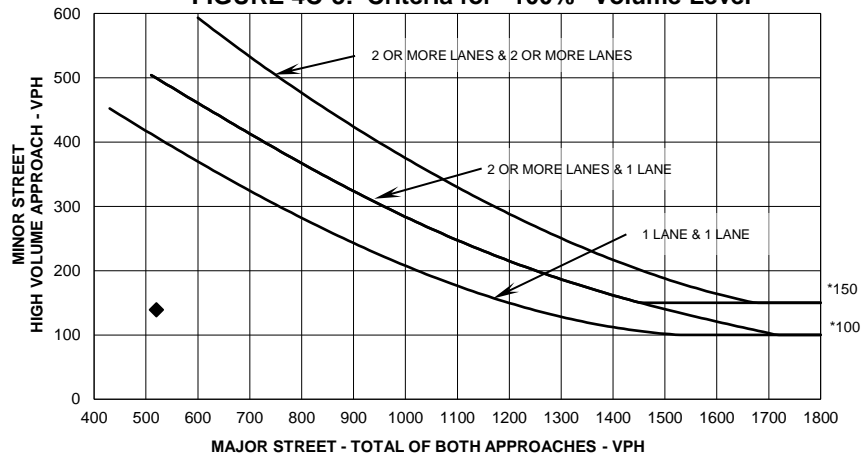
1. Delay on Minor Approach (vehicle-hours)		
Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)		
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)		
No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

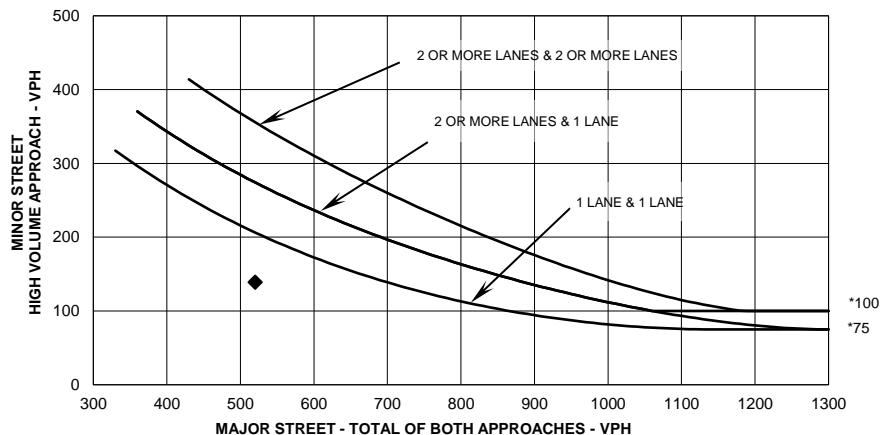
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

TRAFFIC SIGNAL WARRANT SUMMARY

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Cumulative + Project (2028) - PM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: Date Ave
Minor Street: Orange St

Lanes: 2 Critical Approach Speed: 30
Lanes: 1

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph)? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

Unusual condition justifying
use of warrant:

Record hour when criteria are fulfilled
and the corresponding delay or volume
in boxes provided.

Peak Hour		
PM	680	440

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

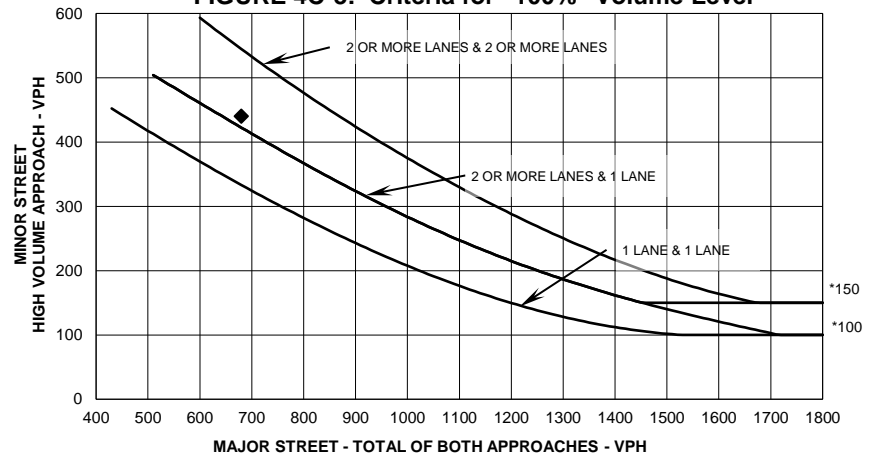
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

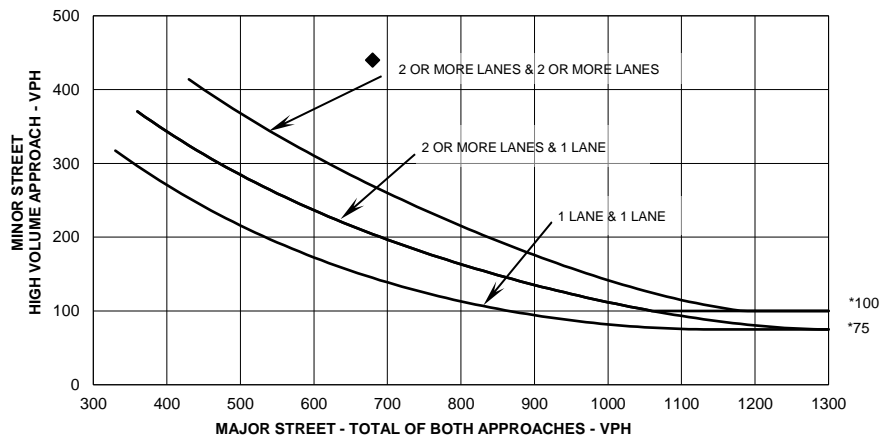
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Cumulative (2028) - PM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: Date Ave
Minor Street: Orange St

Lanes: 2 Critical Approach Speed: 30
Lanes: 1

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Unusual condition justifying
use of warrant:

Record hour when criteria are fulfilled
and the corresponding delay or volume
in boxes provided.

Peak Hour		
AM	637	420

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

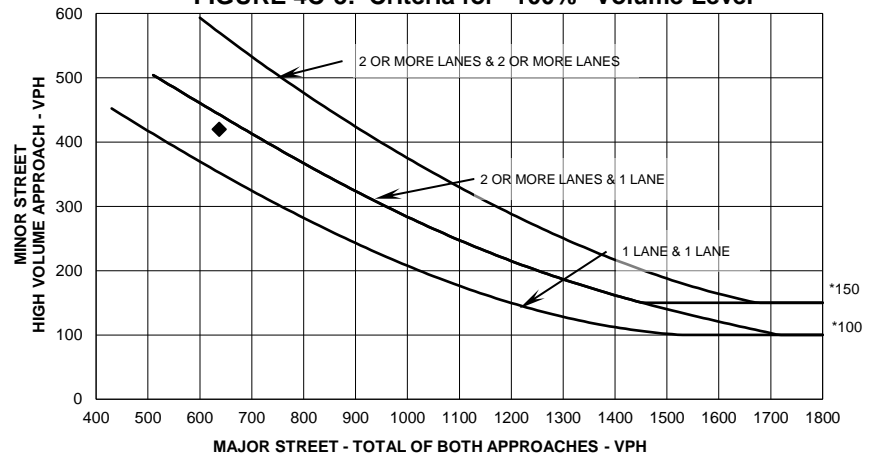
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

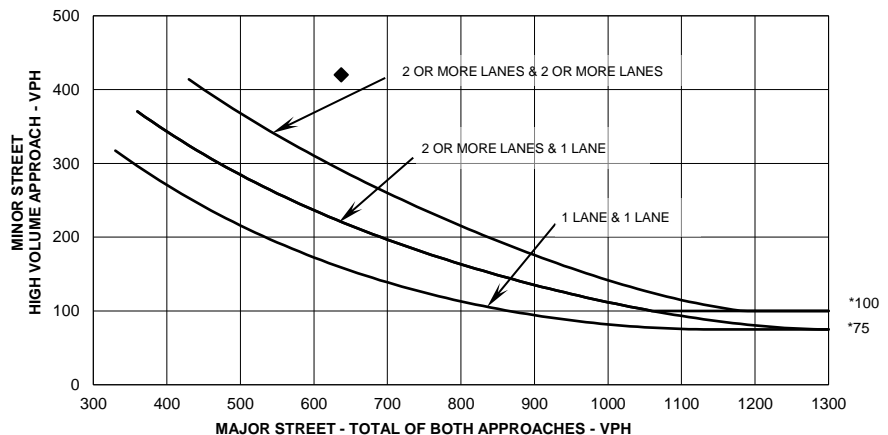
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Existing + Project (2018) PM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 5, 2018

Major Street: Date Ave
Minor Street: Orange St

Lanes: 2 Critical Approach Speed: 30
Lanes: 1

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Unusual condition justifying
use of warrant:

Record hour when criteria are fulfilled
and the corresponding delay or volume
in boxes provided.

Peak Hour		
AM	580	396

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

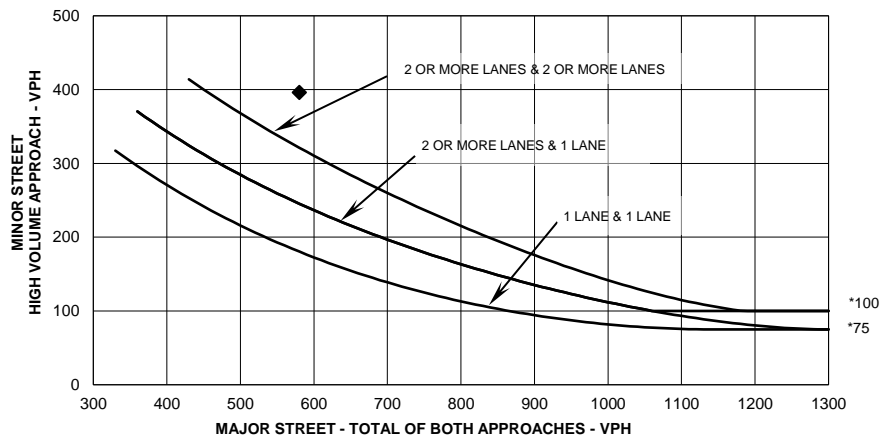
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

TRAFFIC SIGNAL WARRANT SUMMARY

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Existing (2018) PM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 5, 2018

Major Street: Date Ave
Minor Street: Orange St

Lanes: 2 Critical Approach Speed: 30
Lanes: 1

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph)? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Unusual condition justifying
use of warrant:

Record hour when criteria are fulfilled
and the corresponding delay or volume
in boxes provided.

Peak Hour		
AM	537	376

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

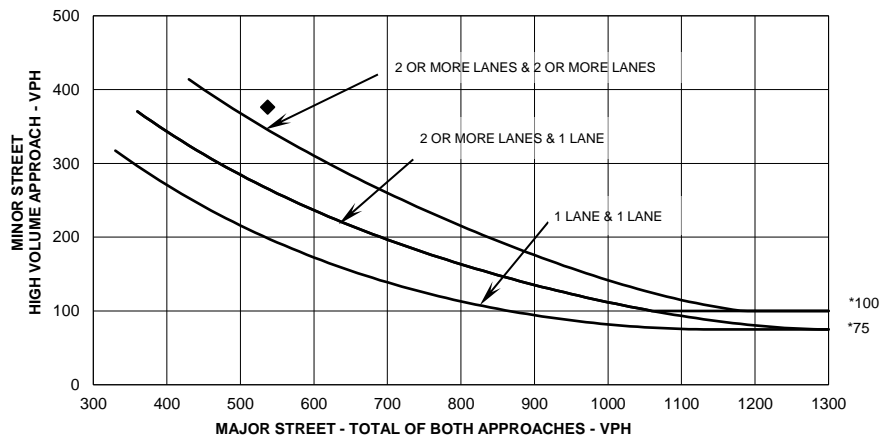
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

TRAFFIC SIGNAL WARRANT SUMMARY

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TRAFFIC ENGINEERING - 07/99
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Cumulative + Project (2028) - AM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: Palm Ave
Minor Street: Orange St

