City of Corona

MAGNOLIA AVENUE BRIDGE WIDENING FROM EL CAMINO AVENUE 800 FEET EAST OF THE I-15 FREEWAY AND MAGNOLIA AVENUE ON RAMPS AND OFF RAMPS TO 1,000 FEET EAST OF ALL AMERICAN WAY PROJECT

FEDERAL AID PROJECT NO. STPL-5104(046)

CITY PROJECT NO. 2015-15

MAY 2021

Prepared for:
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Public Works Department
City of Corona
400 S. Vicentia Avenue
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May 18, 2021

Subject: Traffic Impact Study Report for Magnolia Avenue Widening Project in the City of Corona

Dear Mr. Barry Ghaemi:

KOA Corporation is pleased to present this focused traffic impact study report for the Magnolia Avenue Widening project in the City of Corona. This report documents the existing traffic conditions and demands within the study area along with project opening year and buildout year traffic analysis conditions and project recommendations.

The traffic study has been prepared to meet the traffic impact study requirements from the City of Corona and Caltrans. The report is being submitted to you for review. Please contact our office if you have any questions or comments about the report, or if you need additional information. If there are any comments that require response or revisions, please notify our office as soon as possible for prompt revision.

Sincerely,

Ming Guan, P.E.
Vice President | Managing Director

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1.0 INTRODUCTION

The City of Corona, population of about 168,000, is located approximately 40 miles southeast of downtown Los Angeles. Municipal boundaries encompass approximately 38 square miles of land in Riverside County. The City is served by the San Diego/Barstow Freeway (I-15), which runs from San Diego north through Barstow to Nevada and beyond, and the Riverside Freeway (CA-91), which runs from the I-110 Freeway in Long Beach east to the I-215 Freeway in the County of Riverside.

In an effort to address existing traffic deficiencies and additional traffic flow associated with existing and future commercial and residential developments, the City of Corona intends to improve traffic operations by widening and modifying the roadway lane configuration on Magnolia Avenue 800 feet east of the Interstate 15 (I-15) Freeway and Magnolia Avenue on ramps and off ramps from El Camino Avenue to 1,000 feet east of All American Way.

The project study area limits include the intersections of Magnolia Avenue at El Camino Avenue, Sherborn Street, All American Way, Trademark Circle, Lesson Lane, and 6th Street. KOA and City staff has meet with Caltrans to discuss concerns for Caltrans facilities. Refer to attachment F for Caltrans coordination and approval.

One build alternative has been developed to address the local area needs in order to minimize the impacts to existing or future developments. This alternative is discussed in detail within Chapter 4: Methodology. Figure 1.1 shows the project boundaries and study intersections.

FIGURE 1.1 – VICINITY MAP

PROJECT DESCRIPTION AND NEED

Magnolia Avenue is an east-west Major Arterial in the City of Corona, accessible from the I-15 Freeway. It is identified as six lanes in the General Plan, but is only striped/constructed to accommodate four lanes. The road section between El Camino Road and All American Way contains light industrial to heavy industrial on both sides of the road. The heavy industrial uses include a quarry south of the Project alignment with entrances off of Sherborn Street and All American Way. As such, this approximate 2,100 linear foot section of roadway experiences a high volume of heavy truck traffic. Build-out of the roadway to the design envisioned by the General Plan would improve overall circulation in this section.

The purpose of the Project is to increase traffic capacity and improve pedestrian and non-motorized travel on Magnolia Avenue approximately 800 feet east of the Interstate 15 (I-15) Freeway and Magnolia Avenue on ramps and off ramps from El Camino Road to 1,000 feet east of All American Way.

The proposed improvements will accomplish the following in the Project area:

- Provide sidewalks, curb and gutter, and ADA compliance
- Provide an additional travel lane on Magnolia Avenue for each direction between El Camino Ave/Downs Way to Trademark Circle.
- Widen the bridge over Temescal Creek Channel to accommodate the additional lane, sidewalks, and curb and gutter
- Provide the ultimate build-out of the roadway as planned by the City

STUDY SCOPE AND PURPOSE

KOA Corporation has analyzed the existing and future conditions on Magnolia Avenue.

TABLE 1.1 – STUDY INTERSECTIONS

No.	Control	Intersection Description
1	Signalized	Magnolia Avenue and El Camino Avenue
2	Signalized	Magnolia Avenue and Sherborn Street
3	Signalized	Magnolia Avenue and All American Way
4	Unsignalized	Magnolia Avenue and Trademark Circle
5	Unsignalized	Magnolia Avenue and Trademark Circle
6	Signalized	Magnolia Avenue and 6th Street

2.0 METHODOLOGY

This section documents the methodologies and assumptions used to conduct the quantitative traffic analysis for the final construction configuration. This section contains the following background information:

- Study timeframes
- Study area description
- Capacity analysis methodologies

STUDY TIMEFRAMES

The study presents average daily traffic volumes (ADT), peak hour traffic volumes, average delay and level of service (LOS) analysis, and queuing analysis for several critical roadways for the following periods:

- Existing Year (2019)
- Opening Year (2026)
- Build Out Year (2040)

STUDY LOCATIONS

Traffic data for the roadway was collected using 24-hour tube traffic counts at one (1) location, conducted in October 2019 for three (3) consecutive days. The following roadways are analyzed in this study.

- Magnolia Avenue between El Camino Avenue and 6th Street

In addition, the following intersections in the study area are evaluated. AM and PM peak hour turning movement traffic counts were conducted at these locations in October 2019.

- Magnolia Avenue and El Camino Avenue
- Magnolia Avenue and Sherborn Street
- Magnolia Avenue and All American Way
- Magnolia Avenue and Trademark Circle
- Magnolia Avenue and Lesson Lane
- Magnolia Avenue and 6th Street

All traffic count data used in this study was collected by Aim TD LCC and is compiled in Appendix A of this report.

ANALYSIS METHODOLOGIES

Traffic condition on most roadway facilities are analyzed using the principles or the specific analysis methods contained in the Highway Capacity Manual, 6th Edition (HCM), a publication of the Transportation Research Board, a branch of the Federal Government. Chapter 16 of the HCM is devoted to analysis of signalized intersections. The methodology in this chapter is based upon measurements or forecasts of delay created by traffic controls ("control delay") for traffic utilizing all approaches to the intersection. This level of analysis is normally required to evaluate the effects of providing new traffic signals or modifying existing traffic signals to serve new traffic movements.

This section presents a brief overview of traffic analysis methodologies and concepts used in this study. Street system operating conditions are typically described in terms of "level of service." Level of service is a

report-card scale used to indicate the quality of traffic flow on roadway segments and at intersections. Level of service ranges from Level of Service A (free flow, little congestion) to Level of Service F (forced flow, extreme congestion). Table 2.1 gives brief definitions of Level of Service.

TABLE 2.1 – LEVEL OF SERVICE DESCRIPTION

Level of Service	Traffic Description
A	Excellent, Light Traffic
B	Good, Light to Moderate Traffic
C	Moderate Traffic, with Insignificant Delay
D	Heavy Traffic, with Significant Delay
E	Severe Congestion and Delay
F	Failed, Forced or breakdown flow

LOS for signalized intersections is based on the average time (seconds) that vehicles waiting to enter an intersection are delayed. Table 2.2 shows the relationship between LOS and the performance measures for signalized and unsignalized intersections.

TABLE 2.2 – LEVEL OF SERVICE DESCRIPTIONS AND THRESHOLDS FOR INTERSECTIONS

Level of Service	Signalized Intersection Control Delay (in sec/veh)	Unsignalized Intersection Control Delay (in sec/veh)
A	0 – 10	0 – 10
B	10.1 – 20	10 – 15
C	20.1 – 35	15 – 25
D	35.1 – 55	25 – 35
E	55.1 – 80	35 – 50
F	80 or more	50 or more

To determine service levels on study area roadway segments, we compared the appropriate average daily traffic thresholds for LOS to the daily capacity of the study area roadway segments, and the existing and future volumes in the study area. The thresholds for determining LOS used in this analysis are summarized in Table 2.3 below.

TABLE 2.3 – LEVEL OF SERVICE DESCRIPTIONS AND THRESHOLDS FOR SEGMENTS

Level of Service	V/C
A	≤0.41
B	>0.41-0.62
C	>0.62-0.80
D	>0.80-0.92
E	>0.92-1.00
F	>1.0

INTERSECTION CAPACITY ANALYSIS

All signalized intersections were analyzed based on the "operational analysis" procedure for signalized intersections, as defined in the latest *Highway Capacity Manual (HCM).* This technique uses 1,900 passenger cars per hour of green per lane (pcphgpl) as the maximum saturation flow of a single lane at an intersection for near term future scenarios, which is a standard assumption for the geographic area. This saturation flow rate is adjusted to account for lane width, on-street parking, conflicting pedestrian flow, traffic composition, (i.e., percent of trucks) and shared lane movements (e.g., through and right-turn movements from the same lane).

The study utilizes the SYNCHRO software program developed by Trafficware Corporation for the study intersection analysis.

The following peak hours were selected for analysis:

- Weekday AM (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM (peak hour between 4:00 PM and 6:00 PM)

STANDARDS OF SIGNIFICANCE

The City of Corona has adopted Level of Service (LOS) D as the maximum threshold of significance at all collector and arterial intersections, including the intersections in this study. A project impact occurs when the project-related traffic causes the volume to capacity (V/C) ratio of a study intersection already performing at LOS D to increase by more than 0.01 and results in LOS E or F.

3.0 EXISTING YEAR TRAFFIC CONDITIONS

Based on discussions with City of Corona staff and affected agencies, the Project Team identified the study area intersections that would be most likely to be impacted by implementation of the various project alternatives. The arterials in the City that could potentially be affected by the project are described in this section. The baseline year for this traffic study is 2019.

AREA ROADWAYS AND CHARACTERISTICS

Magnolia Avenue:
Magnolia Avenue is a Major Arterial running on an east-west roadway through the City of Corona. Magnolia Avenue consists of two (2) lanes west of El Camino Avenue and two (2) lanes east of the intersections. In the study area, Magnolia Avenue is accessible from the I-15 freeway. The roadway begins at South Main Street and terminates at 14th Street in the City of Riverside. Land uses along the study route are mostly light and heavy industrial. The posted speed limit on Magnolia Avenue is 45 mph.

El Camino Avenue:
El Camino Avenue is a two-lane commercial collector roadway running on a north alignment adjacent to the west of the I-15 Freeway. The roadway is separated by a median and extends south of 6th Street to Magnolia Ave. The speed limit is posted at 40 mph and parking is not permitted along most of the roadway. Land uses along the roadway are mostly commercial uses.

Sherborn Street:
Sherborn Street is located in a development site which runs south of the Magnolia Avenue. The Street is zoned for future industrial development and currently signalized at the intersection of Sherborn Street and Magnolia Avenue.

All American Way:
All American Way is a truck route, which is accessed by All American Asphalt facilities. The Roadway is classified as a General Industrial zone with Heavy Manufacturing and a Mineral Resources overlay.

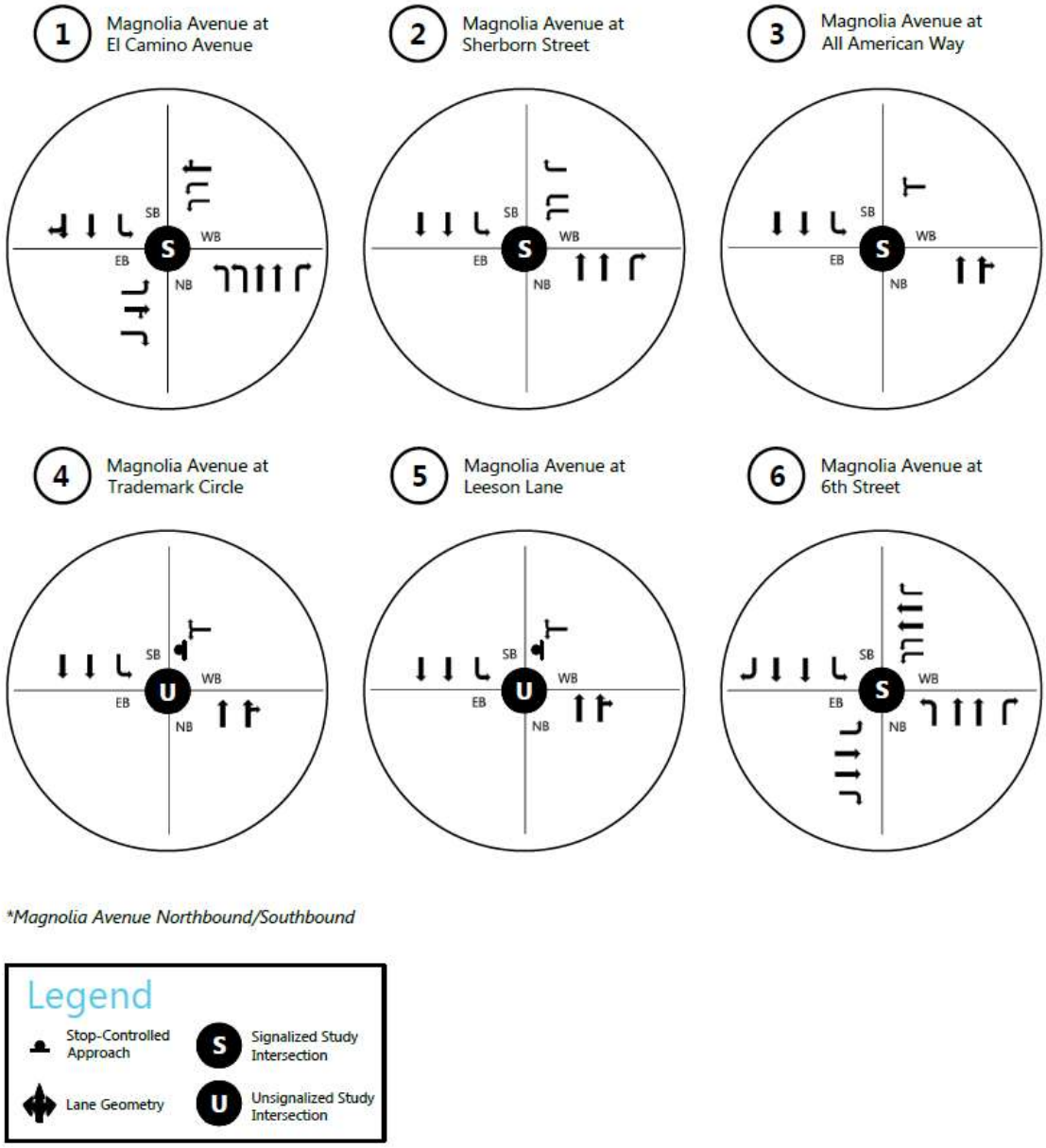
Trademark Circle:
Trademark Circle is a local street used for access to commercial building. The street extends south of Magnolia Avenue approximately 0.12 Miles onto a cul-da-sac.

Leeson Lane:
Leeson Lane is an undeveloped local street that extends 0.2 miles east of Magnolia Ave into a cul-da-sac.

6th Street:
Sixth Street is Major Arterial with four (4) Lane east-west roadway directions, north of the project site. Land uses along the study route are mostly light and heavy industrial. The posted speed limit on 6th Street is 45 mph.

Figure 3.1 illustrates the existing lane geometries at the study intersections.

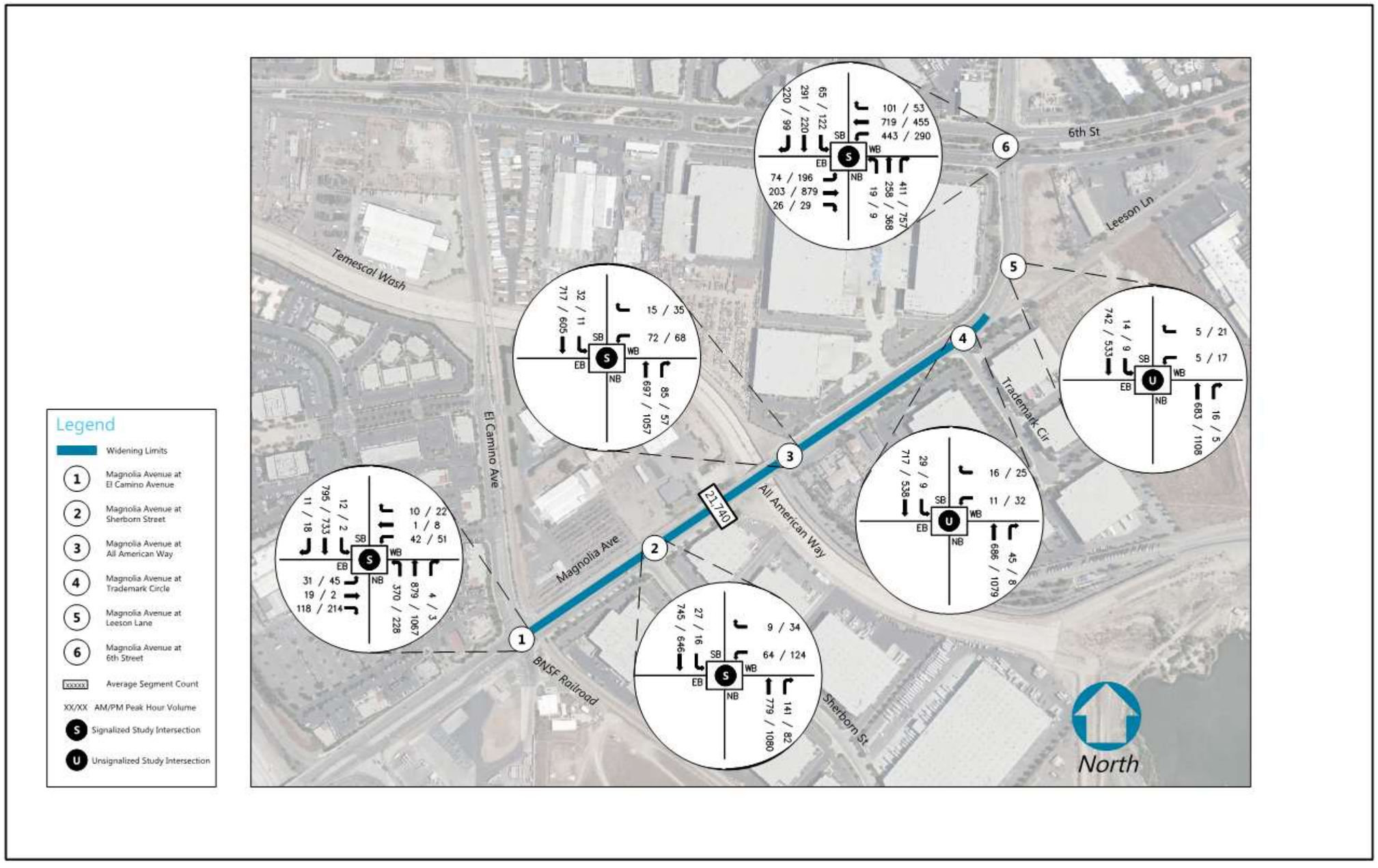
FIGURE 3.1 – EXISTING YEAR (2019) LANE GEOMETRIES



EXISTING TRAFFIC VOLUMES

Existing AM and PM peak hour intersection turning movement traffic data were collected in April 2019 at the study locations by AimTD LLC. Figure 3.2 illustrates the AM and PM peak hour intersection turning movements at the study intersections for the Existing conditions. All traffic count data used in this study are compiled in Appendix A.

FIGURE 3.2 – EXISTING (2019) AM/PM PEAK HOUR TRAFFIC VOLUMES



EXISTING (2019) CONDITIONS

LOS calculations were performed using the federally required Highway Capacity Manual procedures that indicates LOS based upon delay per vehicle. All calculations were made using the SYNCHRO computer program and based upon existing or probable future signal timing constraints.

Table 3.1 summarizes the LOS results for the Existing conditions. Analysis worksheets are located in Appendix B.

TABLE 3.1 – EXISTING (2019) TRAFFIC CONDITIONS

Intersection	AM Peak Hour		PM Peak hour	
	Delay	LOS	Delay	LOS
Signalized Intersections				
Magnolia Avenue at El Camino Ave	28.8	C	28.0	C
Magnolia Avenue at Sherborn Street	4.0	A	10.0	A
Magnolia Avenue at All American Way	8.0	A	8.8	A
Magnolia Avenue at 6th Street	36.7	D	82.0	D
Unsignalized Intersections				
Magnolia Avenue at Trademark Circle	0.7	A	1.2	D
Magnolia Avenue at Leeson Lane	0.4	A	0.7	D

Note: Delay based on seconds per vehicle average. LOS = Level of Service

As shown in Table 3.1, all signalized intersections currently operate at acceptable LOS during the AM and PM peak hours for Existing conditions. The unsignalized intersection of Magnolia Avenue at Trademark Circle and Magnolia Avenue at Lesson Lane operates at LOS A during the AM and PM peak hours for Existing conditions.

Table 3.2 summarizes the Existing conditions ADT volumes for the roadway segment. Analysis worksheets are located in Appendix B.

TABLE 3.2 – EXISTING (2019) VOLUMES

Segment	Existing				
	Classification	LOS E Capacity	ADT	V/C	LOS
Magnolia Avenue					
Between All America Way and Sherborn Street	4L Arterial	35,900	21,740	0.61	B

Under existing conditions of Magnolia Avenue, between All American Way and Sherborn Street, the segment operates at a LOS of B.

4.0 PROJECT OPENING YEAR (2026) TRAFFIC CONDITION

The roadway widening improvements are planned to be completed during the project Opening Year (2026), on Magnolia Avenue between El Camino Avenue and 6th Street. Two scenarios are analyzed: a No Build Alternative and Widened Alternative.

Opening Year (2026) AM and PM peak hour intersection turning movements were developed using the existing AM and PM peak hour volumes and 2 percent annual growth rate. Traffic generated by cumulative projects in the region are applied to the appropriate study intersections. Cumulative projects are reasonably foreseeable projects which would be completed in the near future. There are eight cumulative projects within the project study area that have been identified for inclusion in this study. This traffic impact analysis assumes that these cumulative projects will be developed and operational when the proposed project is completed and operational, project Opening Year (2026). This is the most conservative, worse-case approach, as the exact timing of the completion of cumulative projects is uncertain.

Table 4.1 lists the cumulative projects that were analyzed individually as part of this study. Figure 4.1 illustrates the location of the cumulative projects in relation to the Magnolia Avenue Bridge widening Project. Table 4.2 demonstrates the trips generated by the cumulative projects. Figure 4.2 illustrates the cumulative project AM and PM peak hour intersection volumes at the study intersections.

TABLE 4.1 – CUMULATIVE PROJECT LIST DESCRIPTION

No.	Name/Location	Land Use/Size/Units
1	**Industrial Building** 1320 E 6th St Corona, CA 92879	Proposal to construct a 47,000 square foot industrial building at 1320 East Sixth Street
2	**Car Wash** South of Magnolia Ave, West of Downs Way	Proposed 10,000 SF car wash lot east of Sherborn Street on Magnolia Ave.
3	**Industrial Building** 903 E Third Street	New 96,000 SF Industrial Building
4	**Monte Olivo Project** East of the I-15 between Laurel Canyon Way and State Street	141 Dwelling Units of Single-Family Detached Housing
5	**Vista Monterey Apartments** West of McKinley Street and South of Promenade Avenue	442 unit apartment home community on 17.2 acres
6	**Gasoline Station** Southeast corner of Promenade Avenue/Magnolia Avenue at Sixth Street	16 Vehicle Fueling Positions, 5,171 SF Convenience Store, 1,800 SF Fast Food with Drive-Through
7	**East Sixth Street Apartments** South of E Sixth Street, West of Rimpau Ave	85 affordable apartment units
8	**Residential Development** Southwest corner of Promenade and Cresta	23 single family residential lot subdivision

Source: City of Corona, Planning Department, 2020

FIGURE 4.1 – CUMULATIVE PROJECT LOCATION MAP

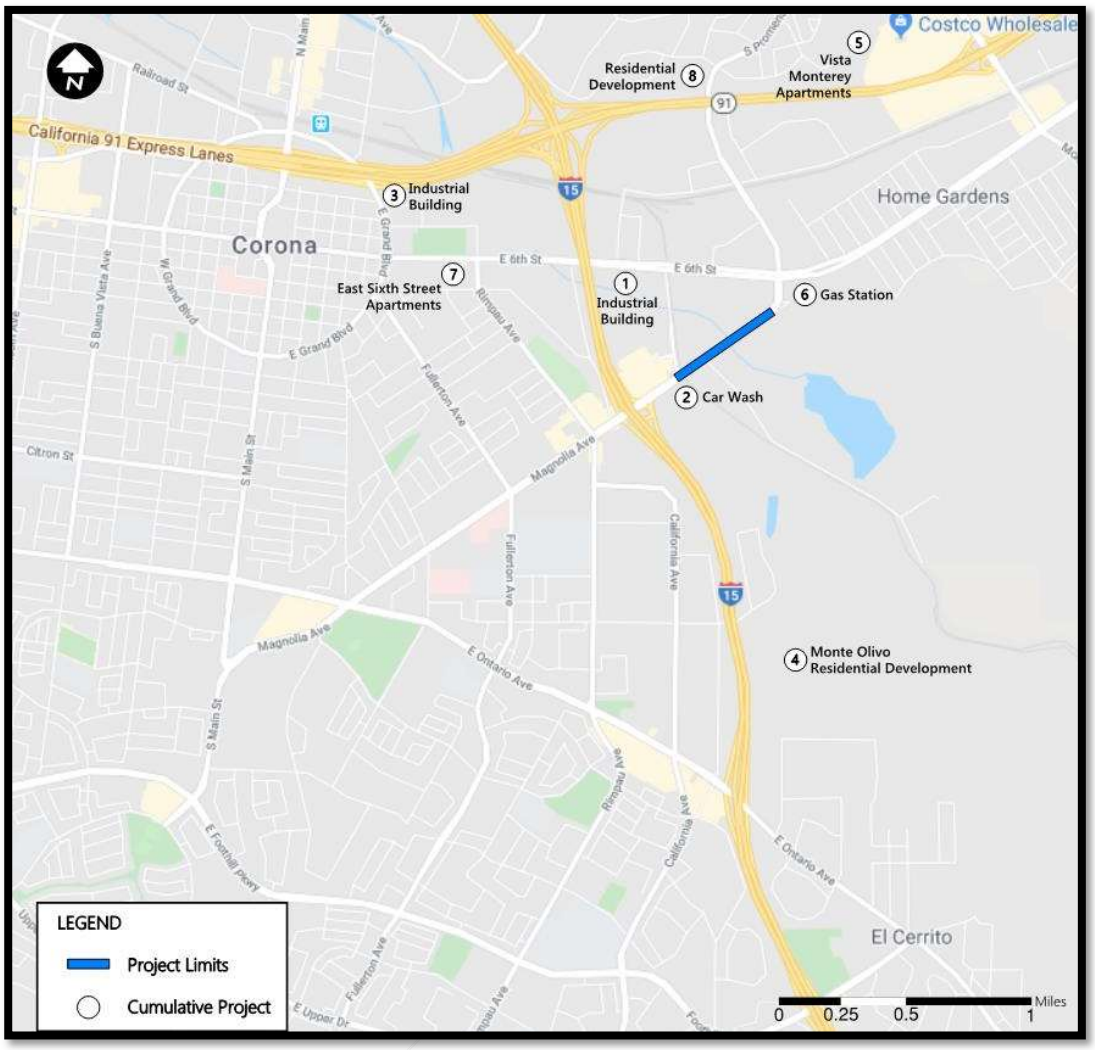
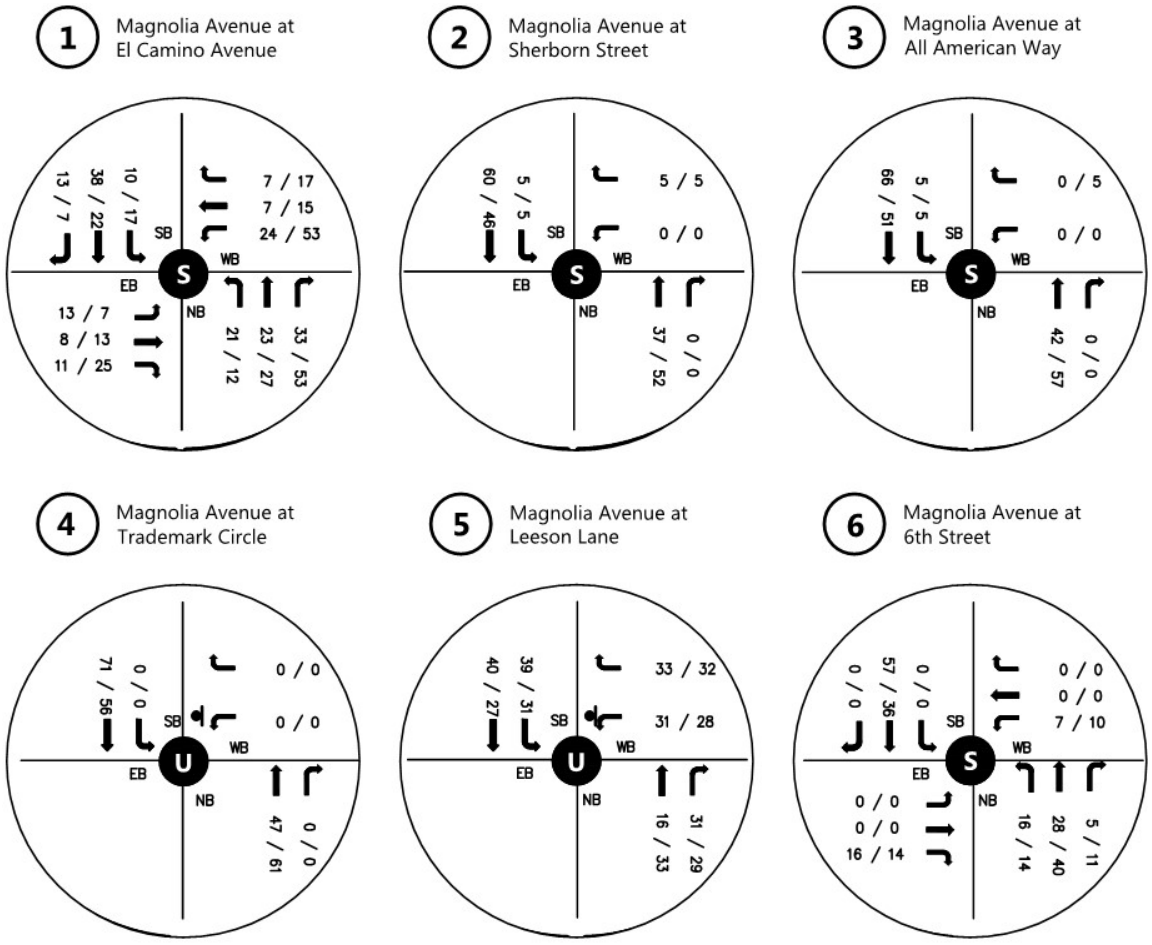


TABLE 4.2 – CUMULATIVE PROJECT TRIP GENERATION FORECAST

Cumulative Project Description		Daily Total	AM Peak Hour			PM Peak hour		
			Enter	Exit	Total	Enter	Exit	Total
1.	Industrial Building	354	30	13	43	17	30	47
2.	Car Wash	1,559	50	36	86	81	83	164
3.	Industrial Building	477	60	8	68	54	7	61
4.	Monte Olivo Project	1,331	27	79	106	87	52	139
5.	Vista Monterey Apartments	2,970	44	181	225	117	97	274
6.	Gasoline Station	3,286	104	104	208	96	94	190
7.	East Sixth Street Apartments	463	9	22	31	24	14	38
8.	Residential Apartments	218	5	13	18	6	17	23
Cumulative Projects Total Trip Generation Potential		**10,658**	**329**	**456**	**785**	**482**	**394**	**936**

FIGURE 4.2 – AM/PM PEAK HOUR INTERSECTION VOLUMES GENERATED FROM CUMULATIVE PROJECTS



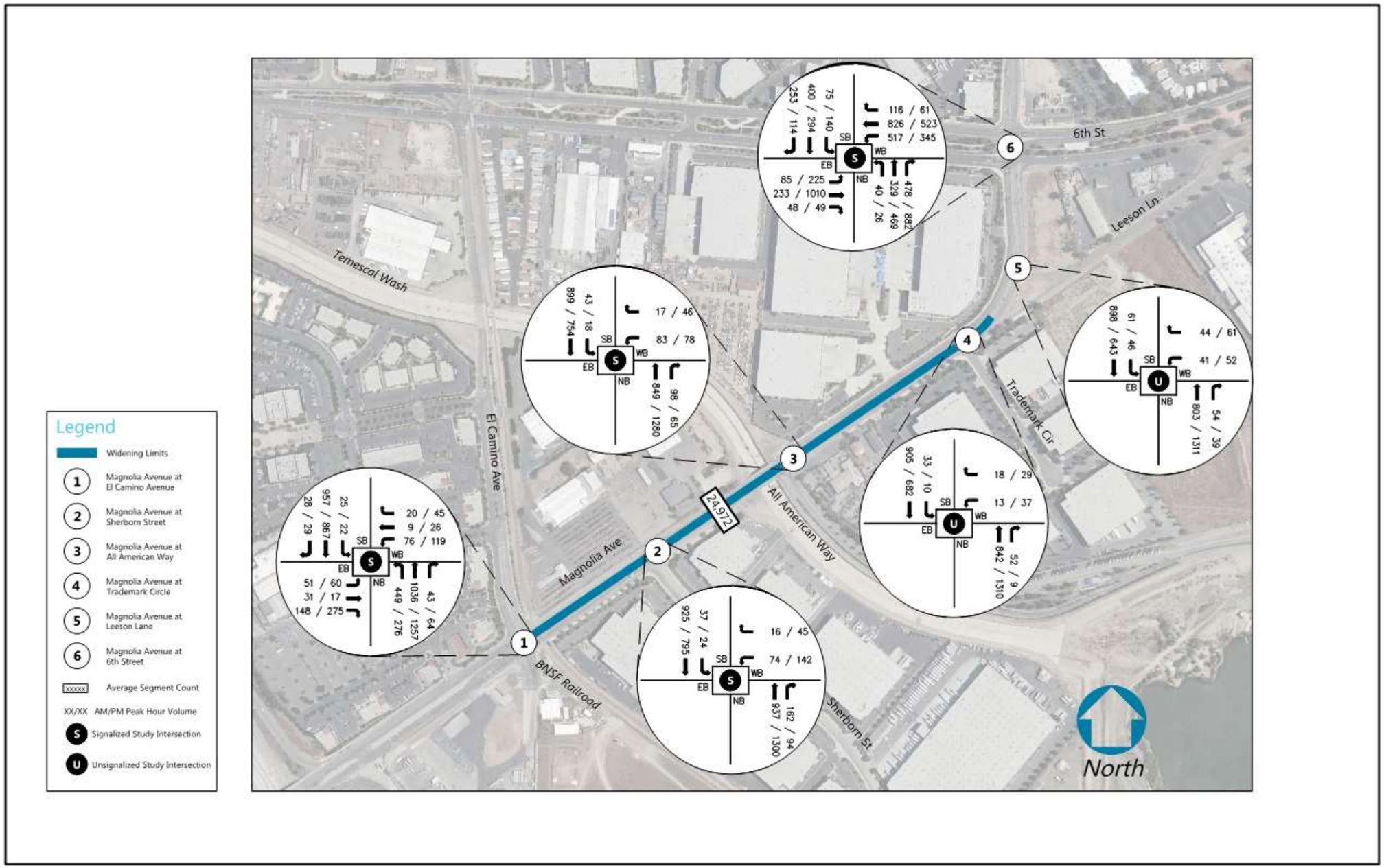
**Magnolia Avenue Northbound/Southbound*

Operational analysis was conducted at the study intersections for the Opening Year (2026) under the No Build Alternative and Widened Alternative. Opening Year (2026) peak hour intersection turning movement volumes were calculated using the Existing AM and PM peak hour intersection volumes and applying the City of Corona 2% annual growth rate.

The analysis was performed by examining peak hour LOS at the identified study intersections in the project area. Analysis worksheets for the Opening Year (2026) conditions are provided in Appendix C.

Figure 4.3 illustrates the Opening Year AM/PM Peak Hour traffic volumes for the Magnolia Avenue Bridge widening Project for the No Build and Widening Alternatives.

FIGURE 4.3 – OPENING YEAR (2026) AM/PM PEAK HOUR TRAFFIC VOLUME



Opening Year (2026) Volumes =Existing+ Cumulative Project Volumes+Growth

NO BUILD ALTERNATIVE

The No Build Alternative shall have the same lane configuration as the existing lane configuration. Table 4.3 summarizes the delay and LOS results for the study intersections for the Opening Year (2026) with the No Build Alternative.

TABLE 4.3 – OPENING YEAR (2026) TRAFFIC CONDITIONS FOR NO BUILD ALTERNATIVE

Intersection	AM Peak Hour		PM Peak hour	
	Delay	LOS	Delay	LOS
Signalized Intersections				
Magnolia Avenue at El Camino Ave	31.2	C	41.9	D
Magnolia Avenue at Sherborn Street	4.2	A	14.3	B
Magnolia Avenue at All American Way	8.2	A	9.8	A
Magnolia Avenue at 6th Street	40.5	D	159.0	F
Unsignalized Intersections				
Magnolia Avenue at Trademark Circle	1.0	A	6.6	A
Magnolia Avenue at Leeson Lane	33.6	C	155.6	F

Note: Delay based on seconds per vehicle average. LOS = Level of Service

Under the **No Build** scenario, the following signalized intersection operate at a **LOS Lower than D**:

- Magnolia Avenue at 6th Street (PM Peak Hour)

Under the **No Build** scenario, the following unsignalized intersection operate at a **LOS Lower than D**:

- Magnolia Avenue at Leeson Lane (PM Peak Hour)

WIDENED ALTERNATIVE

The Widened Alternative will have an additional lane configuration in both travel direction extending from El Camino Avenue to Trademark Circle. Figure 4.4 summarizes the geometry for the intersection on Magnolia Avenue. Table 4.4 summarizes the delay and LOS results for the study intersections for the Opening Year (2026) with the Build Alternative.

