Del Mar City Hall/Town Hall Project

Traffic Impact Analysis Report

Prepared for:
City of Del Mar

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1 INTRODUCTION

The City of Del Mar conducted a comprehensive architectural design review and engineering design to replace the existing City Hall with a new facility on the same site. This project assesses the potential impacts associated with:

- Change of Access
- Temporary Relocation of the Existing City Hall
- Potential Traffic Impacts Associated with Increased Parking

1.1 Project Description

The existing City Hall is located on the west side of Camino del Mar between 10th and 11th Streets. Access to the parking lots for City Hall is provided on both 10th and 11th Streets, with one full access driveway on 11th Street and two full access driveways on 10th Street. There are approximately 57 parking spaces contained within the two lots, which provide parking for the 28 full time and part time employees, visitors to City Hall and employees/visitors of businesses within the nearby proximity of City Hall. City Hall parking lots are posted as Public Parking.

The project will demolish the existing City Hall Building, City Hall Annex and TV studio and will construct a 9,250 square foot City Hall Building and 3,200 square foot Town Hall facility. An additional 15,000 sf of outdoor public plaza space and a future expansion area for up to 20,000 square feet of added facilities will be provided. The expansion area is not defined for a specific use other than to support public facilities, consistent with the City's Zoning Ordinance. A total of 51 parking spaces will be provided to meet City Code for the proposed uses. An additional 109 parking spaces will be provided on-site to serve special events in the plaza or Town Hall and the surrounding businesses, beach goers and other visitors to City Hall.

The 160 parking spaces provided on the City Hall property will take access from 11th Street and 10th Street with one inbound only driveway on 10th Street and two full access (inbound and outbound) driveways on 11th Street.

During construction, City Hall will be temporarily relocated to the Shores Park property south of 9th Street and west of Camino Del Mar, approximately 0.25 miles south of the existing City Hall property.

1.2 Study Area

The number of employees and function of City Hall will remain unchanged with the demolition and reconstruction of the site. New trips generated by the site will be a function of the new available parking on-site and will vary depending on activity, demand from surrounding business, beach activity and other factors. The traffic analysis conducted for this report assumed 85% occupancy of the available parking within the parking structure, which is described in detail later in this report.

Using the 85% occupancy, parking for the New City Hall site would attract approximately 558 new vehicle trips per day at the project driveways and surrounding intersections. Most of these trips either currently exist on the roadway network or are diverted trips to the new parking facility as a result of the increase in capacity. The study area therefore focuses on the City Hall Parking Structure entrances/exits and the two most adjacent intersections along Camino del Mar and along Stratford Court. Four additional intersections were evaluated along Camino del Mar and Stratford Court south of the project site to assess the project related impacts while City Hall is temporarily relocated to the Shores Park property located south of 9th Street and west of Camino del Mar. **Figure 1-1** illustrates the project location. **Table 1-1** lists the intersections included in the project study area.

TABLE 1-1: STUDY INTERSECTIONS

#	Intersection	Traffic Control
1	Camino del Mar / 11th Street	All-Way Stop Control
2	Camino del Mar / 10th Street	Two-Way Stop Control (E/W)
3	11th Street and Existing South Lot Driveway	Two-Way Stop Control (N/S)
4	10th Street and Existing North Lot Driveway	Two-Way Stop Control (N/S)
5	10th Street and Existing South Lot Driveway	One-Way Stop Control (SB)
6	11th Street and NEW Parking Structure Driveway	Two-Way Stop Control (N/S)
7	Camino del Mar / 9th Street	Signalized Intersection
8	Camino del Mar / 4th Street – Del Mar Heights	Signalized Intersection
9	Stratford Court / 11th Street	All-Way Stop Control
10	Stratford Court / 10th Street	Two-Way Stop Control (E/W)
11	Stratford Court / 9th Street	All-Way Stop Control
12	Stratford Court / 4th Street – Del Mar Heights	All-Way Stop Control

Notes:
E/W = East / West; N/S = North / South; SB = Southbound

1.3 Study Scenarios

The following study scenarios are evaluated in this Traffic Impact Analysis Report:

- Existing Conditions
- Existing Plus Project Conditions
- Horizon Year Conditions (2035)
- Horizon Year with Project Conditions (2035)

In addition, a near term assessment of traffic pattern changes was assessed for the temporary relocation of City Hall from the existing site at Camino Del Mar between 11th and 10th Streets to the Shores Park property located west of Camino del Mar south of 9th Street.

Del Mar City Hall

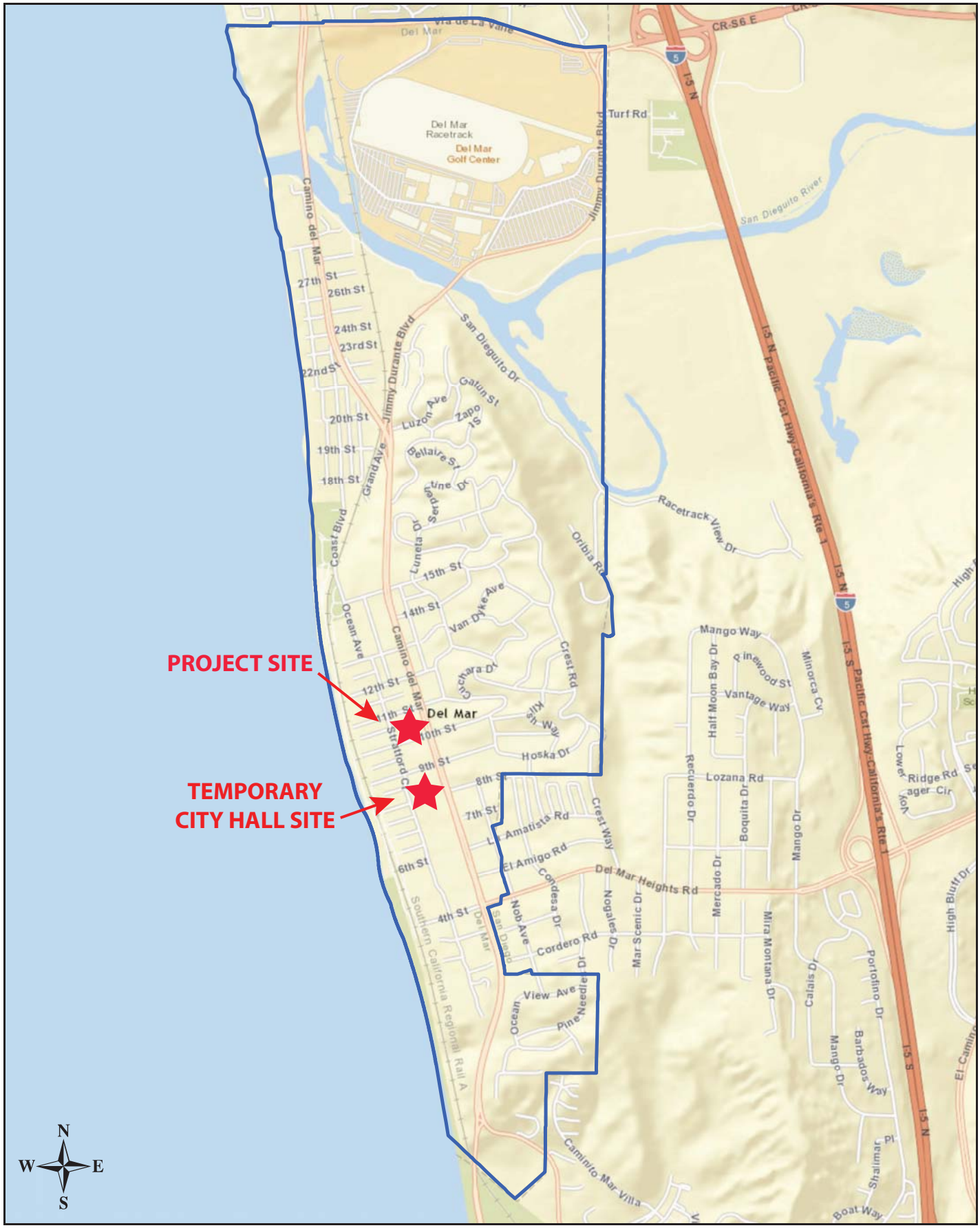

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Figure 1-1
Project Study Area