Lanes: 1 Critical Approach Speed: 25
Lanes: 1

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	346	65

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

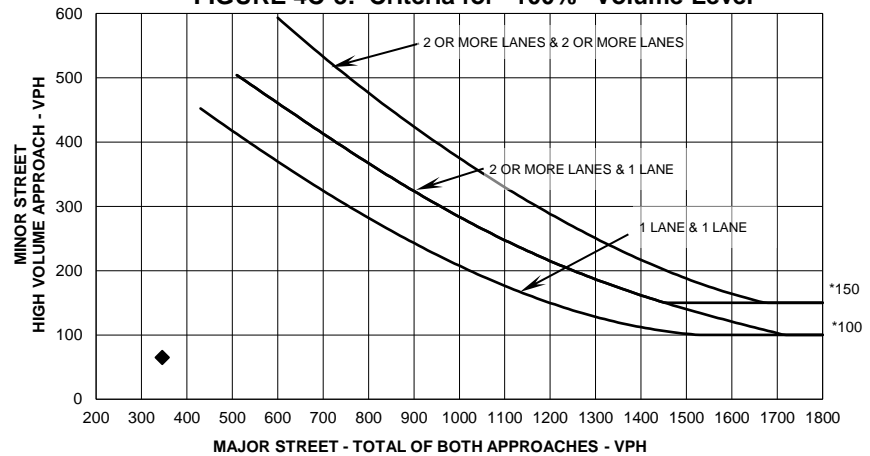
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

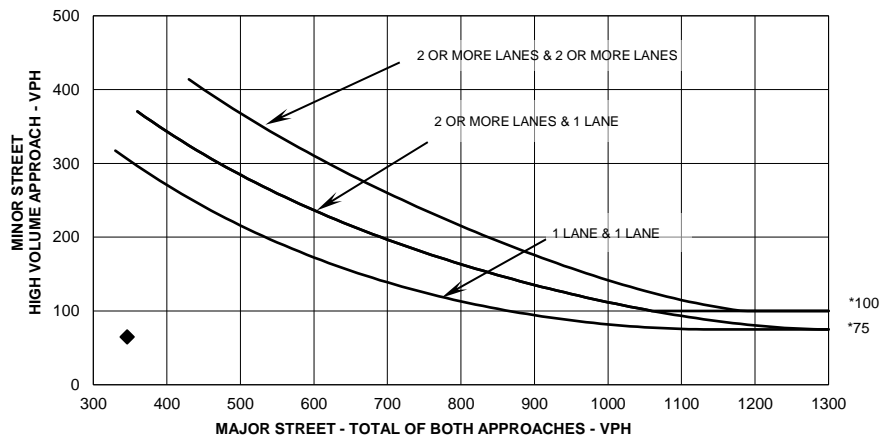
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Cumulative + Project (2028) - PM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: Palm Ave
Minor Street: Orange St

Lanes: 1 Critical Approach Speed: 25
Lanes: 1

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	552	226

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

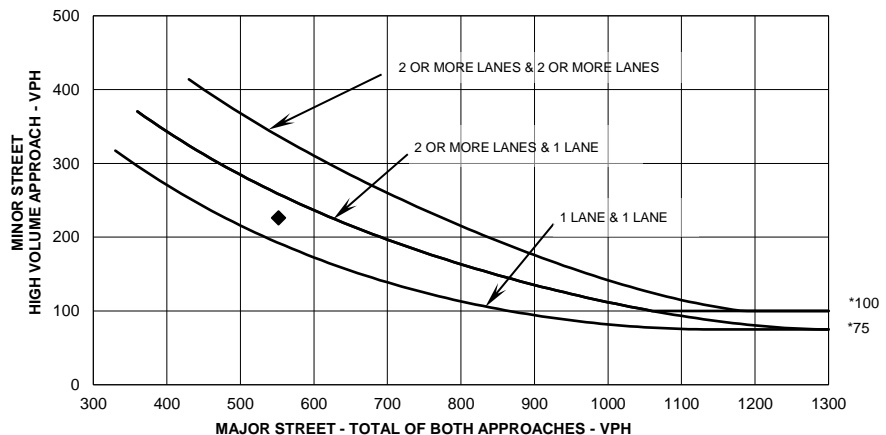
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Cumulative + Project (2028) - AM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: Palm Ave
Minor Street: Chestnut St

Lanes: 1 Critical Approach Speed: 25
Lanes: 1

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Unusual condition justifying
use of warrant:

Record hour when criteria are fulfilled
and the corresponding delay or volume
in boxes provided.

Peak Hour		
AM	336	33

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

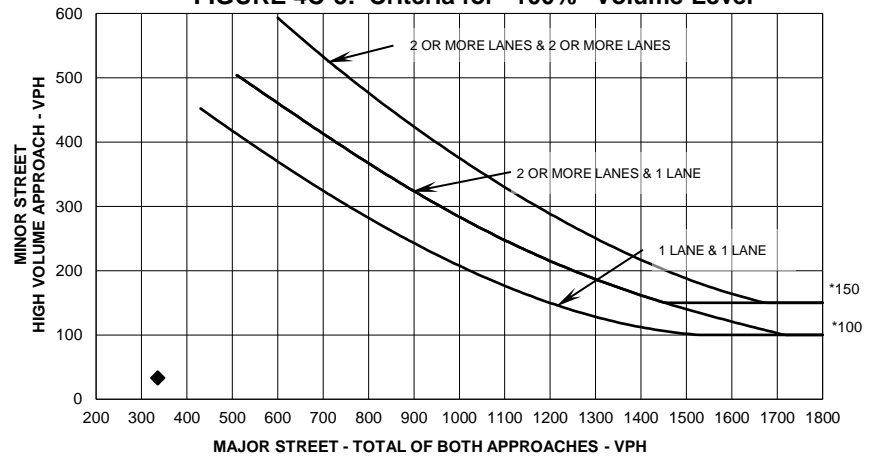
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

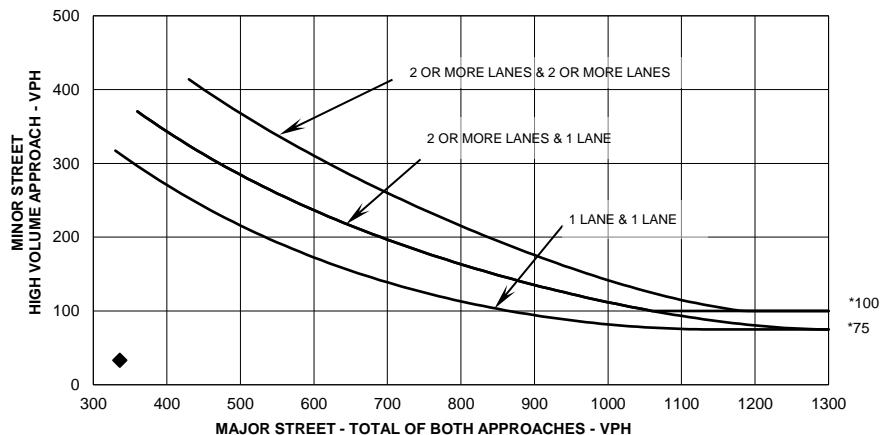
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Cumulative + Project (2028) - PM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: Palm Ave
Minor Street: Chestnut St

Lanes: 1 Critical Approach Speed: 25
Lanes: 1

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	599	116

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

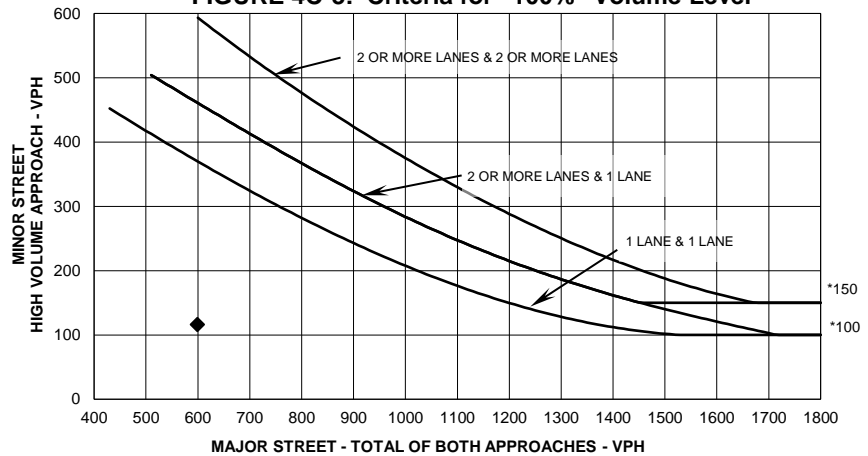
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

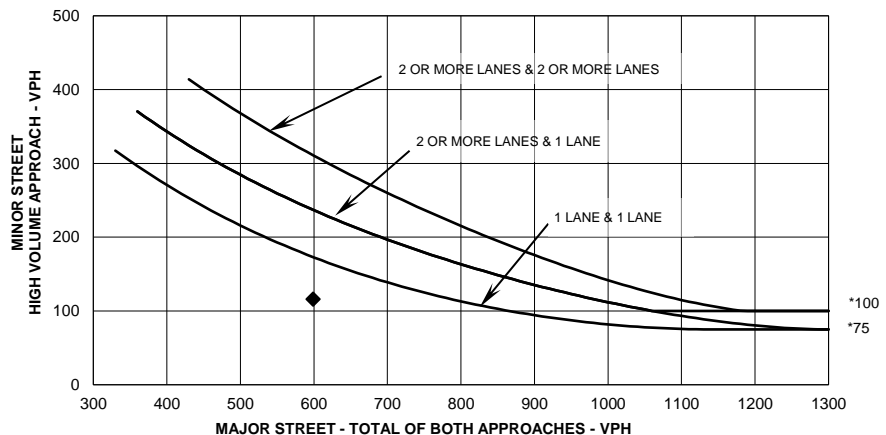
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Cumulative + Project (2028) - AM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: Mission Rd
Minor Street: Date Ave

Lanes: 3 Critical Approach Speed: 40
Lanes: 2

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph)? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	2190	260

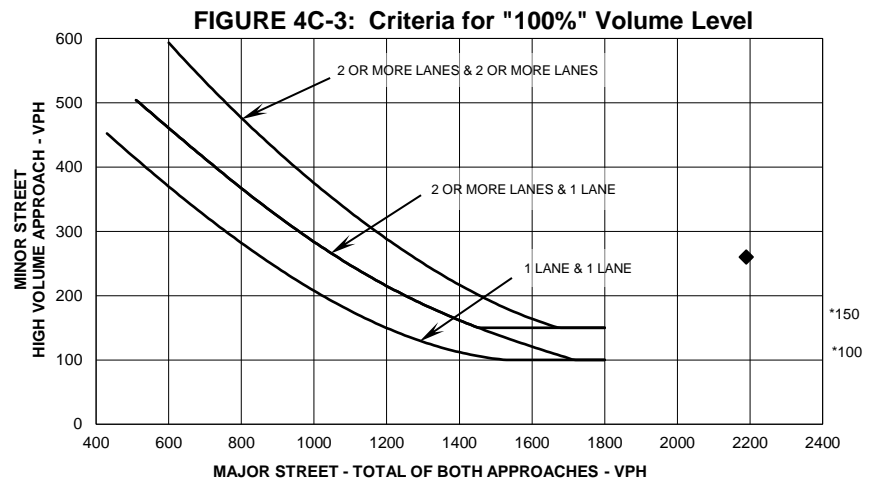
Criteria

1. Delay on Minor Approach (vehicle-hours)		
Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

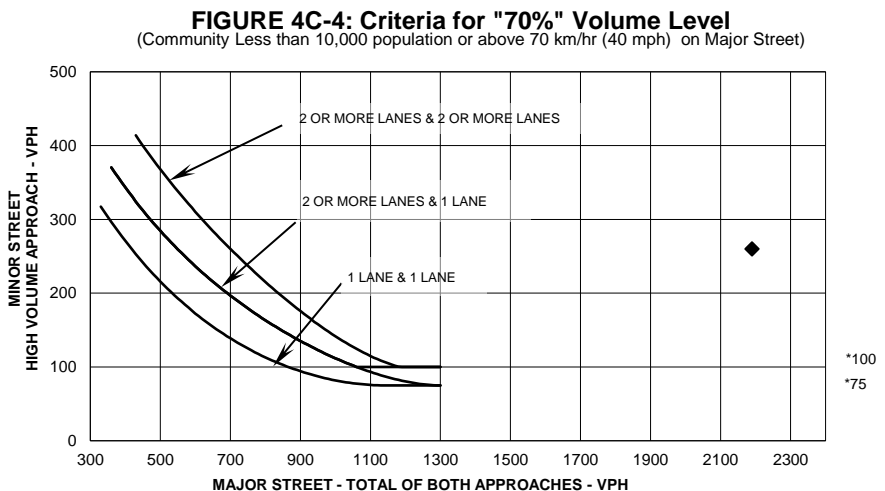
2. Volume on Minor Approach (vehicles per hour)		
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)		
No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.



* 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 threshold for a minor street approach with one lane.