FIGURE 4.4 – WIDENED ALTERNATIVE INTERSECTION LANE GEOMETRY

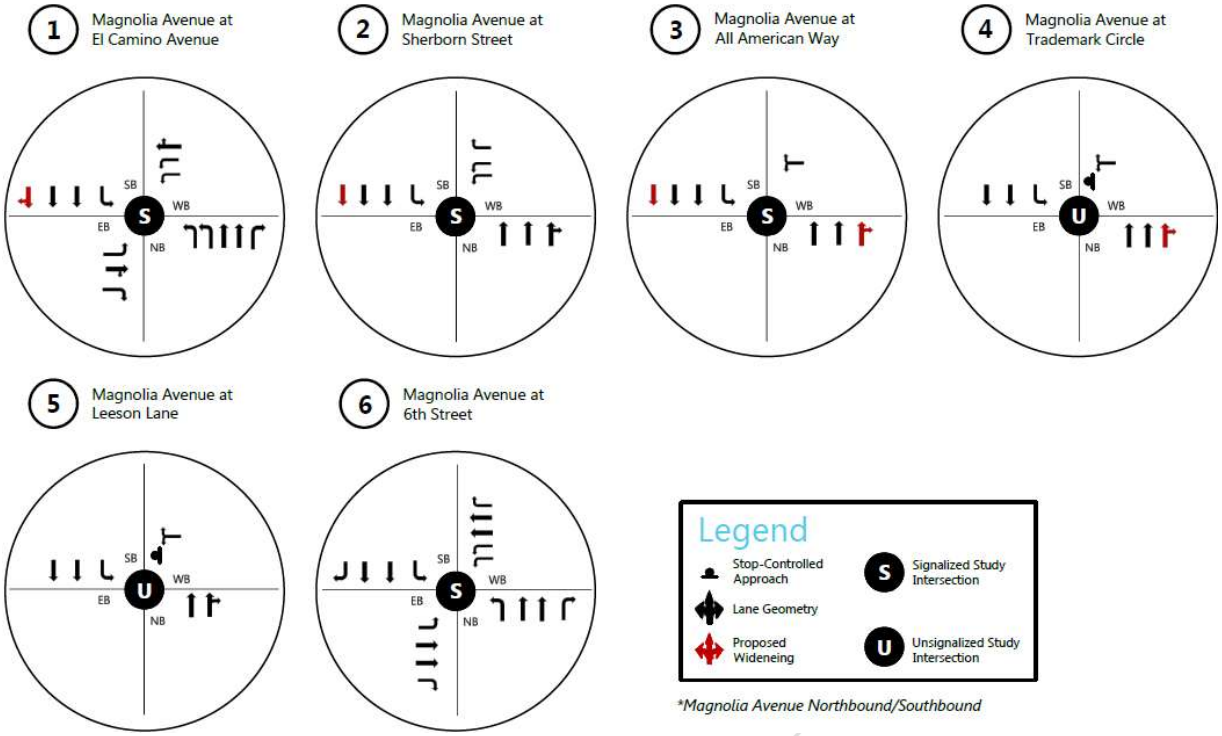


TABLE 4.4 – OPENING YEAR (2026) TRAFFIC CONDITIONS FOR WIDENED ALTERNATIVE

Intersection	AM Peak Hour		PM Peak hour	
	Delay	LOS	Delay	LOS
Signalized Intersections				
Magnolia Avenue at El Camino Ave	28.5	C	30.8	C
Magnolia Avenue at Sherborn Street	4.1	A	7.9	A
Magnolia Avenue at All American Way	7.8	A	7.6	A
Magnolia Avenue at 6th Street	34.7	C	145.3	F
Unsignalized Intersections				
Magnolia Avenue at Trademark Circle	1.0	A	13.4	B
Magnolia Avenue at Leeson Lane	38.6	D	199.2	F

Note: Delay based on seconds per vehicle average. LOS = Level of Service

Under the **Widening** scenario the following signalized intersection operate at a **LOS Lower than D**:

- Magnolia Avenue at 6th Street (PM Peak Hour)

Under the **Widening** scenario the following unsignalized intersection operate at a **LOS Lower than D**:

- Magnolia Avenue at Leeson Lane (PM Peak Hour)

ROADWAY SEGMENT CONDITIONS 2026

Table 4.5 summarizes the roadway segment analysis results for 2026 Conditions with cumulative projects.

TABLE 4.5 – OPENING YEAR (2026) SEGMENT LOS, V/C RESULTS

Segment	2026 No Build					2026 With Project			
	ADT	LOS E Capacity	Classification	V/C	LOS	LOS E Capacity	Classification	V/C	LOS
Magnolia Avenue									
Between All America Way and Sherborn Street	24,972	35,900	4L Arterial	0.70	C	53,900	6L Arterial	0.46	B

Under the **No Build** scenario, the segment Magnolia Avenue, Between All America Way and Sherborn Street, operate at LOS C.

Under the **Widening** scenario, the segment Magnolia Avenue, Between All America Way and Sherborn Street, operate at LOS B.

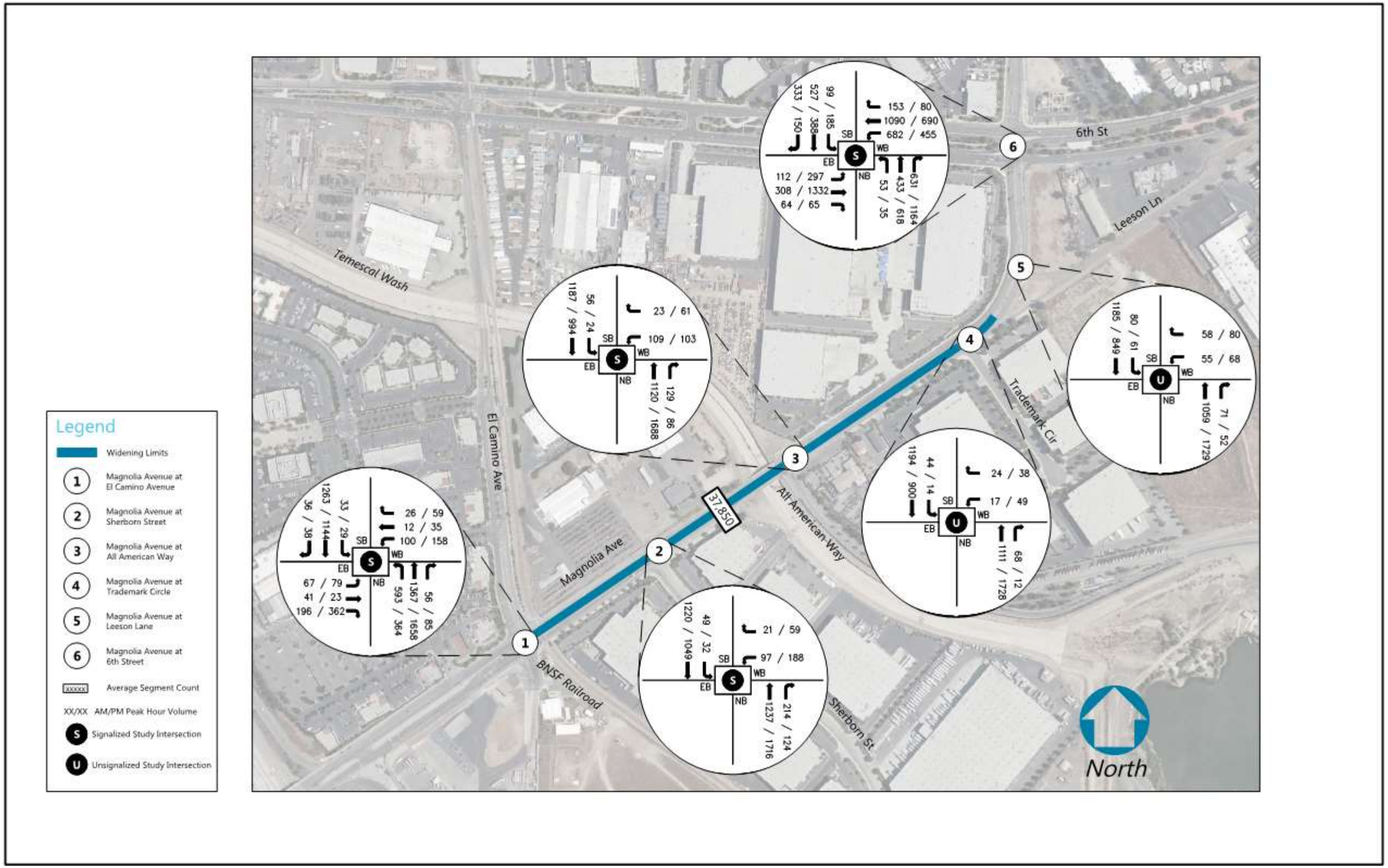
5.0 BUILDOUT YEAR (2040) TRAFFIC CONDTION

Buildout year of 2040 was used to assess future traffic conditions along the study corridor. Operational analysis was conducted at the study intersections for the Buildout Year (2040) under the No Build Alternative and Widened Alternative. Buildout Year (2040) peak hour intersection turning movement volumes were calculated using cumulative projects trips and the Existing AM and PM peak hour intersection volumes and applying the City of Corona 2% annual growth rate.

No Build Alternative includes all current planned transportation improvements other than the proposed widening. The Widened Alternative includes portion of Magnolia Avenue widened from 4 lanes to 6 lanes from El Camino Avenue to Leeson lane, approximately 0.5 miles, as shown in the Figure 4.4.

Figure 5.1 illustrates the Buildout Year AM/PK Peak Hour traffic volumes for the Magnolia Avenue Bridge widening Project for No Build Alternative and Widening Alternative. Analysis worksheets for the Buildout Year (2026) conditions are provided in Appendix D.

FIGURE 5.1 – BUILDOUT YEAR (2040) AM/PM PEAK HOUR TRAFFIC VOLUME



Buildout Year (2040) Volumes =Existing+Growth+ Cumulative Project Volumes

NO BUILD ALTERNATIVE

Table 5.1 summarizes the delay and LOS results for the study intersections for the Buildout Year (2040) with the No Build Alternative.

TABLE 5.1 – BUILDOUT YEAR (2040) TRAFFIC CONDITIONS FOR NO BUILD ALTERNATIVE

Intersection	AM Peak Hour		PM Peak hour	
	Delay	LOS	Delay	LOS
Signalized Intersections				
Magnolia Avenue at El Camino Ave	65.5	E	104.4	F
Magnolia Avenue at Sherborn Street	4.4	A	10.8	B
Magnolia Avenue at All American Way	10.7	B	17.0	B
Magnolia Avenue at 6th Street	73.6	E	297.9	F
Unsignalized Intersections				
Magnolia Avenue at Trademark Circle	1.4	A	39.3	E
Magnolia Avenue at Leeson Lane	191.7	F	-	F

Note: Delay based on seconds per vehicle average. LOS = Level of Service

Under the **No Build** scenario the following signalized intersection operate at a **LOS Lower than D**:

- Magnolia Avenue at El Camino Ave (AM & PM Peak Hour)
- Magnolia Avenue at 6th Street (AM & PM Peak Hour)

Under the **No Build** scenario the following unsignalized intersection operate at a **LOS Lower than D**:

- Magnolia Avenue at Leeson Lane (AM & PM Peak Hour)

WIDENED ALTERNATIVE

Table 5.2 summarizes the delay and LOS results for the study intersections for the Buildout Year (2040) with the Widened Alternative.

TABLE 5.2 – BUILDOUT YEAR (2040) TRAFFIC CONDITIONS FOR WIDENED ALTERNATIVE

Intersection	AM Peak Hour		PM Peak hour	
	Delay	LOS	Delay	LOS
Signalized Intersections				
Magnolia Avenue at El Camino Ave	37.3	D	53.1	D
Magnolia Avenue at Sherborn Street	4.2	A	6.1	A
Magnolia Avenue at All American Way	9.1	A	10.4	B
Magnolia Avenue at 6th Street	49.2	D	237.6	F
Unsignalized Intersections				
Magnolia Avenue at Trademark Circle	2.1	A	66.6	E
Magnolia Avenue at Leeson Lane	215.3	F	-	F

Note: Delay based on seconds per vehicle average. LOS = Level of Service

Under the **Widening** scenario the following signalized intersection operate at a **LOS Lower than D**:

- Magnolia Avenue at 6th Street (PM Peak Hour)

Under the **Widening** scenario the following unsignalized intersection operate at a **LOS Lower than D**:

- Magnolia Avenue at Trademark Circle (PM Peak Hour)
- Magnolia Avenue at Leeson Lane (AM & PM Peak Hour)

ROADWAY SEGMENT CONDITIONS 2040

Table 5.3 summarizes the roadway segment analysis results for 2040 Conditions with cumulative projects.

TABLE 5.3 – BUILDOUT YEAR (2040) SEGMENT LOS, V/C RESULTS

Segment	2040 No Build					2040 With Project			
	ADT	LOS E Capacity	Classification	V/C	LOS	LOS E Capacity	Classification	V/C	LOS
Magnolia Avenue									
Between All America Way and Sherborn Street	37,850	35,900	4L Arterial	1.05	F	53,900	6L Arterial	0.70	C

Under the **No Build** scenario the segment Magnolia Avenue, Between All America Way and Sherborn Street, operate at LOS F.

Under the **Widening** scenario the segment Magnolia Avenue, Between All America Way and Sherborn Street, operate at LOS C.

6.0 PROJECT TRAFFIC IMPACT

6.1 DETERMINATION OF TRAFFIC IMPACTS

According to the City of Corona Traffic Impact Analysis criteria, a project is considered to have a significant traffic impact at an intersection if LOS deteriorates from LOS D (or better) to an LOS E or LOS F.

The proposed project itself will not generate project-related trips; instead it will increase the capacity and improve traffic operations, therefore, the proposed project's goals are to help alleviate the existing and future traffic congestions. No project-related traffic impacts are anticipated.

6.2 PROJECT TRAFFIC IMPACTS: OPENING YEAR (2026) CONDITIONS

Table 6.1 provides a summary of the project impacts for the Opening Year (2026) conditions. Traffic impacts created by the proposed project were determined by comparing the Opening Year (2026) without Project conditions to the Opening Year (2026) with the Widened Alternative.

TABLE 6.1 – DETERMINATION OF PROJECT IMPACTS: OPENING YEAR (2026)

Intersection	Peak Hour	Existing Conditions (2019)		Opening Year (2026) No Build		Opening Year (2026) Widened Alt.		Change in Delay	Project Impact	Satisfactory LOS?
		Delay	LOS	Delay	LOS	Delay	LOS			
Magnolia Avenue at El Camino Ave	AM	28.8	C	31.2	C	28.5	C	-2.7	NO	YES
	PM	28.0	B	41.9	D	30.8	C	-11.1	NO	YES
Magnolia Avenue at Sherborn Street	AM	4.0	A	4.2	A	4.1	A	-0.1	NO	YES
	PM	10.0	A	14.3	B	7.9	A	-6.4	NO	YES
Magnolia Avenue at All American Way	AM	8.0	A	8.2	A	7.8	B	-0.4	NO	YES
	PM	8.8	A	9.8	A	7.6	A	-2.2	NO	YES
Magnolia Avenue at 6th Street	AM	36.7	D	40.5	D	34.7	C	-5.8	NO	YES
	PM	82.0	F	159.0	F	145.3	F	-13.7	NO	NO

The proposed Project would improve traffic congestion at the intersections where widening will occur along Magnolia Avenue at the El Camino Ave and All American Way intersections, for Opening Year (2026) during the weekday AM and PM peak hour. Where widening does not occur, Magnolia Avenue at 6th Street, optimizing the intersection will decreases the overall delay.

6.3 PROJECT TRAFFIC IMPACTS: BUILDOUT YEAR (2040) CONDITIONS

Table 6.2 provide a summary of the project impacts for the Buildout Year (2040) conditions. Traffic impacts created by the proposed project were determined by comparing the Buildout Year (2040) without Project conditions to the Buildout Year (2040) with Widened Alternative.

TABLE 6.2 – DETERMINATION OF PROJECT IMPACTS: BUILDOUT YEAR (2040)

Intersection	Peak Hour	Existing Conditions (2019)		Buildout Year (2040) No Build		Buildout Year (2040) Widened Alt.		Change in Delay	Project Impact	Satisfactory LOS?
		Delay	LOS	Delay	LOS	Delay	LOS			
Magnolia Avenue at El Camino Ave	AM	28.8	C	65.5	E	37.3	D	-28.2	NO	YES
	PM	28.0	B	104.4	F	53.1	D	-51.3	NO	YES
Magnolia Avenue at Sherborn Street	AM	4.0	A	4.4	A	4.2	A	-0.2	NO	YES
	PM	10.0	A	10.8	B	6.1	A	-4.7	NO	YES
Magnolia Avenue at All American Way	AM	8.0	A	10.7	B	9.1	A	-1.6	NO	YES
	PM	8.8	A	17.0	B	10.4	B	-6.6	NO	YES
Magnolia Avenue at 6th Street	AM	36.7	D	73.6	E	49.2	D	-24.4	NO	YES
	PM	82.0	F	297.9	F	237.6	F	-60.3	NO	NO

The proposed Project would improve traffic congestion at the intersections where widening will occur along Magnolia Avenue at the El Camino Ave and All American Way intersections, for Buildout Year (2040) during the weekday AM and PM peak hour. Where widening does not occur, Magnolia Avenue at 6th Street, optimizing the intersection will decreases the overall delay.

7.0 SYSTEM PLANNING

The proposed project Build Alternative is consistent with the City of Corona's General Plan. The Build Alternative has been developed to minimize the need to reconstruct new facilities and will not preclude the potential additional mainline widening within the existing right of way using full standard or non-standard cross section elements.

TRANSPORTATION MANAGEMENT PLAN (TMP)

The project would require a traffic management plan in the Widened Alternative. Delays could be anticipated due to the construction on Magnolia Avenue at the 15-Interchange. The widening of the south/north side of Magnolia Avenue will require traffic management for all through traffic on Magnolia Avenue. Where existing facilities are impacted, construction will occur in stages to maintain traffic flow. Traffic will then be diverted to the new roadways once construction is complete.

VEHICLE MILES TRAVELED (TMP)

The City of Corona traffic impact analysis guidelines do not require assessment of project Vehicles Miles Traveled (VMT). The provisions of Section 15064.3 of the California Environmental Quality Act (CEQA) will apply for projects that have not completed public review by July 1, 2020.

8.0 ANALYSIS SUMMARY AND CONCLUSIONS

The purpose of this study is to evaluate existing and future traffic conditions for the selected study intersections along the project corridor of Magnolia Avenue between El Camino Avenue to Leeson Lane, to identify any potential impacts the proposed project may have on the surrounding roadway network. The results of this study will assist in the development of the final design alternative for the roadway widening project.

In an effort to address existing traffic deficiencies and additional traffic flow associated with existing and future commercial and residential developments, the City of Corona intends to improve traffic operations by widening and modifying the roadway lane configuration from Magnolia Avenue approximately 800 feet east of the I-15 Freeway/Magnolia Avenue Interchange on ramps and off ramps, from El Camino Avenue to Leeson Lane.

The proposed project itself will not generate any project-related trips; instead it will provide additional capacity and improve traffic operations along the study corridor for the existing and future commercial and residential developments in the surrounding area. KOA and City staff has meet with Caltrans to discuss additional concerns for Caltrans facilities. Refer to attachment F for Caltrans coordination and approval.

The report presents an analysis of the intersection operating conditions during the morning and evening peak hours for the following timeframes:

- Existing Year (2019)
- Project Opening Year (2026)
- Buildout Year (2040)

The following scenarios have been evaluated for this project:

- Existing Year (2019) conditions
- Opening Year (2026) No Build conditions
- Opening Year (2026) with Widened Alternative
- Buildout Year (2040) No Build conditions
- Buildout Year (2040) with Widened Alternative

The study area includes the following intersections:

- Magnolia Avenue and El Camino Avenue
- Magnolia Avenue and Sherborn Street
- Magnolia Avenue and All American Way
- Magnolia Avenue and Trademark Circle
- Magnolia Avenue and Lesson Lane
- Magnolia Avenue and 6th Street

Based on the traffic analysis of the study intersections during the AM and PM peak hour for all project scenarios, the proposed project would not create any significant traffic impacts at the intersections where widening is proposed but instead will help alleviate the existing and future traffic congestion and traffic flow by providing additional roadway capacity through the widening of Magnolia Avenue from El Camino Avenue to All American Way. Signal optimization will improve the delay of Magnolia Ave and 6th street, where the widening improvements do not occur. Future improvements to the intersection of Magnolia Avenue and 6th Street will be necessary to bring the LOS to an acceptable city standard.

Appendix A
Existing Traffic Counts

A919

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Tuesday, October 08, 2019
JOB #: SC2385

CITY: Corona
LOCATION: CLASS Magnolia between All American and Sherborn.

AM	EASTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	63	9	1	4	2	2	0	0	0	1	0	0	82
0:15	1	42	6	0	3	3	0	1	3	0	0	0	0	59
0:30	1	45	9	1	4	2	1	2	2	0	2	0	0	69
0:45	0	40	3	0	1	8	1	0	2	0	0	0	0	55
1:00	0	39	3	2	6	5	1	0	3	0	0	0	1	60
1:15	0	49	3	0	4	4	1	0	0	0	0	0	0	61
1:30	0	25	5	0	5	2	0	3	3	0	0	0	0	43
1:45	0	36	5	0	3	4	0	1	1	0	1	0	0	51
2:00	0	28	4	0	12	6	1	1	4	0	0	0	1	57
2:15	1	24	2	1	4	3	0	1	5	0	1	1	0	43
2:30	0	43	3	0	2	3	0	1	2	0	0	0	0	54
2:45	0	39	1	0	6	2	0	1	3	0	1	0	0	53
3:00	0	24	2	1	7	2	0	2	3	0	1	1	1	44
3:15	0	35	11	2	8	2	0	1	4	0	0	0	1	64
3:30	0	46	4	0	9	5	0	0	3	0	1	0	1	69
3:45	0	50	10	0	6	2	0	1	2	0	0	0	0	71
4:00	0	20	5	1	5	9	2	0	3	0	0	0	0	45
4:15	2	19	9	1	9	4	0	0	0	0	0	1	0	45
4:30	1	35	5	1	6	4	0	0	2	0	0	0	0	54
4:45	0	62	15	0	7	4	1	0	3	0	1	0	0	93
5:00	1	29	5	0	14	0	1	2	4	1	0	0	1	58
5:15	1	40	10	1	7	5	1	0	1	0	0	0	0	66
5:30	0	51	5	0	13	4	0	0	4	1	0	1	1	80
5:45	3	72	6	1	8	0	0	0	1	0	0	0	1	92
6:00	0	42	10	1	9	3	1	1	1	0	0	0	0	68
6:15	0	61	3	0	6	5	1	0	3	0	0	1	0	80
6:30	0	83	10	1	12	5	0	2	1	0	1	0	0	115
6:45	0	92	5	1	7	7	1	1	2	0	3	1	0	120
7:00	0	121	5	3	10	6	0	0	3	0	1	0	0	149
7:15	0	165	8	1	8	7	3	1	0	0	1	0	0	194
7:30	0	183	13	1	12	5	0	0	2	0	0	0	1	217
7:45	0	216	11	1	7	2	1	0	0	0	2	1	1	242
8:00	2	137	11	1	17	7	0	0	3	0	1	1	1	181
8:15	1	120	10	1	16	7	0	0	2	0	1	0	0	158
8:30	0	78	6	1	13	5	0	1	5	0	0	0	0	109
8:45	1	123	14	1	14	8	0	1	2	1	2	0	0	167
9:00	0	76	9	1	12	3	1	2	2	0	1	0	0	107
9:15	0	81	11	1	5	3	1	0	2	0	0	0	0	104
9:30	1	78	10	2	13	11	2	2	0	0	0	1	0	120
9:45	0	97	10	0	12	11	1	0	0	2	1	0	0	134
10:00	1	77	5	2	18	7	4	0	2	0	1	0	1	118
10:15	0	108	7	1	11	8	3	0	3	0	0	0	1	142
10:30	0	91	16	0	10	3	1	2	2	1	2	1	1	130
10:45	0	101	3	1	8	11	1	0	2	1	1	0	0	129
11:00	1	81	2	1	9	9	0	1	3	0	1	0	0	108
11:15	1	109	5	1	14	12	0	0	2	0	1	0	0	145
11:30	0	101	9	0	12	6	1	1	4	0	0	0	0	134
11:45	0	159	4	1	8	7	2	0	0	0	2	0	1	184
TOTAL	19	3,536	337	37	416	243	36	32	104	7	31	10	15	4,823

AM PEAK HOUR	7:15 AM
AM PEAK VOLUME	834

PM	EASTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	1	134	10	2	14	12	0	0	2	1	1	1	0	178
12:15	0	131	12	2	17	7	2	1	2	1	1	0	2	178
12:30	1	119	9	0	15	9	2	0	5	0	0	0	0	160
12:45	1	150	10	0	18	8	0	2	0	0	0	0	2	191
13:00	0	148	11	0	8	12	1	1	0	0	2	0	2	185
13:15	2	152	13	4	8	8	0	1	0	0	3	2	1	194
13:30	1	142	13	0	7	10	0	1	3	0	0	1	1	179
13:45	0	153	15	2	20	11	1	0	2	0	1	0	1	206
14:00	0	163	4	0	9	10	3	2	4	0	3	1	0	199
14:15	1	182	10	1	17	6	0	0	0	0	1	1	0	219
14:30	3	158	11	1	19	12	1	0	4	1	2	2	1	215
14:45	0	241	9	4	13	10	0	0	1	0	1	0	1	280
15:00	0	300	7	0	9	8	1	2	2	0	0	0	4	333
15:15	1	293	6	0	6	4	3	0	2	0	1	1	1	318
15:30	0	235	5	1	12	10	4	1	2	0	0	2	1	273
15:45	1	203	16	1	12	9	4	1	1	0	0	1	1	250
16:00	0	257	8	1	15	14	2	2	0	0	2	0	2	303
16:15	2	219	13	0	16	9	0	1	0	0	2	0	0	262
16:30	0	219	19	0	7	9	2	0	2	0	3	1	0	262
16:45	1	217	22	0	15	4	2	2	3	0	1	1	2	270
17:00	3	231	13	0	9	4	1	1	2	1	0	1	1	267
17:15	1	294	4	0	12	5	0	2	1	0	1	1	1	322
17:30	1	212	9	0	9	5	2	0	2	0	0	0	1	241
17:45	0	201	10	0	10	5	1	2	0	0	0	0	0	229
18:00	1	124	16	0	12	8	1	0	1	0	0	0	2	165
18:15	0	130	11	0	11	5	1	2	0	1	0	0	0	161
18:30	0	96	11	0	10	7	0	1	1	0	0	0	0	126
18:45	0	110	12	0	5	4	0	0	2	0	0	0	0	133
19:00	0	75	12	2	9	6	2	1	1	0	0	0	0	108
19:15	1	80	12	0	10	1	0	0	1	0	0	1	0	106
19:30	0	89	15	0	10	0	0	0	0	0	0	0	0	114
19:45	0	59	15	2	7	5	2	0	1	0	0	0	0	91
20:00	0	92	5	0	12	4	0	1	1	0	0	0	0	115
20:15	0	77	4	0	10	1	2	0	0	0	0	0	0	94
20:30	0	70	5	0	8	3	0	0	1	0	0	0	0	87
20:45	1	57	5	0	5	0	2	0	0	0	1	0	0	71
21:00	0	54	8	0	6	4	0	0	0	0	0	0	0	72
21:15	1	63	7	0	3	1	1	0	1	0	0	0	0	77
21:30	0	47	6	0	1	2	2	0	1	1	0	0	0	60
21:45	0	54	6	0	8	4	0	0	1	0	1	0	0	74
22:00	0	38	5	0	2	2	0	1	1	0	0	0	0	49
22:15	0	26	9	0	9	2	0	0	0	0	0	0	0	46
22:30	0	21	4	0	1	5	0	0	0	0	0	0	0	31
22:45	0	31	3	1	1	3	0	0	0	0	0	0	0	39
23:00	0	32	6	1	4	2	0	0	0	0	0	0	0	45
23:15	0	25	0	0	0	1	0	0	0	0	0	0	0	26
23:30	0	26	1	0	4	3	2	0	1	0	0	0	0	37
23:45	0	12	2	0	1	5	1	0	0	0	0	0	0	21
TOTAL	24	6,242	439	25	446	279	48	28	54	6	27	17	27	7,662

PM PEAK HOUR	2:45 PM
PM PEAK VOLUME	1,204

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	43	9,778	776	62	862	522	84	60	158	13	58	27	42	12,485
% OF TOTAL	0.3%	78.3%	6.2%	0.5%	6.9%	4.2%	0.7%	0.5%	1.3%	0.1%	0.5%	0.2%	0.3%	100.0%

TOTAL: ALL	70	16,927	1,658	120	1,245	950	252	110	324	26	157	52	73	21,964
% OF TOTAL	0.6%	135.6%	13.3%	1.0%	10.0%	7.6%	2.0%	0.9%	2.6%	0.2%	1.3%	0.4%	0.6%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Tuesday, October 08, 2019
JOB #: SC2385
CITY: Corona
LOCATION: CLASS Magnolia between All American and Sherborn.

AM	WESTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	1	16	3	0	0	1	1	0	2	0	1	0	0	25
0:15	0	15	1	0	2	4	4	0	0	0	1	0	0	27
0:30	0	7	2	0	1	1	2	0	3	0	0	0	0	16
0:45	0	12	1	0	1	0	1	0	1	0	0	1	0	17
1:00	0	9	2	0	0	0	3	2	0	0	0	0	0	16
1:15	1	20	0	0	0	3	3	0	0	0	1	0	0	28
1:30	0	4	2	0	0	1	1	0	0	0	0	0	0	8
1:45	0	5	2	0	1	2	1	0	1	0	0	0	0	12
2:00	0	7	2	0	1	3	3	0	0	0	4	0	0	20
2:15	0	5	0	0	0	2	3	0	1	0	1	0	0	12
2:30	0	18	2	0	1	4	2	0	1	0	0	0	0	28
2:45	0	11	0	0	0	0	1	0	0	0	0	0	0	12
3:00	0	18	0	0	1	1	1	0	2	0	0	1	0	24
3:15	0	13	5	0	3	2	2	0	1	0	0	0	0	26
3:30	0	18	4	0	1	1	1	0	1	0	0	0	0	26
3:45	0	15	6	2	3	1	0	0	1	0	0	0	0	28
4:00	0	11	7	0	3	0	0	0	1	0	0	0	0	22
4:15	0	29	10	4	8	2	0	2	4	0	1	0	0	60
4:30	0	50	5	1	7	3	0	1	4	0	1	0	0	72
4:45	0	47	10	1	7	6	0	0	2	0	5	0	0	78
5:00	0	47	10	2	9	13	1	1	3	0	5	0	0	91
5:15	0	45	10	0	13	2	2	0	3	0	5	1	1	82
5:30	0	57	11	0	9	4	0	0	0	0	1	0	0	82
5:45	1	66	10	3	8	11	0	0	0	0	1	0	2	102
6:00	0	72	8	3	10	17	3	0	3	1	1	0	1	119
6:15	1	85	18	1	6	8	2	1	4	0	1	0	1	128
6:30	0	126	11	0	8	9	3	1	4	0	1	0	1	164
6:45	0	113	13	1	12	5	3	1	3	1	1	0	1	154
7:00	0	198	18	2	4	8	0	2	1	0	1	0	1	235
7:15	0	166	11	0	3	11	4	0	1	0	2	0	1	199
7:30	0	143	9	0	7	3	5	0	1	0	3	1	0	172
7:45	0	145	10	3	4	11	2	0	0	0	2	0	1	178
8:00	0	87	10	2	4	13	4	0	5	0	3	0	0	128
8:15	2	110	15	0	7	4	4	0	3	0	3	1	1	150
8:30	0	89	17	0	7	9	2	1	4	0	0	0	2	131
8:45	0	91	11	1	4	7	3	0	3	0	2	1	0	123
9:00	0	72	7	1	7	6	1	0	3	0	0	0	0	97
9:15	0	63	11	0	3	10	4	0	4	0	4	0	1	100
9:30	0	81	6	3	3	7	3	1	3	1	3	1	1	113
9:45	0	70	10	1	9	5	4	1	4	0	3	2	0	109
10:00	0	76	14	0	7	4	4	0	6	0	3	1	0	115
10:15	1	52	13	0	8	4	1	3	0	0	0	0	1	83
10:30	0	75	6	0	6	9	4	0	1	0	2	0	1	104
10:45	0	68	8	0	3	3	9	0	2	1	2	0	0	96
11:00	0	67	13	1	6	6	5	1	3	1	0	0	1	104
11:15	1	96	13	1	5	7	3	2	2	1	1	0	0	132
11:30	1	67	3	1	3	11	3	0	4	0	1	1	1	96
11:45	0	72	7	2	7	3	2	0	3	0	1	0	0	97
TOTAL	9	2,829	367	36	222	247	110	20	98	6	67	11	19	4,041

AM PEAK HOUR	7:00 AM
AM PEAK VOLUME	784

PM	WESTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	1	94	7	0	12	4	5	1	1	0	3	1	0	129
12:15	0	80	12	0	6	5	3	0	5	0	1	0	1	113
12:30	0	99	13	1	1	8	5	0	3	0	0	1	1	132
12:45	0	94	12	3	3	9	3	1	2	1	1	1	0	130
13:00	0	96	12	2	10	4	3	0	4	1	2	1	0	135
13:15	1	80	10	1	4	5	1	0	3	0	0	0	2	107
13:30	0	113	16	1	3	4	1	1	0	0	2	0	1	142
13:45	0	121	10	2	4	6	6	1	3	1	0	1	0	155
14:00	2	111	8	0	1	11	1	1	3	0	0	1	0	139
14:15	0	110	22	2	0	5	0	1	4	0	2	0	0	146
14:30	1	189	15	1	2	4	0	1	0	0	0	0	1	214
14:45	0	118	17	2	2	9	4	1	2	0	0	1	1	157
15:00	1	137	19	1	9	8	1	3	2	0	0	1	0	182
15:15	2	123	16	0	3	4	1	2	2	0	1	1	0	155
15:30	0	125	13	0	7	2	1	0	0	0	2	1	0	151
15:45	1	103	11	3	5	5	0	2	2	1	0	0	0	133
16:00	1	124	20	0	11	5	0	0	1	1	0	0	0	163
16:15	0	133	16	1	7	0	0	2	3	0	0	0	0	162
16:30	1	159	12	0	4	1	0	3	1	0	1	0	0	182
16:45	1	122	18	0	3	1	0	1	1	0	1	0	0	148
17:00	0	136	12	0	5	4	0	1	3	0	4	0	0	165
17:15	0	119	12	0	5	9	0	0	2	0	0	0	0	147
17:30	2	105	21	0	3	1	0	0	0	0	0	0	0	132
17:45	0	143	19	1	3	1	0	2	1	1	0	0	0	171
18:00	0	130	15	0	2	1	0	1	0	0	0	0	1	150
18:15	1	98	13	0	4	5	0	1	0	0	0	0	0	122
18:30	2	89	8	1	6	3	0	0	0	0	2	0	0	111
18:45	0	84	6	0	2	0	0	0	2	0	1	0	0	95
19:00	0	88	16	0	4	2	0	0	0	0	0	0	0	110
19:15	0	92	16	0	3	6	0	1	0	0	0	0	0	118
19:30	0	73	7	0	2	0	0	1	1	0	0	0	0	84
19:45	0	57	12	0	3	1	0	0	0	0	0	0	0	73
20:00	0	52	2	0	0	3	1	0	3	0	0	0	0	61
20:15	0	44	3	0	3	1	0	0	0	0	2	0	0	53
20:30	0	52	7	0	2	0	0	0	1	0	3	0	0	65
20:45	1	102	7	0	3	9	0	0	2	1	0	0	2	127
21:00	0	136	17	0	7	3	4	0	0	0	0	0	0	167
21:15	0	84	7	0	1	4	2	0	2	0	1	1	0	102
21:30	0	54	4	0	0	5	1	1	0	0	0	0	0	65
21:45	0	30	2	0	2	3	1	0	1	0	0	0	0	39
22:00	0	46	8	0	0	2	2	0	0	0	0	0	0	58
22:15	0	27	3	0	0	0	2	0	1	0	0	0	0	33
22:30	0	44	6	0	1	1	3	0	3	0	1	1	1	61
22:45	0	27	3	0	2	4	4	0	1	0	0	0	0	41
23:00	0	24	3	0	0	4	2	0	0	0	0	1	0	34
23:15	0	22	4	0	1	2	0	0	1	0	0	0	1	31
23:30	0	19	2	0	0	3	0	0	1	0	0	1	0	26
23:45	0	12	1	0	0	4	1	1	1	0	2	0	0	22
TOTAL	18	4,320	515	22	161	181	58	30	68	7	32	14	12	5,438

PM PEAK HOUR	2:30 PM
PM PEAK VOLUME	708

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	27	7,149	882	58	383	428	168	50	166	13	99	25	31	9,479
% OF TOTAL	0.3%	75.4%	9.3%	0.6%	4.0%	4.5%	1.8%	0.5%	1.8%	0.1%	1.0%	0.3%	0.3%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Wednesday, October 09, 2019
JOB #: SC2385

CITY: Corona
LOCATION: CLASS Magnolia between All American and Sherborn.