2 METHODOLOGY

This traffic impact analysis report was prepared consistent with the SANDAG/ITE regionally accepted Traffic Impact Analysis guidelines published in 2000, with methodology concurrence provided by the City of Del Mar. The following section summarizes the analysis methodology applied to intersections and roadway segments for the study scenarios evaluated in this Traffic Impact Analysis Report.

2.1 Intersection Level of Service Analysis

In compliance with the SANDAG/ITE Traffic Study Guidelines, intersections within the study area were evaluated using the Highway Capacity Manual (HCM) Operation Methodology for unsignalized intersections. **Table 2-1** provides the unsignalized intersection level of service descriptions and thresholds as described in the 2010 HCM.

TABLE 2-1: UNSIGNALIZED INTERSECTION LOS CRITERIA

Level of Service	Description	Delay in Seconds
A	Progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	≤10
B	Progression is good, cycle lengths are short, or both. More vehicles stop than with LOS A, causing higher levels of average delay.	>10 and ≤15
C	Higher congestion may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level, though many still pass through the intersection without stopping.	>15 and ≤25
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	>25 and ≤35
E	This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	>35 and ≤50
F	This level is considered unacceptable with oversaturation, which is when arrival flow rates exceed the capacity of the intersection. This level may also occur at high V/C ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to such delay levels.	>50

Source: *2010 Highway Capacity Manual.*

2.2 Roadway Segment Level of Service Analysis

The roadway segment level of service analysis conducted for this study is based on daily roadway segment volumes and average daily roadway capacities for specified roadway classifications. **Table 2-2** summarizes the level of service thresholds for each roadway segment classification as defined in the regionally accepted SANDAG/ITE Traffic Impact Study Guidelines. LOS E is defined as the maximum capacity of the roadway based on the roadway classification and is used to determine volume to capacity ratio (V/C) for the roadway segment.

TABLE 2-2: ROADWAY SEGMENT LOS CRITERIA

Roadway Classification	Lanes	LOS A	LOS B	LOS C	LOS D	LOS E
Major Arterial	4	< 15,000	< 21,000	< 30,000	< 35,000	< 40,000
Collector	4	< 10,000	< 14,000	< 20,000	< 25,000	< 30,000
Collector	2	< 5,000	< 7,000	< 10,000	< 13,000	< 15,000
Local Street (residential streets NOT in Circulation Element)		-	-	< 2,200	-	-

Source: *SANDAG/ITE Traffic Impact Study Guidelines, 2000*

2.3 Thresholds of Significance

Table 2-3 summarizes the thresholds of significance for roadway segments, intersections and Caltrans facilities as defined in the SANDAG/ITE Traffic Impact Study Guidelines and accepted by City of Del Mar for use in this project.

TABLE 2-3: ROADWAY LEVEL OF SERVICE STANDARDS

Facility	Without Project LOS	With Project LOS	Threshold of Significance	Impact Type
Intersection	LOS D	LOS E/F	Change from Acceptable to Deficient	Existing: Direct Impact Future: Cumulative Impact
	LOS E/F	LOS E/F	> 2.0 seconds of delay	Existing: Direct Impact Future: Cumulative Impact
Roadway Segment	LOS D	LOS E/F	Change from Acceptable to Deficient	Existing: Direct Impact Future: Cumulative Impact
	LOS E/F	LOS E/F	> 0.02 change in V/C	Existing: Direct Impact Future: Cumulative Impact

Source: *SANDAG/ITE Traffic Impact Study Guidelines, 2000*

3 EXISTING CONDITIONS

The following section summarizes the existing conditions of the transportation system within the study area as well the operational assessment of existing intersections and roadway segments.

3.1 Roadway Network

The project study area is bound by 11th Street to the north, 10th Street to the south, Camino del Mar to the east and Stratford Court to the west. The following paragraphs describe the conditions of the existing roadway network. Existing conditions intersection geometries are provided in **Figure 3-1**.

Camino Del Mar is a 4-Lane Collector with a landscaped center median that generally runs in the north-south direction through the study area. The raised median restricts east-west access for all even numbered intersecting streets, however marked cross-walks with in-pavement flashers are installed at most-even street intersections along Camino del Mar north of 11th Street. The posted speed limit through the project study area on Camino del Mar is 25 mph. Diagonal (angled) parking is provided on the east side of the street between 10th and 11th Street, but parking is not currently allowed along Camino del Mar on the west side of the street in front of City Hall. Bicycle lanes are provided both northbound and southbound through the study area. According to the San Diego Regional Pedestrian and Bicycle counter located on Camino del Mar, approximately 232 bicycles per day travel northbound and southbound on Camino del Mar in front of City Hall.

11th Street is a two-lane local roadway that intersects with Camino del Mar at an all-way stop controlled intersection. In the evening (between 3:00 and 6:00 PM), left turn access from Camino del Mar onto 11th Street is prohibited to reduce cut through traffic on Stratford Court. Northbound vehicles on Camino del Mar are permitted to u-turn at 11th Street and take access into the west side residential neighborhood at 10th Street. A full access driveway is provided on 11th Street that connects with the lower parking lot on the City Hall. On the north side of 11th Street, at the edge of the commercially zoned property, there is a full access, substandard driveway to access a parking access easement held by the commercial properties to the north of City Hall. This parking access easement is often used as an alley by drivers to access 11th and 12th Streets. However, the parking access easement is located on private property and is not intended as a cut through route. Sidewalks are provided on the south side of 11th Street from Camino del Mar to the City Hall Annex. On street parking is allowed on both sides of 11th Street. Although not posted, the *prima facie* speed limit on 11th Street through the study area is 25 mph.

10th Street is a two-lane local roadway that intersects with Camino del Mar on the south side of the City Hall site. Due to the presence of the raised, landscaped median, the intersections of Camino del Mar / 10th Street (both eastbound and westbound) are restricted to right turn in, right turn out only. The 10th Street approach to the intersection is stop controlled. There are currently two full access driveways that provide access to the existing City Hall Parking lot along 10th Street. There is a steep grade on 10th Street

(greater than 6%) approaching Camino del Mar from the City Hall site. There are no sidewalks on either side of 10th Street connecting the City Hall site to Camino del Mar. Although not posted, the prima facie speed limit on 10th Street through the study area is 25 mph.