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Cumulative + Project (2028) - PM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: Mission Rd
Minor Street: Date Ave

Lanes: 3 Critical Approach Speed: 40
Lanes: 2

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	1832	470

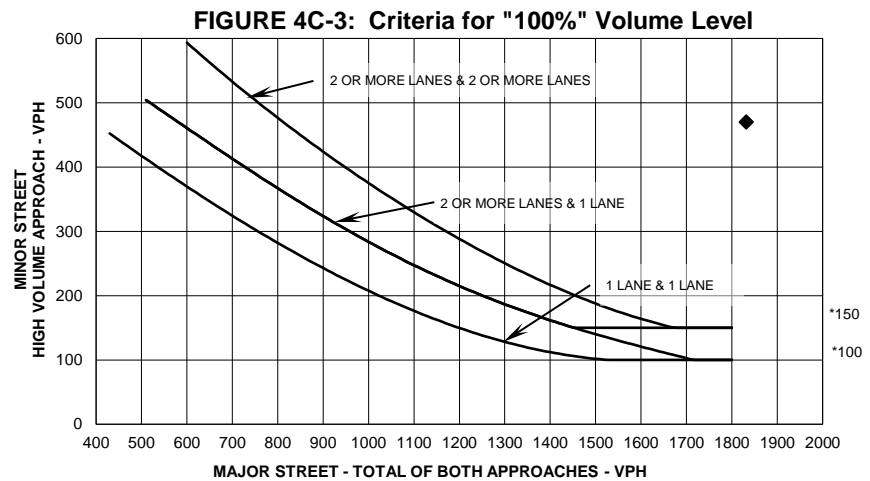
Criteria

1. Delay on Minor Approach (vehicle-hours)		
Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

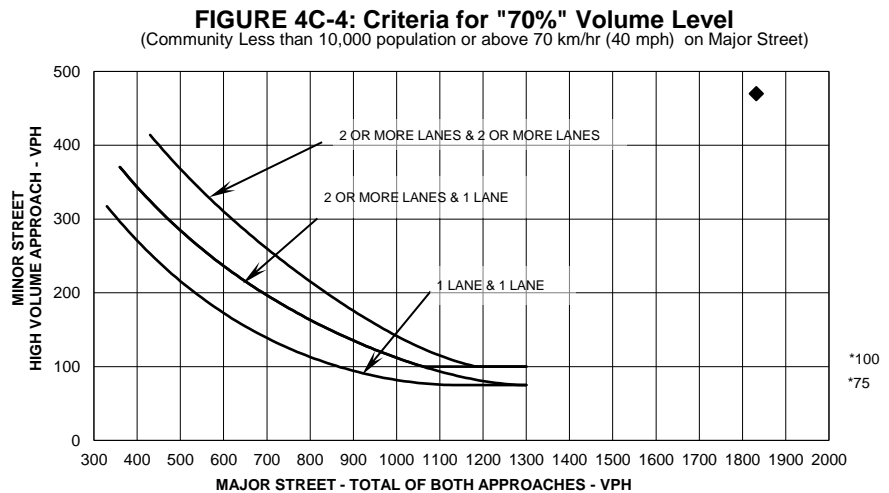
2. Volume on Minor Approach (vehicles per hour)		
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)		
No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.



* 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 threshold for a minor street approach with one lane.



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Cumulative (2028) - AM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: Date Ave
Minor Street: Mission Rd

Lanes: 2 Critical Approach Speed: 40
Lanes: 3

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph)? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Unusual condition justifying
use of warrant:

Record hour when criteria are fulfilled
and the corresponding delay or volume
in boxes provided.

Peak Hour		
AM	2129	142

Criteria

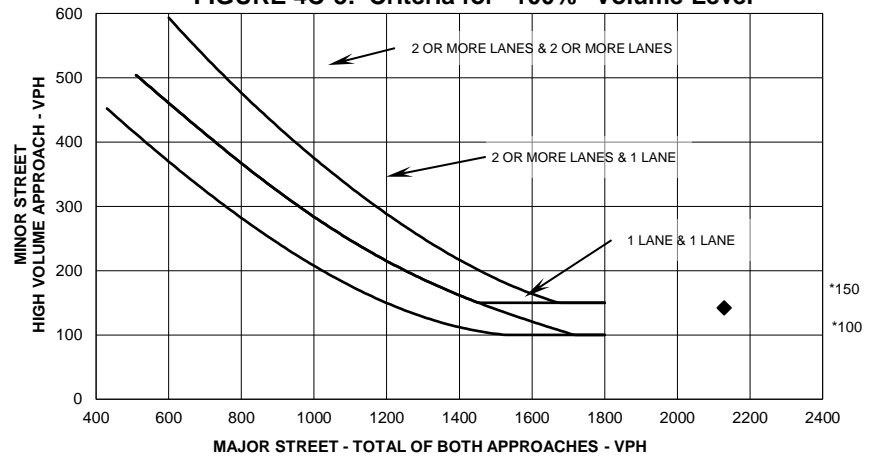
1. Delay on Minor Approach (vehicle-hours)		
Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)		
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)		
No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

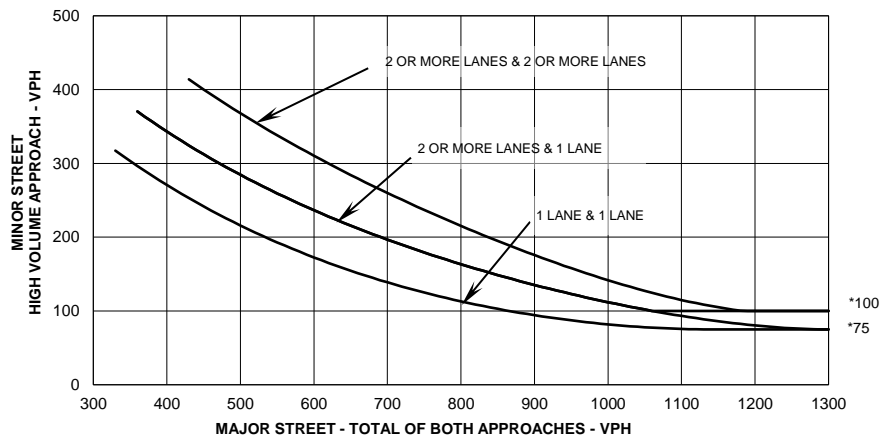
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Cumulative (2028) - PM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: Mission Rd
Minor Street: Date Ave

Lanes: 3 Critical Approach Speed: 40
Lanes: 2

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

Unusual condition justifying
use of warrant:

Record hour when criteria are fulfilled
and the corresponding delay or volume
in boxes provided.

Peak Hour		
AM	1687	413

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

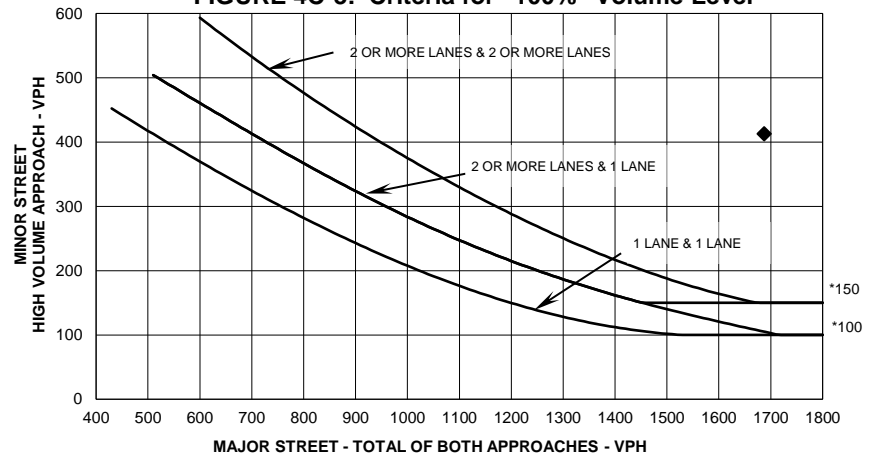
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

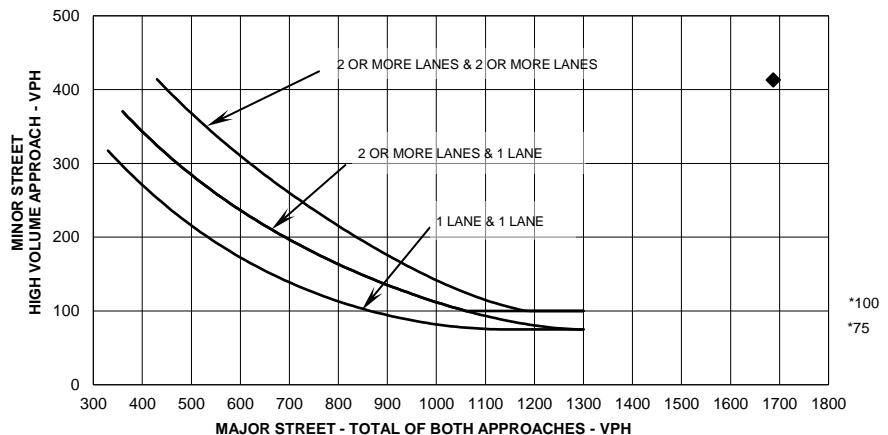
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Existing + Project (2018) - AM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: Mission Rd
Minor Street: Date Ave

Lanes: 3 Critical Approach Speed: 40
Lanes: 2

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	1941	217

Criteria

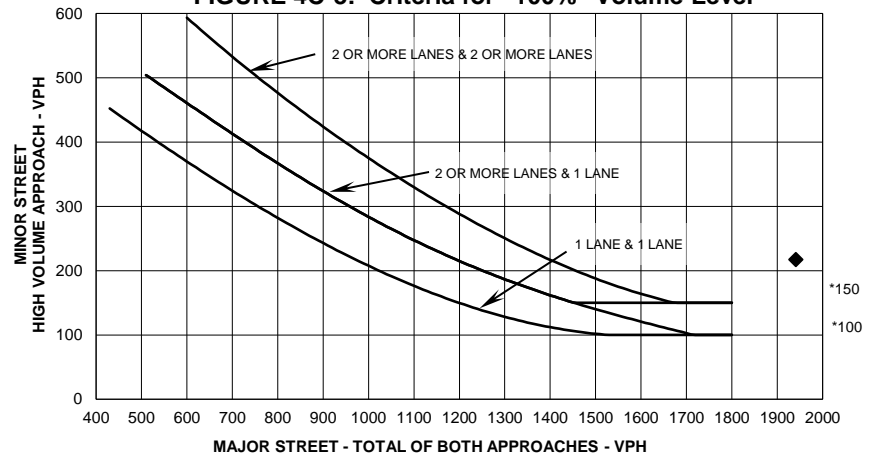
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

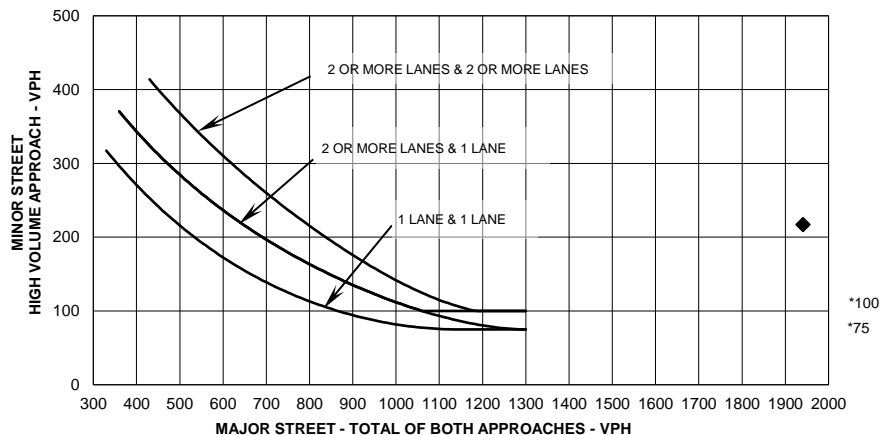
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Existing + Project (2018) - PM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: Mission Rd
Minor Street: Date Ave