AM	EASTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	18	0	1	2	3	0	1	0	0	0	0	0	25
0:15	0	24	6	2	0	5	1	1	2	0	0	0	0	41
0:30	0	15	4	1	1	3	0	0	2	1	0	0	0	27
0:45	0	13	1	0	0	2	1	0	0	0	0	0	0	17
1:00	0	16	0	0	2	6	0	0	0	0	0	0	0	24
1:15	0	9	0	0	1	2	0	0	0	0	0	0	0	12
1:30	0	8	2	0	0	3	0	1	0	0	0	0	0	14
1:45	0	14	1	0	4	14	1	1	2	0	0	0	0	37
2:00	0	9	0	0	3	7	0	0	2	0	1	0	0	22
2:15	0	10	0	1	2	7	0	0	2	0	0	0	0	22
2:30	0	11	0	0	2	4	0	0	1	0	0	0	0	18
2:45	0	11	0	2	2	5	2	0	1	0	0	0	0	23
3:00	0	8	4	1	1	8	2	0	0	0	0	0	0	24
3:15	1	17	2	0	2	4	0	0	2	0	0	0	0	28
3:30	0	23	7	0	4	5	0	1	3	0	0	0	0	43
3:45	0	25	7	0	9	5	0	0	2	0	0	0	0	48
4:00	0	16	7	0	10	6	0	0	1	1	1	0	0	42
4:15	0	28	3	1	9	3	1	0	2	0	0	0	0	47
4:30	2	44	6	0	6	5	1	0	4	0	0	0	0	68
4:45	1	59	7	0	9	3	1	2	2	0	1	0	1	86
5:00	1	31	6	0	13	6	0	0	1	0	0	0	0	58
5:15	0	58	6	1	8	7	0	0	1	0	1	0	0	82
5:30	0	55	8	1	8	3	0	1	2	0	1	0	0	79
5:45	0	73	9	1	10	6	1	0	2	0	0	0	0	102
6:00	0	53	4	0	8	4	0	0	1	0	0	1	0	71
6:15	1	53	9	0	11	4	0	0	2	0	0	0	0	80
6:30	0	77	6	2	11	5	1	0	2	0	0	1	0	105
6:45	1	111	8	1	11	8	1	0	1	1	0	0	1	144
7:00	1	78	13	0	8	3	0	0	1	0	0	0	0	104
7:15	1	96	9	3	13	6	0	0	1	0	0	0	2	131
7:30	1	132	15	2	9	6	1	1	2	0	0	4	0	173
7:45	1	144	10	0	11	4	2	1	0	0	0	1	1	175
8:00	0	112	16	3	6	8	1	0	3	2	2	0	1	154
8:15	2	112	8	2	15	13	0	3	0	0	1	0	1	157
8:30	1	102	18	2	14	7	0	0	2	0	2	0	0	148
8:45	0	136	9	0	15	5	0	0	2	0	0	4	1	172
9:00	1	137	11	2	8	9	3	0	1	0	3	0	6	181
9:15	0	96	11	1	9	7	0	2	2	0	1	0	0	129
9:30	0	130	4	1	5	9	1	0	2	0	0	0	3	155
9:45	0	111	8	1	7	11	0	1	2	0	1	0	2	144
10:00	0	100	12	0	11	9	2	0	4	1	2	0	1	142
10:15	1	115	7	0	14	5	1	2	1	0	1	1	0	148
10:30	1	107	14	1	10	10	1	0	3	0	5	2	2	156
10:45	0	154	11	1	8	13	0	1	4	0	3	2	0	197
11:00	0	154	14	0	10	6	0	0	2	0	1	0	1	188
11:15	0	121	8	2	11	7	1	2	1	0	3	0	0	156
11:30	1	110	14	0	14	12	0	2	1	0	0	0	1	155
11:45	1	122	12	2	10	9	1	2	1	0	1	1	0	162
TOTAL	19	3,258	337	38	357	302	27	25	75	6	31	17	24	4,516

AM PEAK HOUR	10:30 AM
AM PEAK VOLUME	697

PM	EASTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	1	120	13	1	9	12	0	1	2	0	0	0	1	160
12:15	2	130	15	0	8	7	2	0	2	0	1	0	0	167
12:30	1	126	8	2	14	9	2	1	1	0	1	0	2	167
12:45	0	168	8	0	17	4	1	3	3	0	0	2	1	207
13:00	0	165	15	1	8	6	3	2	1	0	2	1	1	205
13:15	0	197	13	0	5	3	0	2	0	0	0	0	2	222
13:30	2	166	11	3	14	11	1	1	1	0	2	1	1	214
13:45	1	187	9	2	11	10	1	4	0	0	1	0	0	226
14:00	2	205	10	0	12	6	1	1	0	0	3	0	0	240
14:15	0	229	13	2	16	7	4	0	1	0	0	0	1	273
14:30	0	269	12	0	13	7	1	0	3	0	0	4	1	310
14:45	3	284	17	2	9	9	2	1	3	0	1	1	1	333
15:00	1	284	11	0	6	13	1	1	4	1	0	0	3	325
15:15	0	297	9	0	11	7	1	0	0	0	2	1	2	330
15:30	0	235	10	1	7	10	1	1	1	0	0	0	3	269
15:45	0	248	17	0	11	8	4	0	1	0	4	1	3	297
16:00	1	199	11	0	10	10	3	0	0	0	0	0	0	234
16:15	1	266	14	0	5	7	0	3	0	0	1	2	3	302
16:30	1	255	13	0	9	4	0	2	2	0	2	0	1	289
16:45	2	202	19	1	12	8	0	1	3	0	0	0	0	248
17:00	2	218	6	1	6	9	2	1	2	1	1	0	1	250
17:15	0	232	11	0	9	8	0	1	0	0	1	1	0	263
17:30	1	210	16	0	12	3	1	2	0	0	0	1	1	247
17:45	1	156	13	1	7	7	2	1	2	0	0	0	0	190
18:00	0	244	13	0	12	7	1	0	2	0	1	1	2	283
18:15	2	204	9	0	15	5	2	1	1	0	0	1	0	240
18:30	0	136	15	0	7	5	2	1	0	0	0	0	1	167
18:45	0	120	14	1	7	6	1	1	0	0	0	1	0	151
19:00	0	98	9	0	7	5	0	1	3	0	0	1	0	124
19:15	0	118	8	0	5	6	1	0	1	0	0	1	0	140
19:30	0	89	15	0	4	3	1	0	1	0	0	0	0	113
19:45	0	68	13	0	6	0	1	1	1	0	0	0	0	90
20:00	0	104	4	0	11	1	0	0	2	0	1	0	0	123
20:15	0	75	8	1	4	0	1	0	0	0	1	0	0	90
20:30	2	100	13	0	6	0	0	0	0	0	0	0	0	121
20:45	0	63	6	0	5	3	0	0	2	0	0	0	0	79
21:00	0	65	8	0	6	3	0	1	0	0	0	0	0	83
21:15	0	65	8	0	6	2	0	0	0	0	0	0	0	81
21:30	0	62	7	0	4	3	1	1	0	0	0	0	0	78
21:45	0	45	5	1	6	1	1	0	1	0	1	0	0	61
22:00	0	42	4	0	1	2	1	0	0	0	0	0	0	50
22:15	0	32	5	0	2	1	1	0	2	0	0	0	0	43
22:30	0	35	6	0	4	4	0	0	0	0	0	0	0	49
22:45	0	27	1	0	1	1	0	1	0	0	0	0	0	31
23:00	0	23	3	0	3	2	1	0	0	0	0	0	0	32
23:15	0	29	4	1	2	4	0	0	0	0	0	0	0	40
23:30	0	17	2	0	1	3	0	0	4	0	1	0	0	28
23:45	0	16	0	0	2	4	0	0	0	0	0	0	0	22
TOTAL	26	6,925	474	21	368	256	48	37	52	2	27	20	31	8,287

PM PEAK HOUR	2:30 PM
PM PEAK VOLUME	1,298

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	45	10,183	811	59	725	558	75	62	127	8	58	37	55	12,803
% OF TOTAL	0.4%	79.5%	6.3%	0.5%	5.7%	4.4%	0.6%	0.5%	1.0%	0.1%	0.5%	0.3%	0.4%	100.0%

TOTAL: ALL	78	17,133	1,663	104	###	996	317	117	277	21	150	73	103	22,091
% OF TOTAL	0.6%	133.8%	13.0%	0.8%	8.3%	7.8%	2.5%	0.9%	2.2%	0.2%	1.2%	0.6%	0.8%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Wednesday, October 09, 2019
JOB #: SC2385

CITY: Corona
LOCATION: CLASS Magnolia between All American and Sherborn.

AM	WESTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	10	0	0	0	3	2	0	0	0	0	0	0	15
0:15	0	12	3	0	0	3	5	0	0	0	0	0	0	23
0:30	0	8	0	0	1	6	3	0	1	0	4	0	0	23
0:45	0	6	1	0	0	4	4	0	0	0	1	0	1	17
1:00	0	6	0	0	0	1	6	0	1	0	0	0	1	15
1:15	0	5	1	0	0	5	4	0	1	0	0	0	0	16
1:30	0	18	0	0	0	2	3	0	1	0	0	0	0	24
1:45	0	5	2	0	0	2	0	0	0	0	0	0	0	9
2:00	0	3	1	0	1	6	2	0	0	0	0	0	0	13
2:15	0	5	2	0	0	4	1	0	2	0	1	0	0	15
2:30	0	7	1	0	0	1	2	0	1	0	0	0	0	12
2:45	0	11	1	0	0	5	2	1	1	0	0	1	0	22
3:00	0	16	1	0	4	4	0	0	0	0	1	0	0	26
3:15	0	7	4	1	1	4	1	0	2	0	0	0	0	20
3:30	0	25	3	0	1	3	3	0	1	0	0	0	0	36
3:45	0	14	5	0	1	1	2	0	2	0	0	0	0	25
4:00	0	18	11	1	3	2	2	0	0	0	0	0	0	37
4:15	0	30	6	1	6	4	0	0	2	0	0	1	0	50
4:30	0	52	4	1	7	4	4	0	1	0	2	0	0	75
4:45	1	44	6	0	7	6	1	0	3	0	2	1	1	72
5:00	0	42	3	1	8	11	2	2	1	0	11	2	0	83
5:15	1	61	8	2	8	12	2	0	5	1	8	1	1	110
5:30	0	53	13	0	6	10	5	1	4	0	0	2	3	97
5:45	0	73	9	0	8	5	1	0	2	0	1	2	0	101
6:00	0	68	6	0	7	17	5	0	2	1	1	1	0	108
6:15	2	68	14	1	7	14	2	0	3	0	2	2	0	115
6:30	3	109	12	1	3	3	9	0	1	0	2	1	1	145
6:45	1	109	5	2	3	8	4	1	4	0	1	0	0	138
7:00	0	114	15	0	6	8	7	0	1	0	4	1	0	156
7:15	0	112	9	3	3	6	2	0	3	1	3	2	2	146
7:30	1	128	19	0	8	9	8	0	1	0	2	0	1	177
7:45	0	134	12	2	8	11	8	0	0	0	0	0	0	175
8:00	1	147	10	0	2	8	2	0	4	0	1	1	1	177
8:15	2	156	15	0	2	9	11	1	5	1	0	0	2	204
8:30	0	141	7	5	4	9	2	0	0	0	1	0	3	172
8:45	0	103	5	1	6	9	10	0	2	1	0	0	0	137
9:00	0	63	8	1	5	5	2	1	4	0	2	0	0	91
9:15	0	79	7	0	3	6	5	0	2	0	4	2	0	108
9:30	0	91	16	0	6	4	7	1	0	0	3	2	0	130
9:45	0	85	19	1	5	9	3	2	0	1	1	0	1	127
10:00	0	76	22	0	6	6	5	1	5	0	3	1	2	127
10:15	0	94	14	0	2	9	3	0	3	0	2	0	2	129
10:30	0	66	6	3	2	6	4	1	3	0	0	1	1	93
10:45	0	79	10	2	2	6	8	0	7	0	2	0	1	117
11:00	0	66	16	0	3	6	3	3	1	0	0	0	2	100
11:15	0	81	16	1	7	9	5	3	3	0	2	1	3	131
11:30	0	67	6	0	5	5	6	1	3	0	0	0	2	95
11:45	1	87	6	1	3	8	3	1	3	1	3	0	0	117
TOTAL	13	2,854	360	31	170	298	181	20	91	7	70	25	31	4,151

AM PEAK HOUR	7:30 AM
AM PEAK VOLUME	733

PM	WESTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	1	81	11	1	5	9	6	0	1	0	0	0	0	115
12:15	1	100	19	0	3	10	2	1	1	0	0	0	1	138
12:30	0	112	18	2	9	7	2	0	1	0	1	1	1	154
12:45	1	95	12	1	4	6	0	1	5	1	0	0	1	127
13:00	1	101	11	0	8	9	3	2	3	0	1	1	0	140
13:15	0	91	11	1	5	3	1	1	1	0	1	0	2	117
13:30	0	111	8	0	9	5	2	1	1	0	1	0	2	140
13:45	0	125	19	0	8	5	3	0	1	0	0	1	1	163
14:00	0	118	17	1	6	1	0	0	3	0	0	0	0	146
14:15	0	126	13	1	2	2	0	1	3	0	0	0	1	149
14:30	0	131	12	0	7	7	1	2	4	0	1	0	1	166
14:45	2	143	14	1	5	3	1	2	1	0	0	0	1	173
15:00	2	138	18	1	5	4	0	1	0	1	0	0	0	170
15:15	0	101	17	1	3	1	0	3	2	1	0	0	0	129
15:30	1	152	15	0	4	2	0	2	3	0	0	0	1	180
15:45	2	107	15	0	3	1	0	1	2	0	0	0	0	131
16:00	0	140	21	1	9	2	0	1	0	0	2	0	0	176
16:15	0	109	15	0	9	3	0	2	1	0	0	0	0	139
16:30	0	120	12	0	5	1	0	0	1	0	3	2	1	145
16:45	0	118	13	0	7	5	0	2	0	0	3	0	0	148
17:00	1	155	15	0	5	0	0	0	3	0	0	1	0	180
17:15	1	113	11	0	5	5	1	0	3	0	0	0	0	139
17:30	1	131	12	0	2	4	1	0	0	0	0	1	0	152
17:45	0	115	17	0	1	2	1	0	5	0	0	0	0	141
18:00	0	134	10	0	3	2	0	2	1	0	2	0	0	154
18:15	0	120	15	1	1	3	1	0	0	0	0	0	0	141
18:30	1	97	11	1	4	0	1	2	0	0	0	0	0	117
18:45	1	79	7	0	1	3	0	0	2	0	0	1	0	94
19:00	1	72	7	0	5	1	0	0	0	0	0	0	0	86
19:15	0	64	11	0	2	2	0	1	0	0	0	0	0	80
19:30	0	69	8	0	1	1	0	2	0	0	0	1	1	83
19:45	0	49	4	0	1	1	4	0	1	0	0	0	0	60
20:00	0	63	2	0	2	1	2	0	1	0	0	0	0	71
20:15	0	64	5	0	0	4	1	0	0	0	1	0	0	75
20:30	1	47	11	0	4	1	1	0	1	1	0	0	1	68
20:45	0	38	9	0	1	1	2	0	2	1	0	1	0	55
21:00	0	47	5	0	3	0	1	0	0	0	0	0	0	56
21:15	0	41	2	0	1	1	1	1	1	0	1	0	0	49
21:30	0	51	4	0	0	1	1	0	0	0	0	0	0	57
21:45	0	28	8	1	2	1	1	2	3	0	0	0	0	46
22:00	1	36	5	0	1	3	1	0	0	0	2	0	0	49
22:15	0	44	5	0	2	3	2	1	0	0	0	0	0	57
22:30	0	36	7	0	1	1	1	0	0	1	0	1	2	50
22:45	0	27	2	0	0	1	2	0	1	0	0	0	0	33
23:00	1	17	1	0	0	3	7	0	1	0	1	0	0	31
23:15	0	15	3	0	0	2	2	1	0	0	0	0	0	23
23:30	0	20	3	0	0	3	2	0	0	0	0	0	0	28
23:45	0	5	1	0	0	4	4	0	0	0	2	0	0	16
TOTAL	20	4,096	492	14	164	140	61	35	59	6	22	11	17	5,137

PM PEAK HOUR	2:15 PM
PM PEAK VOLUME	658

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	33	6,950	852	45	334	438	242	55	150	13	92	36	48	9,288
% OF TOTAL	0.4%	74.8%	9.2%	0.5%	3.6%	4.7%	2.6%	0.6%	1.6%	0.1%	1.0%	0.4%	0.5%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Thursday, October 10, 2019
JOB #: SC2385

CITY: Corona
LOCATION: CLASS Magnolia between All American and Sherborn.

AM	EASTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	1	20	1	1	0	2	0	0	0	0	0	1	0	26
0:15	0	10	1	1	0	3	0	0	0	0	0	0	0	15
0:30	0	15	2	0	1	8	0	1	0	0	0	0	0	27
0:45	0	21	2	0	0	1	1	1	1	0	0	0	0	27
1:00	0	15	1	0	0	5	0	0	0	0	0	0	0	21
1:15	0	4	1	0	3	5	0	0	1	0	0	0	0	14
1:30	0	11	0	0	1	5	0	1	3	0	0	0	0	21
1:45	0	12	3	0	2	4	0	1	0	0	1	0	0	23
2:00	0	5	1	0	5	5	0	0	1	0	0	0	0	17
2:15	0	8	0	2	1	4	0	0	1	0	0	0	0	16
2:30	0	19	2	0	0	6	0	0	1	0	0	0	0	28
2:45	0	7	2	0	3	1	0	1	0	0	0	0	0	14
3:00	0	12	1	1	1	4	0	0	1	0	0	0	0	20
3:15	0	12	1	0	1	4	0	0	3	0	0	0	0	21
3:30	0	24	4	0	9	3	0	0	1	0	0	0	0	41
3:45	1	34	8	1	8	1	0	0	0	0	0	0	0	53
4:00	0	22	5	0	4	5	0	1	2	0	0	0	0	39
4:15	0	19	8	1	8	2	0	0	2	0	0	0	0	40
4:30	3	43	4	1	3	3	0	0	1	0	0	0	0	58
4:45	1	51	8	0	13	4	0	0	0	0	1	0	0	78
5:00	0	45	7	1	8	2	0	0	0	0	4	0	1	68
5:15	0	52	3	0	8	3	0	2	2	0	0	0	0	70
5:30	1	78	7	0	5	6	0	0	1	0	0	0	0	98
5:45	1	59	8	3	7	3	0	0	4	0	0	0	1	86
6:00	0	63	8	0	7	8	2	1	0	0	0	0	0	89
6:15	0	56	9	1	14	1	1	0	1	0	0	0	0	83
6:30	2	76	4	1	9	6	1	1	1	0	1	0	0	102
6:45	0	105	7	2	7	8	0	0	0	0	1	0	2	132
7:00	2	106	7	0	6	6	2	0	1	0	0	2	0	132
7:15	2	116	16	1	5	7	1	1	2	0	0	0	1	152
7:30	0	180	13	0	9	6	1	1	2	0	0	0	0	212
7:45	0	189	20	0	9	6	1	1	1	0	1	1	1	230
8:00	0	138	13	1	14	6	2	0	1	0	1	0	0	176
8:15	0	100	10	0	17	1	1	0	2	0	3	0	0	134
8:30	1	101	7	1	12	5	0	1	1	0	1	1	0	131
8:45	0	101	11	2	11	2	0	1	0	0	0	0	0	128
9:00	0	109	8	1	5	9	0	0	1	0	0	0	1	134
9:15	1	96	5	2	11	8	3	1	2	0	0	0	0	129
9:30	0	90	11	2	11	10	1	0	2	0	2	0	2	131
9:45	0	113	9	0	15	6	3	1	1	0	0	1	0	149
10:00	0	89	5	0	15	12	1	1	5	1	0	1	0	130
10:15	1	107	5	2	5	6	0	1	1	0	3	0	0	131
10:30	0	101	8	4	10	5	0	1	2	0	1	0	1	133
10:45	0	103	5	2	10	7	2	1	2	1	3	3	1	140
11:00	1	117	8	0	12	8	2	0	0	1	1	2	0	152
11:15	1	124	11	1	8	6	1	1	1	0	2	0	2	158
11:30	0	114	12	2	14	11	1	0	2	0	0	0	1	157
11:45	0	135	12	1	7	7	3	2	2	0	2	1	1	173
TOTAL	19	3,227	304	38	334	246	30	24	58	3	28	13	15	4,339

AM PEAK HOUR	7:15 AM
AM PEAK VOLUME	770

PM	EASTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	1	142	10	2	9	9	1	1	1	1	0	0	0	177
12:15	0	158	11	3	10	5	2	2	0	0	2	0	1	194
12:30	0	151	7	0	15	3	0	1	3	1	1	1	1	184
12:45	1	155	12	4	10	5	1	1	3	1	3	1	0	197
13:00	0	155	13	3	4	8	3	1	0	0	0	2	1	190
13:15	1	134	10	1	9	7	2	4	2	1	2	0	0	173
13:30	1	124	22	3	15	6	3	0	0	0	2	0	3	179
13:45	1	141	13	1	16	6	3	6	1	0	0	1	0	189
14:00	0	180	20	4	15	6	3	1	4	0	1	0	1	235
14:15	0	183	15	0	12	7	1	0	2	1	1	1	2	225
14:30	3	180	10	1	15	6	4	0	2	0	2	1	3	227
14:45	0	225	12	0	10	11	4	3	1	0	0	1	2	269
15:00	0	239	21	1	7	5	6	1	0	0	2	3	2	287
15:15	1	243	11	0	20	10	1	0	2	0	0	0	0	288
15:30	0	229	15	1	9	9	2	2	2	0	0	1	1	271
15:45	1	229	12	1	13	7	1	2	2	0	1	2	2	273
16:00	2	244	8	0	9	6	0	1	0	0	0	2	1	273
16:15	0	242	10	1	12	5	3	0	1	0	2	1	2	279
16:30	2	221	17	0	7	7	1	2	0	1	0	1	2	261
16:45	1	215	14	1	10	8	1	1	1	0	2	1	1	256
17:00	0	235	11	3	7	12	2	1	0	0	0	0	3	274
17:15	2	260	11	2	12	6	3	0	3	0	1	0	0	300
17:30	1	202	10	0	8	9	0	1	0	1	0	0	1	233
17:45	1	187	11	1	10	10	2	1	0	0	2	1	1	227
18:00	0	181	15	0	7	6	1	0	1	0	0	1	0	212
18:15	1	145	9	0	11	2	0	1	1	0	2	2	0	174
18:30	0	113	9	0	11	2	0	0	2	0	0	1	1	139
18:45	1	114	9	0	12	5	0	0	2	0	0	0	0	143
19:00	1	103	16	0	7	2	0	1	0	0	1	0	0	131
19:15	0	92	15	0	5	2	1	0	2	1	0	0	0	118
19:30	1	81	14	1	2	2	1	1	0	1	0	0	0	104
19:45	0	65	5	0	10	0	1	2	1	0	0	0	0	84
20:00	1	70	11	0	7	4	0	0	1	0	0	0	0	94
20:15	0	57	9	0	9	2	0	0	0	0	0	0	1	78
20:30	0	73	15	0	9	4	0	0	1	0	0	0	0	102
20:45	0	68	14	0	3	3	0	0	1	0	0	0	0	89
21:00	1	97	6	0	5	3	0	0	0	0	1	0	0	113
21:15	1	67	10	1	5	2	0	0	0	0	0	1	0	87
21:30	0	65	7	0	5	2	0	0	1	0	1	0	0	81
21:45	0	54	3	0	4	2	1	2	0	0	1	0	0	67
22:00	0	53	3	0	2	1	0	1	0	0	0	0	0	60
22:15	0	34	4	0	1	4	1	0	0	0	0	0	0	44
22:30	0	21	3	0	0	3	2	0	1	0	0	0	0	30
22:45	1	28	3	0	2	2	0	1	0	0	0	0	0	37
23:00	0	28	0	0	2	6	0	0	0	0	0	0	0	36
23:15	0	21	6	0	4	3	0	0	0	0	0	0	0	34
23:30	0	16	3	0	0	5	0	0	0	0	0	0	0	24
23:45	0	15	1	0	2	1	0	0	0	0	0	0	0	19
TOTAL	27	6,335	496	35	389	241	57	41	44	9	30	25	32	7,761

PM PEAK HOUR	3:00 PM
PM PEAK VOLUME	1,119

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	46	9,562	800	73	723	487	87	65	102	12	58	38	47	12,100
% OF TOTAL	0.4%	79.0%	6.6%	0.6%	6.0%	4.0%	0.7%	0.5%	0.8%	0.1%	0.5%	0.3%	0.4%	100.0%

TOTAL: ALL	82	16,317	1,738	116	###	829	293	124	227	27	174	87	86	21,165
% OF TOTAL	0.7%	134.9%	14.4%	1.0%	8.8%	6.9%	2.4%	1.0%	1.9%	0.2%	1.4%	0.7%	0.7%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Thursday, October 10, 2019
JOB #: SC2385

CITY: Corona
LOCATION: CLASS Magnolia between All American and Sherborn.

AM	WESTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	19	2	0	0	0	3	0	0	0	0	0	0	24
0:15	0	8	1	0	0	1	1	0	0	0	0	0	0	11
0:30	0	15	0	0	0	1	3	0	3	0	0	0	0	22
0:45	0	5	1	0	0	2	4	0	0	0	3	0	1	16
1:00	0	5	0	0	0	0	3	0	0	0	1	0	0	9
1:15	0	7	2	0	0	2	3	0	2	0	0	0	0	16
1:30	0	4	1	0	0	1	4	0	0	0	1	0	0	11
1:45	0	8	2	0	1	0	1	0	0	0	0	0	0	12
2:00	0	8	0	0	1	0	0	0	1	0	0	0	0	10
2:15	0	5	0	0	1	2	1	0	2	0	0	0	0	11
2:30	0	4	1	0	1	3	1	0	1	0	0	0	0	11
2:45	0	5	3	0	1	2	0	0	0	0	0	0	0	11
3:00	0	9	1	0	0	2	1	0	2	0	0	0	0	15
3:15	0	10	3	0	2	0	0	0	1	0	2	0	0	18
3:30	0	11	2	0	3	2	1	0	0	0	0	1	0	20
3:45	0	26	11	0	6	1	0	0	1	0	0	0	0	45
4:00	0	14	7	0	5	0	0	0	1	0	0	0	0	27
4:15	1	30	4	2	9	4	0	1	4	0	1	0	2	58
4:30	1	43	7	1	9	5	1	0	4	1	2	2	0	76
4:45	0	61	11	0	4	9	3	0	3	0	6	1	0	98
5:00	0	47	4	2	11	4	1	0	2	0	7	0	1	79
5:15	0	46	11	0	16	6	3	0	0	0	6	1	0	89
5:30	1	63	14	1	6	4	1	0	2	0	2	0	2	96
5:45	0	63	10	2	6	6	3	0	2	0	6	1	0	99
6:00	0	71	9	1	5	25	6	0	3	0	2	5	2	129
6:15	1	65	9	1	3	12	3	1	1	1	0	0	0	97
6:30	0	116	13	3	2	10	6	1	2	0	0	2	1	156
6:45	1	117	13	0	4	4	7	0	1	1	3	2	1	154
7:00	1	178	12	2	1	12	4	0	2	0	3	2	0	217
7:15	0	168	16	0	5	8	4	0	2	0	4	0	2	209
7:30	0	124	11	0	4	12	6	0	5	2	4	1	1	170
7:45	1	117	13	1	8	5	4	1	2	2	2	0	1	157
8:00	0	108	11	0	5	9	4	1	1	2	3	0	0	144
8:15	1	109	14	1	7	4	2	1	3	1	0	2	2	147
8:30	1	106	17	1	3	6	4	2	3	1	1	0	0	145
8:45	2	78	14	0	7	5	4	1	5	1	1	1	3	122
9:00	0	74	13	3	6	1	3	1	1	0	3	0	0	105
9:15	0	71	17	0	5	4	4	0	3	0	4	0	2	110
9:30	0	78	14	0	6	2	5	2	1	1	1	2	0	112
9:45	0	68	7	1	6	7	3	1	3	1	2	1	0	100
10:00	0	74	18	1	5	3	3	1	2	0	3	0	0	110
10:15	0	65	10	1	2	8	7	1	2	0	2	0	1	99
10:30	0	74	8	1	8	6	6	0	5	0	0	2	2	112
10:45	0	65	13	1	4	4	3	3	4	1	1	0	0	99
11:00	1	85	11	2	6	6	2	1	1	0	0	0	1	116
11:15	0	85	8	0	3	6	5	0	0	0	2	1	1	111
11:30	0	92	10	0	6	3	1	1	1	0	4	4	0	122
11:45	0	74	12	2	4	4	1	1	2	0	1	0	0	101
TOTAL	12	2,778	391	30	197	223	135	21	86	15	83	31	26	4,028

PM	WESTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	1	103	13	1	3	2	4	0	0	0	4	3	0	134
12:15	0	86	13	1	7	7	4	1	3	0	4	0	0	126
12:30	1	65	17	3	4	4	3	0	6	0	0	2	2	107
12:45	0	66	15	0	4	7	2	2	3	0	0	1	3	103
13:00	1	104	17	1	2	5	1	3	2	0	0	2	2	140
13:15	0	99	10	0	7	2	3	3	1	0	1	1	1	128
13:30	1	101	15	3	5	2	1	2	0	0	0	0	0	130
13:45	1	105	16	0	2	1	3	0	0	0	1	1	0	130
14:00	0	126	19	2	6	3	0	0	2	0	2	1	0	161
14:15	1	130	17	0	5	2	1	2	0	0	1	0	0	159
14:30	1	148	11	1	4	4	0	1	0	0	0	1	1	172
14:45	1	137	12	0	7	4	1	3	0	0	2	0	1	168
15:00	2	121	9	1	7	5	1	2	3	0	1	1	0	153
15:15	0	121	24	0	4	2	0	2	0	0	2	1	1	157
15:30	1	122	20	0	3	4	0	0	0	0	0	0	0	150
15:45	0	123	17	0	5	5	1	2	1	0	0	0	0	154
16:00	1	145	20	0	8	3	0	0	1	0	0	0	0	178
16:15	3	115	25	0	2	1	0	0	0	0	0	0	0	146
16:30	2	154	12	0	6	2	0	1	0	0	1	0	0	178
16:45	0	118	22	0	6	2	0	1	1	0	1	0	1	152
17:00	1	127	18	0	3	3	2	0	3	0	3	0	0	160
17:15	0	106	6	0	3	2	3	2	0	0	1	0	0	123
17:30	0	103	10	0	2	3	1	3	0	0	1	0	0	123
17:45	1	123	14	0	1	1	2	2	0	0	0	0	0	144
18:00	2	114	18	0	4	2	1	2	0	0	2	0	0	145
18:15	0	106	15	0	3	2	2	0	1	0	0	0	0	129
18:30	0	115	17	0	2	2	1	1	1	0	0	0	0	139
18:45	0	93	13	0	5	3	1	0	0	0	0	0	0	115
19:00	1	92	12	0	2	1	0	0	2	0	0	1	0	111
19:15	0	63	6	0	2	2	0	0	0	0	1	0	0	74
19:30	0	78	15	0	1	0	0	1	0	0	1	0	0	96
19:45	2	49	10	0	0	1	0	0	0	0	0	0	0	62
20:00	0	60	6	0	4	0	3	1	0	0	0	0	0	74
20:15	0	41	10	0	1	1	2	0	0	0	0	0	0	55
20:30	0	57	7	0	1	3	0	0	2	0	0	0	0	70
20:45	0	39	11	0	1	3	2	0	0	0	0	0	0	56
21:00	0	39	8	0	4	1	1	1	0	0	4	0	0	58
21:15	0	47	3	0	1	1	1	0	0	0	0	0	0	53
21:30	0	40	2	0	1	0	1	0	3	0	0	0	0	47
21:45	0	22	5	0	0	3	0	0	2	0	0	0	1	33
22:00	0	31	2	0	1	1	2	0	0	0	0	0	0	37
22:15	0	28	1	0	1	4	1	0	0	0	0	2	0	37
22:30	0	34	5	0	1	2	3	0	1	0	0	1	0	47
22:45	0	24	3	0	3	3	5	0	0	0	0	0	0	38
23:00	0	16	1	0	0	4	3	0	0	0	0	0	0	24
23:15	0	13	2	0	0	1	3	0	1	0	0	0	0	20
23:30	0	20	2	0	0	1	4	0	0	0	0	0	0	27
23:45	0	8	1	0	1	2	2	0	0	0	0	0	0	14
TOTAL	24	3,977	547	13	145	119	71	38	39	0	33	18	13	5,037

AM PEAK HOUR	7:00 AM
AM PEAK VOLUME	753

PM PEAK HOUR	2:00 PM
PM PEAK VOLUME	660

CLASS 1	Class 1 — Motorcycles	**CLASS 8**	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	**CLASS 9**	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	**CLASS 10**	6 or More Axles, Single Trailer
CLASS 4	Buses	**CLASS 11**	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	**CLASS 12**	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	**CLASS 13**	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	36	6,755	938	43	342	342	206	59	125	15	116	49	39	9,065
% OF TOTAL	0.4%	74.5%	10.3%	0.5%	3.8%	3.8%	2.3%	0.7%	1.4%	0.2%	1.3%	0.5%	0.4%	100.0%

INTERSECTION TURNING MOVEMENT COUNTS

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

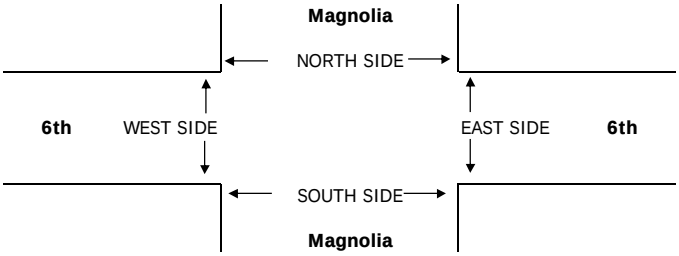
DATE:					
Tue, Oct 8, 19	LOCATION:	Corona	PROJECT #:	SC2385	
	NORTH & SOUTH:	Magnolia	LOCATION #:	1	
	EAST & WEST:	6th	CONTROL:	SIGNAL	

NOTES:

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

Add U-Turns to Left Turns

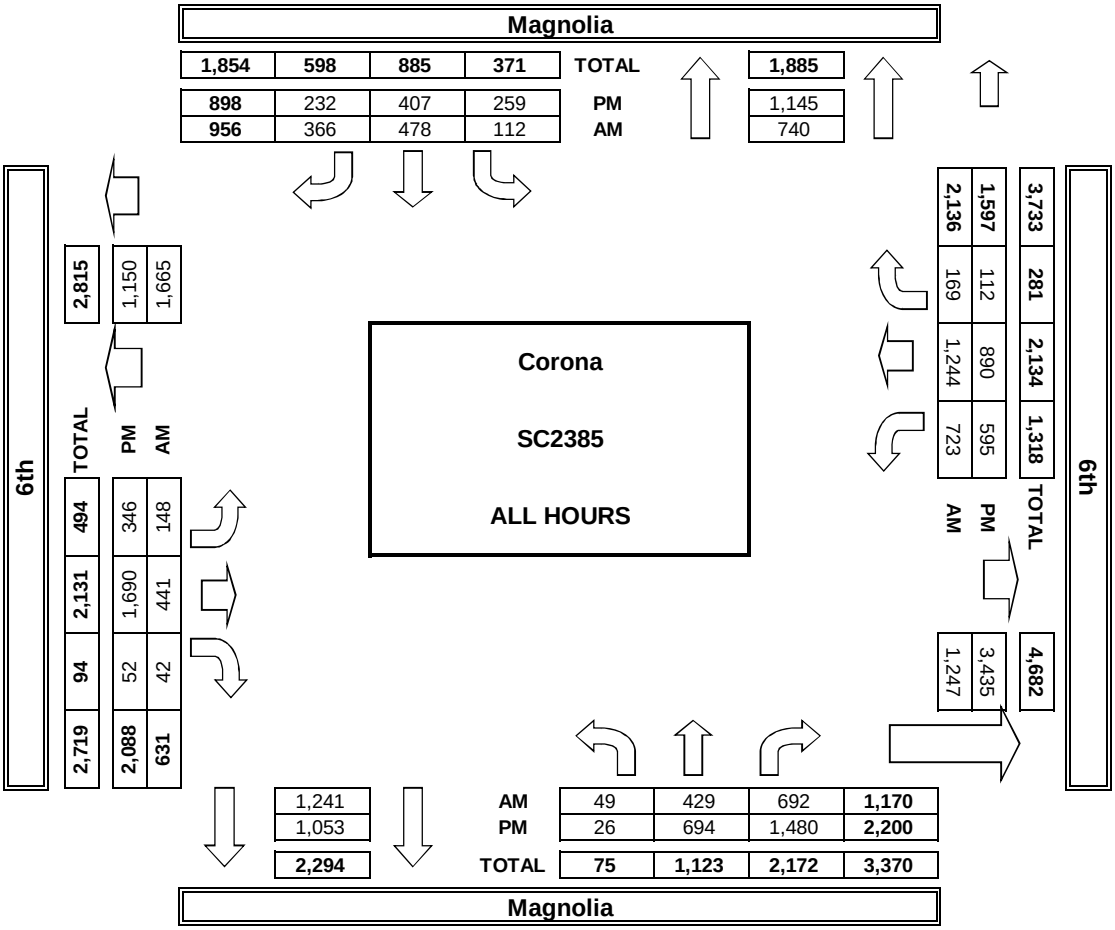
		NORTHBOUND Magnolia			SOUTHBOUND Magnolia			EASTBOUND 6th			WESTBOUND 6th				U-TURNS				
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 1	WL 2	WT 2	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	5	42	64	8	92	49	9	36	5	136	189	24	659	0	0	2	0	2
	7:15 AM	1	52	101	14	89	71	18	39	9	102	155	33	684	0	0	0	1	1
	7:30 AM	4	87	111	24	57	59	18	53	4	102	208	18	745	0	0	0	0	0
	7:45 AM	9	77	135	19	53	41	29	75	8	103	167	26	742	0	0	0	0	0
	8:00 AM	10	41	92	13	55	28	29	80	5	77	140	22	592	0	0	1	0	1
	8:15 AM	9	40	70	13	48	44	14	58	2	89	151	24	562	0	0	1	1	2
	8:30 AM	4	42	63	8	43	45	14	50	3	70	118	16	476	0	0	1	0	1
	8:45 AM	7	48	56	13	41	29	17	50	6	44	116	6	433	0	0	1	0	1
	VOLUMES	49	429	692	112	478	366	148	441	42	723	1,244	169	4,893	0	0	6	2	8
	APPROACH %	4%	37%	59%	12%	50%	38%	23%	70%	7%	34%	58%	8%						
	APP/DEPART	1,170	/	740	956	/	1,241	631	/	1,247	2,136	/	1,665	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	19	258	411	65	291	220	74	203	26	443	719	101	2,830					
	APPROACH %	3%	38%	60%	11%	51%	38%	24%	67%	9%	35%	57%	8%						
	PEAK HR FACTOR		0.778			0.828			0.676			0.905		0.950					
	APP/DEPART	688	/	431	576	/	759	303	/	680	1,263	/	960	0					
PM	4:00 PM	5	100	200	43	60	16	50	230	16	63	116	14	913	0	0	3	1	4
	4:15 PM	1	82	191	23	45	21	32	213	3	85	119	10	825	0	0	0	0	0
	4:30 PM	2	95	183	28	72	29	56	201	6	80	112	17	881	0	0	2	0	2
	4:45 PM	1	91	183	28	43	33	58	235	4	62	108	12	858	0	0	0	1	1
	5:00 PM	3	78	175	55	50	28	41	200	4	66	97	11	808	1	0	0	0	1
	5:15 PM	4	106	207	27	36	41	32	243	3	90	103	22	914	2	0	1	0	3
	5:30 PM	4	81	181	30	47	39	45	178	6	63	102	10	786	1	0	1	1	3
	5:45 PM	6	61	160	25	54	25	32	190	10	86	133	16	798	1	0	0	3	4
	VOLUMES	26	694	1,480	259	407	232	346	1,690	52	595	890	112	6,783	5	0	7	6	18
	APPROACH %	1%	32%	67%	29%	45%	26%	17%	81%	2%	37%	56%	7%						
	APP/DEPART	2,200	/	1,145	898	/	1,053	2,088	/	3,435	1,597	/	1,150	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	9	368	757	122	220	99	196	879	29	290	455	53	3,477					
	APPROACH %	1%	32%	67%	28%	50%	22%	18%	80%	3%	36%	57%	7%						
	PEAK HR FACTOR		0.930			0.855			0.929			0.932		0.952					
	APP/DEPART	1,134	/	612	441	/	537	1,104	/	1,760	798	/	568	0					

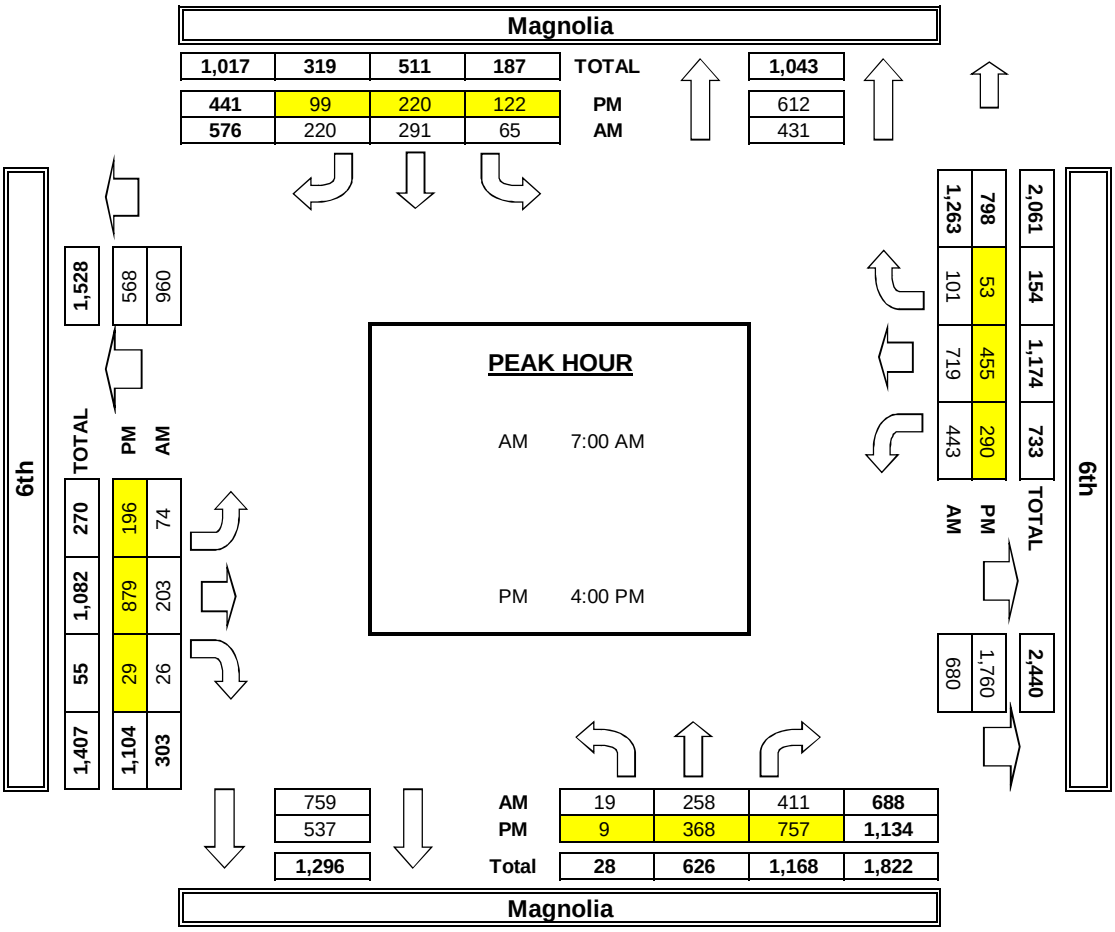


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	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	0	0
	AM BEGIN PEAK HR	7:00 AM					0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	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	0	0
	PM BEGIN PEAK HR	4:00 PM					0	0	0	0	0					

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: Tue, Oct 8, 19

LOCATION: Corona
NORTH & SOUTH: Magnolia
EAST & WEST: Leeson

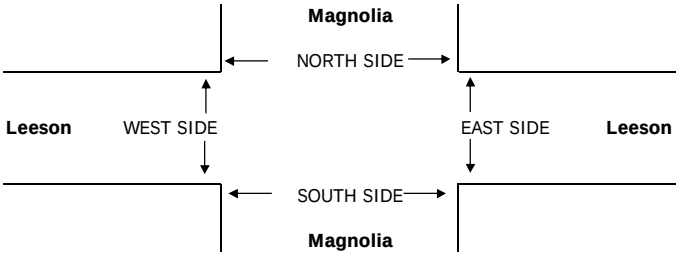
PROJECT #: SC2385
LOCATION #: 2
CONTROL: STOP W

NOTES: Queue NB PM

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

☑ Add U-Turns to Left Turns

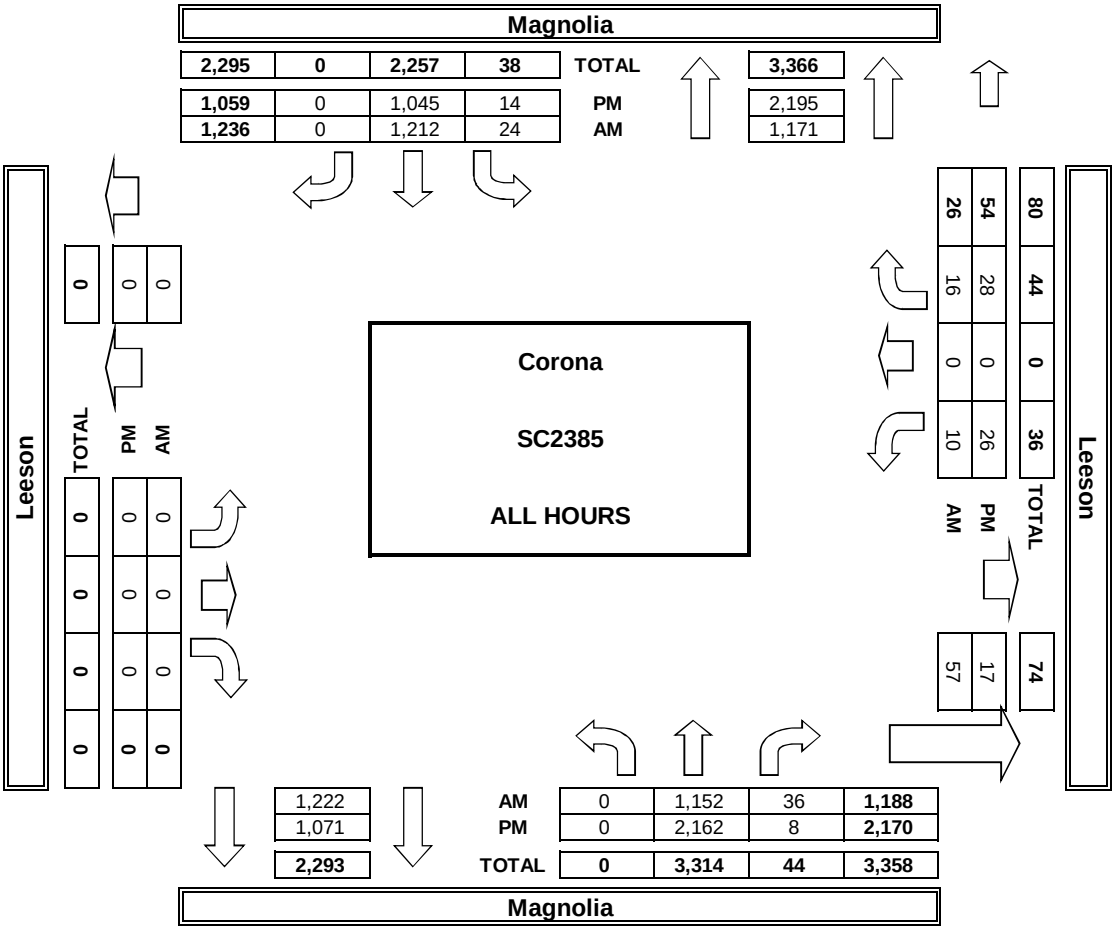
		NORTHBOUND Magnolia			SOUTHBOUND Magnolia			EASTBOUND Leeson			WESTBOUND Leeson				U-TURNS				
	LANES:	NL X	NT 2	NR 1	SL 1	ST 2	SR X	EL X	ET X	ER X	WL 0	WT X	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	109	2	1	225	0	0	0	0	2	0	0	339	0	0	0	0	0
	7:15 AM	0	150	1	5	189	0	0	0	0	0	0	0	345	0	0	0	0	0
	7:30 AM	0	201	3	3	163	0	0	0	0	2	0	4	376	0	0	0	0	0
	7:45 AM	0	223	10	5	165	0	0	0	0	1	0	1	405	0	1	0	0	1
	8:00 AM	0	149	7	3	120	0	0	0	0	1	0	1	281	0	2	0	0	2
	8:15 AM	0	120	5	3	127	0	0	0	0	0	0	2	257	0	0	0	0	0
	8:30 AM	0	88	2	2	123	0	0	0	0	1	0	6	222	0	0	0	0	0
	8:45 AM	0	112	6	2	100	0	0	0	0	3	0	2	225	0	0	0	0	0
	VOLUMES	0	1,152	36	24	1,212	0	0	0	0	10	0	16	2,450	0	3	0	0	3
	APPROACH %	0%	97%	3%	2%	98%	0%	0%	0%	0%	38%	0%	62%						
	APP/DEPART	1,188	/	1,171	1,236	/	1,222	0	/	57	26	/	0	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	0	683	16	14	742	0	0	0	0	5	0	5	1,465					
	APPROACH %	0%	98%	2%	2%	98%	0%	0%	0%	0%	50%	0%	50%						
	PEAK HR FACTOR		0.750			0.836			0.000			0.417		0.904					
	APP/DEPART	699	/	689	756	/	747	0	/	29	10	/	0	0					
PM	4:00 PM	0	297	1	4	128	0	0	0	0	10	0	7	447	0	1	0	0	1
	4:15 PM	0	265	1	1	121	0	0	0	0	2	0	6	396	0	0	0	0	0
	4:30 PM	0	281	2	4	161	0	0	0	0	2	0	7	457	0	1	0	0	1
	4:45 PM	0	265	1	0	123	0	0	0	0	3	0	1	393	0	0	0	0	0
	5:00 PM	0	252	1	1	120	0	0	0	0	2	0	2	378	0	1	0	0	1
	5:15 PM	0	305	1	1	125	0	0	0	0	1	0	1	434	0	0	0	0	0
	5:30 PM	0	247	1	2	108	0	0	0	0	3	0	2	363	0	1	0	0	1
	5:45 PM	0	250	0	1	159	0	0	0	0	3	0	2	415	0	1	0	0	1
	VOLUMES	0	2,162	8	14	1,045	0	0	0	0	26	0	28	3,283	0	5	0	0	5
	APPROACH %	0%	100%	0%	1%	99%	0%	0%	0%	0%	48%	0%	52%						
	APP/DEPART	2,170	/	2,195	1,059	/	1,071	0	/	17	54	/	0	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	1,108	5	9	533	0	0	0	0	17	0	21	1,693					
	APPROACH %	0%	100%	0%	2%	98%	0%	0%	0%	0%	45%	0%	55%						
	PEAK HR FACTOR		0.934			0.821			0.000			0.559		0.926					
	APP/DEPART	1,113	/	1,131	542	/	550	0	/	12	38	/	0	0					

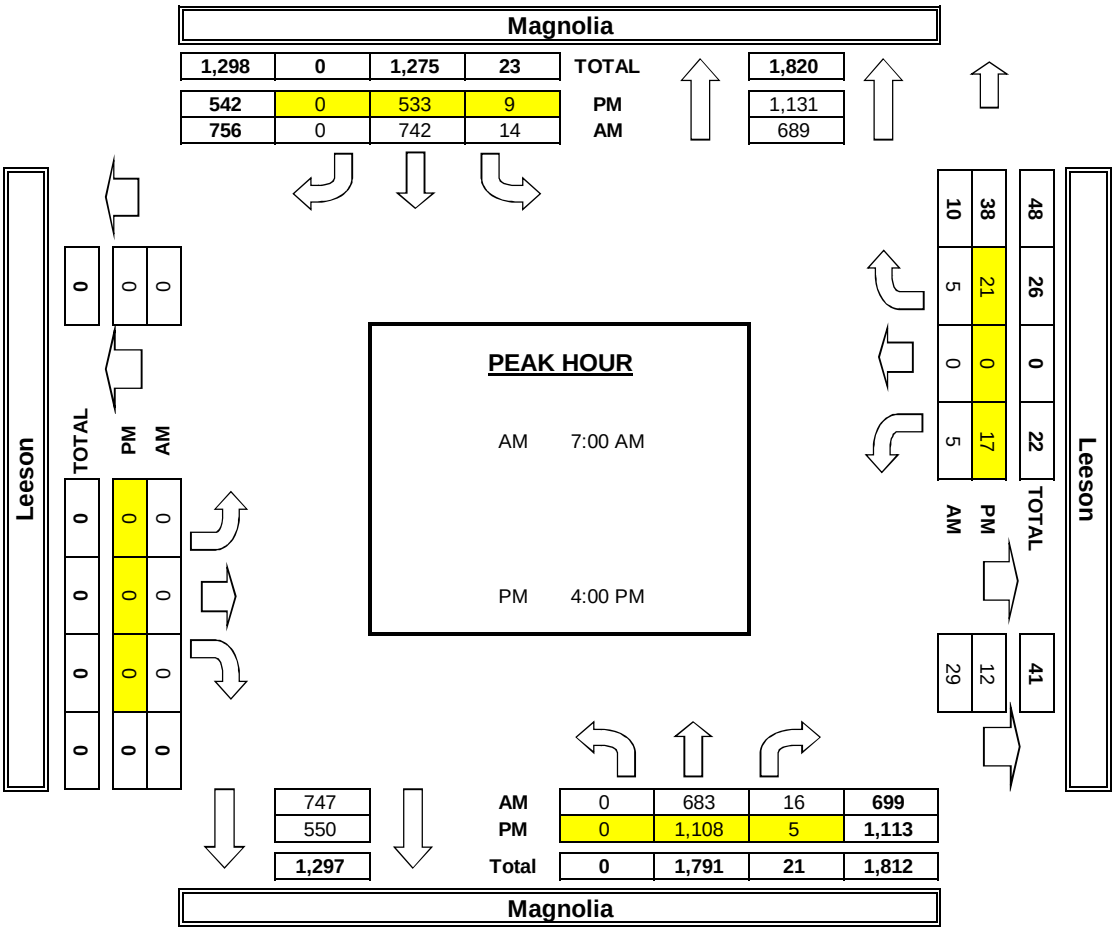


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	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	0	0
	AM BEGIN PEAK HR	7:00 AM					0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	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	0	0
	PM BEGIN PEAK HR	4:00 PM					0	0	0	0	0					

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

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

DATE: Tue, Oct 8, 19

LOCATION: Corona
NORTH & SOUTH: Trademark
EAST & WEST: Magnolia

PROJECT #: SC2385
LOCATION #: 3
CONTROL: STOP N

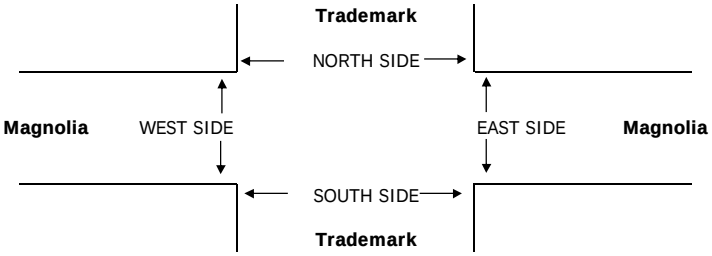
NOTES:

AM / PM / MD / OTHER / OTHER

N ▲ S ▼ W ◄ E ►

☑ Add U-Turns to Left Turns

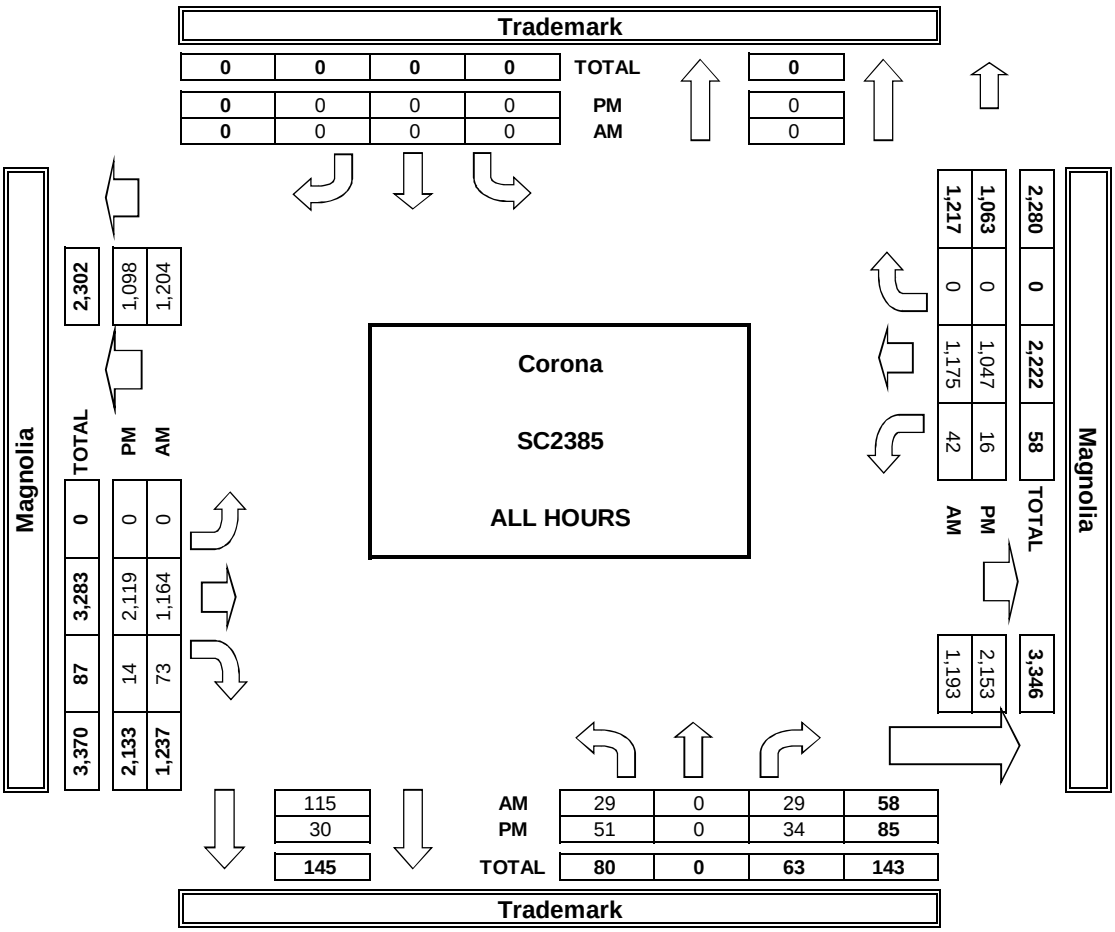
		NORTHBOUND Trademark			SOUTHBOUND Trademark			EASTBOUND Magnolia			WESTBOUND Magnolia				U-TURNS				
	LANES:	NL 0	NT X	NR 0	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	2	0	2	0	0	0	0	107	9	3	228	0	351	0	0	0	0	0
	7:15 AM	1	0	0	0	0	0	0	160	9	9	184	0	363	0	0	0	0	0
	7:30 AM	6	0	9	0	0	0	0	201	14	5	159	0	394	0	0	0	0	0
	7:45 AM	2	0	5	0	0	0	0	218	13	12	146	0	396	0	0	0	0	0
	8:00 AM	5	0	3	0	0	0	0	142	10	5	129	0	294	0	0	0	0	0
	8:15 AM	6	0	4	0	0	0	0	119	9	2	129	0	269	0	0	0	0	0
	8:30 AM	5	0	1	0	0	0	0	102	5	6	111	0	230	0	0	0	0	0
	8:45 AM	2	0	5	0	0	0	0	115	4	0	89	0	215	0	0	0	0	0
	VOLUMES	29	0	29	0	0	0	0	1,164	73	42	1,175	0	2,512	0	0	0	0	0
	APPROACH %	50%	0%	50%	0%	0%	0%	0%	94%	6%	3%	97%	0%						
	APP/DEPART	58	/	0	0	/	115	1,237	/	1,193	1,217	/	1,204	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	11	0	16	0	0	0	0	686	45	29	717	0	1,504					
	APPROACH %	41%	0%	59%	0%	0%	0%	0%	94%	6%	4%	96%	0%						
	PEAK HR FACTOR		0.450			0.000			0.791			0.807		0.949					
	APP/DEPART	27	/	0	0	/	74	731	/	702	746	/	728	0					
PM	4:00 PM	13	0	9	0	0	0	0	300	4	4	140	0	470	0	0	0	0	0
	4:15 PM	8	0	5	0	0	0	0	258	1	1	132	0	405	0	0	0	0	0
	4:30 PM	7	0	5	0	0	0	0	274	1	2	159	0	448	0	0	0	0	0
	4:45 PM	4	0	6	0	0	0	0	247	2	2	107	0	368	0	0	0	0	0
	5:00 PM	6	0	5	0	0	0	0	277	2	2	120	0	412	0	0	0	0	0
	5:15 PM	4	0	1	0	0	0	0	280	1	1	126	0	413	0	0	0	0	0
	5:30 PM	3	0	1	0	0	0	0	267	2	1	116	0	390	0	0	0	0	0
	5:45 PM	6	0	2	0	0	0	0	216	1	3	147	0	375	0	0	0	0	0
	VOLUMES	51	0	34	0	0	0	0	2,119	14	16	1,047	0	3,281	0	0	0	0	0
	APPROACH %	60%	0%	40%	0%	0%	0%	0%	99%	1%	2%	98%	0%						
	APP/DEPART	85	/	0	0	/	30	2,133	/	2,153	1,063	/	1,098	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	32	0	25	0	0	0	0	1,079	8	9	538	0	1,691					
	APPROACH %	56%	0%	44%	0%	0%	0%	0%	99%	1%	2%	98%	0%						
	PEAK HR FACTOR		0.648			0.000			0.894			0.849		0.899					
	APP/DEPART	57	/	0	0	/	17	1,087	/	1,104	547	/	570	0					

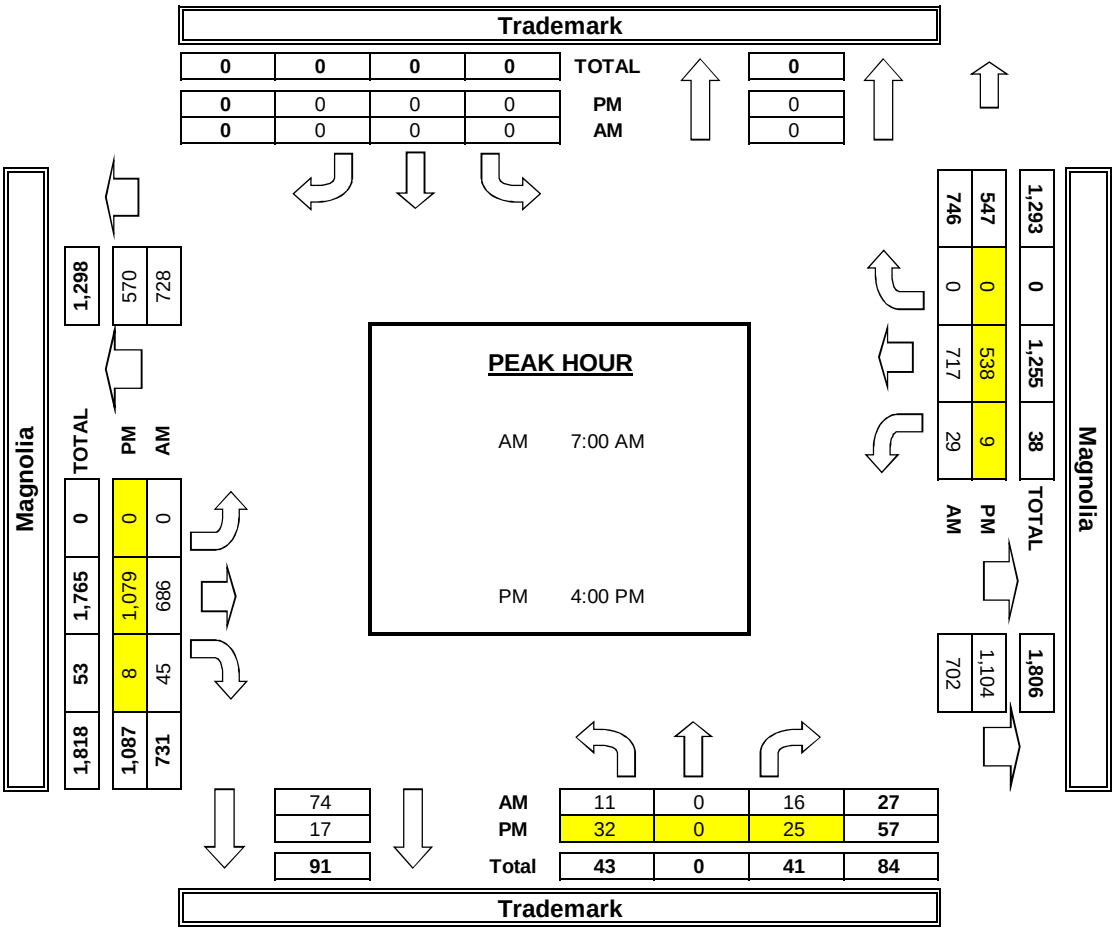


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	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	0	0
	AM BEGIN PEAK HR	7:00 AM					0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	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	0	0
	PM BEGIN PEAK HR	4:00 PM					0	0	0	0	0					

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

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

DATE: Tue, Oct 8, 19

LOCATION: Corona
NORTH & SOUTH: All American
EAST & WEST: Magnolia

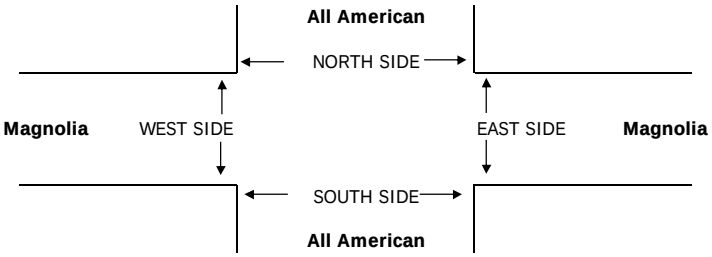
PROJECT #: SC2385
LOCATION #: 4
CONTROL: SIGNAL

NOTES:

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

☑ Add U-Turns to Left Turns

		NORTHBOUND All American			SOUTHBOUND All American			EASTBOUND Magnolia			WESTBOUND Magnolia				U-TURNS				
	LANES:	NL 0.5	NT X	NR 0.5	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	17	0	1	0	0	0	0	118	19	9	190	0	354	0	0	0	0	0
	7:15 AM	21	0	4	0	0	0	0	137	22	9	216	0	409	0	0	0	0	0
	7:30 AM	17	0	3	0	0	0	0	205	28	8	150	0	411	0	0	0	0	0
	7:45 AM	17	0	7	0	0	0	0	237	16	6	161	0	444	0	0	0	0	0
	8:00 AM	26	0	4	0	0	0	0	174	14	8	115	0	341	0	0	0	0	0
	8:15 AM	17	0	2	0	0	0	0	160	19	2	125	0	325	0	0	0	0	0
	8:30 AM	18	0	0	0	0	0	0	104	16	5	133	0	276	0	0	0	0	0
	8:45 AM	15	0	0	0	0	0	0	127	18	0	106	0	266	0	0	0	0	0
	VOLUMES	148	0	21	0	0	0	0	1,262	152	47	1,196	0	2,826	0	0	0	0	0
	APPROACH %	88%	0%	12%	0%	0%	0%	0%	89%	11%	4%	96%	0%						
	APP/DEPART	169	/	0	0	/	199	1,414	/	1,283	1,243	/	1,344	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	72	0	15	0	0	0	0	697	85	32	717	0	1,618					
	APPROACH %	83%	0%	17%	0%	0%	0%	0%	89%	11%	4%	96%	0%						
	PEAK HR FACTOR		0.870			0.000			0.773			0.832		0.911					
	APP/DEPART	87	/	0	0	/	117	782	/	712	749	/	789	0					
PM	4:00 PM	11	0	8	0	0	0	0	254	14	4	142	0	433	0	0	0	0	0
	4:15 PM	12	0	12	0	0	0	0	258	15	7	140	0	444	0	0	0	0	0
	4:30 PM	16	0	11	0	0	0	0	250	15	4	167	0	463	0	0	0	0	0
	4:45 PM	10	0	5	0	0	0	0	282	14	3	153	0	467	0	0	0	0	0
	5:00 PM	23	0	11	0	0	0	0	249	11	4	131	0	429	0	0	0	0	0
	5:15 PM	19	0	8	0	0	0	0	276	17	0	154	0	474	0	0	0	0	0
	5:30 PM	14	0	8	0	0	0	0	252	8	4	106	0	392	0	0	0	0	0
	5:45 PM	8	0	6	0	0	0	0	253	7	1	145	0	420	0	0	0	0	0
	VOLUMES	113	0	69	0	0	0	0	2,074	101	27	1,138	0	3,522	0	0	0	0	0
	APPROACH %	62%	0%	38%	0%	0%	0%	0%	95%	5%	2%	98%	0%						
	APP/DEPART	182	/	0	0	/	128	2,175	/	2,143	1,165	/	1,251	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	68	0	35	0	0	0	0	1,057	57	11	605	0	1,833					
	APPROACH %	66%	0%	34%	0%	0%	0%	0%	95%	5%	2%	98%	0%						
	PEAK HR FACTOR		0.757			0.000			0.941			0.901		0.967					
	APP/DEPART	103	/	0	0	/	68	1,114	/	1,092	616	/	673	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	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	0	0
	AM BEGIN PEAK HR			7:00 AM			0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	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	0	0
	PM BEGIN PEAK HR			4:30 PM			0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

T218

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

DATE: Tue, Oct 8, 19

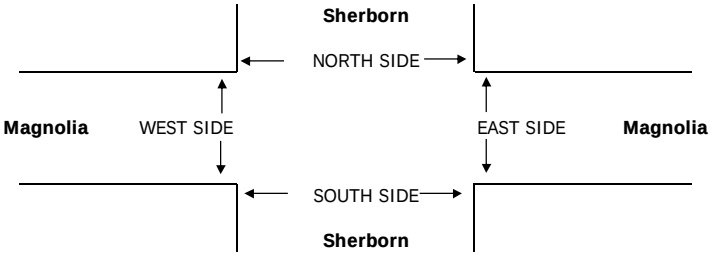
LOCATION: Corona
NORTH & SOUTH: Sherborn
EAST & WEST: Magnolia
PROJECT #: SC2385
LOCATION #: 5
CONTROL: SIGNAL

NOTES:

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

☑ Add U-Turns to Left Turns

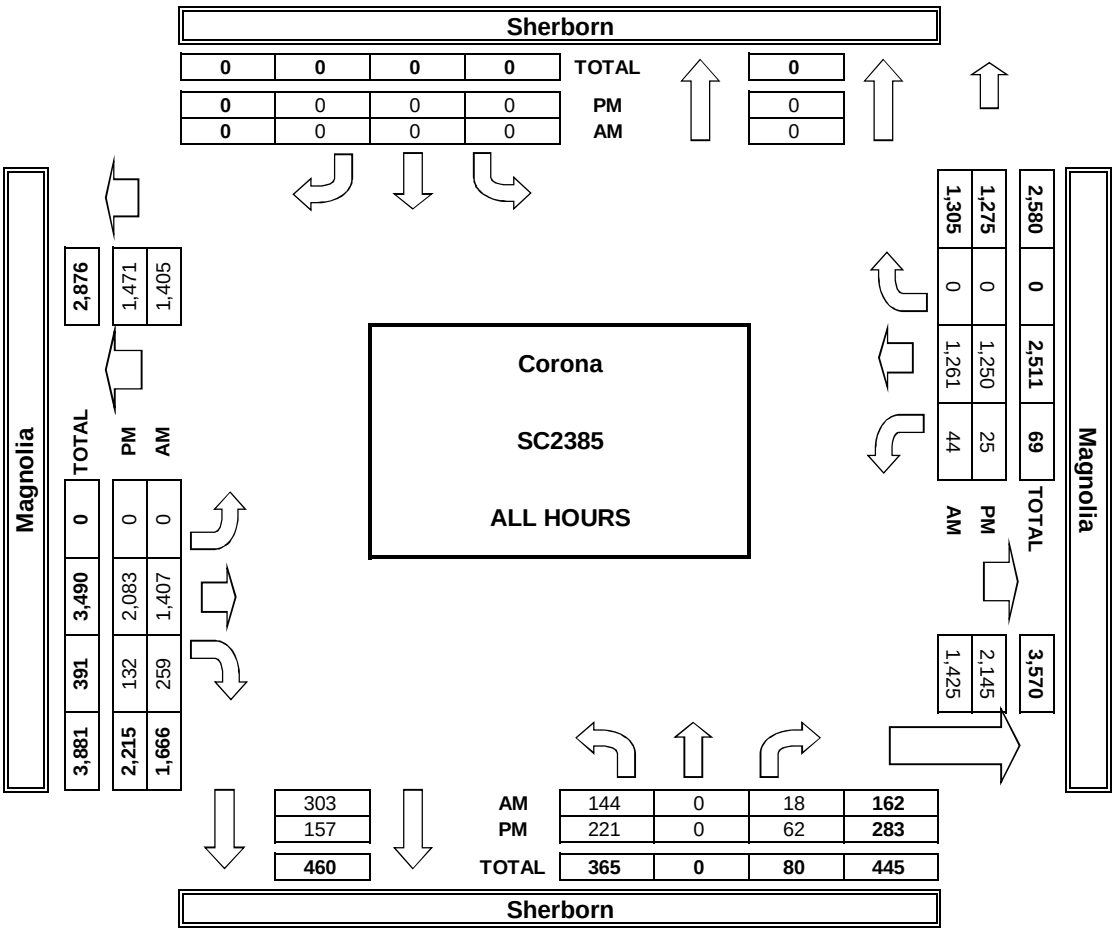
		NORTHBOUND Sherborn			SOUTHBOUND Sherborn			EASTBOUND Magnolia			WESTBOUND Magnolia				U-TURNS				
	LANES:	NL 2	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	15	0	4	0	0	0	0	136	31	8	222	0	416	0	0	0	0	0
	7:15 AM	20	0	3	0	0	0	0	179	22	7	195	0	426	0	0	0	0	0
	7:30 AM	13	0	0	0	0	0	0	215	36	5	163	0	432	0	0	0	0	0
	7:45 AM	16	0	2	0	0	0	0	249	52	7	165	0	491	0	0	0	0	0
	8:00 AM	21	0	2	0	0	0	0	183	28	3	125	0	362	0	0	0	0	0
	8:15 AM	17	0	1	0	0	0	0	164	37	4	141	0	364	0	0	0	0	0
	8:30 AM	27	0	3	0	0	0	0	124	28	8	133	0	323	0	0	0	0	0
	8:45 AM	15	0	3	0	0	0	0	157	25	2	117	0	319	0	0	0	0	0
	VOLUMES	144	0	18	0	0	0	0	1,407	259	44	1,261	0	3,133	0	0	0	0	0
	APPROACH %	89%	0%	11%	0%	0%	0%	0%	84%	16%	3%	97%	0%						
	APP/DEPART	162	/	0	0	/	303	1,666	/	1,425	1,305	/	1,405	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	64	0	9	0	0	0	0	779	141	27	745	0	1,765					
	APPROACH %	88%	0%	12%	0%	0%	0%	0%	85%	15%	3%	97%	0%						
	PEAK HR FACTOR		0.793			0.000			0.764			0.839		0.899					
	APP/DEPART	73	/	0	0	/	168	920	/	788	772	/	809	0					
PM	4:00 PM	31	0	7	0	0	0	0	305	25	4	174	0	546	0	0	0	0	0
	4:15 PM	25	0	9	0	0	0	0	244	13	5	158	0	454	0	0	0	0	0
	4:30 PM	47	0	12	0	0	0	0	254	22	2	174	0	511	0	0	0	0	0
	4:45 PM	21	0	6	0	0	0	0	277	22	5	140	0	471	0	0	0	0	0
	5:00 PM	37	0	12	0	0	0	0	261	7	2	167	0	486	0	0	0	0	0
	5:15 PM	22	0	7	0	0	0	0	280	13	3	144	0	469	0	0	0	0	0
	5:30 PM	25	0	7	0	0	0	0	241	20	3	128	0	424	0	0	0	0	0
	5:45 PM	13	0	2	0	0	0	0	221	10	1	165	0	412	0	0	0	0	0
	VOLUMES	221	0	62	0	0	0	0	2,083	132	25	1,250	0	3,773	0	0	0	0	0
	APPROACH %	78%	0%	22%	0%	0%	0%	0%	94%	6%	2%	98%	0%						
	APP/DEPART	283	/	0	0	/	157	2,215	/	2,145	1,275	/	1,471	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	124	0	34	0	0	0	0	1,080	82	16	646	0	1,982					
	APPROACH %	78%	0%	22%	0%	0%	0%	0%	93%	7%	2%	98%	0%						
	PEAK HR FACTOR		0.669			0.000			0.880			0.930		0.908					
	APP/DEPART	158	/	0	0	/	98	1,162	/	1,114	662	/	770	0					

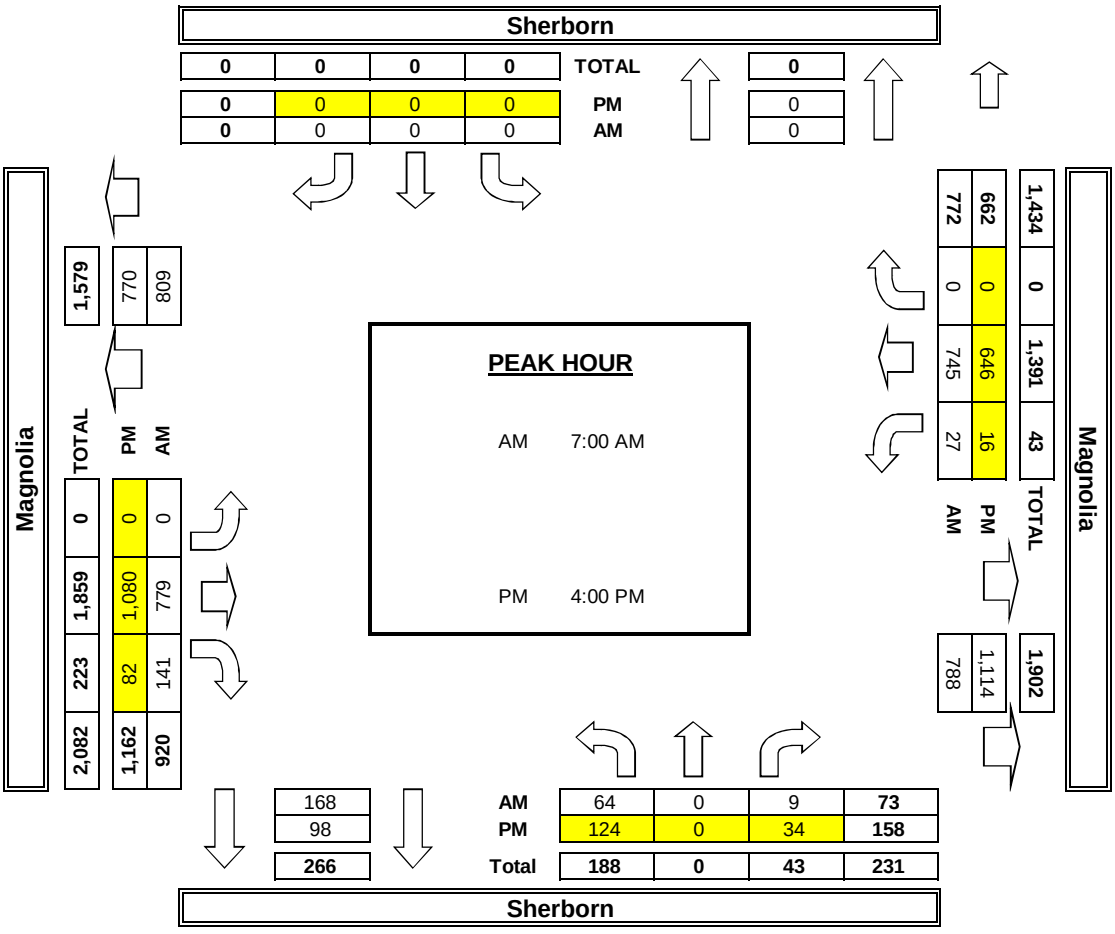


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	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	0	0
	AM BEGIN PEAK HR	7:00 AM					0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	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	0	0
	PM BEGIN PEAK HR	4:00 PM					0	0	0	0	0					

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

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

DATE: Tue, Oct 8, 19

LOCATION: Corona
NORTH & SOUTH: El Camino
EAST & WEST: Magnolia

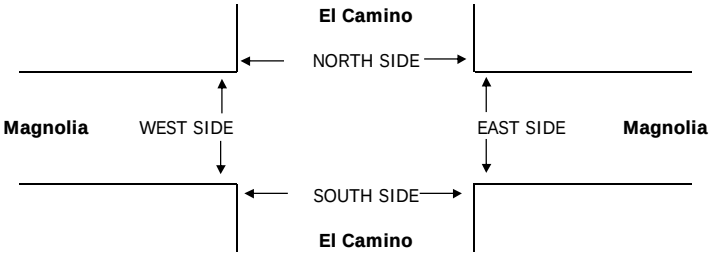
PROJECT #: SC2385
LOCATION #: 6
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

Add U-Turns to Left Turns

		NORTHBOUND El Camino			SOUTHBOUND El Camino			EASTBOUND Magnolia			WESTBOUND Magnolia				U-TURNS				
	LANES:	NL 2	NT 0.5	NR 0.5	SL 1	ST 0.5	SR 1.5	EL 2	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	4	1	2	4	3	29	61	157	0	2	247	3	513	0	0	15	0	15
	7:15 AM	10	0	4	7	3	49	69	201	4	4	216	2	569	0	0	20	0	20
	7:30 AM	15	0	2	10	4	22	119	254	0	4	152	2	584	0	0	41	0	41
	7:45 AM	13	0	2	10	9	18	121	267	0	2	180	4	626	0	0	37	0	37
	8:00 AM	10	2	1	9	2	14	129	199	1	5	134	4	510	0	0	43	0	43
	8:15 AM	16	1	2	5	2	16	130	190	0	2	162	9	535	0	0	38	0	38
	8:30 AM	10	1	1	5	3	12	100	159	1	6	146	6	450	0	0	29	0	29
	8:45 AM	15	2	8	7	3	14	124	158	2	1	119	10	463	0	0	24	1	25
	VOLUMES	93	7	22	57	29	174	853	1,585	8	26	1,356	40	4,250	0	0	247	1	248
	APPROACH %	76%	6%	18%	22%	11%	67%	35%	65%	0%	2%	95%	3%						
	APP/DEPART	122	/	653	260	/	62	2,446	/	1,665	1,422	/	1,870	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	42	1	10	31	19	118	370	879	4	12	795	11	2,292					
	APPROACH %	79%	2%	19%	18%	11%	70%	30%	70%	0%	1%	97%	1%						
	PEAK HR FACTOR		0.779			0.712			0.807			0.812		0.915					
	APP/DEPART	53	/	269	168	/	35	1,253	/	920	818	/	1,068	0					
PM	4:00 PM	6	2	5	10	3	57	55	292	0	1	190	9	630	0	0	21	0	21
	4:15 PM	11	2	5	14	0	29	63	255	1	2	177	8	567	0	0	23	0	23
	4:30 PM	16	3	3	17	0	49	60	262	0	2	211	4	627	0	0	20	0	20
	4:45 PM	13	1	5	9	1	37	60	252	2	0	156	6	542	0	0	26	0	26
	5:00 PM	13	4	11	10	1	85	55	272	0	0	197	1	649	0	0	26	0	26
	5:15 PM	9	0	3	9	0	43	53	281	1	0	169	7	575	0	0	18	0	18
	5:30 PM	6	1	2	8	1	31	74	251	1	1	134	3	513	0	0	36	0	36
	5:45 PM	6	1	0	8	2	25	52	223	1	0	189	2	509	0	0	20	0	20
	VOLUMES	80	14	34	85	8	356	472	2,088	6	6	1,423	40	4,612	0	0	190	0	190
	APPROACH %	63%	11%	27%	19%	2%	79%	18%	81%	0%	0%	97%	3%						
	APP/DEPART	128	/	336	449	/	20	2,566	/	2,207	1,469	/	2,049	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	51	8	22	45	2	214	228	1,067	3	2	733	18	2,393					
	APPROACH %	63%	10%	27%	17%	1%	82%	18%	82%	0%	0%	97%	2%						
	PEAK HR FACTOR		0.723			0.680			0.969			0.868		0.922					
	APP/DEPART	81	/	164	261	/	7	1,298	/	1,134	753	/	1,088	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	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	0	0
	AM BEGIN PEAK HR	7:00 AM					0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	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	0	0
	PM BEGIN PEAK HR	4:30 PM					0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

T218

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

DATE: Tue, Oct 8, 19

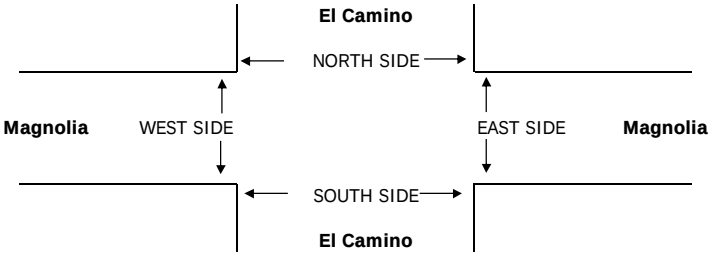
LOCATION: Corona
NORTH & SOUTH: El Camino
EAST & WEST: Magnolia
PROJECT #: SC2385
LOCATION #: 6
CONTROL: SIGNAL

NOTES:

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

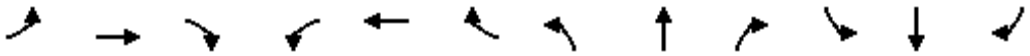
☑ Add U-Turns to Left Turns

		NORTHBOUND El Camino			SOUTHBOUND El Camino			EASTBOUND Magnolia			WESTBOUND Magnolia				U-TURNS				
	LANES:	NL 2	NT 0.5	NR 0.5	SL 1	ST 0.5	SR 1.5	EL 2	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	4	1	2	4	3	29	61	157	0	2	247	3	513	0	0	15	0	15
	7:15 AM	10	0	4	7	3	49	69	201	4	4	216	2	569	0	0	20	0	20
	7:30 AM	15	0	2	10	4	22	119	254	0	4	152	2	584	0	0	41	0	41
	7:45 AM	13	0	2	10	9	18	121	267	0	2	180	4	626	0	0	37	0	37
	8:00 AM	10	2	1	9	2	14	129	199	1	5	134	4	510	0	0	43	0	43
	8:15 AM	16	1	2	5	2	16	130	190	0	2	162	9	535	0	0	38	0	38
	8:30 AM	10	1	1	5	3	12	100	159	1	6	146	6	450	0	0	29	0	29
	8:45 AM	15	2	8	7	3	14	124	158	2	1	119	10	463	0	0	24	1	25
	VOLUMES	93	7	22	57	29	174	853	1,585	8	26	1,356	40	4,250	0	0	247	1	248
	APPROACH %	76%	6%	18%	22%	11%	67%	35%	65%	0%	2%	95%	3%						
	APP/DEPART	122	/	653	260	/	62	2,446	/	1,665	1,422	/	1,870	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	42	1	10	31	19	118	370	879	4	12	795	11	2,292					
	APPROACH %	79%	2%	19%	18%	11%	70%	30%	70%	0%	1%	97%	1%						
	PEAK HR FACTOR		0.779			0.712			0.807			0.812		0.915					
	APP/DEPART	53	/	269	168	/	35	1,253	/	920	818	/	1,068	0					
PM	4:00 PM	6	2	5	10	3	57	55	292	0	1	190	9	630	0	0	21	0	21
	4:15 PM	11	2	5	14	0	29	63	255	1	2	177	8	567	0	0	23	0	23
	4:30 PM	16	3	3	17	0	49	60	262	0	2	211	4	627	0	0	20	0	20
	4:45 PM	13	1	5	9	1	37	60	252	2	0	156	6	542	0	0	26	0	26
	5:00 PM	13	4	11	10	1	85	55	272	0	0	197	1	649	0	0	26	0	26
	5:15 PM	9	0	3	9	0	43	53	281	1	0	169	7	575	0	0	18	0	18
	5:30 PM	6	1	2	8	1	31	74	251	1	1	134	3	513	0	0	36	0	36
	5:45 PM	6	1	0	8	2	25	52	223	1	0	189	2	509	0	0	20	0	20
	VOLUMES	80	14	34	85	8	356	472	2,088	6	6	1,423	40	4,612	0	0	190	0	190
	APPROACH %	63%	11%	27%	19%	2%	79%	18%	81%	0%	0%	97%	3%						
	APP/DEPART	128	/	336	449	/	20	2,566	/	2,207	1,469	/	2,049	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	51	8	22	45	2	214	228	1,067	3	2	733	18	2,393					
	APPROACH %	63%	10%	27%	17%	1%	82%	18%	82%	0%	0%	97%	2%						
	PEAK HR FACTOR		0.723			0.680			0.969			0.868		0.922					
	APP/DEPART	81	/	164	261	/	7	1,298	/	1,134	753	/	1,088	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	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	0	0
	AM BEGIN PEAK HR	7:00 AM					0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	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	0	0
	PM BEGIN PEAK HR	4:30 PM					0	0	0	0	0					

Appendix B
Existing Conditions Analysis Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	19	118	42	1	10	370	879	4	12	795	11
Future Volume (veh/h)	31	19	118	42	1	10	370	879	4	12	795	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1870	1870	1870	1841	1841	1841	1811	1811	1811
Adj Flow Rate, veh/h	44	0	184	54	1	13	462	1099	5	15	981	14
Peak Hour Factor	0.71	0.71	0.71	0.78	0.78	0.78	0.80	0.80	0.80	0.81	0.81	0.81
Percent Heavy Veh, %	6	6	6	2	2	2	4	4	4	6	6	6
Cap, veh/h	58	0	210	127	8	106	568	1558	695	430	1881	27
Arrive On Green	0.03	0.00	0.07	0.04	0.07	0.07	0.17	0.45	0.45	0.25	0.54	0.54
Sat Flow, veh/h	1725	0	3070	3456	114	1488	3401	3497	1560	1725	3473	50
Grp Volume(v), veh/h	44	0	184	54	0	14	462	1099	5	15	486	509
Grp Sat Flow(s),veh/h/ln	1725	0	1535	1728	0	1603	1700	1749	1560	1725	1721	1802
Q Serve(g_s), s	2.8	0.0	4.1	1.7	0.0	0.9	14.4	28.0	0.2	0.7	19.9	19.9
Cycle Q Clear(g_c), s	2.8	0.0	4.1	1.7	0.0	0.9	14.4	28.0	0.2	0.7	19.9	19.9
Prop In Lane	1.00		1.00	1.00		0.93	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	58	0	210	127	0	115	568	1558	695	430	932	976
V/C Ratio(X)	0.76	0.00	0.88	0.43	0.00	0.12	0.81	0.71	0.01	0.03	0.52	0.52
Avail Cap(c_a), veh/h	227	0	460	361	0	197	1098	1558	695	430	932	976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	52.7	0.0	19.5	51.8	0.0	47.8	44.2	24.7	10.0	31.3	16.1	16.1
Incr Delay (d2), s/veh	18.1	0.0	11.0	2.3	0.0	0.5	2.9	2.7	0.0	0.0	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	2.8	0.8	0.0	0.4	6.1	11.3	0.1	0.3	7.6	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.8	0.0	30.5	54.1	0.0	48.3	47.1	27.4	10.0	31.3	18.1	18.0
LnGrp LOS	E	A	C	D	A	D	D	C	B	C	B	B
Approach Vol, veh/h		228			68			1566			1010	
Approach Delay, s/veh		38.3			52.9			33.1			18.3	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.4	55.0	8.2	13.4	22.9	65.6	8.5	13.0
Change Period (Y+Rc), s	6.0	* 6	4.5	5.5	4.5	6.0	4.5	5.5
Max Green Setting (Gmax), s	12.5	* 49	14.5	13.5	35.5	26.0	11.5	16.5
Max Q Clear Time (g_c+I1), s	2.7	30.0	4.8	2.9	16.4	21.9	3.7	6.1
Green Ext Time (p_c), s	0.0	13.6	0.1	0.0	2.0	3.3	0.1	1.5

Intersection Summary	
HCM 6th Ctrl Delay	28.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	64	9	779	141	27	745
Future Volume (veh/h)	64	9	779	141	27	745
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1914	1811	1811
Adj Flow Rate, veh/h	80	11	1025	186	32	887
Peak Hour Factor	0.80	0.80	0.76	0.76	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	6	6
Cap, veh/h	145	67	2788	1293	49	2966
Arrive On Green	0.04	0.04	1.00	1.00	0.03	0.86
Sat Flow, veh/h	3401	1560	3589	1622	1725	3532
Grp Volume(v), veh/h	80	11	1025	186	32	887
Grp Sat Flow(s),veh/h/ln	1700	1560	1749	1622	1725	1721
Q Serve(g_s), s	2.5	0.7	0.0	0.0	2.0	5.3
Cycle Q Clear(g_c), s	2.5	0.7	0.0	0.0	2.0	5.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	145	67	2788	1293	49	2966
V/C Ratio(X)	0.55	0.17	0.37	0.14	0.65	0.30
Avail Cap(c_a), veh/h	804	369	2788	1293	251	2966
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.88	0.88	1.00	1.00
Uniform Delay (d), s/veh	51.6	50.8	0.0	0.0	52.9	1.4
Incr Delay (d2), s/veh	3.2	1.2	0.3	0.2	13.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.3	0.1	0.1	1.0	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.9	51.9	0.3	0.2	66.7	1.7
LnGrp LOS	D	D	A	A	E	A
Approach Vol, veh/h	91		1211			919
Approach Delay, s/veh	54.5		0.3			3.9
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.1	93.2			100.3	9.7
Change Period (Y+Rc), s	4.0	5.5			5.5	5.0
Max Green Setting (Gmax), s	16.0	53.5			73.5	26.0
Max Q Clear Time (g_c+I1), s	4.0	2.0			7.3	4.5
Green Ext Time (p_c), s	0.0	24.8			21.3	0.3

Intersection Summary	
HCM 6th Ctrl Delay	4.0
HCM 6th LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	72	15	697	85	32	717
Future Volume (veh/h)	72	15	697	85	32	717
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1841	1841	1811	1811
Adj Flow Rate, veh/h	83	17	905	110	39	864
Peak Hour Factor	0.87	0.87	0.77	0.77	0.83	0.83
Percent Heavy Veh, %	0	0	4	4	6	6
Cap, veh/h	106	22	2389	290	55	2853
Arrive On Green	0.08	0.08	0.76	0.76	0.03	0.83
Sat Flow, veh/h	1401	287	3231	382	1725	3532
Grp Volume(v), veh/h	101	0	504	511	39	864
Grp Sat Flow(s),veh/h/ln	1704	0	1749	1772	1725	1721
Q Serve(g_s), s	6.4	0.0	10.6	10.6	2.5	6.3
Cycle Q Clear(g_c), s	6.4	0.0	10.6	10.6	2.5	6.3
Prop In Lane	0.82	0.17		0.22	1.00	
Lane Grp Cap(c), veh/h	129	0	1331	1349	55	2853
V/C Ratio(X)	0.79	0.00	0.38	0.38	0.71	0.30
Avail Cap(c_a), veh/h	387	0	1331	1349	251	2853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	0.0	4.4	4.4	52.8	2.1
Incr Delay (d2), s/veh	10.0	0.0	0.8	0.8	15.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	2.9	3.0	1.3	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	60.0	0.0	5.2	5.2	68.6	2.4
LnGrp LOS	E	A	A	A	E	A
Approach Vol, veh/h	101		1015			903
Approach Delay, s/veh	60.0		5.2			5.3
Approach LOS	E		A			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	7.5	89.2		13.3		96.7
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	16.0	54.5		25.0		74.5
Max Q Clear Time (g_c+I1), s	14.5	12.6		8.4		8.3
Green Ext Time (p_c), s	0.0	20.6		0.3		20.5

Intersection Summary	
HCM 6th Ctrl Delay	8.0
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Vol, veh/h	11	16	686	45	29	717	0	0
Future Vol, veh/h	11	16	686	45	29	717	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	-	-	-	None	-	None
Storage Length	0	-	-	-	120	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0	16983	-
Grade, %	0	-	0	-	-	0	0	-
Peak Hour Factor	45	45	79	79	81	81	92	92
Heavy Vehicles, %	5	5	4	4	6	6	2	2
Mvmt Flow	24	36	868	57	36	885	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1412	463	0	0	925	0
Stage 1	897	-	-	-	-	-
Stage 2	515	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.22	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.26	-
Pot Cap-1 Maneuver	125	538	-	-	710	-
Stage 1	351	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	119	538	-	-	710	-
Mov Cap-2 Maneuver	244	-	-	-	-	-
Stage 1	351	-	-	-	-	-
Stage 2	528	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	361	710	-
HCM Lane V/C Ratio	-	-	0.166	0.05	-
HCM Control Delay (s)	-	-	17	10.3	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.6	0.2	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	683	16	14	742
Future Vol, veh/h	5	5	683	16	14	742
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	90	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	42	42	75	75	92	92
Heavy Vehicles, %	5	5	4	4	6	6
Mvmt Flow	12	12	911	21	15	807

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1356	466	0	0	932	0
Stage 1	922	-	-	-	-	-
Stage 2	434	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.22	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.26	-
Pot Cap-1 Maneuver	137	535	-	-	706	-
Stage 1	341	-	-	-	-	-
Stage 2	612	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	134	535	-	-	706	-
Mov Cap-2 Maneuver	134	-	-	-	-	-
Stage 1	341	-	-	-	-	-
Stage 2	599	-	-	-	-	-

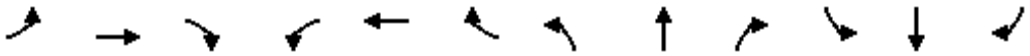
Approach	WB	NB	SB
HCM Control Delay, s	23.9	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	214	706	-
HCM Lane V/C Ratio	-	-	0.111	0.022	-
HCM Control Delay (s)	-	-	23.9	10.2	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	203	26	443	719	101	19	258	411	65	291	220
Future Volume (veh/h)	74	203	26	443	719	101	19	258	411	65	291	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1884	1884	1884	1884	1884	1884	1841	1841	1914	1826	1826	1826
Adj Flow Rate, veh/h	109	299	38	487	790	111	24	331	527	78	351	265
Peak Hour Factor	0.68	0.68	0.68	0.91	0.91	0.91	0.78	0.78	0.78	0.83	0.83	0.83
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	5	5	5
Cap, veh/h	139	1171	522	522	1431	638	43	822	625	101	932	416
Arrive On Green	0.08	0.33	0.33	0.15	0.40	0.40	0.02	0.23	0.23	0.06	0.27	0.27
Sat Flow, veh/h	1794	3579	1596	3480	3579	1596	1753	3497	1622	1739	3469	1547
Grp Volume(v), veh/h	109	299	38	487	790	111	24	331	527	78	351	265
Grp Sat Flow(s),veh/h/ln	1794	1789	1596	1740	1789	1596	1753	1749	1622	1739	1735	1547
Q Serve(g_s), s	6.0	6.1	1.6	13.8	17.0	4.5	1.4	8.0	23.5	4.4	8.2	15.1
Cycle Q Clear(g_c), s	6.0	6.1	1.6	13.8	17.0	4.5	1.4	8.0	23.5	4.4	8.2	15.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	139	1171	522	522	1431	638	43	822	625	101	932	416
V/C Ratio(X)	0.79	0.26	0.07	0.93	0.55	0.17	0.56	0.40	0.84	0.78	0.38	0.64
Avail Cap(c_a), veh/h	269	1171	522	522	1431	638	263	822	625	261	932	416
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	24.7	23.2	42.0	23.1	19.4	48.3	32.3	28.0	46.5	29.8	32.3
Incr Delay (d2), s/veh	9.4	0.5	0.3	23.9	1.5	0.6	11.1	0.3	10.3	11.9	0.3	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.5	0.6	7.4	6.9	1.7	0.7	3.3	12.3	2.2	3.3	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.7	25.2	23.5	65.9	24.7	20.0	59.4	32.6	38.3	58.4	30.0	35.5
LnGrp LOS	D	C	C	E	C	B	E	C	D	E	C	D
Approach Vol, veh/h		446			1388			882			694	
Approach Delay, s/veh		32.3			38.8			36.7			35.3	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	39.2	7.4	33.4	12.7	46.5	10.8	30.0
Change Period (Y+Rc), s	5.0	6.5	5.0	6.5	5.0	6.5	5.0	6.5
Max Green Setting (Gmax), s	15.0	23.5	15.0	23.5	15.0	23.5	15.0	23.5
Max Q Clear Time (g_c+I1), s	15.8	8.1	3.4	17.1	8.0	19.0	6.4	25.5
Green Ext Time (p_c), s	0.0	3.7	0.0	3.5	0.2	3.4	0.1	0.0

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	2	214	51	8	22	228	1067	3	2	733	18
Future Volume (veh/h)	45	2	214	51	8	22	228	1067	3	2	733	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1841	1841	1841	1841	1841	1841	1811	1811	1811
Adj Flow Rate, veh/h	66	0	317	71	11	31	235	1100	3	2	843	21
Peak Hour Factor	0.68	0.68	0.68	0.72	0.72	0.72	0.97	0.97	0.97	0.87	0.87	0.87
Percent Heavy Veh, %	6	6	6	4	4	4	4	4	4	6	6	6
Cap, veh/h	86	0	338	137	43	120	312	1558	688	423	2039	51
Arrive On Green	0.05	0.00	0.11	0.04	0.10	0.10	0.09	0.44	0.44	0.25	0.59	0.59
Sat Flow, veh/h	1725	0	3070	3401	426	1199	3401	3534	1560	1725	3431	85
Grp Volume(v), veh/h	66	0	317	71	0	42	235	1100	3	2	423	441
Grp Sat Flow(s),veh/h/ln	1725	0	1535	1700	0	1625	1700	1767	1560	1725	1721	1796
Q Serve(g_s), s	4.2	0.0	7.1	2.3	0.0	2.6	7.4	27.8	0.1	0.1	14.5	14.5
Cycle Q Clear(g_c), s	4.2	0.0	7.1	2.3	0.0	2.6	7.4	27.8	0.1	0.1	14.5	14.5
Prop In Lane	1.00		1.00	1.00		0.74	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	86	0	338	137	0	163	312	1558	688	423	1022	1067
V/C Ratio(X)	0.77	0.00	0.94	0.52	0.00	0.26	0.75	0.71	0.00	0.00	0.41	0.41
Avail Cap(c_a), veh/h	212	0	572	325	0	258	634	1558	688	423	1022	1067
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	51.6	0.0	19.4	51.7	0.0	45.7	48.7	25.0	10.1	31.4	12.0	12.0
Incr Delay (d2), s/veh	13.2	0.0	15.7	3.0	0.0	0.8	3.7	2.7	0.0	0.0	1.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	3.3	1.0	0.0	1.1	3.2	11.4	0.0	0.0	5.3	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.9	0.0	35.1	54.8	0.0	46.5	52.4	27.7	10.1	31.4	13.2	13.1
LnGrp LOS	E	A	D	D	A	D	D	C	B	C	B	B
Approach Vol, veh/h		383			113			1338			866	
Approach Delay, s/veh		40.3			51.7			32.0			13.2	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.5	53.0	10.0	15.5	14.6	69.9	8.9	16.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	48.5	13.5	17.5	20.5	40.5	10.5	20.5
Max Q Clear Time (g_c+I1), s	2.1	29.8	6.2	4.6	9.4	16.5	4.3	9.1
Green Ext Time (p_c), s	0.0	13.4	0.2	0.1	0.7	12.5	0.1	3.0

Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	124	34	1080	82	16	646
Future Volume (veh/h)	124	34	1080	82	16	646
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1914	1811	1811
Adj Flow Rate, veh/h	177	49	1227	93	17	695
Peak Hour Factor	0.70	0.70	0.88	0.88	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	6	6
Cap, veh/h	204	122	2699	1252	32	2844
Arrive On Green	0.06	0.08	0.77	0.77	0.02	0.83
Sat Flow, veh/h	3401	1560	3589	1622	1725	3532
Grp Volume(v), veh/h	177	49	1227	93	17	695
Grp Sat Flow(s),veh/h/ln	1700	1560	1749	1622	1725	1721
Q Serve(g_s), s	5.7	3.3	13.6	1.5	1.1	4.8
Cycle Q Clear(g_c), s	5.7	3.3	13.6	1.5	1.1	4.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	204	122	2699	1252	32	2844
V/C Ratio(X)	0.87	0.40	0.45	0.07	0.54	0.24
Avail Cap(c_a), veh/h	897	440	2699	1252	282	2844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.90	0.90	1.00	1.00
Uniform Delay (d), s/veh	51.3	48.3	4.4	3.0	53.5	2.1
Incr Delay (d2), s/veh	10.6	2.1	0.5	0.1	13.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	1.4	3.4	0.4	0.6	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	61.9	50.4	4.9	3.1	66.8	2.3
LnGrp LOS	E	D	A	A	E	A
Approach Vol, veh/h	226		1320			712
Approach Delay, s/veh	59.4		4.8			3.8
Approach LOS	E		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.0	90.4			96.4	13.6
Change Period (Y+Rc), s	4.0	5.5			5.5	5.0
Max Green Setting (Gmax), s	18.0	46.5			68.5	31.0
Max Q Clear Time (g_c+I1), s	13.1	15.6			6.8	7.7
Green Ext Time (p_c), s	0.0	21.8			14.8	0.9

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	68	35	1057	57	11	605
Future Volume (veh/h)	68	35	1057	57	11	605
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1841	1841	1811	1811
Adj Flow Rate, veh/h	89	46	1124	61	12	672
Peak Hour Factor	0.76	0.76	0.94	0.94	0.90	0.90
Percent Heavy Veh, %	0	0	4	4	6	6
Cap, veh/h	110	57	2546	138	22	2766
Arrive On Green	0.10	0.10	0.75	0.75	0.01	0.80
Sat Flow, veh/h	1093	565	3466	183	1725	3532
Grp Volume(v), veh/h	136	0	582	603	12	672
Grp Sat Flow(s),veh/h/ln	1670	0	1749	1808	1725	1721
Q Serve(g_s), s	8.8	0.0	13.5	13.5	0.8	5.2
Cycle Q Clear(g_c), s	8.8	0.0	13.5	13.5	0.8	5.2
Prop In Lane	0.65	0.34		0.10	1.00	
Lane Grp Cap(c), veh/h	168	0	1320	1364	22	2766
V/C Ratio(X)	0.81	0.00	0.44	0.44	0.55	0.24
Avail Cap(c_a), veh/h	501	0	1320	1364	282	2766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	0.0	5.0	5.0	54.0	2.6
Incr Delay (d2), s/veh	8.8	0.0	1.1	1.0	20.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	3.8	4.0	0.4	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	57.2	0.0	6.0	6.0	74.3	2.8
LnGrp LOS	E	A	A	A	E	A
Approach Vol, veh/h	136		1185			684
Approach Delay, s/veh	57.2		6.0			4.1
Approach LOS	E		A			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	5.4	88.5		16.1		93.9
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	18.3	44.5		33.0		66.5
Max Q Clear Time (g_c+I1), s	2.8	15.5		10.8		7.2
Green Ext Time (p_c), s	0.0	19.5		0.5		14.0

Intersection Summary	
HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Vol, veh/h	32	25	1079	8	9	538	0	0
Future Vol, veh/h	32	25	1079	8	9	538	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	-	-	-	None	-	None
Storage Length	0	-	-	-	120	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0	16983	-
Grade, %	0	-	0	-	-	0	0	-
Peak Hour Factor	65	65	90	90	85	85	92	92
Heavy Vehicles, %	5	5	4	4	6	6	2	2
Mvmt Flow	49	38	1199	9	11	633	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1543	604	0	0	1208	0
Stage 1	1204	-	-	-	-	-
Stage 2	339	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.22	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.26	-
Pot Cap-1 Maneuver	103	434	-	-	551	-
Stage 1	241	-	-	-	-	-
Stage 2	684	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	101	434	-	-	551	-
Mov Cap-2 Maneuver	195	-	-	-	-	-
Stage 1	241	-	-	-	-	-
Stage 2	670	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.1	0	0.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	257	551	-
HCM Lane V/C Ratio	-	-	0.341	0.019	-
HCM Control Delay (s)	-	-	26.1	11.7	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	1.5	0.1	-

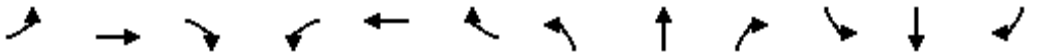
Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	21	1108	5	9	533
Future Vol, veh/h	17	21	1108	5	9	533
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	90	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	86	86
Heavy Vehicles, %	5	5	4	4	6	6
Mvmt Flow	18	23	1191	5	10	620

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1524	598	0	0	1196	0
Stage 1	1194	-	-	-	-	-
Stage 2	330	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.22	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.26	-
Pot Cap-1 Maneuver	106	438	-	-	557	-
Stage 1	244	-	-	-	-	-
Stage 2	692	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	104	438	-	-	557	-
Mov Cap-2 Maneuver	104	-	-	-	-	-
Stage 1	244	-	-	-	-	-
Stage 2	680	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	30.8	0	0.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	180	557	-
HCM Lane V/C Ratio	-	-	0.227	0.019	-
HCM Control Delay (s)	-	-	30.8	11.6	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	0.8	0.1	-