Stratford Court is a local two-lane roadway located approximately 400 feet west of Camino del Mar. Stratford Court is a non-contiguous roadway that provides residential access from 4th to 15th Street. Over the years, traffic calming devices such as speed humps, turn restrictions and medians have been installed to reduce through traffic along Stratford Court, which can occur during the evening when traffic congestion increases on Camino del Mar.

A concern of Del Mar residents, especially those who reside west of the project site, is the potential for diversion of traffic away from Camino Del Mar during congested travel times. This issue was considered and the proposed Project reflects design efforts to reduce this driver tendency. With respect to 10th Street, access to the City Hall parking structure west of Camino del Mar is inbound only, requiring all exiting traffic to use the driveway on 11th Street. Through traffic will be maintained both eastbound and westbound on 10th Street. On 11th Street, the egress (exiting) traffic from the parking garage will be directed eastbound onto 11th Street by posting "Right Turn Only" signs at the driveway exit. While a determined driver could turn left from the driveway, most drivers would comply with the posted signage and proceed to the four-way stop at Camino del Mar. The egress from the surface parking lot on 11th Street does not have any turn or access restrictions; but it is assumed most people would be exiting the parking lot, heading east to Camino del Mar, for eventual northbound or southbound progression on Camino del Mar.

3.2 Pedestrian Facilities

A sidewalk is provided on the south side of 11th Street connecting City Hall and City Hall Annex to Camino del Mar. There is also a small section of sidewalk west of the City Hall driveway on 11th Street adjacent to the 20 minute loading zone. A decomposed granite (DG) trail is provided along Camino del Mar in front of City Hall. No sidewalks are provided on either side 10th Street between City Hall and Camino del Mar.

The grade of both 10th and 11th Street from the lower parking lot to the existing City Hall exceed 6%. There is one ADA compliant parking space in the upper lot of City Hall, making the site accessible from Camino del Mar and from the northern parking lot only. In addition, there are two ADA compliant parking spaces in the lower lot near the television studio and one near the City Hall Annex.

Marked crosswalks are provided on the west, east and south legs of the all-way stop controlled intersection of Camino del Mar / 11th Street. Marked crosswalks are also provided at all intersections between 11th Street and 15th Street. There is no pedestrian access across Camino del Mar at 10th Street. The nearest signalized intersection to the site is Camino del Mar and 9th Street approximately 400 feet south of 10th Street. Crosswalks, pedestrian push buttons and ADA compliant curb ramps are provided on all legs of this signalized intersections.

Del Mar City Hall

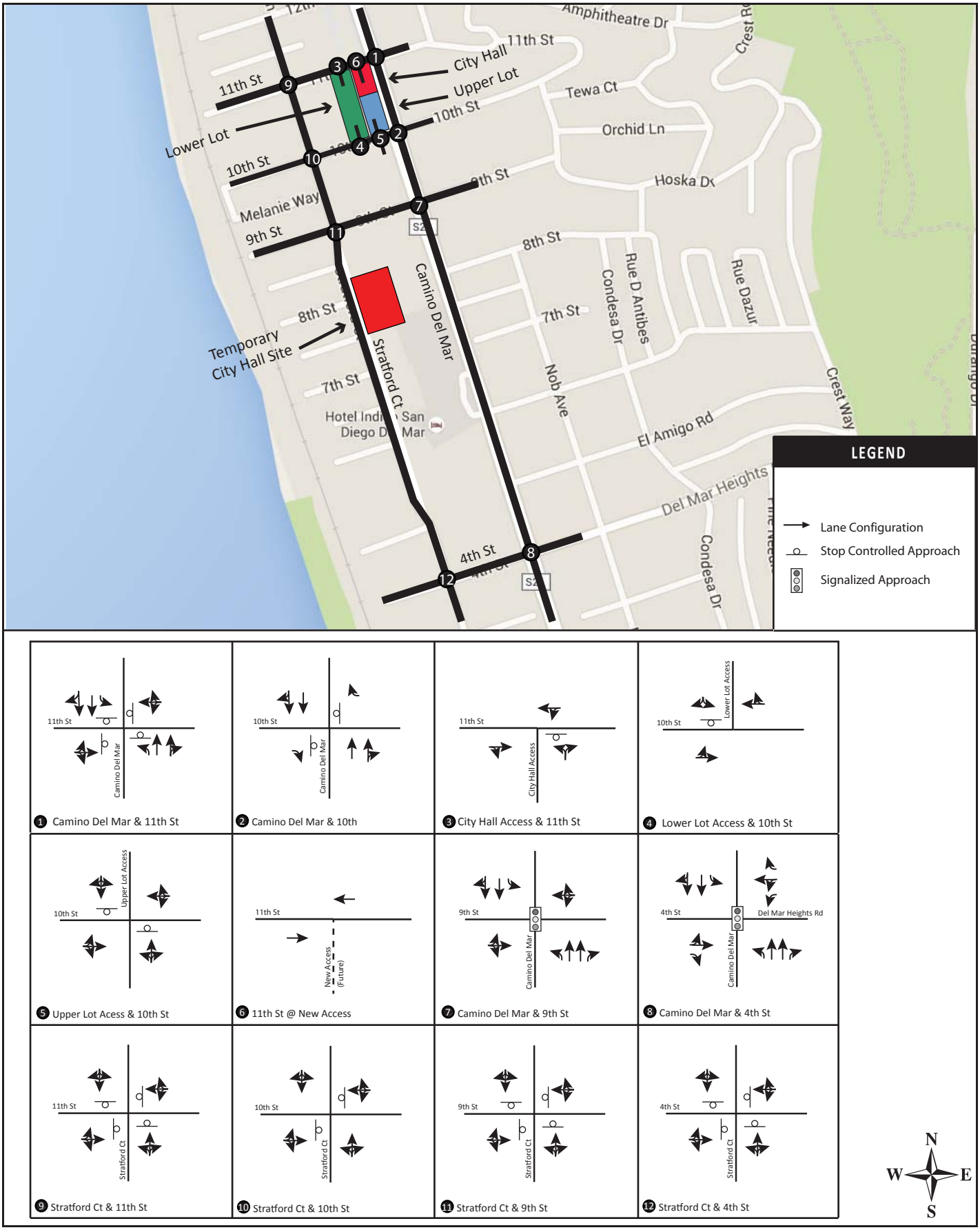

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Figure 3-1
Existing Intersection Geometries

3.3 Bicycle Facilities

Class II Bicycle Lanes are provided along Camino del Mar in both the northbound and southbound direction. A bicycle comfort station with air pump, tools and place to rest is provided on the existing City Hall property near 11th Street. Bicycle racks are provided on-site for employees and guests.

3.4 Local & Regional Transit Service

North County Transit District (NCTD) operates the local transit service within the City of Del Mar. Existing bus stops are located within walking distance (less than 0.25 miles) of City Hall with a northbound stop located approximately 200 feet south of 10th Street on the east side of Camino del Mar. The southbound stop is located approximately 252 feet south of 10th Street on the west side of Camino del Mar. Both bus stops are equipped with a sign, bench and trash receptacle.

One transit route provides service to the City of Del Mar. NCTD's Route 101 provides daily service from Oceanside to the University Towne Center area in the City of San Diego. Service is provided Monday through Friday and on weekends and holidays. According to the NTCD website, the average headway is approximately 30 minutes from 5:00AM to 7:00PM with longer headways occurring from 7:00PM to 10:00PM. Service along this route is not provided between 10:00PM and 5:00AM.