Lanes: 3 Critical Approach Speed: 40
Lanes: 2

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	1639	412

Criteria

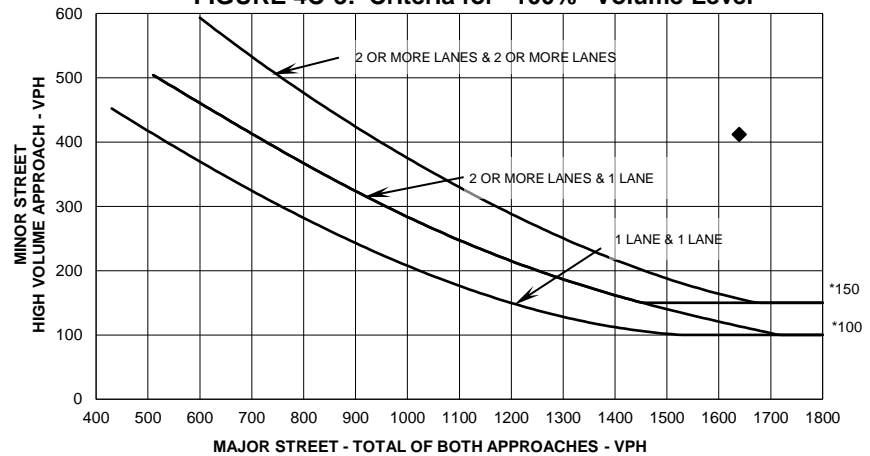
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

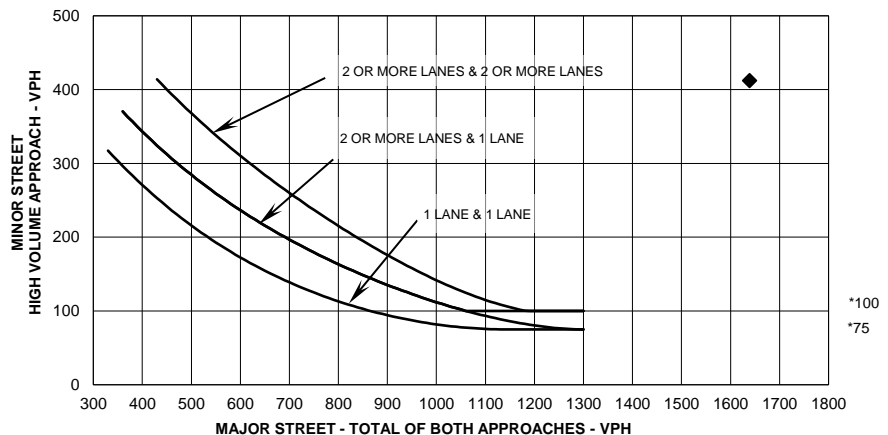
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Existing (2018) - AM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 5, 2018

Major Street: Mission Rd
Minor Street: Date Ave

Lanes: 3 Critical Approach Speed: 40
Lanes: 2

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	1880	100

Criteria

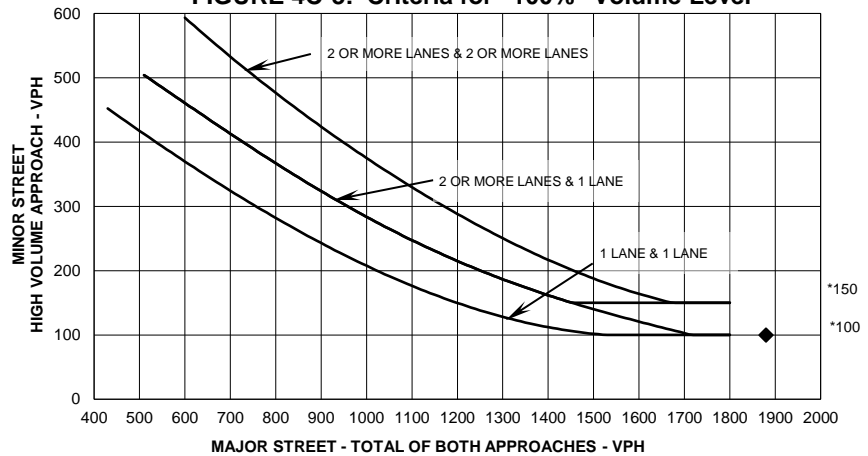
1. Delay on Minor Approach (vehicle-hours)		
Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)		
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)		
No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

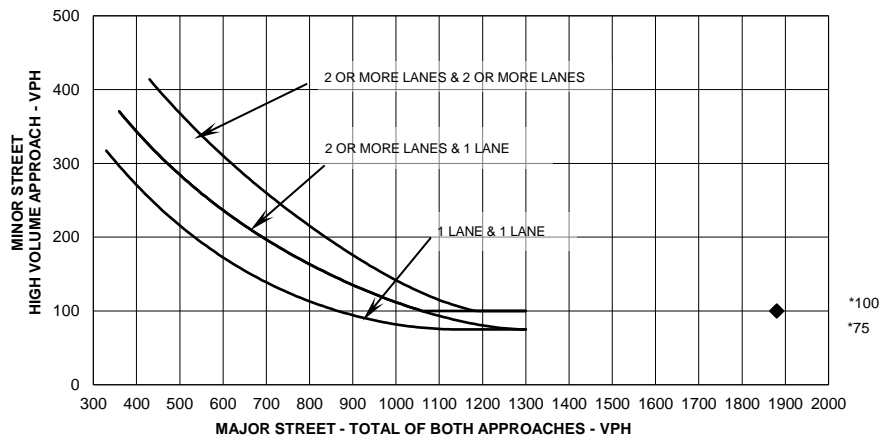
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Existing (2018) - PM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 5, 2018

Major Street: Mission Rd
Minor Street: Date Ave

Lanes: 3 Critical Approach Speed: 40
Lanes: 2

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

Unusual condition justifying
use of warrant:

Record hour when criteria are fulfilled
and the corresponding delay or volume
in boxes provided.

Peak Hour		
AM	1494	354

Criteria

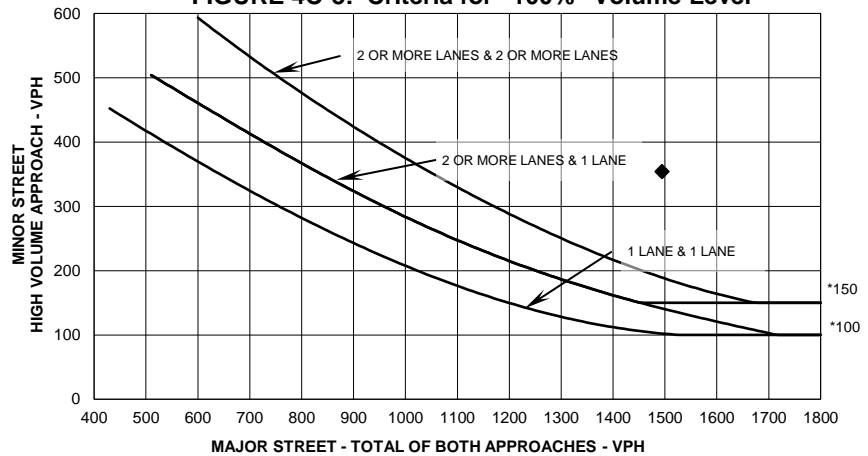
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Cumulative + Project (2028) - AM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: Date Ave
Minor Street: Chestnut St

Lanes: 2 Critical Approach Speed: 30
Lanes: 1

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Unusual condition justifying
use of warrant:

Record hour when criteria are fulfilled
and the corresponding delay or volume
in boxes provided.

Peak Hour		
AM	585	106

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

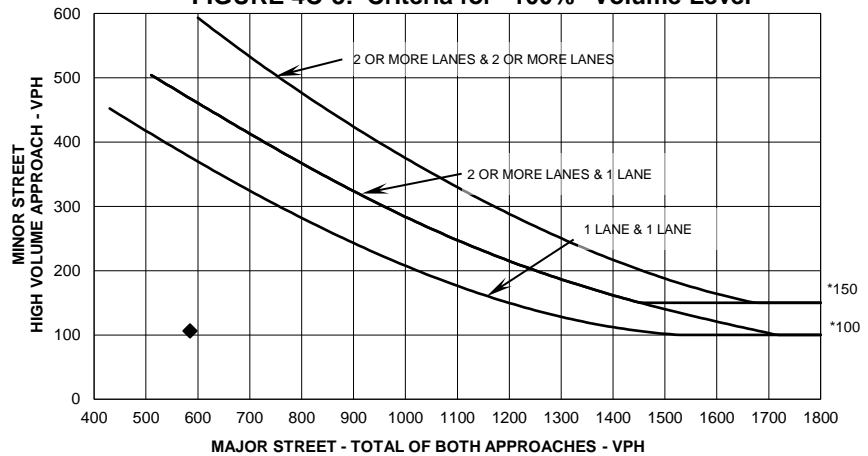
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

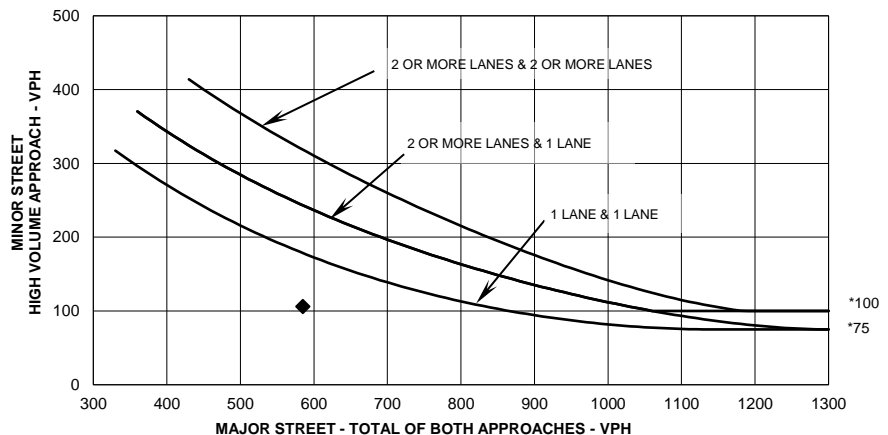
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Cumulative + Project (2028) - PM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: Date Ave
Minor Street: Chestnut St

Lanes: 2 Critical Approach Speed: 30
Lanes: 1

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Unusual condition justifying
use of warrant:

Record hour when criteria are fulfilled
and the corresponding delay or volume
in boxes provided.

Peak Hour		
PM	847	53

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

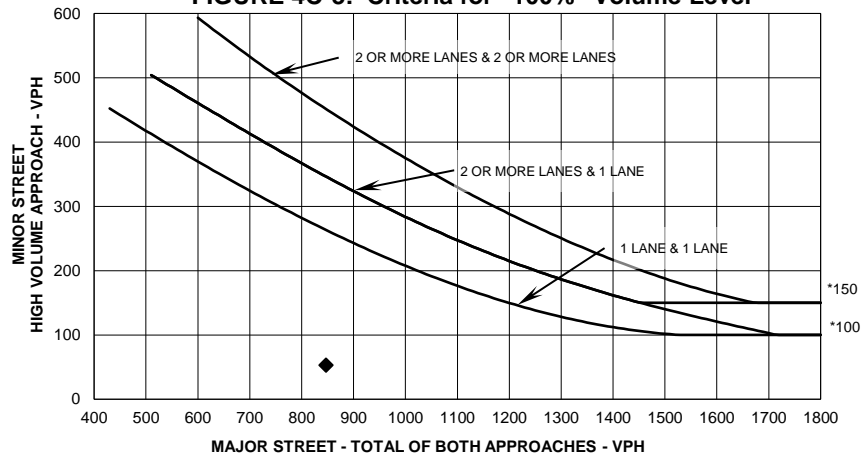
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

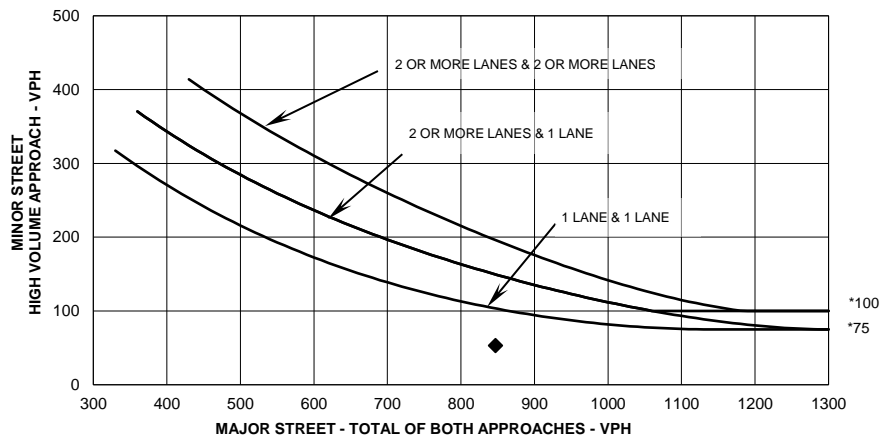
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Cumulative + Project (2028) - AM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: Hellman Ave/Ramona Rd
Minor Street: I-10 WB Ramps/Elm St.