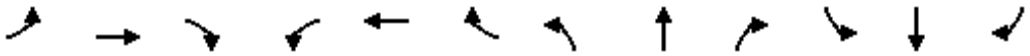


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	879	29	290	455	53	9	368	757	122	220	99
Future Volume (veh/h)	196	879	29	290	455	53	9	368	757	122	220	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1884	1884	1884	1884	1884	1884	1841	1841	1914	1826	1826	1826
Adj Flow Rate, veh/h	211	945	31	312	489	57	10	396	814	142	256	115
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.86	0.86	0.86
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	5	5	5
Cap, veh/h	244	1154	515	392	1071	478	21	822	564	174	1120	499
Arrive On Green	0.14	0.32	0.32	0.11	0.30	0.30	0.01	0.24	0.24	0.10	0.32	0.32
Sat Flow, veh/h	1794	3579	1596	3480	3579	1596	1753	3497	1622	1739	3469	1547
Grp Volume(v), veh/h	211	945	31	312	489	57	10	396	814	142	256	115
Grp Sat Flow(s),veh/h/ln	1794	1789	1596	1740	1789	1596	1753	1749	1622	1739	1735	1547
Q Serve(g_s), s	11.5	24.3	1.3	8.7	11.1	2.6	0.6	9.8	23.5	8.0	5.4	5.4
Cycle Q Clear(g_c), s	11.5	24.3	1.3	8.7	11.1	2.6	0.6	9.8	23.5	8.0	5.4	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	244	1154	515	392	1071	478	21	822	564	174	1120	499
V/C Ratio(X)	0.87	0.82	0.06	0.80	0.46	0.12	0.47	0.48	1.44	0.82	0.23	0.23
Avail Cap(c_a), veh/h	269	1154	515	522	1071	478	263	822	564	261	1120	499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.3	31.2	23.4	43.3	28.4	25.5	49.1	33.0	32.6	44.1	24.8	24.8
Incr Delay (d2), s/veh	22.8	6.5	0.2	6.2	1.4	0.5	15.3	0.4	209.4	11.7	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	10.8	0.5	3.9	4.7	1.0	0.3	4.0	45.4	3.9	2.1	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.2	37.7	23.6	49.5	29.8	26.0	64.3	33.4	242.1	55.8	24.9	25.0
LnGrp LOS	E	D	C	D	C	C	E	C	F	E	C	C
Approach Vol, veh/h		1187			858			1220			513	
Approach Delay, s/veh		42.2			36.7			172.9			33.5	
Approach LOS		D			D			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	38.8	6.2	38.8	18.6	36.4	15.0	30.0
Change Period (Y+Rc), s	5.0	6.5	5.0	6.5	5.0	6.5	5.0	6.5
Max Green Setting (Gmax), s	15.0	23.5	15.0	23.5	15.0	23.5	15.0	23.5
Max Q Clear Time (g_c+I1), s	10.7	26.3	2.6	7.4	13.5	13.1	10.0	25.5
Green Ext Time (p_c), s	0.5	0.0	0.0	4.2	0.1	4.7	0.2	0.0

Intersection Summary			
HCM 6th Ctrl Delay		82.0	
HCM 6th LOS		F	

Appendix C
Opening Year (2026)
Conditions Analysis Worksheet



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	31	148	76	10	21	449	1036	43	25	957	28
Future Volume (veh/h)	51	31	148	76	10	21	449	1036	43	25	957	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1870	1870	1870	1841	1841	1841	1811	1811	1811
Adj Flow Rate, veh/h	72	0	237	97	13	27	561	1295	54	31	1181	35
Peak Hour Factor	0.71	0.71	0.71	0.78	0.78	0.78	0.80	0.80	0.80	0.81	0.81	0.81
Percent Heavy Veh, %	6	6	6	2	2	2	4	4	4	6	6	6
Cap, veh/h	101	0	293	170	46	96	669	1622	723	402	1752	52
Arrive On Green	0.06	0.00	0.10	0.05	0.09	0.07	0.20	0.46	0.46	0.23	0.51	0.50
Sat Flow, veh/h	1725	0	3070	3456	542	1126	3401	3497	1560	1725	3412	101
Grp Volume(v), veh/h	72	0	237	97	0	40	561	1295	54	31	595	621
Grp Sat Flow(s),veh/h/ln	1725	0	1535	1728	0	1668	1700	1749	1560	1725	1721	1793
Q Serve(g_s), s	4.5	0.0	5.1	3.0	0.0	2.5	17.5	34.7	1.5	1.5	28.3	28.4
Cycle Q Clear(g_c), s	4.5	0.0	5.1	3.0	0.0	2.5	17.5	34.7	1.5	1.5	28.3	28.4
Prop In Lane	1.00		1.00	1.00		0.68	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	101	0	293	170	0	143	669	1622	723	402	883	921
V/C Ratio(X)	0.71	0.00	0.81	0.57	0.00	0.28	0.84	0.80	0.07	0.08	0.67	0.67
Avail Cap(c_a), veh/h	235	0	502	377	0	227	866	1622	723	402	883	921
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	50.8	0.0	18.6	51.2	0.0	47.6	42.5	25.1	7.7	33.0	19.9	20.0
Incr Delay (d2), s/veh	8.8	0.0	5.3	3.0	0.0	1.1	5.8	4.2	0.2	0.1	3.9	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	3.3	1.4	0.0	1.1	7.6	14.1	0.8	0.6	11.2	11.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.6	0.0	23.9	54.2	0.0	48.7	48.3	29.3	7.9	33.0	23.8	23.7
LnGrp LOS	E	A	C	D	A	D	D	C	A	C	C	C
Approach Vol, veh/h		309			137			1910			1247	
Approach Delay, s/veh		32.2			52.6			34.3			24.0	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.1	55.0	10.5	13.4	25.6	60.5	9.4	14.5
Change Period (Y+Rc), s	6.0	* 6	4.5	5.5	4.5	6.0	4.5	5.5
Max Green Setting (Gmax), s	12.5	* 49	14.5	13.5	27.5	34.0	11.5	16.5
Max Q Clear Time (g_c+I1), s	3.5	36.7	6.5	4.5	19.5	30.4	5.0	7.1
Green Ext Time (p_c), s	0.0	10.5	0.2	0.1	1.7	3.2	0.2	1.8

Intersection Summary	
HCM 6th Ctrl Delay	31.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	74	16	937	162	37	925
Future Volume (veh/h)	74	16	937	162	37	925
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1914	1811	1811
Adj Flow Rate, veh/h	92	20	1233	213	44	1101
Peak Hour Factor	0.80	0.80	0.76	0.76	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	6	6
Cap, veh/h	189	87	2804	1301	58	3000
Arrive On Green	0.06	0.06	1.00	1.00	0.03	0.87
Sat Flow, veh/h	3401	1560	3589	1622	1725	3532
Grp Volume(v), veh/h	92	20	1233	213	44	1101
Grp Sat Flow(s),veh/h/ln	1700	1560	1749	1622	1725	1721
Q Serve(g_s), s	2.9	1.3	0.0	0.0	2.8	6.6
Cycle Q Clear(g_c), s	2.9	1.3	0.0	0.0	2.8	6.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	189	87	2804	1301	58	3000
V/C Ratio(X)	0.49	0.23	0.44	0.16	0.76	0.37
Avail Cap(c_a), veh/h	835	383	2804	1301	251	3000
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.77	0.77	1.00	1.00
Uniform Delay (d), s/veh	50.4	49.7	0.0	0.0	52.7	1.3
Incr Delay (d2), s/veh	1.9	1.3	0.4	0.2	18.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.6	0.2	0.1	1.5	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	52.4	51.0	0.4	0.2	70.8	1.7
LnGrp LOS	D	D	A	A	E	A
Approach Vol, veh/h	112		1446			1145
Approach Delay, s/veh	52.1		0.4			4.3
Approach LOS	D		A			A

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.7	92.2				99.9	10.1
Change Period (Y+Rc), s	4.0	5.5				5.5	5.0
Max Green Setting (Gmax), s	16.3	53.5				73.5	26.0
Max Q Clear Time (g_c+I1), s	4.8	2.0				8.6	4.9
Green Ext Time (p_c), s	0.1	31.5				29.3	0.4

Intersection Summary	
HCM 6th Ctrl Delay	4.2
HCM 6th LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	83	17	849	98	43	899
Future Volume (veh/h)	83	17	849	98	43	899
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1841	1841	1811	1811
Adj Flow Rate, veh/h	95	20	1103	127	52	1083
Peak Hour Factor	0.87	0.87	0.77	0.77	0.83	0.83
Percent Heavy Veh, %	0	0	4	4	6	6
Cap, veh/h	131	28	2396	275	67	2867
Arrive On Green	0.09	0.08	0.76	0.74	0.04	0.83
Sat Flow, veh/h	1395	294	3253	363	1725	3532
Grp Volume(v), veh/h	116	0	610	620	52	1083
Grp Sat Flow(s),veh/h/ln	1703	0	1749	1775	1725	1721
Q Serve(g_s), s	7.3	0.0	14.2	14.4	3.3	8.4
Cycle Q Clear(g_c), s	7.3	0.0	14.2	14.4	3.3	8.4
Prop In Lane	0.82	0.17		0.20	1.00	
Lane Grp Cap(c), veh/h	160	0	1326	1346	67	2867
V/C Ratio(X)	0.72	0.00	0.46	0.46	0.78	0.38
Avail Cap(c_a), veh/h	403	0	1326	1346	251	2867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	0.0	4.9	5.0	52.4	2.2
Incr Delay (d2), s/veh	6.1	0.0	1.2	1.1	17.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	4.0	4.2	1.7	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.6	0.0	6.1	6.2	69.7	2.6
LnGrp LOS	D	A	A	A	E	A
Approach Vol, veh/h	116		1230			1135
Approach Delay, s/veh	54.6		6.1			5.7
Approach LOS	D		A			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	8.3	87.4		14.3		95.7
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	16.0	54.5		25.0		74.5
Max Q Clear Time (g_c+I1), s	15.3	16.4		9.3		10.4
Green Ext Time (p_c), s	0.1	24.6		0.3		28.5

Intersection Summary	
HCM 6th Ctrl Delay	8.2
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Vol, veh/h	13	18	842	52	54	803	0	0
Future Vol, veh/h	13	18	842	52	54	803	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	-	-	-	None	-	None
Storage Length	0	-	-	-	120	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0	16983	-
Grade, %	0	-	0	-	-	0	0	-
Peak Hour Factor	45	45	79	79	81	81	92	92
Heavy Vehicles, %	5	5	4	4	6	6	2	2
Mvmt Flow	29	40	1066	66	67	991	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1729	566	0	0	1132	0
Stage 1	1099	-	-	-	-	-
Stage 2	630	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.22	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.26	-
Pot Cap-1 Maneuver	77	460	-	-	590	-
Stage 1	274	-	-	-	-	-
Stage 2	485	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	68	460	-	-	590	-
Mov Cap-2 Maneuver	182	-	-	-	-	-
Stage 1	274	-	-	-	-	-
Stage 2	430	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	280	590	-
HCM Lane V/C Ratio	-	-	0.246	0.113	-
HCM Control Delay (s)	-	-	22	11.9	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.9	0.4	-

Intersection	
Int Delay, s/veh	33.6

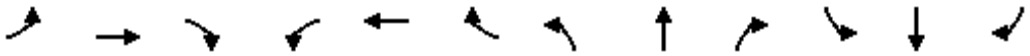
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	44	803	55	61	898
Future Vol, veh/h	41	44	803	55	61	898
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	90	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	42	42	75	75	92	92
Heavy Vehicles, %	5	5	4	4	6	6
Mvmt Flow	98	105	1071	73	66	976

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1728	572	0	0	1144	0
Stage 1	1108	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.22	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.26	-
Pot Cap-1 Maneuver	~ 77	456	-	-	584	-
Stage 1	271	-	-	-	-	-
Stage 2	491	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 68	456	-	-	584	-
Mov Cap-2 Maneuver	~ 68	-	-	-	-	-
Stage 1	271	-	-	-	-	-
Stage 2	436	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 392.5	0	0.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	122	584	-
HCM Lane V/C Ratio	-	-	1.659	0.114	-
HCM Control Delay (s)	-	-	$ 392.5	12	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	15.1	0.4	-

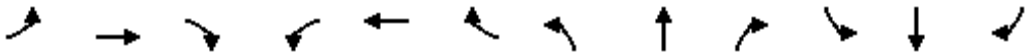
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	233	48	517	826	116	40	329	478	75	400	253
Future Volume (veh/h)	85	233	48	517	826	116	40	329	478	75	400	253
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1884	1884	1884	1884	1884	1884	1841	1841	1914	1826	1826	1826
Adj Flow Rate, veh/h	125	343	71	568	908	127	51	422	613	90	482	305
Peak Hour Factor	0.68	0.68	0.68	0.91	0.91	0.91	0.78	0.78	0.78	0.83	0.83	0.83
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	5	5	5
Cap, veh/h	173	1232	549	557	1458	650	84	909	657	132	999	446
Arrive On Green	0.10	0.34	0.34	0.16	0.41	0.41	0.05	0.26	0.25	0.08	0.29	0.29
Sat Flow, veh/h	1794	3579	1596	3480	3579	1596	1753	3497	1622	1739	3469	1547
Grp Volume(v), veh/h	125	343	71	568	908	127	51	422	613	90	482	305
Grp Sat Flow(s),veh/h/ln	1794	1789	1596	1740	1789	1596	1753	1749	1622	1739	1735	1547
Q Serve(g_s), s	6.8	7.0	3.1	16.0	20.1	5.1	2.9	10.2	24.5	5.0	11.5	17.5
Cycle Q Clear(g_c), s	6.8	7.0	3.1	16.0	20.1	5.1	2.9	10.2	24.5	5.0	11.5	17.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	173	1232	549	557	1458	650	84	909	657	132	999	446
V/C Ratio(X)	0.72	0.28	0.13	1.02	0.62	0.20	0.61	0.46	0.93	0.68	0.48	0.68
Avail Cap(c_a), veh/h	287	1232	549	557	1458	650	280	909	657	278	999	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	23.8	22.5	42.0	23.5	19.1	46.7	31.1	28.5	45.0	29.4	31.6
Incr Delay (d2), s/veh	5.6	0.6	0.5	43.3	2.0	0.7	6.9	0.4	20.4	6.1	0.4	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	2.9	1.2	9.9	8.3	1.9	1.4	4.1	16.5	2.3	4.6	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.4	24.3	23.0	85.3	25.5	19.7	53.6	31.5	48.8	51.1	29.8	35.9
LnGrp LOS	D	C	C	F	C	B	D	C	D	D	C	D
Approach Vol, veh/h		539			1603			1086			877	
Approach Delay, s/veh		30.0			46.3			42.3			34.1	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	38.4	8.8	32.8	13.7	44.8	11.6	30.0
Change Period (Y+Rc), s	5.0	6.5	5.0	6.5	5.0	6.5	5.0	6.5
Max Green Setting (Gmax), s	15.0	23.5	15.0	23.5	15.0	23.5	15.0	23.5
Max Q Clear Time (g_c+I1), s	18.0	9.0	4.9	19.5	8.8	22.1	7.0	26.5
Green Ext Time (p_c), s	0.0	4.5	0.1	2.8	0.2	1.1	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	40.5
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	17	275	119	26	45	276	1257	64	22	867	29
Future Volume (veh/h)	60	17	275	119	26	45	276	1257	64	22	867	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1870	1870	1870	1841	1841	1841	1811	1811	1811
Adj Flow Rate, veh/h	85	0	403	153	33	58	345	1571	80	27	1070	36
Peak Hour Factor	0.71	0.71	0.71	0.78	0.78	0.78	0.80	0.80	0.80	0.81	0.81	0.81
Percent Heavy Veh, %	6	6	6	2	2	2	4	4	4	6	6	6
Cap, veh/h	117	0	441	232	87	153	440	1558	695	319	1748	59
Arrive On Green	0.07	0.00	0.14	0.07	0.14	0.13	0.13	0.45	0.45	0.18	0.51	0.50
Sat Flow, veh/h	1725	0	3070	3456	608	1069	3401	3497	1560	1725	3397	114
Grp Volume(v), veh/h	85	0	403	153	0	91	345	1571	80	27	542	564
Grp Sat Flow(s),veh/h/ln	1725	0	1535	1728	0	1678	1700	1749	1560	1725	1721	1791
Q Serve(g_s), s	5.3	0.0	9.3	4.8	0.0	5.4	10.8	49.0	2.2	1.4	24.5	24.6
Cycle Q Clear(g_c), s	5.3	0.0	9.3	4.8	0.0	5.4	10.8	49.0	2.2	1.4	24.5	24.6
Prop In Lane	1.00		1.00	1.00		0.64	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	117	0	441	232	0	239	440	1558	695	319	886	922
V/C Ratio(X)	0.73	0.00	0.91	0.66	0.00	0.38	0.78	1.01	0.12	0.08	0.61	0.61
Avail Cap(c_a), veh/h	220	0	586	346	0	275	649	1558	695	319	886	922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	50.3	0.0	19.7	50.1	0.0	43.2	46.4	30.5	8.3	37.1	18.9	19.0
Incr Delay (d2), s/veh	8.2	0.0	15.8	3.2	0.0	1.0	3.8	24.9	0.3	0.1	3.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	4.3	2.2	0.0	2.3	4.7	24.2	1.2	0.6	9.6	10.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	0.0	35.6	53.3	0.0	44.2	50.2	55.4	8.6	37.2	21.9	21.8
LnGrp LOS	E	A	D	D	A	D	D	F	A	D	C	C
Approach Vol, veh/h		488			244			1996			1133	
Approach Delay, s/veh		39.6			49.9			52.6			22.2	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.8	53.0	11.5	19.7	18.2	60.6	11.4	19.8
Change Period (Y+Rc), s	6.0	* 6	4.5	5.5	4.5	6.0	4.5	5.5
Max Green Setting (Gmax), s	12.5	* 47	13.5	16.5	20.5	39.0	10.5	19.5
Max Q Clear Time (g_c+I1), s	3.4	51.0	7.3	7.4	12.8	26.6	6.8	11.3
Green Ext Time (p_c), s	0.0	0.0	0.2	0.3	0.9	9.4	0.2	3.0

Intersection Summary	
HCM 6th Ctrl Delay	41.9
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	142	45	1300	94	24	795
Future Volume (veh/h)	142	45	1300	94	24	795
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1914	1811	1811
Adj Flow Rate, veh/h	178	56	1711	124	29	946
Peak Hour Factor	0.80	0.80	0.76	0.76	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	6	6
Cap, veh/h	294	135	2720	1262	46	2893
Arrive On Green	0.09	0.09	0.52	0.52	0.03	0.84
Sat Flow, veh/h	3401	1560	3589	1622	1725	3532
Grp Volume(v), veh/h	178	56	1711	124	29	946
Grp Sat Flow(s),veh/h/ln	1700	1560	1749	1622	1725	1721
Q Serve(g_s), s	5.6	3.7	38.3	4.2	1.8	6.6
Cycle Q Clear(g_c), s	5.6	3.7	38.3	4.2	1.8	6.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	294	135	2720	1262	46	2893
V/C Ratio(X)	0.61	0.42	0.63	0.10	0.63	0.33
Avail Cap(c_a), veh/h	989	454	2720	1262	282	2893
HCM Platoon Ratio	1.00	1.00	0.67	0.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.58	0.58	1.00	1.00
Uniform Delay (d), s/veh	48.4	47.6	15.0	6.9	53.0	1.9
Incr Delay (d2), s/veh	2.0	2.0	0.6	0.1	13.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	1.5	15.9	1.1	0.9	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.5	49.7	15.7	7.0	66.3	2.2
LnGrp LOS	D	D	B	A	E	A
Approach Vol, veh/h	234		1835			975
Approach Delay, s/veh	50.3		15.1			4.1
Approach LOS	D		B			A

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	6.9	89.6				96.5	13.5
Change Period (Y+Rc), s	4.0	5.5				5.5	5.0
Max Green Setting (Gmax), s	18.0	46.5				68.5	31.0
Max Q Clear Time (g_c+I1), s	13.8	40.3				8.6	7.6
Green Ext Time (p_c), s	0.0	5.9				22.7	1.0

Intersection Summary	
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	78	46	1280	65	18	754
Future Volume (veh/h)	78	46	1280	65	18	754
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1841	1841	1811	1811
Adj Flow Rate, veh/h	90	53	1662	84	22	908
Peak Hour Factor	0.87	0.87	0.77	0.77	0.83	0.83
Percent Heavy Veh, %	0	0	4	4	6	6
Cap, veh/h	119	70	2554	128	38	2796
Arrive On Green	0.11	0.11	0.75	0.74	0.02	0.81
Sat Flow, veh/h	1040	612	3480	170	1725	3532
Grp Volume(v), veh/h	144	0	853	893	22	908
Grp Sat Flow(s),veh/h/ln	1664	0	1749	1810	1725	1721
Q Serve(g_s), s	9.2	0.0	25.8	26.4	1.4	7.4
Cycle Q Clear(g_c), s	9.2	0.0	25.8	26.4	1.4	7.4
Prop In Lane	0.62	0.37		0.09	1.00	
Lane Grp Cap(c), veh/h	191	0	1318	1365	38	2796
V/C Ratio(X)	0.75	0.00	0.65	0.65	0.57	0.32
Avail Cap(c_a), veh/h	514	0	1318	1365	282	2796
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.4	0.0	6.5	6.6	53.3	2.6
Incr Delay (d2), s/veh	5.9	0.0	2.5	2.5	12.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	7.5	8.0	0.7	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	53.3	0.0	9.0	9.1	66.0	2.9
LnGrp LOS	D	A	A	A	E	A
Approach Vol, veh/h	144		1746			930
Approach Delay, s/veh	53.3		9.0			4.4
Approach LOS	D		A			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	16.4	86.9		16.6		93.4
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	12.0	44.5		33.0		66.5
Max Q Clear Time (g_c+I1), s	13.4	28.4		11.2		9.4
Green Ext Time (p_c), s	0.0	15.1		0.5		21.1

Intersection Summary	
HCM 6th Ctrl Delay	9.8
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	6.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Vol, veh/h	37	29	1310	9	10	682	0	0
Future Vol, veh/h	37	29	1310	9	10	682	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	-	-	-	None	-	None
Storage Length	0	-	-	-	120	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0	16983	-
Grade, %	0	-	0	-	-	0	0	-
Peak Hour Factor	45	45	79	79	81	81	92	92
Heavy Vehicles, %	5	5	4	4	6	6	2	2
Mvmt Flow	82	64	1658	11	12	842	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2109	835	0	0	1669	0
Stage 1	1664	-	-	-	-	-
Stage 2	445	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.22	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.26	-
Pot Cap-1 Maneuver	~ 42	305	-	-	363	-
Stage 1	135	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 41	305	-	-	363	-
Mov Cap-2 Maneuver	111	-	-	-	-	-
Stage 1	135	-	-	-	-	-
Stage 2	584	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	118.3	0	0.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	154	363	-
HCM Lane V/C Ratio	-	-	0.952	0.034	-
HCM Control Delay (s)	-	-	118.3	15.3	-
HCM Lane LOS	-	-	F	C	-
HCM 95th %tile Q(veh)	-	-	7	0.1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	155.6

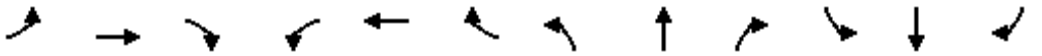
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	52	61	1311	39	46	463
Future Vol, veh/h	52	61	1311	39	46	463
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	90	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	42	42	75	75	92	92
Heavy Vehicles, %	5	5	4	4	6	6
Mvmt Flow	124	145	1748	52	50	503

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2126	900	0	0	1800	0
Stage 1	1774	-	-	-	-	-
Stage 2	352	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.22	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.26	-
Pot Cap-1 Maneuver	~ 41	276	-	-	322	-
Stage 1	~ 117	-	-	-	-	-
Stage 2	674	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 35	276	-	-	322	-
Mov Cap-2 Maneuver	~ 35	-	-	-	-	-
Stage 1	~ 117	-	-	-	-	-
Stage 2	570	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 1512.8	0	1.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	66	322	-
HCM Lane V/C Ratio	-	-	4.076	0.155	-
HCM Control Delay (s)	-	-	$ 1512.8	18.2	-
HCM Lane LOS	-	-	F	C	-
HCM 95th %tile Q(veh)	-	-	28.9	0.5	-

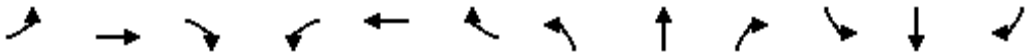
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	225	1010	49	345	523	61	26	469	882	140	294	114
Future Volume (veh/h)	225	1010	49	345	523	61	26	469	882	140	294	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1884	1884	1884	1884	1884	1884	1841	1841	1914	1826	1826	1826
Adj Flow Rate, veh/h	331	1485	72	379	575	67	33	601	1131	169	354	137
Peak Hour Factor	0.68	0.68	0.68	0.91	0.91	0.91	0.78	0.78	0.78	0.83	0.83	0.83
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	5	5	5
Cap, veh/h	273	1214	541	478	1160	517	68	866	601	215	1152	514
Arrive On Green	0.15	0.34	0.34	0.14	0.32	0.32	0.04	0.25	0.23	0.12	0.33	0.33
Sat Flow, veh/h	1794	3579	1596	3480	3579	1596	1753	3497	1622	1739	3469	1547
Grp Volume(v), veh/h	331	1485	72	379	575	67	33	601	1131	169	354	137
Grp Sat Flow(s),veh/h/ln	1794	1789	1596	1740	1789	1596	1753	1749	1622	1739	1735	1547
Q Serve(g_s), s	16.0	35.6	3.3	11.1	13.6	3.1	1.9	16.4	24.5	9.9	8.0	6.8
Cycle Q Clear(g_c), s	16.0	35.6	3.3	11.1	13.6	3.1	1.9	16.4	24.5	9.9	8.0	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	273	1214	541	478	1160	517	68	866	601	215	1152	514
V/C Ratio(X)	1.21	1.22	0.13	0.79	0.50	0.13	0.48	0.69	1.88	0.79	0.31	0.27
Avail Cap(c_a), veh/h	273	1214	541	530	1160	517	267	866	601	265	1152	514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.5	34.7	24.0	43.9	28.6	25.0	49.4	35.9	33.0	44.7	26.1	25.7
Incr Delay (d2), s/veh	123.9	108.1	0.5	7.4	1.5	0.5	5.2	2.4	402.8	11.9	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.2	32.7	1.3	5.1	5.8	1.2	0.9	7.0	81.4	4.8	3.2	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	168.4	142.8	24.5	51.3	30.1	25.6	54.6	38.3	435.8	56.6	26.2	26.0
LnGrp LOS	F	F	C	D	C	C	D	D	F	E	C	C
Approach Vol, veh/h		1888			1021			1765			660	
Approach Delay, s/veh		142.7			37.7			293.3			33.9	
Approach LOS		F			D			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.4	39.6	8.1	38.9	20.0	38.0	17.0	30.0
Change Period (Y+Rc), s	5.0	6.5	5.0	6.5	5.0	6.5	5.0	6.5
Max Green Setting (Gmax), s	15.0	28.5	15.0	23.5	15.0	28.5	15.0	23.5
Max Q Clear Time (g_c+I1), s	13.1	37.6	3.9	10.0	18.0	15.6	11.9	26.5
Green Ext Time (p_c), s	0.3	0.0	0.0	5.1	0.0	6.4	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	159.0
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	31	148	79	9	20	449	1036	64	28	957	25
Future Volume (veh/h)	51	31	148	79	9	20	449	1036	64	28	957	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1870	1870	1870	1856	1841	1841	1811	1811	1811
Adj Flow Rate, veh/h	72	0	237	101	12	26	554	1279	79	35	1181	31
Peak Hour Factor	0.71	0.71	0.71	0.78	0.78	0.78	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	5	5	5	2	2	2	3	4	4	6	6	6
Cap, veh/h	104	0	271	164	39	85	650	1876	837	207	2378	62
Arrive On Green	0.06	0.00	0.09	0.05	0.07	0.07	0.19	0.54	0.54	0.12	0.48	0.48
Sat Flow, veh/h	1739	0	3095	3456	526	1139	3428	3497	1560	1725	4954	130
Grp Volume(v), veh/h	72	0	237	101	0	38	554	1279	79	35	786	426
Grp Sat Flow(s),veh/h/ln	1739	0	1547	1728	0	1665	1714	1749	1560	1725	1648	1788
Q Serve(g_s), s	4.5	0.0	6.3	3.2	0.0	2.4	17.2	29.4	1.8	2.0	17.9	17.9
Cycle Q Clear(g_c), s	4.5	0.0	6.3	3.2	0.0	2.4	17.2	29.4	1.8	2.0	17.9	17.9
Prop In Lane	1.00		1.00	1.00		0.68	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	104	0	271	164	0	125	650	1876	837	207	1582	858
V/C Ratio(X)	0.69	0.00	0.88	0.62	0.00	0.30	0.85	0.68	0.09	0.17	0.50	0.50
Avail Cap(c_a), veh/h	166	0	408	236	0	174	857	1876	837	207	1582	858
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	50.7	0.0	28.2	51.4	0.0	48.2	43.1	18.6	5.2	43.5	19.5	19.5
Incr Delay (d2), s/veh	7.9	0.0	13.1	3.7	0.0	1.4	6.5	2.0	0.2	0.4	1.1	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	2.8	1.4	0.0	1.0	7.6	11.2	1.0	0.9	6.6	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.7	0.0	41.3	55.2	0.0	49.5	49.6	20.7	5.4	43.9	20.6	21.5
LnGrp LOS	E	A	D	E	A	D	D	C	A	D	C	C
Approach Vol, veh/h		309			139			1912			1247	
Approach Delay, s/veh		45.3			53.6			28.4			21.6	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.2	65.0	12.1	13.7	25.4	58.8	10.7	15.1
Change Period (Y+Rc), s	6.0	* 6	5.5	5.5	4.5	6.0	5.5	5.5
Max Green Setting (Gmax), s	7.5	* 59	10.5	11.5	27.5	39.0	7.5	14.5
Max Q Clear Time (g_c+I1), s	4.0	31.4	6.5	4.4	19.2	19.9	5.2	8.3
Green Ext Time (p_c), s	0.0	21.2	0.1	0.1	1.7	14.1	0.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	74	16	937	162	37	925
Future Volume (veh/h)	74	16	937	162	37	925
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1914	1811	1811
Adj Flow Rate, veh/h	94	20	1233	213	44	1101
Peak Hour Factor	0.79	0.79	0.76	0.76	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	6	6
Cap, veh/h	188	86	3400	587	58	4312
Arrive On Green	0.06	0.06	1.00	1.00	0.03	0.87
Sat Flow, veh/h	3401	1560	4478	745	1725	5107
Grp Volume(v), veh/h	94	20	958	488	44	1101
Grp Sat Flow(s),veh/h/ln	1700	1560	1675	1707	1725	1648
Q Serve(g_s), s	3.0	1.3	0.0	0.0	2.8	4.0
Cycle Q Clear(g_c), s	3.0	1.3	0.0	0.0	2.8	4.0
Prop In Lane	1.00	1.00		0.44	1.00	
Lane Grp Cap(c), veh/h	188	86	2642	1346	58	4312
V/C Ratio(X)	0.50	0.23	0.36	0.36	0.76	0.26
Avail Cap(c_a), veh/h	526	241	2642	1346	165	4312
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.79	0.79	1.00	1.00
Uniform Delay (d), s/veh	50.5	49.7	0.0	0.0	52.7	1.2
Incr Delay (d2), s/veh	2.1	1.4	0.3	0.6	18.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.6	0.1	0.2	1.5	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	52.6	51.1	0.3	0.6	70.8	1.3
LnGrp LOS	D	D	A	A	E	A
Approach Vol, veh/h	114		1446			1145
Approach Delay, s/veh	52.3		0.4			4.0
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.2	90.7			99.9	10.1
Change Period (Y+Rc), s	5.5	5.5			5.5	5.0
Max Green Setting (Gmax), s	10.5	67.5			83.5	16.0
Max Q Clear Time (g_c+I1), s	4.8	2.0			6.0	5.0
Green Ext Time (p_c), s	0.0	40.2			29.7	0.3

Intersection Summary	
HCM 6th Ctrl Delay	4.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	83	17	849	98	43	899
Future Volume (veh/h)	83	17	849	98	43	899
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1841	1841	1811	1811
Adj Flow Rate, veh/h	95	20	1103	127	52	1083
Peak Hour Factor	0.87	0.87	0.77	0.77	0.83	0.83
Percent Heavy Veh, %	0	0	4	4	6	6
Cap, veh/h	129	27	3425	394	108	4199
Arrive On Green	0.09	0.09	0.75	0.73	0.06	0.85
Sat Flow, veh/h	1395	294	4736	526	1725	5107
Grp Volume(v), veh/h	116	0	808	422	52	1083
Grp Sat Flow(s),veh/h/ln	1703	0	1675	1746	1725	1648
Q Serve(g_s), s	8.0	0.0	9.6	9.7	3.5	5.1
Cycle Q Clear(g_c), s	8.0	0.0	9.6	9.7	3.5	5.1
Prop In Lane	0.82	0.17		0.30	1.00	
Lane Grp Cap(c), veh/h	157	0	2510	1308	108	4199
V/C Ratio(X)	0.74	0.00	0.32	0.32	0.48	0.26
Avail Cap(c_a), veh/h	369	0	2510	1308	108	4199
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.0	0.0	5.0	5.1	54.4	1.7
Incr Delay (d2), s/veh	6.6	0.0	0.3	0.7	14.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	2.7	3.0	1.9	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	59.6	0.0	5.3	5.7	69.0	1.9
LnGrp LOS	E	A	A	A	E	A
Approach Vol, veh/h	116		1230			1135
Approach Delay, s/veh	59.6		5.5			5.0
Approach LOS	E		A			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	12.0	92.9		15.1		104.9
Change Period (Y+Rc), s	5.5	5.5		5.0		5.5
Max Green Setting (Gmax), s	6.5	72.5		25.0		84.5
Max Q Clear Time (g_c+I1), s	15.5	11.7		10.0		7.1
Green Ext Time (p_c), s	0.0	30.9		0.3		28.9

Intersection Summary	
HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Vol, veh/h	13	18	842	52	33	905	0	0
Future Vol, veh/h	13	18	842	52	33	905	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	-	-	-	None	-	None
Storage Length	0	-	-	-	120	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0	16983	-
Grade, %	0	-	0	-	-	0	0	-
Peak Hour Factor	45	45	80	80	81	81	92	92
Heavy Vehicles, %	5	5	4	4	6	6	2	2
Mvmt Flow	29	40	1053	65	41	1117	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1727	559	0	0	1118	0
Stage 1	1086	-	-	-	-	-
Stage 2	641	-	-	-	-	-
Critical Hdwy	6.35	7.2	-	-	5.42	-
Critical Hdwy Stg 1	6.7	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.7	3.95	-	-	3.16	-
Pot Cap-1 Maneuver	99	399	-	-	332	-
Stage 1	214	-	-	-	-	-
Stage 2	465	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	87	399	-	-	332	-
Mov Cap-2 Maneuver	162	-	-	-	-	-
Stage 1	214	-	-	-	-	-
Stage 2	408	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.1	0	0.6
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	247	332	-
HCM Lane V/C Ratio	-	-	0.279	0.123	-
HCM Control Delay (s)	-	-	25.1	17.4	-
HCM Lane LOS	-	-	D	C	-
HCM 95th %tile Q(veh)	-	-	1.1	0.4	-

Intersection	
Int Delay, s/veh	38.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	44	803	54	61	898
Future Vol, veh/h	41	44	803	54	61	898
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	90	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	42	42	75	75	84	84
Heavy Vehicles, %	5	5	4	4	6	6
Mvmt Flow	98	105	1071	72	73	1069

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1788	572	0	0	1143	0
Stage 1	1107	-	-	-	-	-
Stage 2	681	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.22	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.26	-
Pot Cap-1 Maneuver	~ 70	456	-	-	585	-
Stage 1	272	-	-	-	-	-
Stage 2	456	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 61	456	-	-	585	-
Mov Cap-2 Maneuver	~ 61	-	-	-	-	-
Stage 1	272	-	-	-	-	-
Stage 2	399	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 469.5	0	0.8
HCM LOS	F		