Pedestrian, bicycle and transit facilities within the study area are illustrated in **Figure 3-2**.

3.5 Existing Intersection and Roadway Volumes

Traffic volumes at the study area intersections and roadway segments were obtained on June 10, 2015 for the AM peak period (7:00 AM to 9:00 AM) and PM peak period (4:00 PM to 6:00 PM) during the San Diego County (Del Mar) fair season. Additional traffic counts were collected on Wednesday, August 5, 2015, along Stratford Court for the AM and PM peak periods during the Horse Race season. Peak hour intersection and roadway segment volumes are illustrated in **Figure 3-3.**

3.6 Intersection Analysis

Levels of service (LOS) were determined at the study area intersections for the AM and PM peak hours. The AM intersection analysis evaluates the LOS during the hour with the highest vehicular traffic between 7:00 AM and 9:00 AM. The PM intersection analysis evaluates the LOS during the hour with the highest vehicular traffic between 4:00 PM and 6:00 PM. Operations of both signalized and unsignalized intersections were analyzed with Synchro 8 software (Trafficware). Synchro 8 uses the methodologies outlined in the 2010 Highway Capacity Manual (HCM). Raw traffic count volumes used in this analysis are provided in **Appendix A**.

Del Mar City Hall

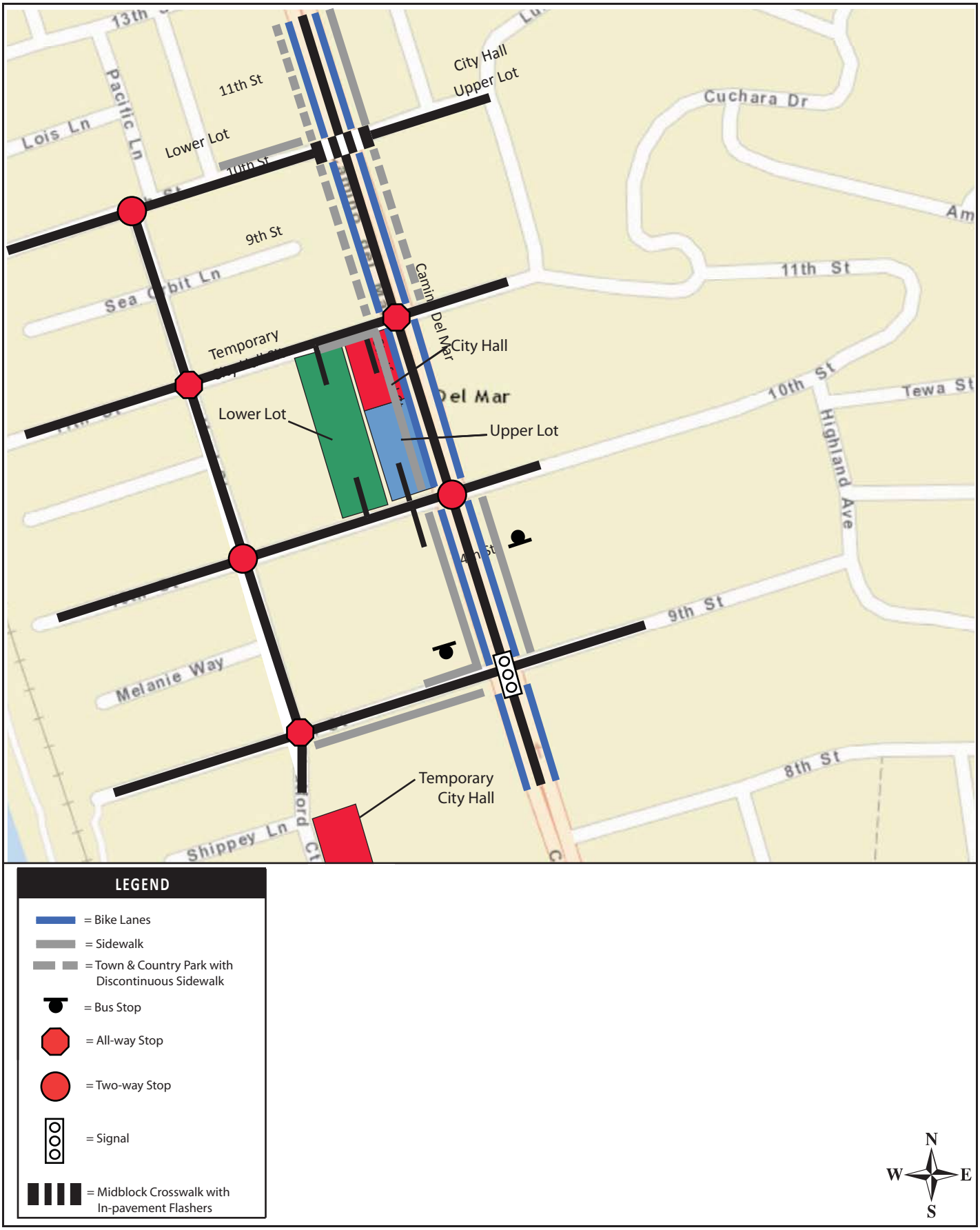

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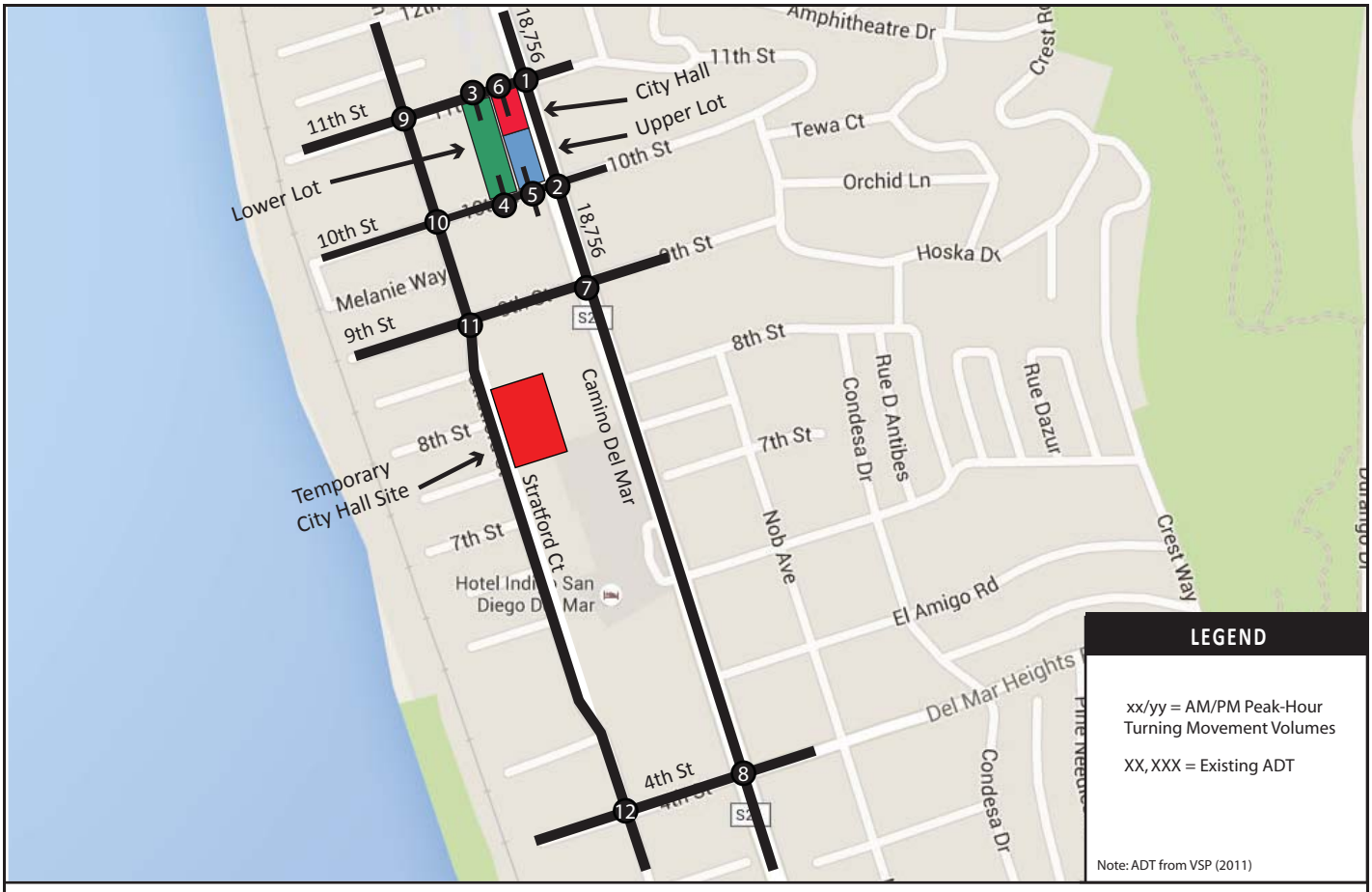
Figure 3-2
Pedestrian, Bicycle & Transit Access to City Hall