Lanes: 2 Critical Approach Speed: 25
Lanes: 2

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

Unusual condition justifying
use of warrant:

Record hour when criteria are fulfilled
and the corresponding delay or volume
in boxes provided.

Peak Hour		
AM	1193	497

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

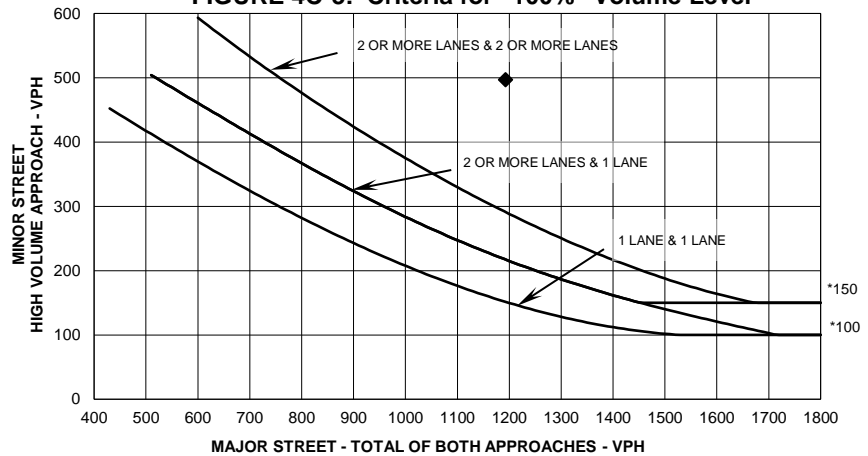
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

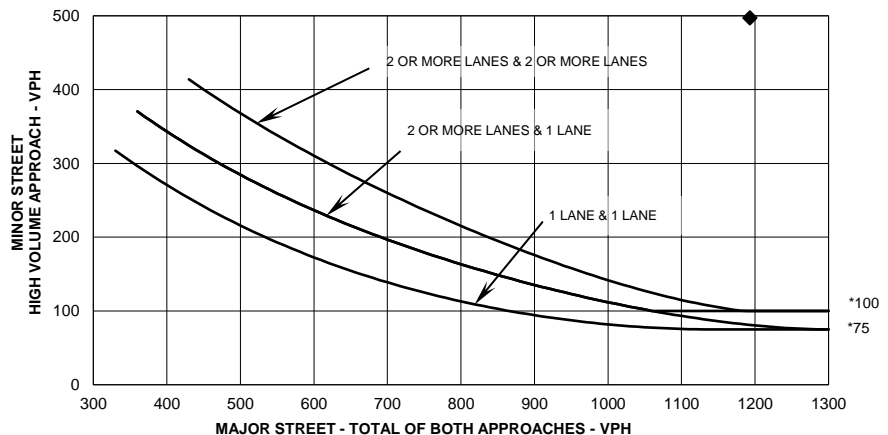
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Cumulative + Project (2028) - PM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: I-10 WB Ramps/Elm St
Minor Street: Hellman Ave/Ramona Rd

Lanes: 2 Critical Approach Speed: 25
Lanes: 2

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph)? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	926	649

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

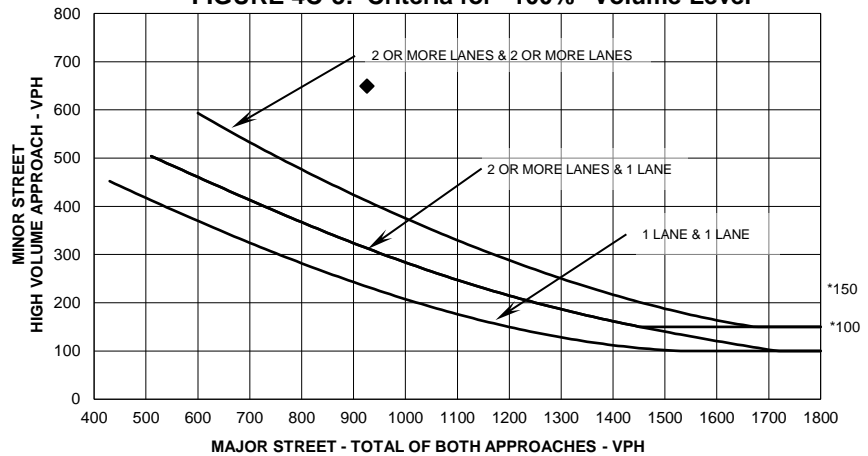
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

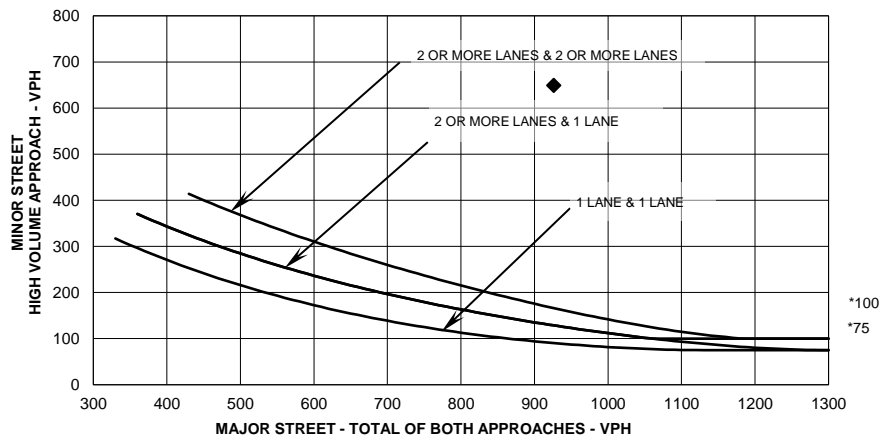
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Cumulative (2028) - AM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: I-10 WB Ramps/Elm St
Minor Street: Hellman Ave/Ramona Rd

Lanes: 2 Critical Approach Speed: 25
Lanes: 2

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	1153	491

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

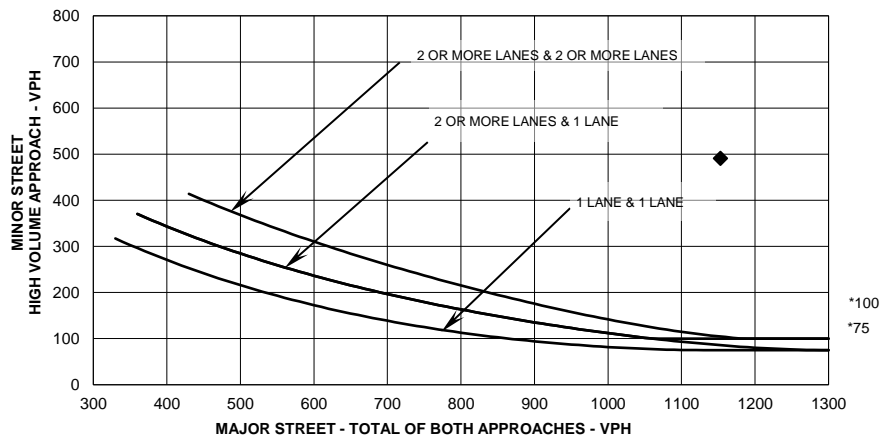
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Cumulative (2028) - PM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: I-10 WB Ramps/Elm St
Minor Street: Hellman Ave/Ramona Rd

Lanes: 2 Critical Approach Speed: 25
Lanes: 2

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	895	630

Criteria

1. Delay on Minor Approach *(vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach *(vehicles per hour)

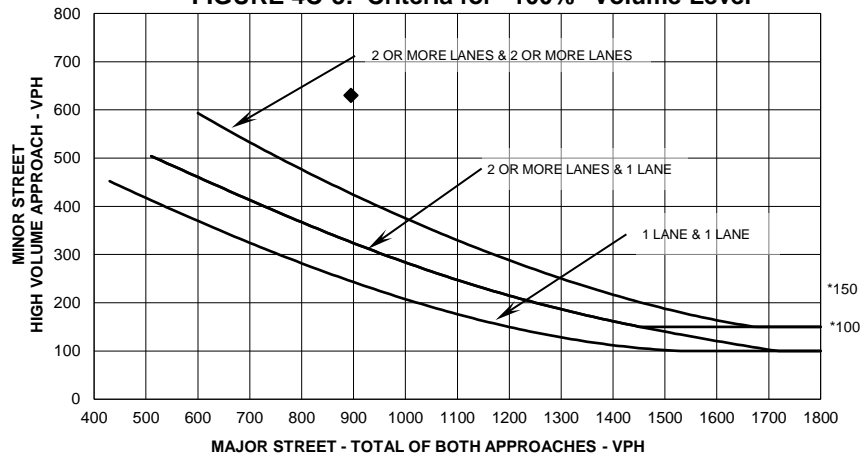
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume *(vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

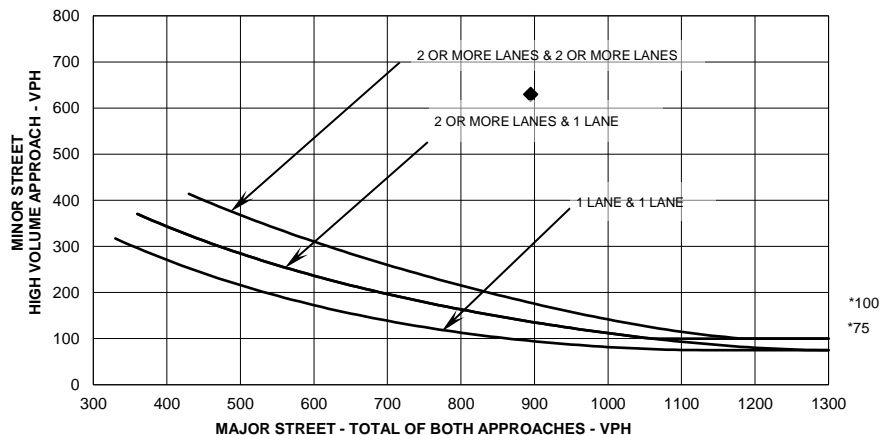
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Existing + Project (2018) - AM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 5, 2018

Major Street: Hellman Ave/Ramona Rd
Minor Street: I-10 WB Ramps/Elm St

Lanes: 2 Critical Approach Speed: 25
Lanes: 2

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	1053	440

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

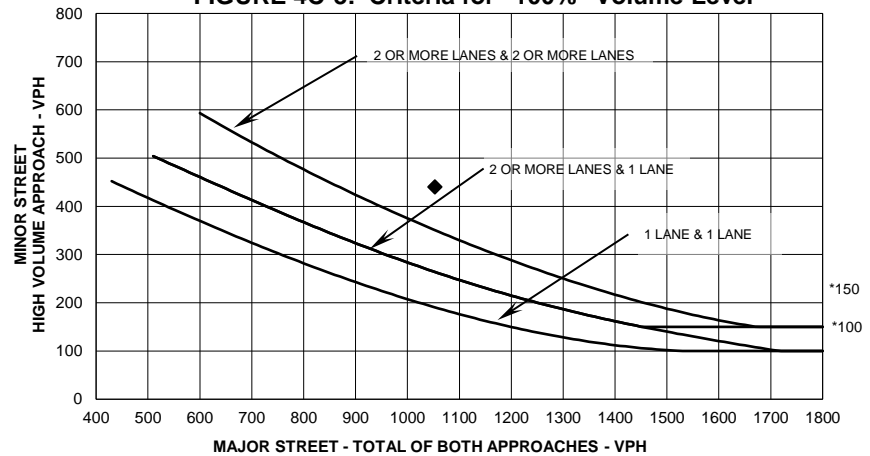
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

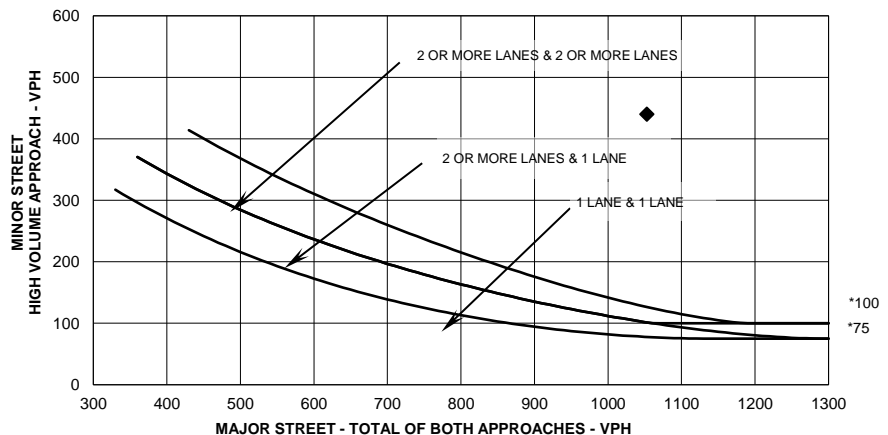
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Existing + Project (2018) - PM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 5, 2018