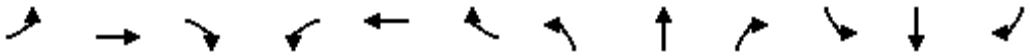
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	111	585	-
HCM Lane V/C Ratio	-	-	1.823	0.124	-
HCM Control Delay (s)	-	-	$ 469.5	12	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	16.1	0.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	233	48	517	826	116	40	329	478	75	400	253
Future Volume (veh/h)	85	233	48	517	826	116	40	329	478	75	400	253
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1884	1884	1884	1884	1884	1884	1841	1841	1914	1826	1826	1826
Adj Flow Rate, veh/h	125	343	71	568	908	127	51	422	613	90	482	305
Peak Hour Factor	0.68	0.68	0.68	0.91	0.91	0.91	0.78	0.78	0.78	0.83	0.83	0.83
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	5	5	5
Cap, veh/h	176	1151	513	698	1518	677	84	846	693	132	937	410
Arrive On Green	0.10	0.32	0.32	0.20	0.42	0.42	0.05	0.24	0.23	0.08	0.27	0.26
Sat Flow, veh/h	1794	3579	1596	3480	3579	1596	1753	3497	1622	1739	3469	1547
Grp Volume(v), veh/h	125	343	71	568	908	127	51	422	613	90	482	305
Grp Sat Flow(s),veh/h/ln	1794	1789	1596	1740	1789	1596	1753	1749	1622	1739	1735	1547
Q Serve(g_s), s	6.8	7.2	3.2	15.6	19.6	5.0	2.9	10.4	22.7	5.0	11.8	18.0
Cycle Q Clear(g_c), s	6.8	7.2	3.2	15.6	19.6	5.0	2.9	10.4	22.7	5.0	11.8	18.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	1151	513	698	1518	677	84	846	693	132	937	410
V/C Ratio(X)	0.71	0.30	0.14	0.81	0.60	0.19	0.61	0.50	0.88	0.68	0.51	0.74
Avail Cap(c_a), veh/h	448	1151	513	870	1518	677	210	846	693	313	937	410
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.7	25.5	24.1	38.2	22.2	18.0	46.7	32.7	26.3	45.0	30.9	33.6
Incr Delay (d2), s/veh	5.2	0.7	0.6	4.8	1.7	0.6	6.9	2.1	15.3	6.0	2.0	11.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	3.0	1.2	6.8	7.9	1.8	1.4	4.4	15.1	2.3	4.9	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.0	26.1	24.7	43.0	24.0	18.6	53.6	34.8	41.6	51.0	33.0	45.2
LnGrp LOS	D	C	C	D	C	B	D	C	D	D	C	D
Approach Vol, veh/h		539			1603			1086			877	
Approach Delay, s/veh		31.2			30.3			39.5			39.1	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.1	36.1	8.8	31.0	13.8	46.4	11.6	28.2
Change Period (Y+Rc), s	5.0	6.5	5.0	6.5	5.0	6.5	5.0	6.5
Max Green Setting (Gmax), s	24.0	17.5	11.0	24.5	24.0	17.5	17.0	18.5
Max Q Clear Time (g_c+I1), s	17.6	9.2	4.9	20.0	8.8	22.1	7.0	24.7
Green Ext Time (p_c), s	1.5	3.0	0.0	3.1	0.3	0.0	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	17	275	119	26	45	276	1257	64	22	867	29
Future Volume (veh/h)	60	17	275	119	26	45	276	1257	64	22	867	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1870	1870	1870	1841	1841	1841	1811	1811	1811
Adj Flow Rate, veh/h	85	0	403	153	33	58	345	1571	80	27	1070	36
Peak Hour Factor	0.71	0.71	0.71	0.78	0.78	0.78	0.80	0.80	0.80	0.81	0.81	0.81
Percent Heavy Veh, %	6	6	6	2	2	2	4	4	4	6	6	6
Cap, veh/h	115	0	444	224	87	153	427	1953	871	149	2611	88
Arrive On Green	0.07	0.00	0.14	0.06	0.14	0.13	0.13	0.56	0.56	0.09	0.53	0.51
Sat Flow, veh/h	1725	0	3070	3456	608	1069	3401	3497	1560	1725	4912	165
Grp Volume(v), veh/h	85	0	403	153	0	91	345	1571	80	27	718	388
Grp Sat Flow(s),veh/h/ln	1725	0	1535	1728	0	1678	1700	1749	1560	1725	1648	1781
Q Serve(g_s), s	5.8	0.0	12.1	5.2	0.0	5.9	11.8	43.2	1.8	1.7	15.6	15.7
Cycle Q Clear(g_c), s	5.8	0.0	12.1	5.2	0.0	5.9	11.8	43.2	1.8	1.7	15.6	15.7
Prop In Lane	1.00		1.00	1.00		0.64	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	115	0	444	224	0	240	427	1953	871	149	1752	947
V/C Ratio(X)	0.74	0.00	0.91	0.68	0.00	0.38	0.81	0.80	0.09	0.18	0.41	0.41
Avail Cap(c_a), veh/h	187	0	512	288	0	240	567	1953	871	149	1752	947
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	55.0	0.0	30.5	54.9	0.0	47.1	51.0	21.2	4.8	50.9	16.8	16.9
Incr Delay (d2), s/veh	8.9	0.0	18.4	4.5	0.0	1.0	6.3	3.6	0.2	0.6	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	5.6	2.4	0.0	2.6	5.3	16.9	1.0	0.8	5.7	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.9	0.0	48.9	59.4	0.0	48.1	57.4	24.9	5.0	51.4	17.5	18.2
LnGrp LOS	E	A	D	E	A	D	E	C	A	D	B	B
Approach Vol, veh/h		488			244			1996			1133	
Approach Delay, s/veh		51.5			55.1			29.7			18.6	
Approach LOS		D			E			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.9	71.0	12.0	21.1	19.1	67.8	11.8	21.4
Change Period (Y+Rc), s	6.0	* 6	4.5	5.5	4.5	6.0	4.5	5.5
Max Green Setting (Gmax), s	6.5	* 65	12.5	15.5	19.5	52.0	9.5	18.5
Max Q Clear Time (g_c+I1), s	3.7	45.2	7.8	7.9	13.8	17.7	7.2	14.1
Green Ext Time (p_c), s	0.0	17.8	0.2	0.3	0.7	19.8	0.1	1.8

Intersection Summary	
HCM 6th Ctrl Delay	30.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	142	45	1300	94	24	795
Future Volume (veh/h)	142	45	1300	94	24	795
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1914	1811	1811
Adj Flow Rate, veh/h	178	56	1711	124	29	946
Peak Hour Factor	0.80	0.80	0.76	0.76	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	6	6
Cap, veh/h	292	134	3723	269	46	4160
Arrive On Green	0.09	0.09	0.78	0.78	0.03	0.84
Sat Flow, veh/h	3401	1560	4948	346	1725	5107
Grp Volume(v), veh/h	178	56	1198	637	29	946
Grp Sat Flow(s),veh/h/ln	1700	1560	1675	1778	1725	1648
Q Serve(g_s), s	5.6	3.7	13.6	13.6	1.8	4.1
Cycle Q Clear(g_c), s	5.6	3.7	13.6	13.6	1.8	4.1
Prop In Lane	1.00	1.00		0.19	1.00	
Lane Grp Cap(c), veh/h	292	134	2608	1384	46	4160
V/C Ratio(X)	0.61	0.42	0.46	0.46	0.63	0.23
Avail Cap(c_a), veh/h	835	383	2608	1384	125	4160
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.68	0.68	1.00	1.00
Uniform Delay (d), s/veh	48.5	47.7	4.2	4.2	53.0	1.7
Incr Delay (d2), s/veh	2.1	2.1	0.4	0.8	13.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	1.5	3.1	3.5	0.9	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.6	49.8	4.6	5.0	66.3	1.8
LnGrp LOS	D	D	A	A	E	A
Approach Vol, veh/h	234		1835			975
Approach Delay, s/veh	50.4		4.7			3.8
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.9	89.6			96.6	13.4
Change Period (Y+Rc), s	4.0	5.5			5.5	5.0
Max Green Setting (Gmax), s	8.0	61.5			73.5	26.0
Max Q Clear Time (g_c+I1), s	3.8	15.6			6.1	7.6
Green Ext Time (p_c), s	0.0	38.8			22.7	0.9

Intersection Summary	
HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	78	46	1280	65	18	754
Future Volume (veh/h)	78	46	1280	65	18	754
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1841	1841	1811	1811
Adj Flow Rate, veh/h	90	53	1662	84	22	908
Peak Hour Factor	0.87	0.87	0.77	0.77	0.83	0.83
Percent Heavy Veh, %	0	0	4	4	6	6
Cap, veh/h	118	69	3701	187	38	4025
Arrive On Green	0.11	0.10	0.76	0.74	0.02	0.81
Sat Flow, veh/h	1040	612	5065	247	1725	5107
Grp Volume(v), veh/h	144	0	1136	610	22	908
Grp Sat Flow(s),veh/h/ln	1664	0	1675	1796	1725	1648
Q Serve(g_s), s	9.3	0.0	13.8	13.9	1.4	4.6
Cycle Q Clear(g_c), s	9.3	0.0	13.8	13.9	1.4	4.6
Prop In Lane	0.62	0.37		0.14	1.00	
Lane Grp Cap(c), veh/h	188	0	2531	1357	38	4025
V/C Ratio(X)	0.76	0.00	0.45	0.45	0.57	0.23
Avail Cap(c_a), veh/h	333	0	2531	1357	125	4025
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	0.0	5.0	5.0	53.3	2.3
Incr Delay (d2), s/veh	6.3	0.0	0.6	1.1	12.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	3.6	4.1	0.7	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	53.9	0.0	5.6	6.1	66.0	2.5
LnGrp LOS	D	A	A	A	E	A
Approach Vol, veh/h	144		1746			930
Approach Delay, s/veh	53.9		5.7			4.0
Approach LOS	D		A			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	16.4	87.1		16.5		93.5
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	8.0	66.5		21.0		78.5
Max Q Clear Time (g_c+I1), s	13.4	15.9		11.3		6.6
Green Ext Time (p_c), s	0.0	40.5		0.3		21.7

Intersection Summary	
HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	13.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Vol, veh/h	37	29	1310	9	10	682	0	0
Future Vol, veh/h	37	29	1310	9	10	682	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	-	-	-	None	-	None
Storage Length	0	-	-	-	120	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0	16983	-
Grade, %	0	-	0	-	-	0	0	-
Peak Hour Factor	45	45	79	79	81	81	92	92
Heavy Vehicles, %	5	5	4	4	6	6	2	2
Mvmt Flow	82	64	1658	11	12	842	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2109	835	0	0	1669	0
Stage 1	1664	-	-	-	-	-
Stage 2	445	-	-	-	-	-
Critical Hdwy	6.35	7.2	-	-	5.42	-
Critical Hdwy Stg 1	6.7	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.7	3.95	-	-	3.16	-
Pot Cap-1 Maneuver	~ 58	262	-	-	176	-
Stage 1	92	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 54	262	-	-	176	-
Mov Cap-2 Maneuver	~ 81	-	-	-	-	-
Stage 1	92	-	-	-	-	-
Stage 2	545	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	241.1	0	0.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	116	176	-
HCM Lane V/C Ratio	-	-	1.264	0.07	-
HCM Control Delay (s)	-	-	241.1	27	-
HCM Lane LOS	-	-	F	D	-
HCM 95th %tile Q(veh)	-	-	9.6	0.2	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	199.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	61	52	1311	39	46	643
Future Vol, veh/h	61	52	1311	39	46	643
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	90	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	42	42	75	75	92	92
Heavy Vehicles, %	5	5	4	4	6	6
Mvmt Flow	145	124	1748	52	50	699

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2224	900	0	0	1800	0
Stage 1	1774	-	-	-	-	-
Stage 2	450	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.22	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.26	-
Pot Cap-1 Maneuver	~ 35	276	-	-	322	-
Stage 1	~ 117	-	-	-	-	-
Stage 2	601	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 30	276	-	-	322	-
Mov Cap-2 Maneuver	~ 30	-	-	-	-	-
Stage 1	~ 117	-	-	-	-	-
Stage 2	508	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 2083	0	1.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	51	322	-
HCM Lane V/C Ratio	-	-	5.275	0.155	-
HCM Control Delay (s)	-	-	$ 2083	18.2	-
HCM Lane LOS	-	-	F	C	-
HCM 95th %tile Q(veh)	-	-	30.6	0.5	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	225	1010	49	345	523	61	26	469	882	140	294	114
Future Volume (veh/h)	225	1010	49	345	523	61	26	469	882	140	294	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1884	1884	1884	1884	1884	1884	1841	1841	1914	1826	1826	1826
Adj Flow Rate, veh/h	331	1485	72	379	575	67	33	601	1131	169	354	137
Peak Hour Factor	0.68	0.68	0.68	0.91	0.91	0.91	0.78	0.78	0.78	0.83	0.83	0.83
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	5	5	5
Cap, veh/h	376	1223	545	1030	1576	703	95	495	689	130	519	232
Arrive On Green	0.21	0.34	0.34	0.30	0.44	0.44	0.05	0.14	0.13	0.08	0.15	0.15
Sat Flow, veh/h	1794	3579	1596	3480	3579	1596	1753	3497	1622	1739	3469	1547
Grp Volume(v), veh/h	331	1485	72	379	575	67	33	601	1131	169	354	137
Grp Sat Flow(s),veh/h/ln	1794	1789	1596	1740	1789	1596	1753	1749	1622	1739	1735	1547
Q Serve(g_s), s	21.5	41.0	3.7	10.3	12.9	2.9	2.2	17.0	8.9	9.0	11.6	6.2
Cycle Q Clear(g_c), s	21.5	41.0	3.7	10.3	12.9	2.9	2.2	17.0	8.9	9.0	11.6	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	376	1223	545	1030	1576	703	95	495	689	130	519	232
V/C Ratio(X)	0.88	1.21	0.13	0.37	0.36	0.10	0.35	1.21	1.64	1.30	0.68	0.59
Avail Cap(c_a), veh/h	463	1223	545	1073	1576	703	95	495	689	130	578	258
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.0	39.5	27.2	33.4	22.4	19.6	54.7	51.5	15.1	55.5	48.3	18.6
Incr Delay (d2), s/veh	15.1	104.2	0.5	0.2	0.7	0.3	2.1	113.4	294.7	178.3	2.9	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	34.8	1.5	4.3	5.3	1.1	1.0	15.0	66.8	10.3	5.1	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.1	143.7	27.7	33.6	23.0	19.9	56.8	164.9	309.8	233.8	51.2	21.6
LnGrp LOS	E	F	C	C	C	B	E	F	F	F	D	C
Approach Vol, veh/h		1888			1021			1765			660	
Approach Delay, s/veh		124.8			26.8			255.7			91.8	
Approach LOS		F			C			F			F	

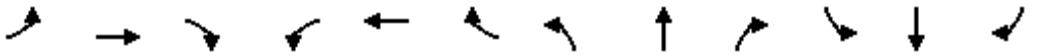
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	41.0	45.0	12.0	22.0	29.2	56.8	13.0	21.0
Change Period (Y+Rc), s	6.5	* 6.5	6.5	* 6.5	5.0	6.5	5.0	6.5
Max Green Setting (Gmax), s	36.0	* 39	5.0	* 18	30.0	44.5	8.0	14.5
Max Q Clear Time (g_c+I1), s	12.3	43.0	4.2	13.6	23.5	14.9	11.0	19.0
Green Ext Time (p_c), s	1.7	0.0	0.0	1.9	0.7	10.5	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay		145.3
HCM 6th LOS		F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Appendix D
Buildout Year (2040) Conditions Analysis Worksheet



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	41	196	100	12	26	593	1367	56	33	1263	36
Future Volume (veh/h)	67	41	196	100	12	26	593	1367	56	33	1263	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1870	1870	1870	1841	1841	1841	1811	1811	1811
Adj Flow Rate, veh/h	94	0	315	128	15	33	741	1709	70	41	1559	44
Peak Hour Factor	0.71	0.71	0.71	0.78	0.78	0.78	0.80	0.80	0.80	0.81	0.81	0.81
Percent Heavy Veh, %	6	6	6	2	2	2	4	4	4	6	6	6
Cap, veh/h	128	0	356	206	53	116	867	1622	723	348	1449	41
Arrive On Green	0.07	0.00	0.12	0.06	0.10	0.09	0.25	0.46	0.46	0.20	0.42	0.41
Sat Flow, veh/h	1725	0	3070	3456	520	1144	3401	3497	1560	1725	3418	96
Grp Volume(v), veh/h	94	0	315	128	0	48	741	1709	70	41	783	820
Grp Sat Flow(s),veh/h/ln	1725	0	1535	1728	0	1664	1700	1749	1560	1725	1721	1794
Q Serve(g_s), s	5.9	0.0	7.2	4.0	0.0	3.0	22.8	51.0	1.8	2.1	46.6	46.6
Cycle Q Clear(g_c), s	5.9	0.0	7.2	4.0	0.0	3.0	22.8	51.0	1.8	2.1	46.6	46.6
Prop In Lane	1.00		1.00	1.00		0.69	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	128	0	356	206	0	169	867	1622	723	348	729	761
V/C Ratio(X)	0.73	0.00	0.88	0.62	0.00	0.28	0.86	1.05	0.10	0.12	1.07	1.08
Avail Cap(c_a), veh/h	235	0	502	377	0	227	1113	1622	723	348	729	761
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	49.8	0.0	19.8	50.5	0.0	46.2	39.0	29.5	7.2	35.9	31.7	31.7
Incr Delay (d2), s/veh	7.8	0.0	12.8	3.0	0.0	0.9	5.4	38.1	0.3	0.1	52.6	53.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	3.2	1.8	0.0	1.3	9.7	27.9	1.0	0.9	28.5	29.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.7	0.0	32.6	53.6	0.0	47.1	44.4	67.6	7.4	36.0	84.3	85.3
LnGrp LOS	E	A	C	D	A	D	D	F	A	D	F	F
Approach Vol, veh/h		409			176			2520			1644	
Approach Delay, s/veh		38.4			51.8			59.1			83.6	
Approach LOS		D			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.7	55.0	12.2	15.2	32.0	50.6	10.6	16.8
Change Period (Y+Rc), s	6.0	* 6	4.5	5.5	4.5	6.0	4.5	5.5
Max Green Setting (Gmax), s	12.5	* 49	14.5	13.5	35.5	26.0	11.5	16.5
Max Q Clear Time (g_c+I1), s	4.1	53.0	7.9	5.0	24.8	48.6	6.0	9.2
Green Ext Time (p_c), s	0.0	0.0	0.3	0.1	2.7	0.0	0.2	2.1

Intersection Summary	
HCM 6th Ctrl Delay	65.5
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	97	21	1237	214	49	1220
Future Volume (veh/h)	97	21	1237	214	49	1220
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1914	1811	1811
Adj Flow Rate, veh/h	121	26	1628	282	58	1452
Peak Hour Factor	0.80	0.80	0.76	0.76	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	6	6
Cap, veh/h	224	103	2734	1268	75	2964
Arrive On Green	0.07	0.07	1.00	1.00	0.04	0.86
Sat Flow, veh/h	3401	1560	3589	1622	1725	3532
Grp Volume(v), veh/h	121	26	1628	282	58	1452
Grp Sat Flow(s),veh/h/ln	1700	1560	1749	1622	1725	1721
Q Serve(g_s), s	3.8	1.7	0.0	0.0	3.7	11.1
Cycle Q Clear(g_c), s	3.8	1.7	0.0	0.0	3.7	11.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	224	103	2734	1268	75	2964
V/C Ratio(X)	0.54	0.25	0.60	0.22	0.78	0.49
Avail Cap(c_a), veh/h	835	383	2734	1268	251	2964
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.45	0.45	1.00	1.00
Uniform Delay (d), s/veh	49.8	48.8	0.0	0.0	52.1	1.8
Incr Delay (d2), s/veh	2.0	1.3	0.4	0.2	15.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.7	0.2	0.1	1.9	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	51.8	50.1	0.4	0.2	67.7	2.4
LnGrp LOS	D	D	A	A	E	A
Approach Vol, veh/h	147		1910			1510
Approach Delay, s/veh	51.5		0.4			4.9
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.8	90.0			98.7	11.3
Change Period (Y+Rc), s	4.0	5.5			5.5	5.0
Max Green Setting (Gmax), s	16.0	53.5			73.5	26.0
Max Q Clear Time (g_c+I1), s	5.7	2.0			13.1	5.8
Green Ext Time (p_c), s	0.1	42.2			41.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	4.4
HCM 6th LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	109	23	1120	129	56	1187
Future Volume (veh/h)	109	23	1120	129	56	1187
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1841	1841	1811	1811
Adj Flow Rate, veh/h	125	26	1455	168	67	1430
Peak Hour Factor	0.87	0.87	0.77	0.77	0.83	0.83
Percent Heavy Veh, %	0	0	4	4	6	6
Cap, veh/h	164	34	2290	262	86	2789
Arrive On Green	0.12	0.11	0.72	0.71	0.05	0.81
Sat Flow, veh/h	1401	291	3254	362	1725	3532
Grp Volume(v), veh/h	152	0	799	824	67	1430
Grp Sat Flow(s),veh/h/ln	1703	0	1749	1776	1725	1721
Q Serve(g_s), s	9.5	0.0	25.5	26.5	4.2	14.8
Cycle Q Clear(g_c), s	9.5	0.0	25.5	26.5	4.2	14.8
Prop In Lane	0.82	0.17		0.20	1.00	
Lane Grp Cap(c), veh/h	199	0	1266	1286	86	2789
V/C Ratio(X)	0.76	0.00	0.63	0.64	0.78	0.51
Avail Cap(c_a), veh/h	403	0	1266	1286	251	2789
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	0.0	7.7	7.9	51.6	3.4
Incr Delay (d2), s/veh	6.0	0.0	2.4	2.5	13.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	8.0	8.5	2.1	3.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	53.2	0.0	10.1	10.4	65.4	4.1
LnGrp LOS	D	A	B	B	E	A
Approach Vol, veh/h	152		1623			1497
Approach Delay, s/veh	53.2		10.2			6.8
Approach LOS	D		B			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.5	83.6		16.9		93.1
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	16.0	54.5		25.0		74.5
Max Q Clear Time (g_c+I1), s	10.2	28.5		11.5		16.8
Green Ext Time (p_c), s	0.1	22.9		0.4		39.1

Intersection Summary	
HCM 6th Ctrl Delay	10.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Vol, veh/h	17	24	1111	68	44	1194	0	0
Future Vol, veh/h	17	24	1111	68	44	1194	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	-	-	-	None	-	None
Storage Length	0	-	-	-	120	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0	16983	-
Grade, %	0	-	0	-	-	0	0	-
Peak Hour Factor	45	45	79	79	81	81	92	92
Heavy Vehicles, %	5	5	4	4	6	6	2	2
Mvmt Flow	38	53	1406	86	54	1474	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2294	746	0	0	1492	0
Stage 1	1449	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.22	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.26	-
Pot Cap-1 Maneuver	~ 32	349	-	-	427	-
Stage 1	177	-	-	-	-	-
Stage 2	374	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 28	349	-	-	427	-
Mov Cap-2 Maneuver	116	-	-	-	-	-
Stage 1	177	-	-	-	-	-
Stage 2	327	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	40.3	0	0.5
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	190	427	-
HCM Lane V/C Ratio	-	-	0.48	0.127	-
HCM Control Delay (s)	-	-	40.3	14.7	-
HCM Lane LOS	-	-	E	B	-
HCM 95th %tile Q(veh)	-	-	2.3	0.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	191.7

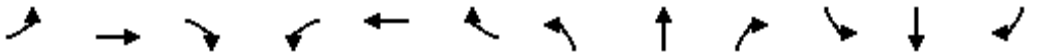
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	55	58	1059	71	80	1185
Future Vol, veh/h	55	58	1059	71	80	1185
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	90	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	42	42	75	75	92	92
Heavy Vehicles, %	5	5	4	4	6	6
Mvmt Flow	131	138	1412	95	87	1288

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2278	754	0	0	1507	0
Stage 1	1460	-	-	-	-	-
Stage 2	818	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.22	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.26	-
Pot Cap-1 Maneuver	~ 32	345	-	-	421	-
Stage 1	175	-	-	-	-	-
Stage 2	387	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 25	345	-	-	421	-
Mov Cap-2 Maneuver	~ 25	-	-	-	-	-
Stage 1	175	-	-	-	-	-
Stage 2	307	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 2239.9	0	1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	48	421	-
HCM Lane V/C Ratio	-	-	5.605	0.207	-
HCM Control Delay (s)	-	-	$ 2239.9	15.8	-
HCM Lane LOS	-	-	F	C	-
HCM 95th %tile Q(veh)	-	-	30.9	0.8	-

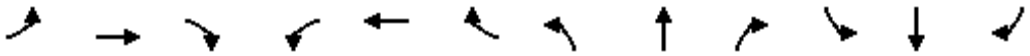
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	308	64	682	1090	153	53	433	631	99	527	333
Future Volume (veh/h)	112	308	64	682	1090	153	53	433	631	99	527	333
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1884	1884	1884	1884	1884	1884	1841	1841	1914	1826	1826	1826
Adj Flow Rate, veh/h	165	453	94	749	1198	168	68	555	809	119	635	401
Peak Hour Factor	0.68	0.68	0.68	0.91	0.91	0.91	0.78	0.78	0.78	0.83	0.83	0.83
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	5	5	5
Cap, veh/h	215	1214	542	855	1665	743	105	560	634	165	676	302
Arrive On Green	0.12	0.34	0.34	0.25	0.47	0.47	0.06	0.16	0.15	0.09	0.19	0.19
Sat Flow, veh/h	1794	3579	1596	3480	3579	1596	1753	3497	1622	1739	3469	1547
Grp Volume(v), veh/h	165	453	94	749	1198	168	68	555	809	119	635	401
Grp Sat Flow(s),veh/h/ln	1794	1789	1596	1740	1789	1596	1753	1749	1622	1739	1735	1547
Q Serve(g_s), s	8.9	9.6	4.1	20.7	26.9	6.3	3.8	15.8	14.5	6.6	18.0	19.5
Cycle Q Clear(g_c), s	8.9	9.6	4.1	20.7	26.9	6.3	3.8	15.8	14.5	6.6	18.0	19.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	215	1214	542	855	1665	743	105	560	634	165	676	302
V/C Ratio(X)	0.77	0.37	0.17	0.88	0.72	0.23	0.65	0.99	1.28	0.72	0.94	1.33
Avail Cap(c_a), veh/h	287	1214	542	905	1665	743	280	560	634	278	676	302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	25.0	23.2	36.2	21.5	16.0	46.0	41.9	30.5	44.0	39.7	40.3
Incr Delay (d2), s/veh	8.5	0.9	0.7	9.3	2.7	0.7	6.5	35.9	136.2	5.8	21.0	169.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	4.0	1.6	9.4	10.8	2.3	1.8	9.3	37.9	3.0	9.3	21.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.2	25.9	23.9	45.5	24.2	16.7	52.5	77.8	166.6	49.8	60.7	209.6
LnGrp LOS	D	C	C	D	C	B	D	E	F	D	E	F
Approach Vol, veh/h		712			2115			1432			1155	
Approach Delay, s/veh		31.5			31.2			126.8			111.3	
Approach LOS		C			C			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.6	37.9	10.0	23.5	16.0	50.5	13.5	20.0
Change Period (Y+Rc), s	5.0	6.5	5.0	6.5	5.0	6.5	5.0	6.5
Max Green Setting (Gmax), s	25.0	23.5	15.0	13.5	15.0	33.5	15.0	13.5
Max Q Clear Time (g_c+I1), s	22.7	11.6	5.8	21.5	10.9	28.9	8.6	17.8
Green Ext Time (p_c), s	0.9	5.2	0.1	0.0	0.2	4.2	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	73.6
HCM 6th LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	23	362	158	35	59	364	1658	85	29	1144	38
Future Volume (veh/h)	79	23	362	158	35	59	364	1658	85	29	1144	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1870	1870	1870	1841	1841	1841	1811	1811	1811
Adj Flow Rate, veh/h	111	0	531	203	45	76	455	2072	106	36	1412	47
Peak Hour Factor	0.71	0.71	0.71	0.78	0.78	0.78	0.80	0.80	0.80	0.81	0.81	0.81
Percent Heavy Veh, %	6	6	6	2	2	2	4	4	4	6	6	6
Cap, veh/h	147	0	527	282	105	177	544	1558	695	245	1500	50
Arrive On Green	0.09	0.00	0.17	0.08	0.17	0.15	0.16	0.45	0.45	0.14	0.44	0.42
Sat Flow, veh/h	1725	0	3070	3456	625	1055	3401	3497	1560	1725	3398	113
Grp Volume(v), veh/h	111	0	531	203	0	121	455	2072	106	36	714	745
Grp Sat Flow(s),veh/h/ln	1725	0	1535	1728	0	1680	1700	1749	1560	1725	1721	1791
Q Serve(g_s), s	6.9	0.0	13.1	6.3	0.0	7.1	14.3	49.0	2.9	2.0	43.6	43.8
Cycle Q Clear(g_c), s	6.9	0.0	13.1	6.3	0.0	7.1	14.3	49.0	2.9	2.0	43.6	43.8
Prop In Lane	1.00		1.00	1.00		0.63	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	147	0	527	282	0	283	544	1558	695	245	759	790
V/C Ratio(X)	0.76	0.00	1.01	0.72	0.00	0.43	0.84	1.33	0.15	0.15	0.94	0.94
Avail Cap(c_a), veh/h	220	0	586	346	0	283	649	1558	695	245	759	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	49.2	0.0	21.8	49.3	0.0	41.5	44.8	30.5	7.7	41.3	29.3	29.5
Incr Delay (d2), s/veh	8.0	0.0	38.1	5.6	0.0	1.0	8.1	153.0	0.5	0.2	19.2	19.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	7.4	2.9	0.0	3.1	6.4	51.9	1.6	0.8	20.5	21.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.2	0.0	59.8	54.9	0.0	42.5	52.9	183.5	8.1	41.6	48.5	48.5
LnGrp LOS	E	A	F	D	A	D	D	F	A	D	D	D
Approach Vol, veh/h		642			324			2633			1495	
Approach Delay, s/veh		59.4			50.2			153.9			48.3	
Approach LOS		E			D			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.1	53.0	13.4	22.5	21.6	52.5	13.0	22.9
Change Period (Y+Rc), s	6.0	* 6	4.5	5.5	4.5	6.0	4.5	5.5
Max Green Setting (Gmax), s	12.5	* 47	13.5	16.5	20.5	39.0	10.5	19.5
Max Q Clear Time (g_c+I1), s	4.0	51.0	8.9	9.1	16.3	45.8	8.3	15.1
Green Ext Time (p_c), s	0.0	0.0	0.2	0.4	0.8	0.0	0.2	2.3

Intersection Summary		
HCM 6th Ctrl Delay		104.4
HCM 6th LOS		F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	188	59	1716	124	32	1049
Future Volume (veh/h)	188	59	1716	124	32	1049
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1914	1811	1811
Adj Flow Rate, veh/h	235	74	2258	163	38	1249
Peak Hour Factor	0.80	0.80	0.76	0.76	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	6	6
Cap, veh/h	368	169	2585	1199	56	2793
Arrive On Green	0.11	0.11	0.74	0.74	0.03	0.81
Sat Flow, veh/h	3401	1560	3589	1622	1725	3532
Grp Volume(v), veh/h	235	74	2258	163	38	1249
Grp Sat Flow(s),veh/h/ln	1700	1560	1749	1622	1725	1721
Q Serve(g_s), s	6.6	4.4	47.5	2.9	2.2	10.7
Cycle Q Clear(g_c), s	6.6	4.4	47.5	2.9	2.2	10.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	368	169	2585	1199	56	2793
V/C Ratio(X)	0.64	0.44	0.87	0.14	0.68	0.45
Avail Cap(c_a), veh/h	918	421	2585	1199	86	2793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.09	1.00	1.00
Uniform Delay (d), s/veh	42.7	41.7	9.6	3.8	47.8	2.8
Incr Delay (d2), s/veh	1.8	1.8	0.4	0.0	13.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	1.8	11.9	0.7	1.1	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.6	43.5	10.0	3.8	61.1	3.3
LnGrp LOS	D	D	B	A	E	A
Approach Vol, veh/h	309		2421			1287
Approach Delay, s/veh	44.3		9.6			5.0
Approach LOS	D		A			A

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.3	77.9				85.2	14.8
Change Period (Y+Rc), s	4.0	5.5				5.5	5.0
Max Green Setting (Gmax), s	5.3	54.5				63.5	26.0
Max Q Clear Time (g_c+I1), s	4.2	49.5				12.7	8.6
Green Ext Time (p_c), s	0.0	4.9				30.7	1.2

Intersection Summary	
HCM 6th Ctrl Delay	10.8
HCM 6th LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	103	61	1688	86	24	994
Future Volume (veh/h)	103	61	1688	86	24	994
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1841	1841	1811	1811
Adj Flow Rate, veh/h	118	70	2192	112	29	1198
Peak Hour Factor	0.87	0.87	0.77	0.77	0.83	0.83
Percent Heavy Veh, %	0	0	4	4	6	6
Cap, veh/h	147	87	2446	124	46	2703
Arrive On Green	0.14	0.13	0.72	0.71	0.05	1.00
Sat Flow, veh/h	1038	616	3479	172	1725	3532
Grp Volume(v), veh/h	189	0	1122	1182	29	1198
Grp Sat Flow(s),veh/h/ln	1663	0	1749	1810	1725	1721
Q Serve(g_s), s	12.1	0.0	54.7	57.5	1.8	0.0
Cycle Q Clear(g_c), s	12.1	0.0	54.7	57.5	1.8	0.0
Prop In Lane	0.62	0.37		0.09	1.00	
Lane Grp Cap(c), veh/h	236	0	1263	1307	46	2703
V/C Ratio(X)	0.80	0.00	0.89	0.90	0.63	0.44
Avail Cap(c_a), veh/h	393	0	1263	1307	125	2703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.9	0.0	11.8	12.3	51.5	0.0
Incr Delay (d2), s/veh	6.2	0.0	9.6	10.4	13.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	18.8	20.7	0.9	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	52.1	0.0	21.4	22.7	64.8	0.5
LnGrp LOS	D	A	C	C	E	A
Approach Vol, veh/h	189		2304			1227
Approach Delay, s/veh	52.1		22.1			2.0
Approach LOS	D		C			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	6.9	83.5		19.6		90.4
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	8.3	62.5		25.0		74.5
Max Q Clear Time (g_c+I1), s	13.8	59.5		14.1		2.0
Green Ext Time (p_c), s	0.0	3.0		0.5		35.0

Intersection Summary	
HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	39.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Vol, veh/h	49	38	1728	12	14	900	0	0
Future Vol, veh/h	49	38	1728	12	14	900	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	-	-	-	None	-	None
Storage Length	0	-	-	-	120	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0	16983	-
Grade, %	0	-	0	-	-	0	0	-
Peak Hour Factor	45	45	79	79	81	81	92	92
Heavy Vehicles, %	5	5	4	4	6	6	2	2
Mvmt Flow	109	84	2187	15	17	1111	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2785	1101	0	0	2202	0
Stage 1	2195	-	-	-	-	-
Stage 2	590	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.22	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.26	-
Pot Cap-1 Maneuver	~ 14	202	-	-	222	-
Stage 1	~ 68	-	-	-	-	-
Stage 2	509	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 13	202	-	-	222	-
Mov Cap-2 Maneuver	~ 57	-	-	-	-	-
Stage 1	~ 68	-	-	-	-	-
Stage 2	470	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 714.8	0	0.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	83	222	-
HCM Lane V/C Ratio	-	-	2.329	0.078	-
HCM Control Delay (s)	-	-	$ 714.8	22.6	-
HCM Lane LOS	-	-	F	C	-
HCM 95th %tile Q(veh)	-	-	17.9	0.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1006.8

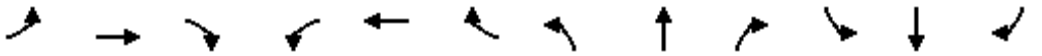
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	68	80	1729	52	61	849
Future Vol, veh/h	68	80	1729	52	61	849
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	90	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	42	42	75	75	92	92
Heavy Vehicles, %	5	5	4	4	6	6
Mvmt Flow	162	190	2305	69	66	923

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2934	1187	0	0	2374	0
Stage 1	2340	-	-	-	-	-
Stage 2	594	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.22	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.26	-
Pot Cap-1 Maneuver	~ 11	~ 177	-	-	190	-
Stage 1	~ 56	-	-	-	-	-
Stage 2	506	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 7	~ 177	-	-	190	-
Mov Cap-2 Maneuver	~ 7	-	-	-	-	-
Stage 1	~ 56	-	-	-	-	-
Stage 2	330	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 10611.2	0	2.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	15	190	-
HCM Lane V/C Ratio	-	-	23.492	0.349	-
HCM Control Delay (s)	-	-	$ 10611.2	33.8	-
HCM Lane LOS	-	-	F	D	-
HCM 95th %tile Q(veh)	-	-	45.1	1.5	-

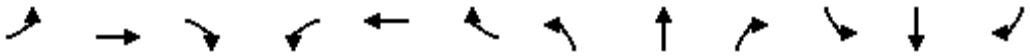
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	297	1332	65	455	690	80	35	618	1164	185	388	150
Future Volume (veh/h)	297	1332	65	455	690	80	35	618	1164	185	388	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1884	1884	1884	1884	1884	1884	1841	1841	1914	1826	1826	1826
Adj Flow Rate, veh/h	437	1959	96	500	758	88	45	792	1492	223	467	181
Peak Hour Factor	0.68	0.68	0.68	0.91	0.91	0.91	0.78	0.78	0.78	0.83	0.83	0.83
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	5	5	5
Cap, veh/h	261	1140	508	506	1140	508	75	827	597	268	1206	538
Arrive On Green	0.15	0.32	0.32	0.15	0.32	0.32	0.04	0.24	0.22	0.15	0.35	0.35
Sat Flow, veh/h	1794	3579	1596	3480	3579	1596	1753	3497	1622	1739	3469	1547
Grp Volume(v), veh/h	437	1959	96	500	758	88	45	792	1492	223	467	181
Grp Sat Flow(s),veh/h/ln	1794	1789	1596	1740	1789	1596	1753	1749	1622	1739	1735	1547
Q Serve(g_s), s	16.0	35.0	4.8	15.8	20.1	4.4	2.8	24.6	24.5	13.7	11.2	9.5
Cycle Q Clear(g_c), s	16.0	35.0	4.8	15.8	20.1	4.4	2.8	24.6	24.5	13.7	11.2	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	261	1140	508	506	1140	508	75	827	597	268	1206	538
V/C Ratio(X)	1.67	1.72	0.19	0.99	0.67	0.17	0.60	0.96	2.50	0.83	0.39	0.34
Avail Cap(c_a), veh/h	261	1140	508	506	1140	508	335	827	597	332	1206	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	37.5	27.2	46.9	32.4	27.0	51.7	41.5	34.7	45.1	27.1	26.5
Incr Delay (d2), s/veh	319.9	327.2	0.8	36.7	3.1	0.7	7.3	21.6	679.0	13.6	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	30.1	66.2	1.9	9.2	8.8	1.7	1.3	12.6	127.5	6.7	4.4	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	366.9	364.7	28.0	83.6	35.5	27.8	59.0	63.1	713.8	58.7	27.3	26.9
LnGrp LOS	F	F	C	F	D	C	E	E	F	E	C	C
Approach Vol, veh/h		2492			1346			2329			871	
Approach Delay, s/veh		352.1			52.9			479.9			35.2	
Approach LOS		F			D			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	39.0	8.7	42.2	20.0	39.0	21.0	30.0
Change Period (Y+Rc), s	5.0	6.5	5.0	6.5	5.0	6.5	5.0	6.5
Max Green Setting (Gmax), s	15.0	28.5	20.0	23.5	15.0	28.5	20.0	23.5
Max Q Clear Time (g_c+I1), s	17.8	37.0	4.8	13.2	18.0	22.1	15.7	26.6
Green Ext Time (p_c), s	0.0	0.0	0.1	5.4	0.0	4.5	0.3	0.0