Del Mar City Hall



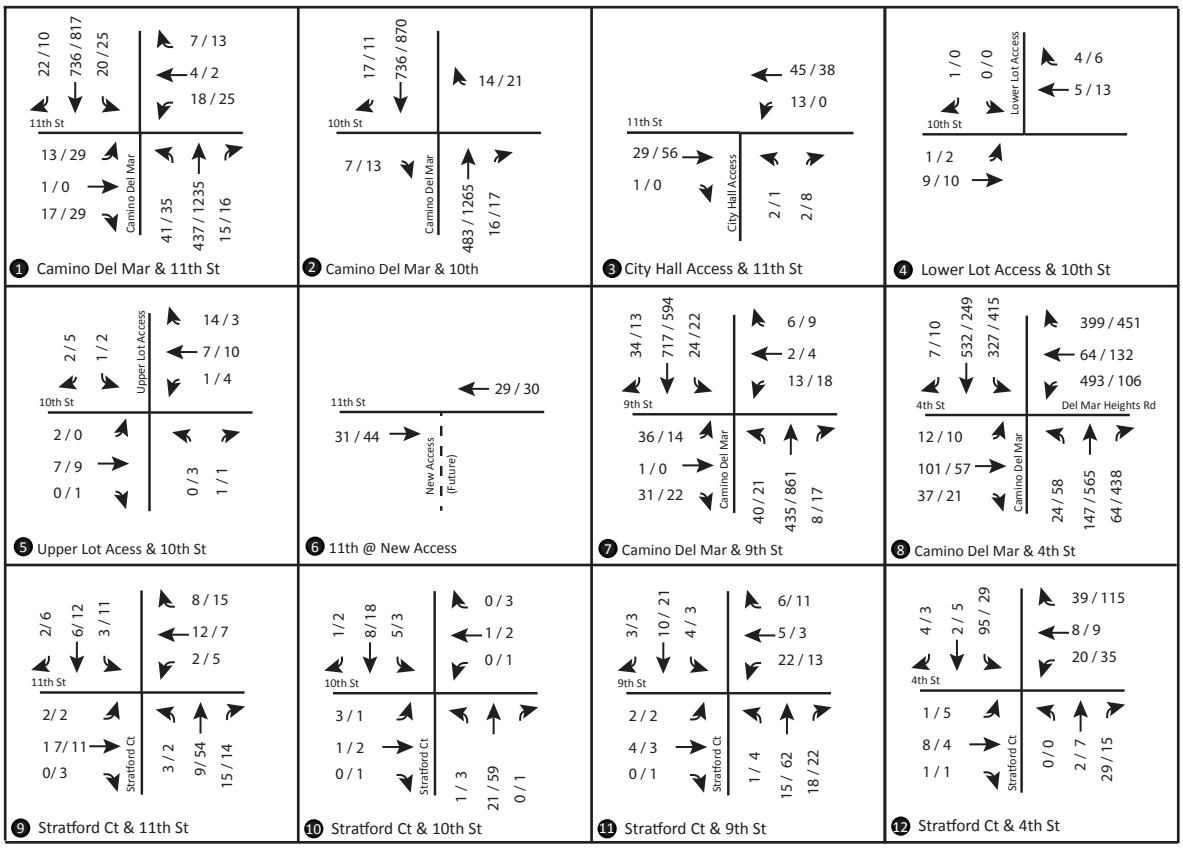


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Figure 3-3
Existing Peak Hour and Daily Traffic Volumes

Signal timing data parameters including cycle lengths, splits, clearance intervals, etc. were based on the current signal timing sheets provided by the City and calibrated into the Synchro model. Synchro reports delays, which correspond to a particular LOS, to describe the overall operation of an intersection. **Table 3-3** presents the existing conditions peak hour operational analysis.

As shown in the table, most intersections operate at acceptable levels of service, with the exception of Camino del Mar / 11th Street (all-way stop control) and Camino del Mar / 4th Street – Del Mar Heights (signalized). HCM analysis worksheets are provided in **Appendix B.** This analysis takes into consideration the existing driveways along both 10th and 11th Street and the volume of traffic that uses the parking access easement between City Hall and the City Hall annex to connect to 11th Street.

3.7 Roadway Segment Analysis

Camino del Mar is classified as a four lane divided collector arterial with a speed limit of 25 mph through the study area. According to the SANTEC/ITE thresholds, the maximum carrying capacity of the roadway is approximately 25,000 vehicles per day based on a four lane collector classification. Currently, Camino del Mar carries approximately 18,756 vehicles per day, which is below the capacity of the roadway. The actual capacity of the roadway is constrained by the existing all-way stop controlled intersections located approximately 800 feet apart at the odd numbered streets between 10th Street and 14th Street. Therefore, the intersection operational analysis presents a more realistic assessment of the existing roadway performance.

The City Hall project will not add new trips to the overall roadway network, but will result in a redistribution of trips on the roadway network associated with both the change in access to the City Hall parking lot and the additional parking that will serve the surrounding businesses. Therefore, a detailed roadway segment analysis for the “with project conditions” is not necessary and will not be included in the remainder of this report.