Major Street: I-10 WB Ramps/Elm St
Minor Street: Hellman Ave/Ramona Rd

Lanes: 2 Critical Approach Speed: 25
Lanes: 2

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph)? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	823	570

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

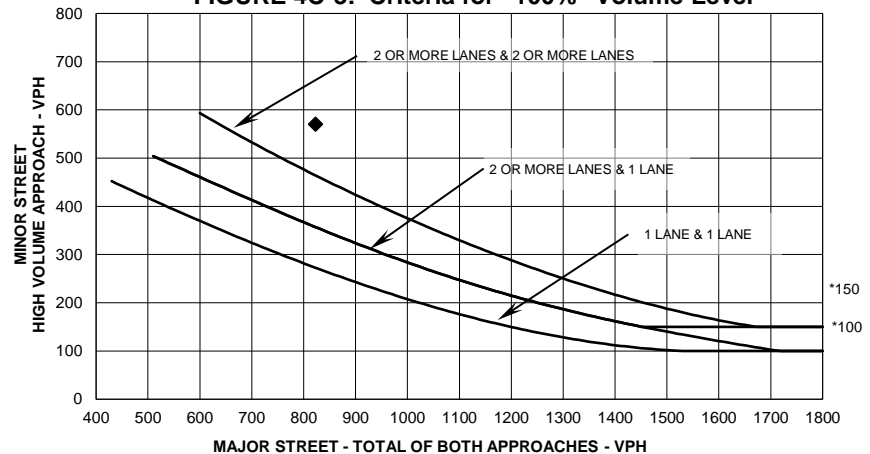
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

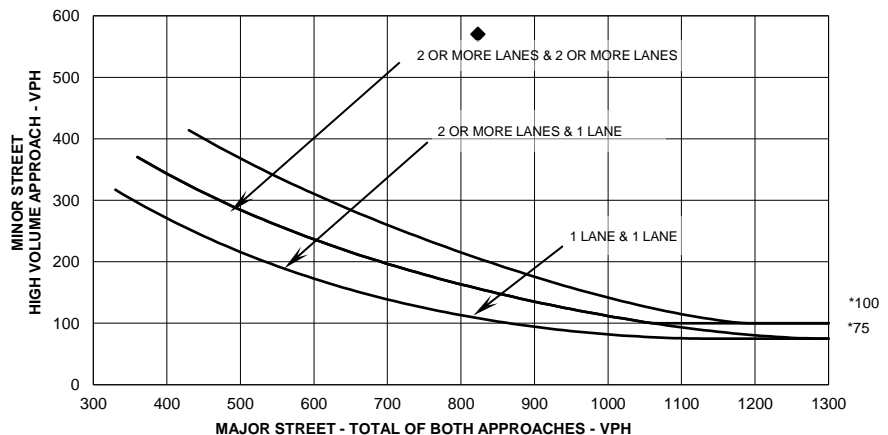
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Existing (2018) - AM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 5, 2018

Major Street: Hellman Ave/Ramona Rd
Minor Street: I-10 WB Ramps/Elm St

Lanes: 2 Critical Approach Speed: 25
Lanes: 2

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

Unusual condition justifying
use of warrant:

Record hour when criteria are fulfilled
and the corresponding delay or volume
in boxes provided.

Peak Hour		
AM	1013	434

Criteria

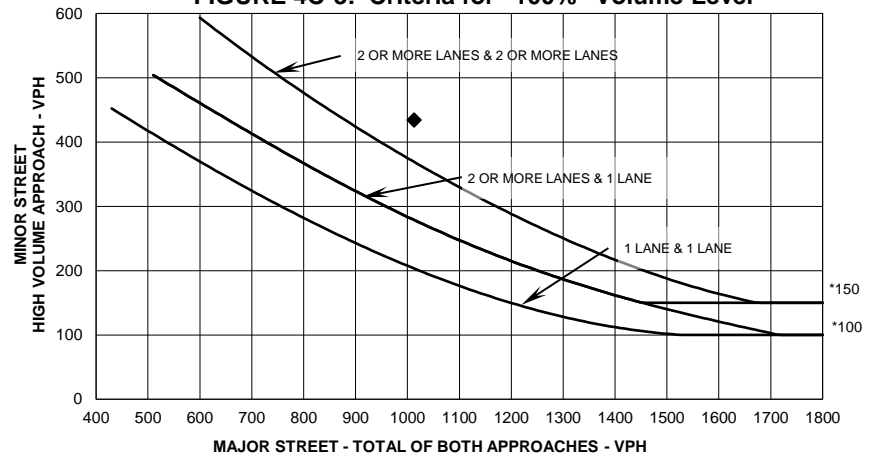
1. Delay on Minor Approach (vehicle-hours)		
Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)		
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)		
No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

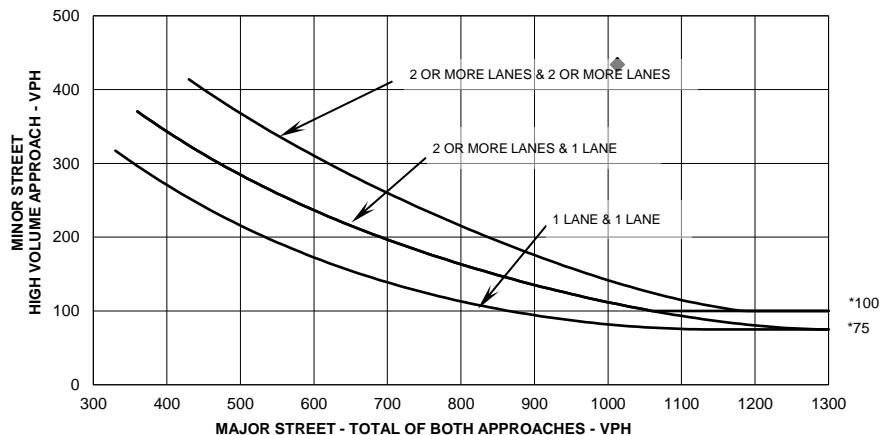
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

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Existing (2018) - PM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 5, 2018

Major Street: I-10 WB Ramps/Elm St
Minor Street: Hellman Ave/Ramona Rd

Lanes: 2 Critical Approach Speed: 25
Lanes: 2

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	792	551

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

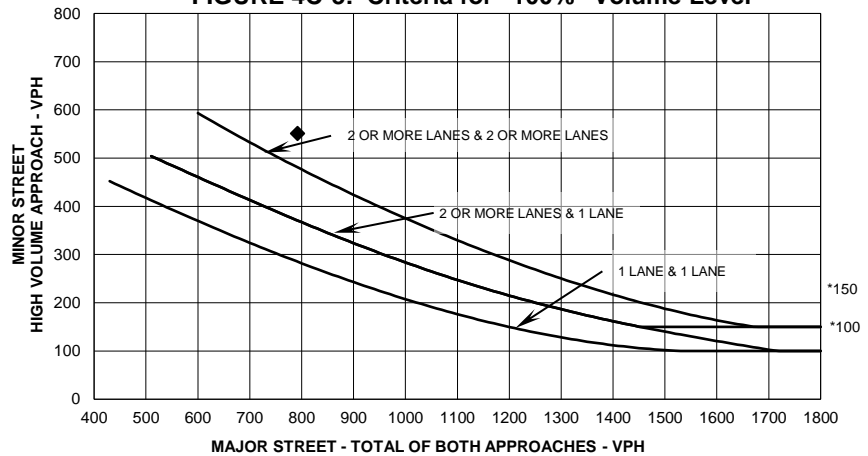
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

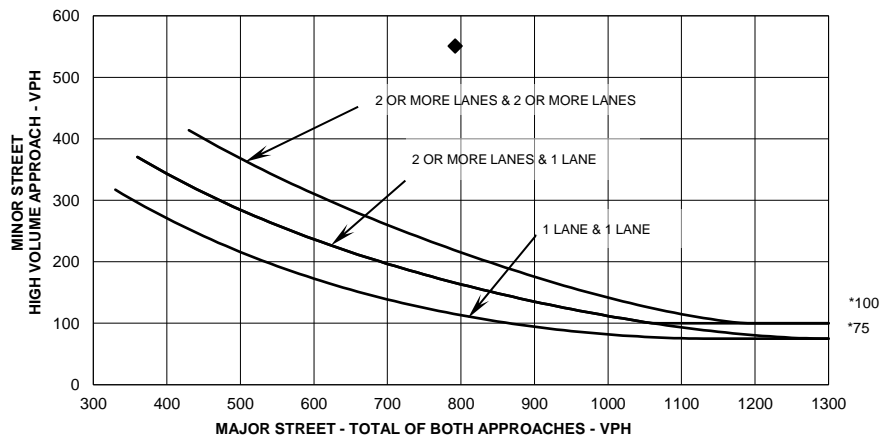
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

TRAFFIC SIGNAL WARRANT SUMMARY

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TRAFFIC ENGINEERING - 07/99
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Cumulative + Project (2028) - AM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: I-10 EB Ramp/Ramona Rd
Minor Street: Fremont

Lanes: 1 Critical Approach Speed: 25
Lanes: 2

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Unusual condition justifying
use of warrant:

Record hour when criteria are fulfilled
and the corresponding delay or volume
in boxes provided.

Peak Hour		
AM	799	144

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

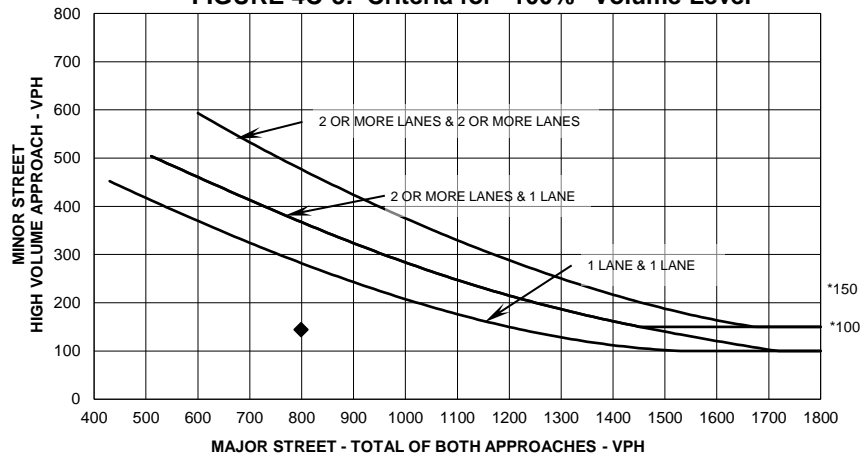
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

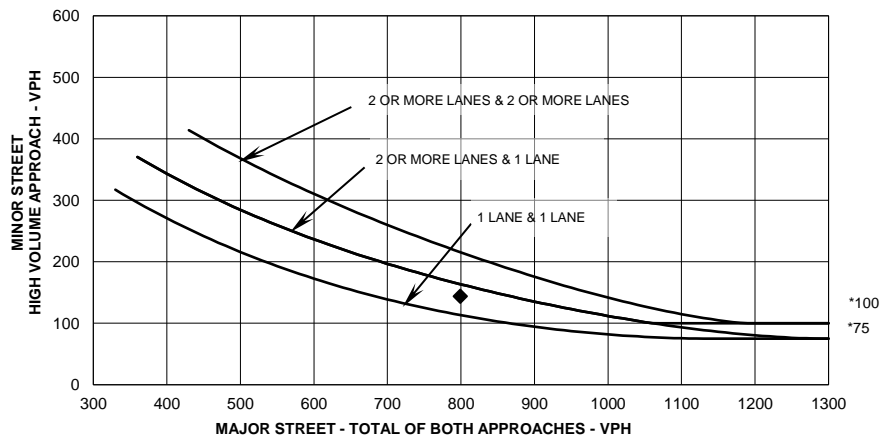
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

TRAFFIC SIGNAL WARRANT SUMMARY

Form 750-020-01
TRAFFIC ENGINEERING - 07/99
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Cumulative + Project (2028) - PM

City: Alhambra
County: Los Angeles

Engineer: KHA
Date: April 4, 2018

Major Street: Fremont
Minor Street: I-10 EB Ramp/Ramona Rd

Lanes: 2 Critical Approach Speed: 25
Lanes: 1

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Unusual condition justifying
use of warrant:

Record hour when criteria are fulfilled
and the corresponding delay or volume
in boxes provided.