Intersection Summary		
HCM 6th Ctrl Delay		297.9
HCM 6th LOS		F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	41	196	100	12	26	593	1367	56	33	1263	36
Future Volume (veh/h)	67	41	196	100	12	26	593	1367	56	33	1263	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1870	1870	1870	1856	1841	1841	1811	1811	1811
Adj Flow Rate, veh/h	94	0	315	128	15	33	732	1688	69	41	1559	44
Peak Hour Factor	0.71	0.71	0.71	0.78	0.78	0.78	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	5	5	5	2	2	2	3	4	4	6	6	6
Cap, veh/h	125	0	324	189	46	100	805	1971	879	117	2028	57
Arrive On Green	0.07	0.00	0.10	0.05	0.09	0.09	0.23	0.56	0.56	0.07	0.41	0.41
Sat Flow, veh/h	1739	0	3095	3456	520	1144	3428	3497	1560	1725	4943	139
Grp Volume(v), veh/h	94	0	315	128	0	48	732	1688	69	41	1040	563
Grp Sat Flow(s),veh/h/ln	1739	0	1547	1728	0	1664	1714	1749	1560	1725	1648	1786
Q Serve(g_s), s	5.8	0.0	9.0	4.0	0.0	3.0	22.9	44.8	1.3	2.5	29.9	29.9
Cycle Q Clear(g_c), s	5.8	0.0	9.0	4.0	0.0	3.0	22.9	44.8	1.3	2.5	29.9	29.9
Prop In Lane	1.00		1.00	1.00		0.69	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	125	0	324	189	0	146	805	1971	879	117	1352	733
V/C Ratio(X)	0.75	0.00	0.97	0.68	0.00	0.33	0.91	0.86	0.08	0.35	0.77	0.77
Avail Cap(c_a), veh/h	150	0	352	204	0	146	857	1971	879	118	1352	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	50.1	0.0	32.0	51.0	0.0	47.2	40.9	20.2	3.9	49.0	27.9	27.9
Incr Delay (d2), s/veh	15.8	0.0	39.2	7.8	0.0	1.3	13.1	5.0	0.2	1.7	4.0	7.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	5.1	1.9	0.0	1.3	10.7	17.3	0.8	1.1	11.7	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.9	0.0	71.2	58.9	0.0	48.5	54.0	25.3	4.1	50.6	31.9	35.1
LnGrp LOS	E	A	E	E	A	D	D	C	A	D	C	D
Approach Vol, veh/h		409			176			2489			1644	
Approach Delay, s/veh		70.0			56.0			33.2			33.5	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	68.0	13.4	15.1	30.3	51.1	11.5	17.0
Change Period (Y+Rc), s	6.0	* 6	5.5	5.5	4.5	6.0	5.5	5.5
Max Green Setting (Gmax), s	7.5	* 62	9.5	9.5	27.5	42.0	6.5	12.5
Max Q Clear Time (g_c+I1), s	4.5	46.8	7.8	5.0	24.9	31.9	6.0	11.0
Green Ext Time (p_c), s	0.0	14.2	0.1	0.1	1.0	9.2	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	37.3
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Traffic Volume (veh/h)	97	21	1237	214	49	1220	
Future Volume (veh/h)	97	21	1237	214	49	1220	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1914	1811	1811	
Adj Flow Rate, veh/h	123	27	1628	282	58	1452	
Peak Hour Factor	0.79	0.79	0.76	0.76	0.84	0.84	
Percent Heavy Veh, %	4	4	4	4	6	6	
Cap, veh/h	197	91	3044	524	157	4185	
Arrive On Green	0.06	0.06	1.00	1.00	0.09	0.85	
Sat Flow, veh/h	3401	1560	4479	743	1725	5107	
Grp Volume(v), veh/h	123	27	1262	648	58	1452	
Grp Sat Flow(s),veh/h/ln	1700	1560	1675	1707	1725	1648	
Q Serve(g_s), s	3.9	1.8	0.0	0.0	3.5	7.0	
Cycle Q Clear(g_c), s	3.9	1.8	0.0	0.0	3.5	7.0	
Prop In Lane	1.00	1.00		0.44	1.00		
Lane Grp Cap(c), veh/h	197	91	2364	1204	157	4185	
V/C Ratio(X)	0.62	0.30	0.53	0.54	0.37	0.35	
Avail Cap(c_a), veh/h	835	383	2364	1204	321	4185	
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.55	0.55	1.00	1.00	
Uniform Delay (d), s/veh	50.6	49.7	0.0	0.0	47.0	1.8	
Incr Delay (d2), s/veh	3.2	1.8	0.5	1.0	1.4	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.7	0.8	0.2	0.3	1.5	0.9	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	53.8	51.5	0.5	1.0	48.5	2.1	
LnGrp LOS	D	D	A	A	D	A	
Approach Vol, veh/h	150		1910			1510	
Approach Delay, s/veh	53.4		0.6			3.8	
Approach LOS	D		A			A	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	15.5	83.1				98.6	11.4
Change Period (Y+Rc), s	5.5	5.5				5.5	5.0
Max Green Setting (Gmax), s	20.5	46.5				72.5	27.0
Max Q Clear Time (g_c+I1), s	15.5	2.0				9.0	5.9
Green Ext Time (p_c), s	0.1	38.8				40.1	0.6

Intersection Summary	
HCM 6th Ctrl Delay	4.2
HCM 6th LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	109	23	1120	129	56	1187
Future Volume (veh/h)	109	23	1120	129	56	1187
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1841	1841	1811	1811
Adj Flow Rate, veh/h	125	26	1455	168	67	1430
Peak Hour Factor	0.87	0.87	0.77	0.77	0.83	0.83
Percent Heavy Veh, %	0	0	4	4	6	6
Cap, veh/h	151	31	3087	356	144	3980
Arrive On Green	0.11	0.11	0.68	0.68	0.11	1.00
Sat Flow, veh/h	1401	291	4734	527	1725	5107
Grp Volume(v), veh/h	152	0	1067	556	67	1430
Grp Sat Flow(s),veh/h/ln	1703	0	1675	1746	1725	1648
Q Serve(g_s), s	10.5	0.0	18.2	18.2	4.4	0.0
Cycle Q Clear(g_c), s	10.5	0.0	18.2	18.2	4.4	0.0
Prop In Lane	0.82	0.17		0.30	1.00	
Lane Grp Cap(c), veh/h	183	0	2264	1180	144	3980
V/C Ratio(X)	0.83	0.00	0.47	0.47	0.47	0.36
Avail Cap(c_a), veh/h	412	0	2264	1180	280	3980
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	0.0	9.3	9.3	50.8	0.0
Incr Delay (d2), s/veh	9.2	0.0	0.7	1.4	2.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	5.9	6.4	1.9	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	61.7	0.0	10.0	10.6	53.2	0.3
LnGrp LOS	E	A	A	B	D	A
Approach Vol, veh/h	152		1623			1497
Approach Delay, s/veh	61.7		10.2			2.6
Approach LOS	E		B			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	15.5	86.6		17.9		102.1
Change Period (Y+Rc), s	5.5	5.5		5.0		5.5
Max Green Setting (Gmax), s	10.0	55.5		29.0		80.5
Max Q Clear Time (g_c+I1), s	16.4	20.2		12.5		2.0
Green Ext Time (p_c), s	0.1	28.6		0.5		44.5

Intersection Summary	
HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Vol, veh/h	17	24	1111	68	44	1194	0	0
Future Vol, veh/h	17	24	1111	68	44	1194	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	-	-	-	None	-	None
Storage Length	0	-	-	-	120	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0	16983	-
Grade, %	0	-	0	-	-	0	0	-
Peak Hour Factor	45	45	80	80	81	81	92	92
Heavy Vehicles, %	5	5	4	4	6	6	2	2
Mvmt Flow	38	53	1389	85	54	1474	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2277	737	0	0	1474	0
Stage 1	1432	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Critical Hdwy	6.35	7.2	-	-	5.42	-
Critical Hdwy Stg 1	6.7	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.7	3.95	-	-	3.16	-
Pot Cap-1 Maneuver	45	304	-	-	221	-
Stage 1	129	-	-	-	-	-
Stage 2	364	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 34	304	-	-	221	-
Mov Cap-2 Maneuver	93	-	-	-	-	-
Stage 1	129	-	-	-	-	-
Stage 2	275	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	55.6	0	0.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	157	221	-
HCM Lane V/C Ratio	-	-	0.58	0.246	-
HCM Control Delay (s)	-	-	55.6	26.5	-
HCM Lane LOS	-	-	F	D	-
HCM 95th %tile Q(veh)	-	-	3	0.9	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	215.3

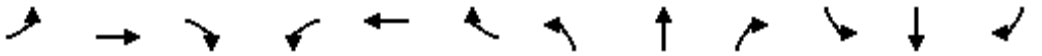
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	55	58	1059	71	80	1185
Future Vol, veh/h	55	58	1059	71	80	1185
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	90	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	42	42	75	75	84	84
Heavy Vehicles, %	5	5	4	4	6	6
Mvmt Flow	131	138	1412	95	95	1411

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2356	754	0	0	1507	0
Stage 1	1460	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.22	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.26	-
Pot Cap-1 Maneuver	~ 29	345	-	-	421	-
Stage 1	175	-	-	-	-	-
Stage 2	352	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 22	345	-	-	421	-
Mov Cap-2 Maneuver	~ 22	-	-	-	-	-
Stage 1	175	-	-	-	-	-
Stage 2	272	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 2621	0	1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	42	421	-
HCM Lane V/C Ratio	-	-	6.406	0.226	-
HCM Control Delay (s)	-	-	$ 2621	16	-
HCM Lane LOS	-	-	F	C	-
HCM 95th %tile Q(veh)	-	-	31.6	0.9	-

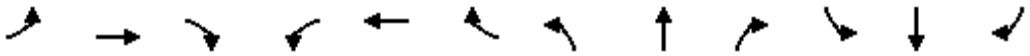
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	308	64	682	1090	153	53	433	631	99	527	333
Future Volume (veh/h)	112	308	64	682	1090	153	53	433	631	99	527	333
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1884	1884	1884	1884	1884	1884	1841	1841	1914	1826	1826	1826
Adj Flow Rate, veh/h	165	453	94	749	1198	168	68	555	809	119	635	401
Peak Hour Factor	0.68	0.68	0.68	0.91	0.91	0.91	0.78	0.78	0.78	0.83	0.83	0.83
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	5	5	5
Cap, veh/h	207	1144	510	891	1647	734	101	816	774	158	925	393
Arrive On Green	0.12	0.32	0.32	0.26	0.46	0.46	0.06	0.23	0.22	0.09	0.27	0.25
Sat Flow, veh/h	1794	3579	1596	3480	3579	1596	1753	3497	1622	1739	3469	1547
Grp Volume(v), veh/h	165	453	94	749	1198	168	68	555	809	119	635	401
Grp Sat Flow(s),veh/h/ln	1794	1789	1596	1740	1789	1596	1753	1749	1622	1739	1735	1547
Q Serve(g_s), s	10.8	11.8	5.1	24.5	32.6	7.6	4.6	17.4	26.5	8.0	19.7	30.5
Cycle Q Clear(g_c), s	10.8	11.8	5.1	24.5	32.6	7.6	4.6	17.4	26.5	8.0	19.7	30.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	1144	510	891	1647	734	101	816	774	158	925	393
V/C Ratio(X)	0.80	0.40	0.18	0.84	0.73	0.23	0.67	0.68	1.05	0.75	0.69	1.02
Avail Cap(c_a), veh/h	254	1144	510	1247	1647	734	161	816	774	217	925	393
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	31.8	29.5	42.3	26.3	19.5	55.4	41.9	31.4	53.2	39.5	44.7
Incr Delay (d2), s/veh	13.4	1.0	0.8	3.8	2.9	0.7	7.5	4.5	45.0	9.2	4.1	50.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	5.1	2.0	10.6	13.6	2.9	2.2	7.8	30.2	3.8	8.6	16.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.1	32.8	30.3	46.1	29.1	20.3	63.0	46.5	76.4	62.4	43.6	95.1
LnGrp LOS	E	C	C	D	C	C	E	D	F	E	D	F
Approach Vol, veh/h		712			2115			1432			1155	
Approach Delay, s/veh		40.0			34.4			64.1			63.4	
Approach LOS		D			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.7	41.4	9.9	35.0	16.9	58.2	13.9	31.0
Change Period (Y+Rc), s	4.0	5.5	4.0	5.5	4.0	5.5	4.0	5.5
Max Green Setting (Gmax), s	42.0	19.5	10.0	29.5	16.0	45.5	14.0	25.5
Max Q Clear Time (g_c+I1), s	26.5	13.8	6.6	32.5	12.8	34.6	10.0	28.5
Green Ext Time (p_c), s	3.2	2.9	0.0	0.0	0.2	9.4	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	49.2
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	23	362	158	29	59	364	1658	85	29	1144	38
Future Volume (veh/h)	79	23	362	158	29	59	364	1658	85	29	1144	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1870	1870	1870	1856	1841	1841	1811	1811	1811
Adj Flow Rate, veh/h	111	0	531	203	37	76	449	2047	105	36	1412	47
Peak Hour Factor	0.71	0.71	0.71	0.78	0.78	0.78	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	5	5	5	2	2	2	3	4	4	6	6	6
Cap, veh/h	147	0	490	231	78	160	515	1982	884	70	2201	73
Arrive On Green	0.09	0.00	0.16	0.08	0.14	0.13	0.17	0.57	0.57	0.05	0.45	0.43
Sat Flow, veh/h	1547	0	3095	3075	546	1122	3051	3497	1560	1535	4914	164
Grp Volume(v), veh/h	111	0	531	203	0	113	449	2047	105	36	947	512
Grp Sat Flow(s),veh/h/ln	1547	0	1547	1537	0	1668	1525	1749	1560	1535	1648	1782
Q Serve(g_s), s	8.4	0.0	15.6	7.8	0.0	7.5	17.2	68.0	2.0	2.8	26.7	26.7
Cycle Q Clear(g_c), s	8.4	0.0	15.6	7.8	0.0	7.5	17.2	68.0	2.0	2.8	26.7	26.7
Prop In Lane	1.00		1.00	1.00		0.67	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	147	0	490	231	0	238	515	1982	884	70	1476	798
V/C Ratio(X)	0.76	0.00	1.08	0.88	0.00	0.48	0.87	1.03	0.12	0.51	0.64	0.64
Avail Cap(c_a), veh/h	148	0	490	231	0	238	559	1982	884	90	1476	798
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	52.9	0.0	34.1	55.0	0.0	47.8	48.6	26.0	3.5	55.9	25.7	25.7
Incr Delay (d2), s/veh	19.4	0.0	65.1	29.9	0.0	1.5	13.4	29.2	0.3	5.3	2.0	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	10.3	4.0	0.0	3.2	7.3	32.9	1.3	1.1	10.3	11.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.4	0.0	99.3	84.9	0.0	49.3	62.0	55.2	3.8	61.3	27.7	29.4
LnGrp LOS	E	A	F	F	A	D	E	F	A	E	C	C
Approach Vol, veh/h		642			316			2601			1495	
Approach Delay, s/veh		94.6			72.2			54.3			29.1	
Approach LOS		F			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	72.0	15.9	21.1	25.2	57.8	14.0	23.0
Change Period (Y+Rc), s	6.0	* 6	5.5	5.5	5.5	6.0	5.5	5.5
Max Green Setting (Gmax), s	6.5	* 66	10.5	15.5	21.5	50.0	8.5	17.5
Max Q Clear Time (g_c+I1), s	4.8	70.0	10.4	9.5	19.2	28.7	9.8	17.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.5	17.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	53.1
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	188	59	1716	124	32	1049
Future Volume (veh/h)	188	59	1716	124	32	1049
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1914	1811	1811
Adj Flow Rate, veh/h	238	75	2258	163	38	1249
Peak Hour Factor	0.79	0.79	0.76	0.76	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	6	6
Cap, veh/h	339	175	3628	259	46	4060
Arrive On Green	0.11	0.11	1.00	1.00	0.03	0.82
Sat Flow, veh/h	3026	1560	4953	342	1535	5107
Grp Volume(v), veh/h	238	75	1573	848	38	1249
Grp Sat Flow(s),veh/h/ln	1513	1560	1675	1779	1535	1648
Q Serve(g_s), s	9.1	5.4	0.0	0.0	3.0	7.3
Cycle Q Clear(g_c), s	9.1	5.4	0.0	0.0	3.0	7.3
Prop In Lane	1.00	1.00		0.19	1.00	
Lane Grp Cap(c), veh/h	339	175	2539	1348	46	4060
V/C Ratio(X)	0.70	0.43	0.62	0.63	0.83	0.31
Avail Cap(c_a), veh/h	782	403	2539	1348	153	4060
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.32	0.32	1.00	1.00
Uniform Delay (d), s/veh	51.3	49.7	0.0	0.0	57.9	2.6
Incr Delay (d2), s/veh	2.6	1.7	0.4	0.7	29.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	2.2	0.1	0.3	1.5	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.0	51.3	0.4	0.7	87.3	2.8
LnGrp LOS	D	D	A	A	F	A
Approach Vol, veh/h	313		2421			1287
Approach Delay, s/veh	53.3		0.5			5.3
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.6	94.9			102.5	17.5
Change Period (Y+Rc), s	4.0	5.5			5.5	5.0
Max Green Setting (Gmax), s	12.0	63.5			79.5	30.0
Max Q Clear Time (g_c+I1), s	5.0	2.0			9.3	11.1
Green Ext Time (p_c), s	0.0	58.3			34.6	1.4

Intersection Summary	
HCM 6th Ctrl Delay	6.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	103	61	1688	86	24	994
Future Volume (veh/h)	103	61	1688	86	24	994
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1841	1841	1811	1811
Adj Flow Rate, veh/h	118	70	2192	112	29	1198
Peak Hour Factor	0.87	0.87	0.77	0.77	0.83	0.83
Percent Heavy Veh, %	0	0	4	4	6	6
Cap, veh/h	143	85	3600	183	52	3927
Arrive On Green	0.15	0.14	0.74	0.71	0.03	0.79
Sat Flow, veh/h	967	574	5063	249	1535	5107
Grp Volume(v), veh/h	189	0	1496	808	29	1198
Grp Sat Flow(s),veh/h/ln	1549	0	1675	1796	1535	1648
Q Serve(g_s), s	14.2	0.0	25.6	26.2	2.2	7.9
Cycle Q Clear(g_c), s	14.2	0.0	25.6	26.2	2.2	7.9
Prop In Lane	0.62	0.37		0.14	1.00	
Lane Grp Cap(c), veh/h	228	0	2462	1320	52	3927
V/C Ratio(X)	0.83	0.00	0.61	0.61	0.55	0.31
Avail Cap(c_a), veh/h	336	0	2462	1320	115	3927
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.9	0.0	7.6	7.8	57.0	3.4
Incr Delay (d2), s/veh	10.5	0.0	1.1	2.1	8.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.0	7.5	8.6	1.0	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	60.3	0.0	8.7	9.9	65.9	3.6
LnGrp LOS	E	A	A	A	E	A
Approach Vol, veh/h	189		2304			1227
Approach Delay, s/veh	60.3		9.1			5.0
Approach LOS	E		A			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	7.1	91.2		21.7		98.3
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	8.0	72.5		25.0		84.5
Max Q Clear Time (g_c+I1), s	4.2	28.2		16.2		9.9
Green Ext Time (p_c), s	0.0	41.9		0.5		33.4

Intersection Summary	
HCM 6th Ctrl Delay	10.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	66.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations								
Traffic Vol, veh/h	49	38	1728	12	14	900	0	0
Future Vol, veh/h	49	38	1728	12	14	900	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	-	-	-	None	-	None
Storage Length	0	-	-	-	120	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0	16983	-
Grade, %	0	-	0	-	-	0	0	-
Peak Hour Factor	45	45	80	80	81	81	92	92
Heavy Vehicles, %	5	5	4	4	6	6	2	2
Mvmt Flow	109	84	2160	15	17	1111	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2758	1088	0	0	2175	0
Stage 1	2168	-	-	-	-	-
Stage 2	590	-	-	-	-	-
Critical Hdwy	6.35	7.2	-	-	5.42	-
Critical Hdwy Stg 1	6.7	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.7	3.95	-	-	3.16	-
Pot Cap-1 Maneuver	~ 23	177	-	-	97	-
Stage 1	~ 43	-	-	-	-	-
Stage 2	493	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 19	177	-	-	97	-
Mov Cap-2 Maneuver	~ 38	-	-	-	-	-
Stage 1	~ 43	-	-	-	-	-
Stage 2	407	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 1199.3	0	0.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	58	97	-
HCM Lane V/C Ratio	-	-	3.333	0.178	-
HCM Control Delay (s)	-	-	$ 1199.3	50	-
HCM Lane LOS	-	-	F	E	-
HCM 95th %tile Q(veh)	-	-	20.5	0.6	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1139.1

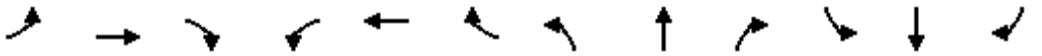
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	68	80	1729	52	61	849
Future Vol, veh/h	68	80	1729	52	61	849
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	90	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	42	42	75	75	84	84
Heavy Vehicles, %	5	5	4	4	6	6
Mvmt Flow	162	190	2305	69	73	1011

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2992	1187	0	0	2374	0
Stage 1	2340	-	-	-	-	-
Stage 2	652	-	-	-	-	-
Critical Hdwy	6.9	7	-	-	4.22	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.55	3.35	-	-	2.26	-
Pot Cap-1 Maneuver	~ 10	~ 177	-	-	190	-
Stage 1	~ 56	-	-	-	-	-
Stage 2	472	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 6	~ 177	-	-	190	-
Mov Cap-2 Maneuver	~ 6	-	-	-	-	-
Stage 1	~ 56	-	-	-	-	-
Stage 2	291	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay	$ 12310.5	0	2.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	13	190	-
HCM Lane V/C Ratio	-	-	27.106	0.382	-
HCM Control Delay (s)	-	-	$ 12310.5	35.2	-
HCM Lane LOS	-	-	F	E	-
HCM 95th %tile Q(veh)	-	-	45.3	1.7	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	297	1332	65	455	690	80	35	618	1164	185	388	150
Future Volume (veh/h)	297	1332	65	455	690	80	35	618	1164	185	388	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1884	1884	1884	1884	1884	1884	1841	1841	1914	1826	1826	1826
Adj Flow Rate, veh/h	437	1959	96	500	758	88	45	792	1492	223	467	181
Peak Hour Factor	0.68	0.68	0.68	0.91	0.91	0.91	0.78	0.78	0.78	0.83	0.83	0.83
Percent Heavy Veh, %	6	6	6	6	6	6	4	4	4	5	5	5
Cap, veh/h	475	1390	620	600	1017	454	145	837	691	88	706	304
Arrive On Green	0.30	0.39	0.39	0.19	0.28	0.28	0.09	0.24	0.23	0.06	0.20	0.20
Sat Flow, veh/h	1596	3579	1596	3097	3579	1596	1560	3497	1622	1547	3469	1547
Grp Volume(v), veh/h	437	1959	96	500	758	88	45	792	1492	223	467	181
Grp Sat Flow(s),veh/h/ln	1596	1789	1596	1548	1789	1596	1560	1749	1622	1547	1735	1547
Q Serve(g_s), s	37.1	54.4	5.5	21.7	26.9	5.8	3.8	31.2	32.5	8.0	17.3	14.9
Cycle Q Clear(g_c), s	37.1	54.4	5.5	21.7	26.9	5.8	3.8	31.2	32.5	8.0	17.3	14.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	475	1390	620	600	1017	454	145	837	691	88	706	304
V/C Ratio(X)	0.92	1.41	0.15	0.83	0.75	0.19	0.31	0.95	2.16	2.52	0.66	0.60
Avail Cap(c_a), veh/h	604	1390	620	951	1017	454	145	837	691	88	706	304
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	42.8	27.9	54.3	45.5	38.0	59.3	52.4	40.2	66.0	51.3	51.2
Incr Delay (d2), s/veh	16.7	188.4	0.5	3.7	5.0	1.0	5.5	20.5	526.8	717.1	4.8	8.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.5	59.4	2.2	8.6	12.4	2.4	1.7	15.7	123.7	20.7	7.9	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.2	231.2	28.4	58.0	50.5	38.9	64.8	72.9	567.0	783.1	56.1	59.5
LnGrp LOS	E	F	C	E	D	D	E	E	F	F	E	E
Approach Vol, veh/h		2492			1346			2329			871	
Approach Delay, s/veh		194.1			52.5			389.2			243.0	
Approach LOS		F			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.1	58.9	17.0	33.0	45.7	44.3	12.0	38.0
Change Period (Y+Rc), s	5.0	6.5	5.0	6.5	5.0	6.5	5.0	6.5
Max Green Setting (Gmax), s	42.0	36.5	12.0	26.5	52.0	26.5	7.0	31.5
Max Q Clear Time (g_c+I1), s	23.7	56.4	5.8	19.3	39.1	28.9	10.0	34.5
Green Ext Time (p_c), s	2.4	0.0	0.0	4.0	1.6	0.0	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay		237.6
HCM 6th LOS		F

Appendix E
Opening Year (2026) and Buildout Year (2040) Peak Hour Volume Development

Intersection			
1	6th St	**4**	All American Way
2	Leeson Ln	**5**	Sherborn St
3	Trademark Cir	**6**	El Camino Ave

**Magnolia Ave (North/South bound)*

Existing 2019 AM/PM Peak Volumes

Exisiting AM												
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
1	19	258	411	65	291	220	74	203	26	443	719	101
2	0	683	16	14	742	0	0	0	0	5	0	5
3	0	686	45	29	717	0	0	0	0	11	0	16
4	0	697	85	32	717	0	0	0	0	72	0	15
5	0	779	141	27	745	0	0	0	0	64	0	9
6	370	879	4	12	795	11	31	19	118	42	1	10

Exisiting PM												
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
1	9	368	757	122	220	99	196	879	29	290	455	53
2	0	1,108	5	9	533	0	0	0	0	17	0	21
3	0	1,079	8	9	538	0	0	0	0	32	0	25
4	0	1,057	57	11	605	0	0	0	0	68	0	35
5	0	1,080	82	16	646	0	0	0	0	124	0	34
6	228	1,067	3	2	733	18	45	2	214	51	8	22

Cumulative Projects AM/PM Peak Volumes

Cumulative Projects 2026 AM Peak												
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
1	16	28	5	0	57	0	0	0	16	7	0	0
2	0	16	31	39	40	0	0	0	0	31	0	33
3	0	47	0	0	71	0	0	0	0	0	0	0
4	0	42	0	5	66	0	0	0	0	0	0	0
5	0	37	0	5	60	0	0	0	0	0	0	5
6	21	23	33	10	38	13	13	8	11	24	7	7

Cumulative Projects 2026 PM Peak												
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
1	14	40	11	0	36	0	0	0	14	10	0	0
2	0	33	29	31	27	0	0	0	0	28	0	32
3	0	61	0	0	56	0	0	0	0	0	0	0
4	0	57	0	5	51	0	0	0	0	0	0	5
5	0	52	0	5	46	0	0	0	0	0	0	5
6	12	27	53	17	22	7	7	13	25	53	15	17

Growth 2.0%

2026 AM/PM Peak Volumes

**Existing + 2% Growth + Cumulative Projects 2026 AM/PM Peak*

Opening Year (2026) AM												
	NL	**NT**	**NR**	**SL**	**ST**	**SR**	**EL**	**ET**	**ER**	**WL**	**WT**	**WR**
1	40	329	478	75	400	253	85	233	48	517	826	116
2	0	803	54	61	898	0	0	0	0	41	0	44
3	0	842	52	33	905	0	0	0	0	13	0	18
4	0	849	98	43	899	0	0	0	0	83	0	17
5	0	937	162	37	925	0	0	0	0	74	0	16
6	449	1,036	43	25	957	28	51	31	148	76	9	20

Opening Year (2026) PM												
	NL	**NT**	**NR**	**SL**	**ST**	**SR**	**EL**	**ET**	**ER**	**WL**	**WT**	**WR**
1	26	469	882	140	294	114	225	1,010	49	345	523	61
2	0	1,311	39	46	643	0	0	0	0	52	0	61
3	0	1,310	9	10	682	0	0	0	0	37	0	29
4	0	1,280	65	18	754	0	0	0	0	78	0	46
5	0	1,300	94	24	795	0	0	0	0	142	0	45
6	276	1,257	64	22	867	29	60	17	275	119	26	45

Intersection			
1	6th St	**4**	All American Way
2	Leeson Ln	**5**	Sherborn St
3	Trademark Cir	**6**	El Camino Ave

**Magnolia Ave (North/South bound)*

Existing 2019 AM/PM Peak Volumes

Exisiting AM												
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
1	19	258	411	65	291	220	74	203	26	443	719	101
2	0	683	16	14	742	0	0	0	0	5	0	5
3	0	686	45	29	717	0	0	0	0	11	0	16
4	0	697	85	32	717	0	0	0	0	72	0	15
5	0	779	141	27	745	0	0	0	0	64	0	9
6	370	879	4	12	795	11	31	19	118	42	1	10

Exisiting PM												
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
1	9	368	757	122	220	99	196	879	29	290	455	53
2	0	1,108	5	9	533	0	0	0	0	17	0	21
3	0	1,079	8	9	538	0	0	0	0	32	0	25
4	0	1,057	57	11	605	0	0	0	0	68	0	35
5	0	1,080	82	16	646	0	0	0	0	124	0	34
6	228	1,067	3	2	733	18	45	2	214	51	8	22

Cumulative Projects AM/PM Peak Volumes

Cumulative Projects 2040 AM Peak												
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
1	24	42	8	0	86	0	0	0	24	11	0	0
2	0	24	47	59	61	0	0	0	0	47	0	50
3	0	71	0	0	108	0	0	0	0	0	0	0
4	0	64	0	8	100	0	0	0	0	0	0	0
5	0	56	0	8	91	0	0	0	0	0	0	8
6	32	35	50	15	58	20	20	12	17	36	11	11

Cumulative Projects 2040 PM Peak												
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
1	14	40	11	0	36	0	0	0	14	10	0	0
2	0	33	29	31	27	0	0	0	0	28	0	32
3	0	61	0	0	56	0	0	0	0	0	0	0
4	0	57	0	5	51	0	0	0	0	0	0	5
5	0	52	0	5	46	0	0	0	0	0	0	5
6	12	27	53	17	22	7	7	13	25	53	15	17

Growth 2.0%

2040 AM/PM Peak Volumes

**Existing + 2% Growth + Cumulative Projects 2040 AM/PM Peak*

Opening Year (2040) AM												
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
1	53	433	631	99	527	333	112	308	64	682	1,090	153
2	0	1,059	71	80	1,185	0	0	0	0	55	0	58
3	0	1,111	68	44	1,194	0	0	0	0	17	0	24
4	0	1,120	129	56	1,187	0	0	0	0	109	0	23
5	0	1,237	214	49	1,220	0	0	0	0	97	0	21
6	593	1,367	56	33	1,263	36	67	41	196	100	12	26

Opening Year (2040) PM												
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
1	35	618	1,164	185	388	150	297	1,332	65	455	690	80
2	0	1,729	52	61	849	0	0	0	0	68	0	80
3	0	1,728	12	14	900	0	0	0	0	49	0	38
4	0	1,688	86	24	994	0	0	0	0	103	0	61
5	0	1,716	124	32	1,049	0	0	0	0	188	0	59
6	364	1,658	85	29	1,144	38	79	23	362	158	35	59

Appendix F
Caltrans Coordination and Approval

3190 Shelby Street, Bldg C, Ontario, CA 91764
T: (909) 890-9693 | F: (909) 890-9694 | www.koacorp.com
MONTEREY PARK ORANGE ONTARIO SAN DIEGO LA QUINTA CULVER CITY

April 26, 2021

To:
Ms. Maria "Sole" Aranguiz
Traffic Forecasting and Analysis
Caltrans – District 8
464 W. 4th Street
San Bernardino, CA 92401

RE: Magnolia Avenue Bridge Widening (From El Camino Avenue to 1,000 feet east of All American Way) Traffic Study Report – KOA Engineers, September 2020
File: RIV 15 PM 40.324 / STPL-5104(046)

Subject: Decision document for State Highway System facility analysis

Purpose

The purpose of this memorandum is to ensure that the concerns expressed by the California Department of Transportation (Caltrans) Office of Traffic Forecasting and Analysis have been addressed. On April 8, 2021, KOA discussed with Caltrans the potential impacts of the proposed improvements on Magnolia Avenue to the I-15 interchange on/off ramp facilities located in the proximity of the project, see figure 1. From these discussions, it was determined a justified action to exempt the I-15/Magnolia Avenue on/off ramps from the traffic analysis as a study intersection.

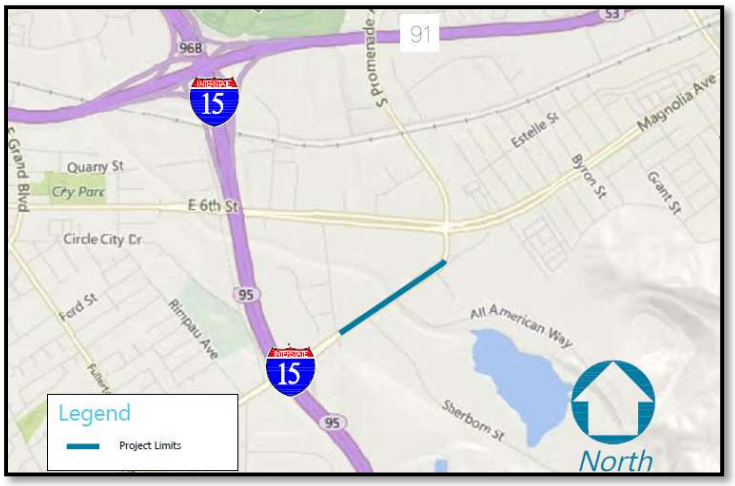


Figure 1: Project site in the City of Corona

Background

The proposed project includes roadway widening and reconfiguration of travel lanes across the underdeveloped portion of Magnolia Avenue between El Camino Avenue/Downs Way and Trademark Circle. The primary project feature will widen the segment of Magnolia Avenue which serves as the Temescal Creek Channel bridge, located approximately 0.4 miles east of the Magnolia Avenue/I-15 interchange. The traveled way in the immediate vicinity of the existing bridge is constrained by the limited geometrics of the bridge, and thus poses a bottleneck to through-travel between El Camino Avenue/Downs Way and Trademark Circle. In contrast to the adjacent portions of Magnolia Avenue, both westerly and easterly of the project limits, this 2,000-foot segment is yet to be fully developed to its ultimate design standard. In addition, there are high volumes of prevailing truck traffic turning between Magnolia Avenue and All American Way, located immediately east of the bridge. As a result of these conditions, the City has experienced traffic congestion issues at the bridge which this project seeks to alleviate.

Between the I-15 interchange and El Camino Avenue, Magnolia Avenue is fully developed to its ultimate lane width and is in a free-flow condition with no impacts to the State Highway System.

Conclusion

This project will alleviate traffic at the bottleneck at the Temescal Creek Channel bridge, allowing the corridor to run at a consistent flow. In the westbound direction on Magnolia Avenue, traffic flows approaching the I-15 northbound ramps will not be adversely affected by the project since the bottleneck is already cleared out in advance at the upstream/easterly El Camino Avenue signal. Therefore, since there is no anticipated travel being induced by the improved widening, it is determined that the I-15/Magnolia Avenue on/off ramps will be exempt as a study intersection in the project's traffic study.

Sincerely,

Ming Guan, P.E.
Vice President | Managing Director

State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

M e m o r a n d u m

To: AARON BURTON
Local Assistance -Environmental Special Studies "C"
Senior Environmental Planner

Date: April 27, 2021

File: RIV 15 PM 40.324
STPL-5104(046)

From: MARIA "SOLE" ARANGUIZ *Maria "Sole" Aranguiz*
Traffic Forecasting and Analysis
Senior Transportation Planner

Subject: **MAGNOLIA AVENUE BRIDGE WIDENING (FROM EL CAMINO AVENUE TO 1,000 FEET EAST OF ALL AMERICAN WAY) TRAFFIC STUDY REPORT – DECISION DOCUMENT FOR STATE HIGHWAY SYSTEM (SHS) FACILITY ANALYSIS**

The Office of Traffic Forecasting and Analysis has reviewed the memorandum prepared in response to our request to include the I-15/Magnolia Avenue on/off ramps as a study intersection in the traffic study. As noted in the memo, staff met with the consultants on April 8, 2021 to discuss this request. Our concerns have been addressed and we have no further comments.

If you have any questions regarding the information above, you may reach me at (909) 501-9015 or Kwasi Agyakwa at (909) 806-3955.