TABLE 3-3: EXISTING CONDITIONS - PEAK-HOUR INTERSECTION LOS SUMMARY

#	Intersection	Traffic Control	Peak Hour	Existing Conditions	
				Delay (sec)[(a)]	LOS [(b)]
1	Camino del Mar / 11th Street	AWS	AM	15.6	C
			PM	**45.9**	**E**
2	Camino del Mar / 10th Street	TWS (E/W)	AM	11.0	B
			PM	14.6	B
3	11th Street and Existing Lower Lot Driveway	TWS (N/S)	AM	8.8	A
			PM	8.7	A
4	10th Street and Existing Lower Lot Driveway	TWS (N/S)	AM	8.4	A
			PM	7.3	A
5	10th Street and Existing Upper Lot Driveway	OWSC (SB)	AM	8.5	A
			PM	8.6	A
6.	11th Street and NEW Parking Structure Driveway	TWS (N/S)	AM	Does Not Exist	
			PM		
7.	Camino del Mar / 9th Street	Signal	AM	17.0	B
			PM	17.7	B
8.	Camino del Mar / 4th Street – Del Mar Heights	Signal	AM	41.4	D
			PM	**102.5**	**F**
9.	Stratford Court / 11th Street	AWS	AM	6.9	A
			PM	7.2	A
10.	Stratford Court / 10th Street	TWSC (E/W)	AM	9.3	A
			PM	9.2	A
11.	Stratford Court / 9th Street	AWS	AM	7.1	A
			PM	7.3	A
12.	Stratford Court / 4th Street – Del Mar Heights	AWS	AM	7.5	A
			PM	7.4	A

Notes:

Signal: Traffic signal, OWSC: One-way stopped control, TWS: two-way stop control, AWS: all-way stop control

(a) At signalized intersections, delay refers to the average control delay for the entire intersection (in seconds)

(b) LOS calculations are based on the *2010 Highway Capacity Manual* and performed using Synchro 8.

4 PROJECT DESCRIPTION

The project will demolish the existing City Hall Building, City Hall Annex and TV studio and will construct a 9,250 square foot City Hall Building and 3,200 square foot Town Hall facility. An additional 15,000 sf of outdoor public plaza space and a future expansion area for up to 20,000 sf of added facilities will be provided. The expansion areas are not defined for a specific use other than to support public facilities, consistent with the City's Zoning Ordinance. A total of 51 parking spaces will be provided to meet City Code for the proposed uses. An additional 109 parking spaces will be provided on-site to serve special events in the plaza or Town Hall as well as the surrounding businesses, beach goers and visitors to City Hall. The project site plan is provided in **Figure 4-1.**

The 160 parking spaces provided on the City Hall property will take access from 11th Street and 10th Street with one inbound only driveway on 10th Street and two full access (inbound and outbound) driveways on 11th Street.

During construction, City Hall will be temporarily relocated to the Shores Park property west of Camino Del Mar south of 9th Street, approximately 0.25 miles south of the existing City Hall property.

4.1 Assessment of Parking and Future Project Trip Generation

Peak hour turning movement volumes were collected at all study intersections that provide access into the existing City Hall parking lots in an effort to determine current activity at the existing City Hall site. In addition, parking lot counts and turn over data was collected on a typical weekday between 7:30 am and 5:00 pm to determine parking duration and turn over per space during City Hall operating hours. To determine how many people park in the lot and walk to locations off-site and how many people arrive at City Hall without a car (either walk or rode a bicycle), an intercept survey was conducted on the same day as the parking lot counts and driveway counts. This section discusses the findings of this existing conditions assessment.

Figure 4-1
Project Site Plan

Existing City Hall Trips

Existing conditions driveway counts were provided previously in Figure 3-3. Based on the peak hour and daily traffic volumes collected at the project driveways, it was determined that a total of 384 trips per day were made to the City Hall site, with 43 occurring in the AM peak hour (7:30 to 8:30) and 28 occurring in the PM peak hour (4:15-5:15) as summarized in **Table 4-1**.

TABLE 4-1: EXISTING TRIPS INTO/OUT OF EXISTING CITY HALL SITE

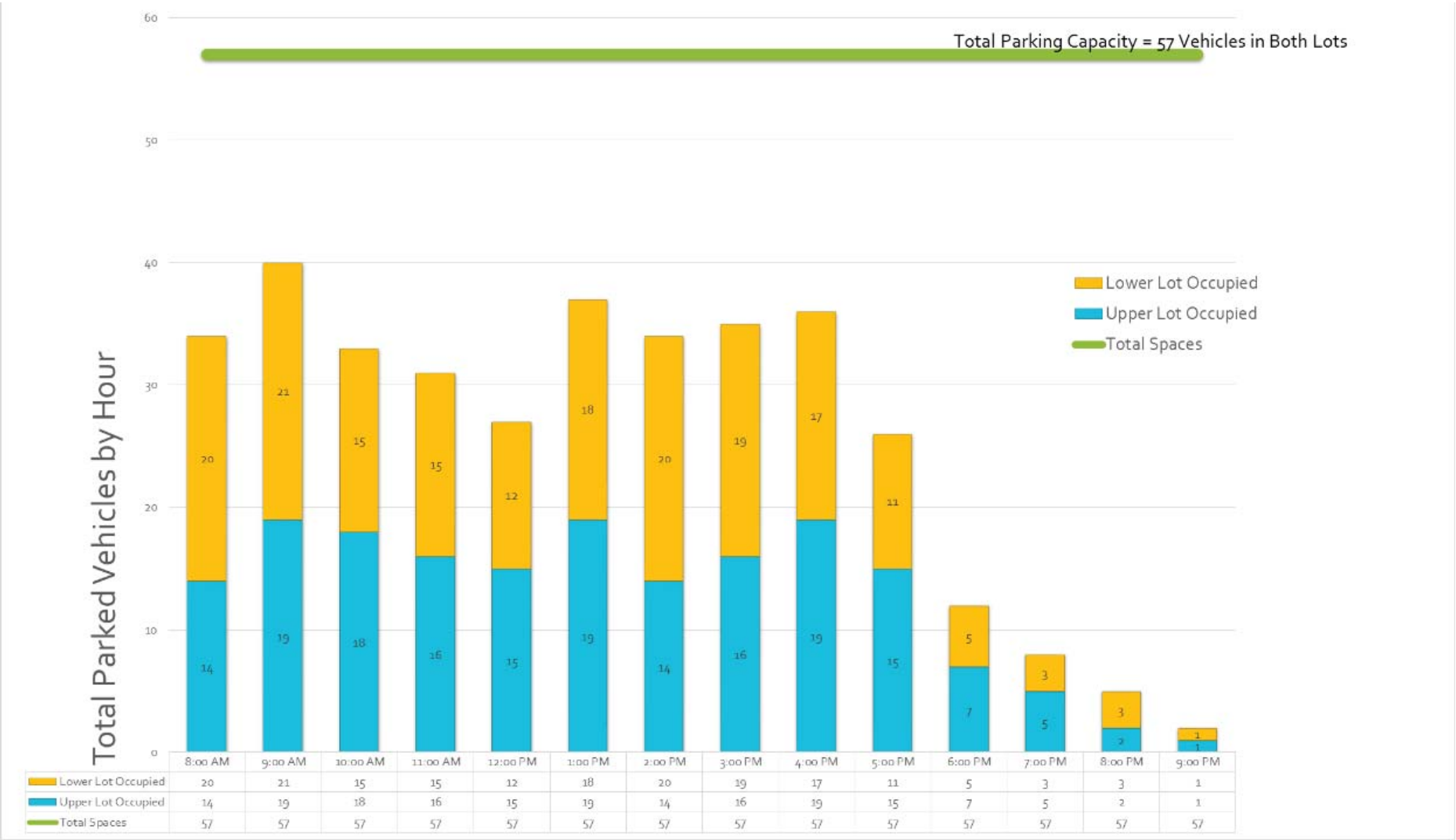
	Daily Trips	AM Peak Hour (7:30 to 8:30)			PM Peak Hour (4:15-5:15)		
		Total	Inbound	Outbound	Total	Inbound	Outbound
11th Street Driveway	148	18	14	4	9	0	9
10th Street Driveway (lower lot)	109	6	5	1	8	8	0
10th Street Driveway (upper lot)	127	19	16	3	11	3	8
TOTAL	**384**	**43**	**35**	**8**	**28**	**11**	**17**

Existing City Hall Parking Demand and Duration Assessment

Detailed parking turn over data was collected from 7:30AM to 5:00 PM, which provided insight into the existing parking demand in both the upper lot and the lower lot as well as the duration (how long people parked) throughout the day. **Figure 4-2** illustrates the existing parking demand throughout the day. As shown in Figure 4-2, the demand for parking is below the current available parking on site.