Peak Hour		
AM	971	139

Criteria

1. Delay on Minor Approach (vehicle-hours)

Approach Lanes		
Delay Criteria*		
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

2. Volume on Minor Approach (vehicles per hour)

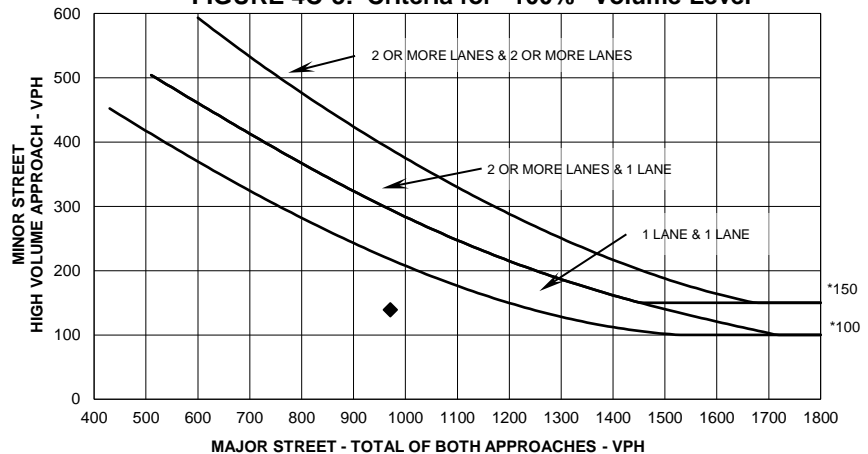
Approach Lanes		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Total Entering Volume (vehicles per hour)

No. of Approaches		
Volume Criteria*		
Volume*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

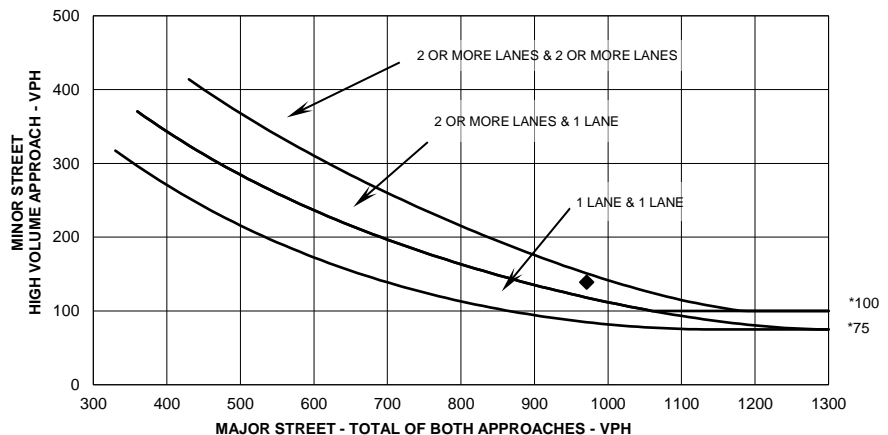
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



* 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 threshold for a minor street approach with one lane.

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

Intersection: S Fremont Avenue / W Valley Boulevard**Count Date:** Thursday, 4/27/2017**Peak Hour:** 7:15 - 8:15 AM**Analyst:** KHA**Agency:** City of Alhambra**CMP Monitoring Station #:** 1

Movement	Volume	Number of Lanes	Capacity	V/C Ratio	Critical V/C	Total
NB Left	41	1	1600	0.026		0.428
NB Thru	915	1.5	2400	0.381	X	
NB Right	26	0.5	800	0.033		
SB Left	74	1	1600	0.046	X	
SB Thru	805	2	3200	0.252		
SB Right	1273	2	3200	0.398		
EB Left	527	2	2880	0.183	X	0.410
EB Thru	404	2	3200	0.126		
EB Right	28	1	1600	0.018		
WB Left	56	1	1600	0.035		
WB Thru	725	2	3200	0.227	X	
WB Right	185	1	1600	0.116		
Sum of Critical V/C Ratios						0.837
Adjustment for Lost Time						0.100
Intersection Capacity Utilization (ICU)						0.937
Level of Service (LOS) - Refer to table below						E

Notes:

1. Per lane Capacity = 1,600 VPH
2. Dual turn lane Capacity = 2,880 VPH
3. Intersection Type: 4-Way Signalized

LOS	V/C Range
A	0.00 - 0.60
B	0.61 - 0.70
C	0.71 - 0.80
D	0.81 - 0.90
E	0.91 - 1.00
F	>1.00

Intersection: W Valley Boulevard / I-710 Northbound Offramp

Count Date: Thursday, 4/27/2017

Analyst: KHA

CMP Monitoring Station #: 69

Peak Hour: 7:15 - 8:15 AM

Agency: City of Alhambra

Movement	Volume	Number of Lanes	Capacity	V/C Ratio	Critical V/C	Total
NB Left	603	1.5	2400	0.251		0.285
NB Thru	1	0	-	-		
NB Right	685	1.5	2400	0.285	X	
SB Left	4	1	1600	0.003		
SB Thru	0	0	-	-	X	
SB Right	1	1	1600	0.001		
EB Left	0	0	-	-	X	0.389
EB Thru	207	2	3200	0.065		
EB Right	0	0	-	-		
WB Left	0	0	-	-		
WB Thru	2176	3.5	5600	0.389	X	
WB Right	6	0.5	800	0.008		
Sum of Critical V/C Ratios						0.674
Adjustment for Lost Time						0.100
Intersection Capacity Utilization (ICU)						0.774
Level of Service (LOS) - Refer to table below						C

Notes:

1. Per lane Capacity = 1,600 VPH
2. Dual turn lane Capacity = 2,880 VPH
3. Intersection Type: 4-Way Signalized

LOS	V/C Range
A	0.00 - 0.60
B	0.61 - 0.70
C	0.71 - 0.80
D	0.81 - 0.90
E	0.91 - 1.00
F	>1.00

Intersection: S Fremont Avenue / W Valley Boulevard**Count Date:** Thursday, 4/27/2017**Analyst:** KHA**CMP Monitoring Station #:** 1**Peak Hour:** 5:00 - 6:00 PM**Agency:** City of Alhambra

Movement	Volume	Number of Lanes	Capacity	V/C Ratio	Critical V/C	Total
NB Left	28	1	1600	0.018		0.451
NB Thru	803	1.5	2400	0.335	X	
NB Right	33	0.5	800	0.041		
SB Left	186	1	1600	0.116	X	
SB Thru	961	2	3200	0.300		
SB Right	774	2	3200	0.242		
EB Left	616	2	2880	0.214	X	0.406
EB Thru	899	2	3200	0.281		
EB Right	25	1	1600	0.016		
WB Left	125	1	1600	0.078		
WB Thru	349	2	3200	0.109		
WB Right	308	1	1600	0.193	X	
Sum of Critical V/C Ratios						0.857
Adjustment for Lost Time						0.100
Intersection Capacity Utilization (ICU)						0.957
Level of Service (LOS) - Refer to table below						E

Notes:

1. Per lane Capacity = 1,600 VPH
2. Dual turn lane Capacity = 2,880 VPH
3. Intersection Type: 4-Way Signalized

V/C	
LOS	Range
A	0.00 - 0.60
B	0.61 - 0.70
C	0.71 - 0.80
D	0.81 - 0.90
E	0.91 - 1.00
F	>1.00

Intersection: W Valley Boulevard / I-710 Northbound Offramp

Count Date: Thursday, 4/27/2017

Peak Hour: 5:00 - 6:00 PM

Analyst: KHA

Agency: City of Alhambra

CMP Monitoring Station #: 69

Movement	Volume	Number of Lanes	Capacity	V/C Ratio	Critical V/C	Total
NB Left	584	1.5	2400	0.243		0.516
NB Thru	0	0	-	-		
NB Right	1238	1.5	2400	0.516	X	
SB Left	1	1	1600	0.001		
SB Thru	0	0	-	-	X	
SB Right	2	1	1600	0.001		
EB Left	0	0	-	-	X	0.200
EB Thru	530	2	3200	0.166		
EB Right	0	0	-	-		
WB Left	0	0	-	-		
WB Thru	1118	3.5	5600	0.200	X	
WB Right	0	0.5	800	0.000		
Sum of Critical V/C Ratios						0.715
Adjustment for Lost Time						0.100
Intersection Capacity Utilization (ICU)						0.815
Level of Service (LOS) - Refer to table below						A

Notes:

1. Per lane Capacity = 1,600 VPH
2. Dual turn lane Capacity = 2,880 VPH
3. Intersection Type: 4-Way Signalized

LOS	V/C Range
A	0.00 - 0.60
B	0.61 - 0.70
C	0.71 - 0.80
D	0.81 - 0.90
E	0.91 - 1.00
F	>1.00

Queuing and Blocking Report
2018 Existing AM

01/14/2019

Intersection: 2: Fremont Ave & Project Driveway A/Project Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	T	R
Maximum Queue (ft)	71	329	37	130	90	182	180	95	94	1264	1255	95
Average Queue (ft)	15	269	30	53	38	53	53	17	4	1147	1204	19
95th Queue (ft)	47	405	37	121	79	128	122	58	33	1437	1319	81
Link Distance (ft)	314	314		397		345	345			1205	1205	
Upstream Blk Time (%)		62								19	44	
Queuing Penalty (veh)		0								132	302	
Storage Bay Dist (ft)			25		70			80	70			70
Storage Blk Time (%)			96	2	7	1	1	0	0	23	66	0
Queuing Penalty (veh)			7	0	47	1	1	0	0	1	24	0

Intersection: 9: Date Ave & Driveway E/Chestnut St

Movement	WB	NB	NB	SB	SB
Directions Served	LT	L	R	L	R
Maximum Queue (ft)	26	48	26	25	35
Average Queue (ft)	6	9	2	2	3
95th Queue (ft)	24	34	12	12	17
Link Distance (ft)	435				
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		30	25	30	25
Storage Blk Time (%)	1	1	0	0	0
Queuing Penalty (veh)	0	1	0	0	0

Intersection: 134: Driveway F & Orange St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 135: Mission Road & Driveway B

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Intersection: 211: Date Ave & Driveway C

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Zone Summary

Zone wide Queuing Penalty: 517

Queuing and Blocking Report
2018 Existing PM

01/14/2019

Intersection: 2: Fremont Ave & Project Driveway A/Project Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	T	R
Maximum Queue (ft)	140	138	50	84	94	128	119	29	94	1093	1122	95
Average Queue (ft)	66	47	26	20	28	65	81	4	4	404	503	29
95th Queue (ft)	113	97	53	58	69	121	125	19	33	930	1055	101
Link Distance (ft)	314	314		397		345	345			1205	1205	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)			25		70			80	70			70
Storage Blk Time (%)			33	9	2	7	8			17	54	0
Queuing Penalty (veh)			10	3	15	4	3			1	32	0

Intersection: 9: Date Ave & Driveway E/Chestnut St

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	L	T	R	L	T
Maximum Queue (ft)	242	48	30	263	50	40	721
Average Queue (ft)	72	13	1	184	33	31	568
95th Queue (ft)	218	44	10	361	52	44	1018
Link Distance (ft)	435						714
Upstream Blk Time (%)							71
Queuing Penalty (veh)							301
Storage Bay Dist (ft)		25	30		25	30	
Storage Blk Time (%)	69	1	0		81	91	
Queuing Penalty (veh)	12	0	0		158	347	

Intersection: 134: Driveway F & Orange St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 135: Mission Road & Driveway B

Movement

Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 211: Date Ave & Driveway C

Movement

Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Zone Summary

Zone wide Queuing Penalty: 886

Queuing and Blocking Report
2018 Existing + Project AM

01/14/2019

Intersection: 2: Fremont Ave & Project Driveway A/Project Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	T	R
Maximum Queue (ft)	327	329	49	412	49	115	138	105	31	1260	1247	95
Average Queue (ft)	173	299	33	366	18	42	60	14	6	1095	1174	13
95th Queue (ft)	423	355	38	493	45	89	123	64	25	1461	1415	66
Link Distance (ft)	314	314		397		345	345			1205	1205	
Upstream Blk Time (%)	52	78		86						16	39	
Queuing Penalty (veh)	0	0		0						113	278	
Storage Bay Dist (ft)			25		70			80	70			70
Storage Blk Time (%)			100			1	2	0		22	69	0
Queuing Penalty (veh)			29			0	2	0		2	25	0

Intersection: 9: Date Ave & Driveway E/Chestnut St

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	R	L	R
Maximum Queue (ft)	70	26	36	31	27	26	36
Average Queue (ft)	29	8	3	19	7	1	1
95th Queue (ft)	51	27	21	42	25	8	12
Link Distance (ft)	270	435					
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			25	30	25	30	25
Storage Blk Time (%)		2	0	2	0	0	0
Queuing Penalty (veh)		0	0	3	0	0	0

Intersection: 134: Driveway F & Orange St

Movement	NB	NB
Directions Served	L	R
Maximum Queue (ft)	67	40
Average Queue (ft)	29	14
95th Queue (ft)	50	31
Link Distance (ft)	292	292
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report

2018 Existing + Project AM

01/14/2019

Intersection: 135: Mission Road & Driveway B

Movement	EB	WB	WB	SB	SB
Directions Served	LT	T	TR	L	R
Maximum Queue (ft)	73	654	651	49	160
Average Queue (ft)	11	307	235	17	59
95th Queue (ft)	48	641	559	41	143
Link Distance (ft)	360	654	654	155	155
Upstream Blk Time (%)		2	0		18
Queuing Penalty (veh)		12	0		0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 211: Date Ave & Driveway C

Movement	EB	SB
Directions Served	LR	TR
Maximum Queue (ft)	115	178
Average Queue (ft)	38	21
95th Queue (ft)	74	89
Link Distance (ft)	293	539
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 466

Queuing and Blocking Report
2018 Existing + Project PM

01/14/2019

Intersection: 2: Fremont Ave & Project Driveway A/Project Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	T	R
Maximum Queue (ft)	140	115	50	102	75	123	159	105	94	412	526	95
Average Queue (ft)	71	40	35	28	18	69	88	19	16	96	203	17
95th Queue (ft)	128	83	58	71	51	123	148	63	64	279	397	75
Link Distance (ft)	314	314		397		345	345			1205	1205	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)			25		70			80	70			70
Storage Blk Time (%)			53	16	1	8	8	0	0	6	30	0
Queuing Penalty (veh)			20	9	5	4	6	0	1	1	18	0

Intersection: 9: Date Ave & Driveway E/Chestnut St

Movement	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	R	L	R	L	T	R
Maximum Queue (ft)	282	216	50	49	26	54	718	50
Average Queue (ft)	109	50	15	16	7	21	329	16
95th Queue (ft)	254	163	46	42	26	62	735	53
Link Distance (ft)	270	435					714	
Upstream Blk Time (%)	5						1	
Queuing Penalty (veh)	0						4	
Storage Bay Dist (ft)			25	30	25	30		25
Storage Blk Time (%)		34	2	1	0	0	60	0
Queuing Penalty (veh)		6	1	3	0	2	36	1

Intersection: 134: Driveway F & Orange St

Movement	EB	WB	NB	NB
Directions Served	R	L	L	R
Maximum Queue (ft)	61	31	71	22
Average Queue (ft)	2	7	24	12
95th Queue (ft)	20	28	46	28
Link Distance (ft)			292	292
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	50	50		
Storage Blk Time (%)	0	0		
Queuing Penalty (veh)	0	0		

Queuing and Blocking Report
2018 Existing + Project PM

01/14/2019

Intersection: 135: Mission Road & Driveway B

Movement	EB	WB	WB	SB	SB
Directions Served	LT	T	TR	L	R
Maximum Queue (ft)	114	397	290	50	96
Average Queue (ft)	24	115	48	14	28
95th Queue (ft)	75	374	202	38	73
Link Distance (ft)	360	654	654	155	155
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 211: Date Ave & Driveway C

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	140	52	559
Average Queue (ft)	72	5	449
95th Queue (ft)	136	26	731
Link Distance (ft)	293	78	539
Upstream Blk Time (%)			34
Queuing Penalty (veh)			149
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 266

Queuing and Blocking Report
2028 Cumulative AM

01/14/2019

Intersection: 2: Fremont Ave & Project Driveway A/Project Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	T	R
Maximum Queue (ft)	329	329	39	90	74	74	115	30	31	1263	1246	95
Average Queue (ft)	34	294	21	15	24	38	47	11	1	1203	1210	18
95th Queue (ft)	170	372	41	61	55	68	87	33	10	1322	1285	79
Link Distance (ft)	314	314		397		345	345			1205	1205	
Upstream Blk Time (%)	4	74								28	48	
Queuing Penalty (veh)	0	0								219	370	
Storage Bay Dist (ft)			25		70			80	70			70
Storage Blk Time (%)			93	3	1	0	0			18	71	0
Queuing Penalty (veh)			7	0	8	0	1			1	28	0

Intersection: 9: Date Ave & Driveway E/Chestnut St

Movement	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	L	R	L	R
Maximum Queue (ft)	26	36	54	24	26	33
Average Queue (ft)	2	5	15	1	1	3
95th Queue (ft)	12	24	44	8	8	18
Link Distance (ft)	435					
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		25	30	25	30	25
Storage Blk Time (%)	0	0	2	0	0	0
Queuing Penalty (veh)	0	0	4	0	0	0

Intersection: 134: Driveway F & Orange St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Queuing and Blocking Report

2028 Cumulative AM

01/14/2019

Intersection: 135: Mission Road & Driveway B

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	511	503
Average Queue (ft)	275	209
95th Queue (ft)	503	447
Link Distance (ft)	666	666
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 211: Date Ave & Driveway C

Movement	SB
Directions Served	TR
Maximum Queue (ft)	31
Average Queue (ft)	2
95th Queue (ft)	12
Link Distance (ft)	539
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 639

Queuing and Blocking Report
2028 Cumulative PM

01/14/2019

Intersection: 2: Fremont Ave & Project Driveway A/Project Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	T	R
Maximum Queue (ft)	159	160	50	288	94	194	220	104	95	1247	1222	95
Average Queue (ft)	72	69	33	63	24	98	120	13	9	815	899	46
95th Queue (ft)	129	130	59	170	65	172	198	56	49	1432	1396	121
Link Distance (ft)	314	314		397		345	345			1205	1205	
Upstream Blk Time (%)										20	32	
Queuing Penalty (veh)										132	215	
Storage Bay Dist (ft)			25		70			80	70			70
Storage Blk Time (%)			62	20	3	18	22	0	0	66	82	0
Queuing Penalty (veh)			20	9	23	11	10	0	1	5	55	0

Intersection: 9: Date Ave & Driveway E/Chestnut St

Movement	WB	WB	NB	NB	SB
Directions Served	LT	R	L	R	L
Maximum Queue (ft)	27	48	30	26	25
Average Queue (ft)	8	13	5	7	4
95th Queue (ft)	27	43	23	25	19
Link Distance (ft)	435				
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		25	30	25	30
Storage Blk Time (%)	1	2	1	0	0
Queuing Penalty (veh)	0	0	2	0	2

Intersection: 134: Driveway F & Orange St

Movement	WB
Directions Served	T
Maximum Queue (ft)	271
Average Queue (ft)	77
95th Queue (ft)	260
Link Distance (ft)	254
Upstream Blk Time (%)	13
Queuing Penalty (veh)	13
Storage Bay Dist (ft)	
Storage Blk Time (%)	31
Queuing Penalty (veh)	0

Queuing and Blocking Report

2028 Cumulative PM

01/14/2019

Intersection: 135: Mission Road & Driveway B

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	670	275
Average Queue (ft)	102	18
95th Queue (ft)	431	115
Link Distance (ft)	666	666
Upstream Blk Time (%)	1	
Queuing Penalty (veh)	5	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 211: Date Ave & Driveway C

Movement	SB
Directions Served	TR
Maximum Queue (ft)	401
Average Queue (ft)	92
95th Queue (ft)	298
Link Distance (ft)	539
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 502

Queuing and Blocking Report
2028 Cumulative + Project AM

01/14/2019

Intersection: 2: Fremont Ave & Project Driveway A/Project Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	T	R
Maximum Queue (ft)	319	329	49	412	94	195	202	62	53	1259	1236	95
Average Queue (ft)	134	290	33	391	18	108	132	28	3	1211	1218	25
95th Queue (ft)	386	372	39	432	55	183	210	45	21	1300	1231	94
Link Distance (ft)	314	314		397		345	345			1205	1205	
Upstream Blk Time (%)	39	85		84						41	65	
Queuing Penalty (veh)	0	0		0						330	520	
Storage Bay Dist (ft)			25		70			8	70			70
Storage Blk Time (%)			100		0	3	17	1	0	13	79	0
Queuing Penalty (veh)			30		0	2	23	9	0	1	32	0

Intersection: 9: Date Ave & Driveway E/Chestnut St

Movement	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	R	L	T
Maximum Queue (ft)	177	26	36	49	39	27	25	171
Average Queue (ft)	36	7	2	15	1	7	3	15
95th Queue (ft)	86	26	17	43	13	26	17	91
Link Distance (ft)	270	435			539			714
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			25	30		25	30	
Storage Blk Time (%)		2	0	2	0	0	0	8
Queuing Penalty (veh)		0	0	3	0	0	1	6

Intersection: 134: Driveway F & Orange St

Movement	WB	NB	NB
Directions Served	T	L	R
Maximum Queue (ft)	268	306	306
Average Queue (ft)	156	172	18
95th Queue (ft)	351	371	108
Link Distance (ft)	254	292	292
Upstream Blk Time (%)	40	49	0
Queuing Penalty (veh)	65	0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)	59		
Queuing Penalty (veh)	2		

Intersection: 135: Mission Road & Driveway B

Movement	EB	WB	WB	SB	SB
Directions Served	LT	T	TR	L	R
Maximum Queue (ft)	69	658	646	170	170
Average Queue (ft)	5	381	245	55	93
95th Queue (ft)	30	766	625	145	189
Link Distance (ft)	360	654	654	155	155
Upstream Blk Time (%)		15	0	20	37
Queuing Penalty (veh)		112	0	0	0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 211: Date Ave & Driveway C

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	272	30	553
Average Queue (ft)	50	2	104
95th Queue (ft)	155	13	403
Link Distance (ft)	293	78	539
Upstream Blk Time (%)			9
Queuing Penalty (veh)			25
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 1162

Intersection: 2: Fremont Ave & Project Driveway A/Project Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	T	R
Maximum Queue (ft)	300	329	50	412	94	233	234	105	94	1262	1225	95
Average Queue (ft)	71	134	34	113	24	127	158	14	21	1022	1061	38
95th Queue (ft)	171	330	55	345	62	211	229	67	79	1551	1513	114
Link Distance (ft)	314	314		397		345	345			1205	1205	
Upstream Blk Time (%)	0	20		8						38	53	
Queuing Penalty (veh)	0	0		0						264	373	
Storage Bay Dist (ft)			25		70			80	70			70
Storage Blk Time (%)			74	6	2	30	34	0	0	72	87	0
Queuing Penalty (veh)			30	3	19	18	26	0	0	19	58	0

Intersection: 9: Date Ave & Driveway E/Chestnut St

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	R	L	T	R	L	T	R
Maximum Queue (ft)	283	216	50	54	554	26	54	591	50
Average Queue (ft)	62	48	17	8	158	4	11	98	6
95th Queue (ft)	196	147	47	32	553	20	44	396	32
Link Distance (ft)	270	435			539			714	
Upstream Blk Time (%)	6				22				
Queuing Penalty (veh)	0				69				
Storage Bay Dist (ft)			25	30		25	30		25
Storage Blk Time (%)		8	32	1	30	0	1	21	0
Queuing Penalty (veh)		2	11	3	31	0	3	13	0

Intersection: 134: Driveway F & Orange St

Movement	EB	WB	WB	NB	NB
Directions Served	R	L	T	L	R
Maximum Queue (ft)	72	31	265	304	22
Average Queue (ft)	2	1	136	109	10
95th Queue (ft)	24	10	339	272	27
Link Distance (ft)			254	292	292
Upstream Blk Time (%)			45	10	
Queuing Penalty (veh)			61	0	
Storage Bay Dist (ft)	50	50			
Storage Blk Time (%)	0	0	54		
Queuing Penalty (veh)	0	0	13		

Intersection: 135: Mission Road & Driveway B

Movement	EB	EB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	L	R
Maximum Queue (ft)	359	370	444	431	49	52
Average Queue (ft)	54	39	153	67	9	19
95th Queue (ft)	207	201	422	284	35	45
Link Distance (ft)	360	360	654	654	155	155
Upstream Blk Time (%)	0	0				
Queuing Penalty (veh)	0	0				
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 211: Date Ave & Driveway C

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	308	96	554
Average Queue (ft)	173	32	312
95th Queue (ft)	345	92	655
Link Distance (ft)	293	78	539
Upstream Blk Time (%)	30	22	13
Queuing Penalty (veh)	0	73	66
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 1157