Detailed license plate survey data is provided in **Appendix C.** A summary of the parking duration for the lower lot is provided in **Table 4-2** and the upper lot in **Table 4-3**. The data in the tables provided show that parking spaces in the upper and lower lots change over infrequently throughout the day, with the average duration in the lower lot of 3.7 hours and in the upper lot of 4.6 hours. Approximately 53% of the spaces are occupied by one vehicle, with no turnover throughout the day. Another 33% of the parking spaces change over one to two times per day. Of the 57 parking spaces on site, two of the parking spaces were observed to change over more than three times in a single day.

This data indicates that most people who arrive at City Hall by automobile are employees of City Hall whose vehicles remain on site between 8 and 10 hours. Other long-term vehicles parked on site are employees of nearby businesses who park and walk to work.



	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM
Lower Lot Occupied	20	21	15	15	12	18	20	19	17	11	5	3	3	1
Upper Lot Occupied	14	19	18	16	15	19	14	16	19	15	7	5	2	1
Total Spaces	57	57	57	57	57	57	57	57	57	57	57	57	57	57

Figure 4-2: Existing Parking Demand

TABLE 4-2: PARKING DURATION BY PARKING SPACE – LOWER LOT

Parking Space	vehicle 1		vehicle 2		vehicle 3		vehicle 4		vehicle 5	
	occupied	duration	occupied	duration	occupied	duration	occupied	duration	occupied	duration
1	X	3	X	4						
2	X	2	X	1	X	1				
3	X	9								
4										
5	X	2	X	1	X	1	X	2	X	1
6										
7	X	14								
8	X	8								
9	X	3	X	1	X	1	X	4		
10	X	2								
11	X	4	X	5						
12	X	4	X	4						
13	X	3	X	3	X	2	X	1		
14	X	10								
15	X	3	X	8						
16	X	2	X	8						
17	X	2	X	1	X	1				
18	X	10								
19	X	4	X	2						
20	X	1	X	5	X					
21	X	2	X	4						
22	X	10								
23	X	4	X	1						
24	X	7								
TOTAL	**22**	**109**	**14**	**48**	**6**	**6**	**3**	**7**	**1**	**1**

TABLE 4-3: PARKING DURATION BY PARKING SPACE – UPPER LOT

Parking Space	vehicle 1		vehicle 2		vehicle 3		vehicle 4		vehicle 5	
	occupied	duration	occupied	duration	occupied	duration	occupied	duration	occupied	duration
1	X	9								
2										
3										
4	X	9								
5	X	1								
6	X	14								
7	X	2								
8	X	3								
9	X	9								
10	X	11								
11	X	6	X	4						
12	X	3	X	5						
13	X	9								
14	X	1								
15	X	1								
16										
17	X	9								
18	X	1								
19	X	3								
20	X	4	X	2	X	2				
21	X	3	X	1						
22	X	2	X	1	X	1				
23	X	5								
24	X	12								
25	X	10								
26	X	6	X	2						
27	X	1								
28	X	1	X	3	X	3				
29	X	4								
30	X	1								
31	X	10								
TOTAL	**28**	**150**	**7**	**18**	**3**	**6**	**0**	**0**	**0**	**0**

Intercept Survey

The intercept survey conducted for City Hall indicates the following types of trips were made to City Hall on the day the parking survey and traffic volumes data were collected:

- 92% of people arriving at City Hall arrived by automobile:
  - 22% were City Employees
  - 58% were Visitors attending a meeting or dropping off material
  - 19% parked on-site and walked off-site
- 8% of people arriving at City Hall walked there from their home or business
- 0% of people arriving at City Hall rode their bicycle from their home or business

The intercept survey shows 92% of the trips arriving at City Hall arrived by personal automobile and 8% walk on-site. Of those who drove to the site, 58% of the people surveyed were visitors attending meetings or dropping off material.

During the intercept survey, 19% of the people surveyed were observed to park in the City Hall parking lot and walking off-site for other destinations. Those who arrived for work tended to park for longer durations (6 or more hours). Those parking to travel to the beach, dining or shopping tended to stay for a shorter duration (less than 2 hours).

Applying Trip Generation and Planned Parking to Determine Future Trips

As the new City Hall will add no new employees to the existing site, City Hall will not generate new peak hour or daily trips. However, there will be new meeting space and Town Hall added to the site to replace the existing Annex and television studio. Although meeting frequency may increase if additional meeting space is provided in the Town Hall and/or City Hall space, the change in trips associated with the additional space is likely nominal. Special events in the Town Hall or plaza may generate new trips to the site. Town Hall is planned to hold a maximum of 250 people within indoor and outdoor areas, requiring 50 parking spaces per event. These events would not likely occur on a regular basis during the AM or PM peak hours, when traffic volumes on Camino del Mar peak.

The new parking spaces provided in the City Hall Parking Lot will likely increase the number of vehicles along 10th and 11th Streets. The trips associated with the new parking spaces are not being generated by City Hall, but rather are related to the trips currently on the roadway network who are parking in other locations such as on-street, in the neighborhoods, or in some cases on the property where they are currently visiting/working. As Del Mar businesses continue to grow and an increase in parking supply is needed, the additional parking provided at City Hall will help meet the collective parking needs in the Village as well as meet the demand for parking during special events in the Town Hall or plaza.

Trips associated with the new parking spaces were determined based on the overall occupancy of the available new parking spaces in the parking garage provided in the new City Hall facility. Based on Section 30.80 of the

City of Del Mar Municipal Code, 51 parking spaces will be required to meet the City Hall and Town Hall parking requirements. A total of 160 parking spaces will be provided on-site. Therefore, 109 new parking spaces would be available to the general public for non-City Hall related trips, which may include special events in the plaza or Town Hall. In general, a parking facility is considered to be occupied when the capacity of the facility reaches approximately 80 to 85%. At that point, parking spaces become scarce and drivers must search or wait for parking spaces within a lot. Therefore, a maximum capacity of 85% was used in assessing the parking demand for the 109 new parking spaces in the City Hall parking lot.

Peak hour inbound and outbound trip patterns were based on the current inbound and outbound trip patterns measured at the existing City Hall driveways, as summarized in Table 4-1. Assuming one trip per parking space, Table 4-4 summarizes the trips associated with the 109 new parking spaces in the City Hall parking lot. Since the Town Hall 250 person capacity requires 50 parking spaces, the analysis conducted for the 109 new parking spaces accounts for special events that may occur at the Town Hall during the AM and PM peak hours.

TABLE 4-4: FORECAST TRIPS ASSOCIATED WITH THE 109 NEW PARKING SPACES

	Daily Trips	AM Peak Hour (7:30 to 8:30)			PM Peak Hour (4:15-5:15)		
		Total	Inbound	Outbound	Total	Inbound	Outbound
Trip Rates							
Parking Space	6 trips/space (1)	1 trip/space	81%	19%	1 trip/space	41%	59%
Forecast Trips							
93 parking spaces (2)	558 trips/day	93	75	18	93	38	55

Notes:

(1) 6 trips per space is based on an average parking duration of 4 hours per space measured over a 12 hour period.

(2) 93 parking spaces represents 85% occupancy of the total 109 spaces available

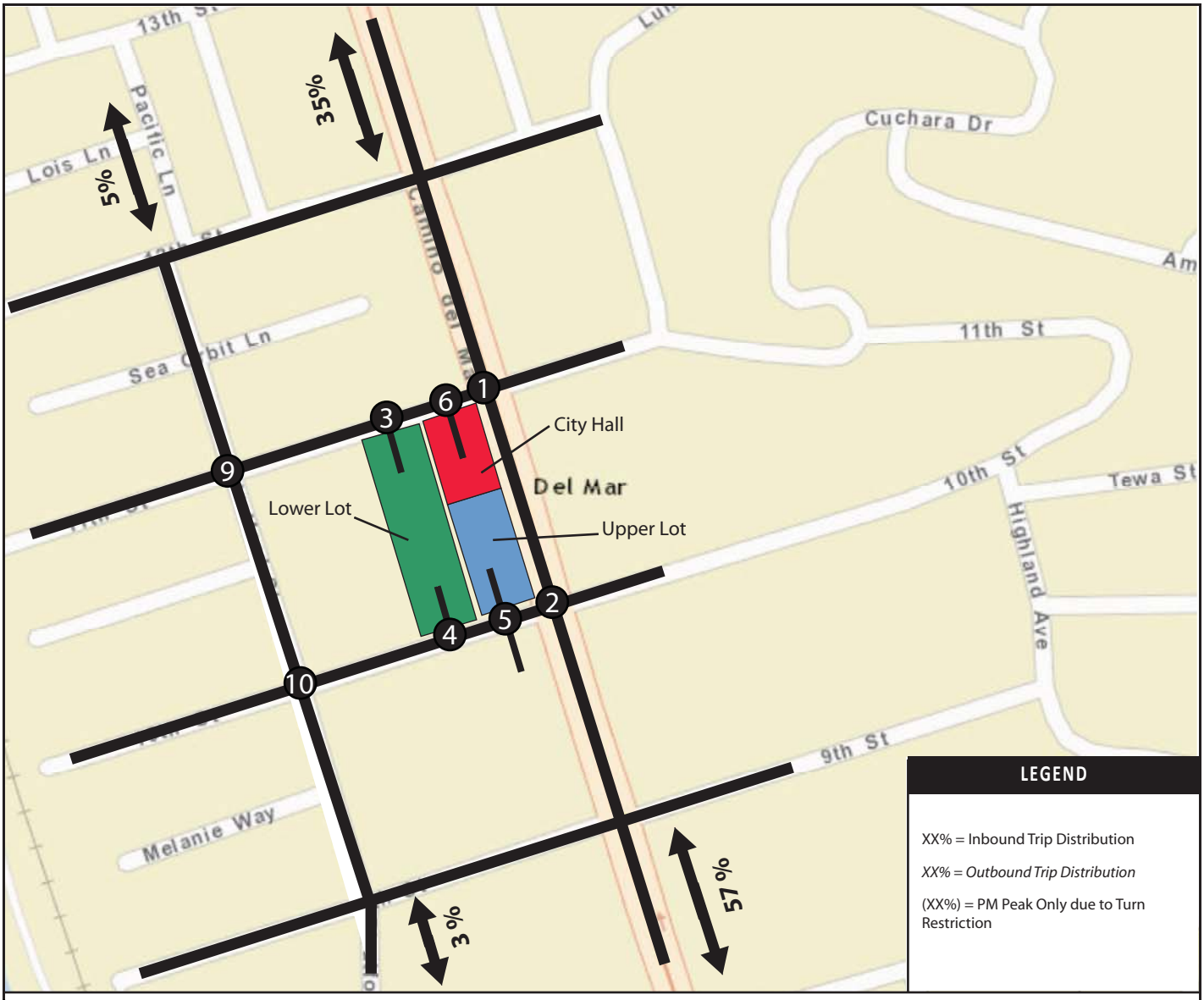
4.2 Trip Distribution

Existing trip patterns were evaluated to determine the overall geographic distribution of trips to and from the site. **Figure 4-3** illustrates the distribution used in this analysis. As shown, the majority of the trips to the new City Hall are oriented toward Camino del Mar as the new project trips associated with the parking will primarily be generated by Town Hall activities and businesses located along the Camino del Mar corridor and/or the beach.

4.3 Trip Assignment

Trips associated with the new parking spaces were assigned to the roadway network based on the trip distribution patterns discussed in section 4.2 of this report and are illustrated in **Figure 4-4**.

Del Mar City Hall



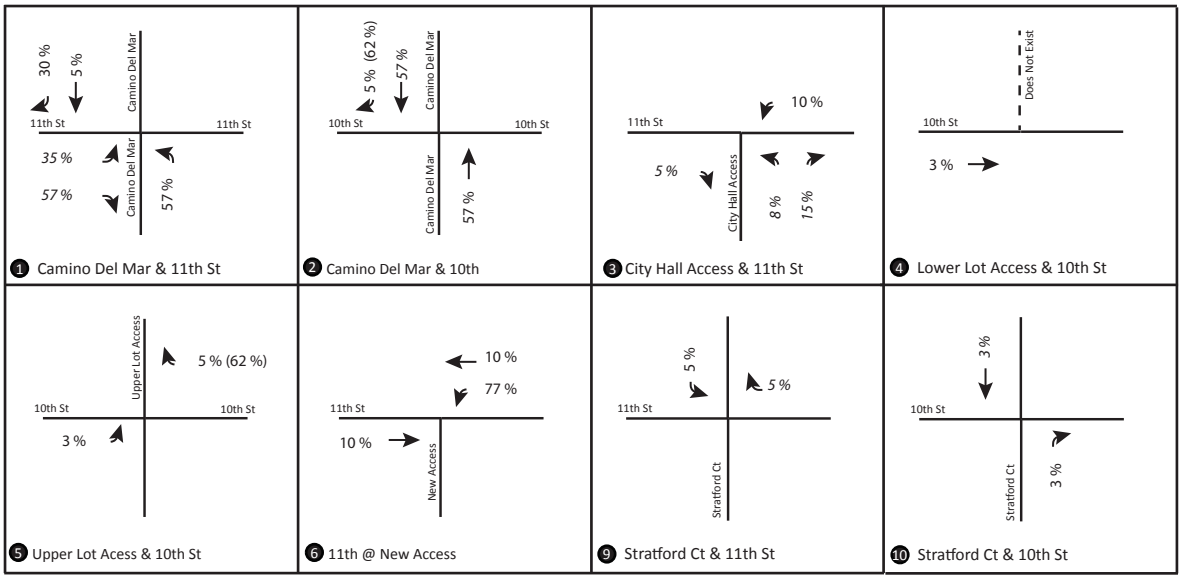


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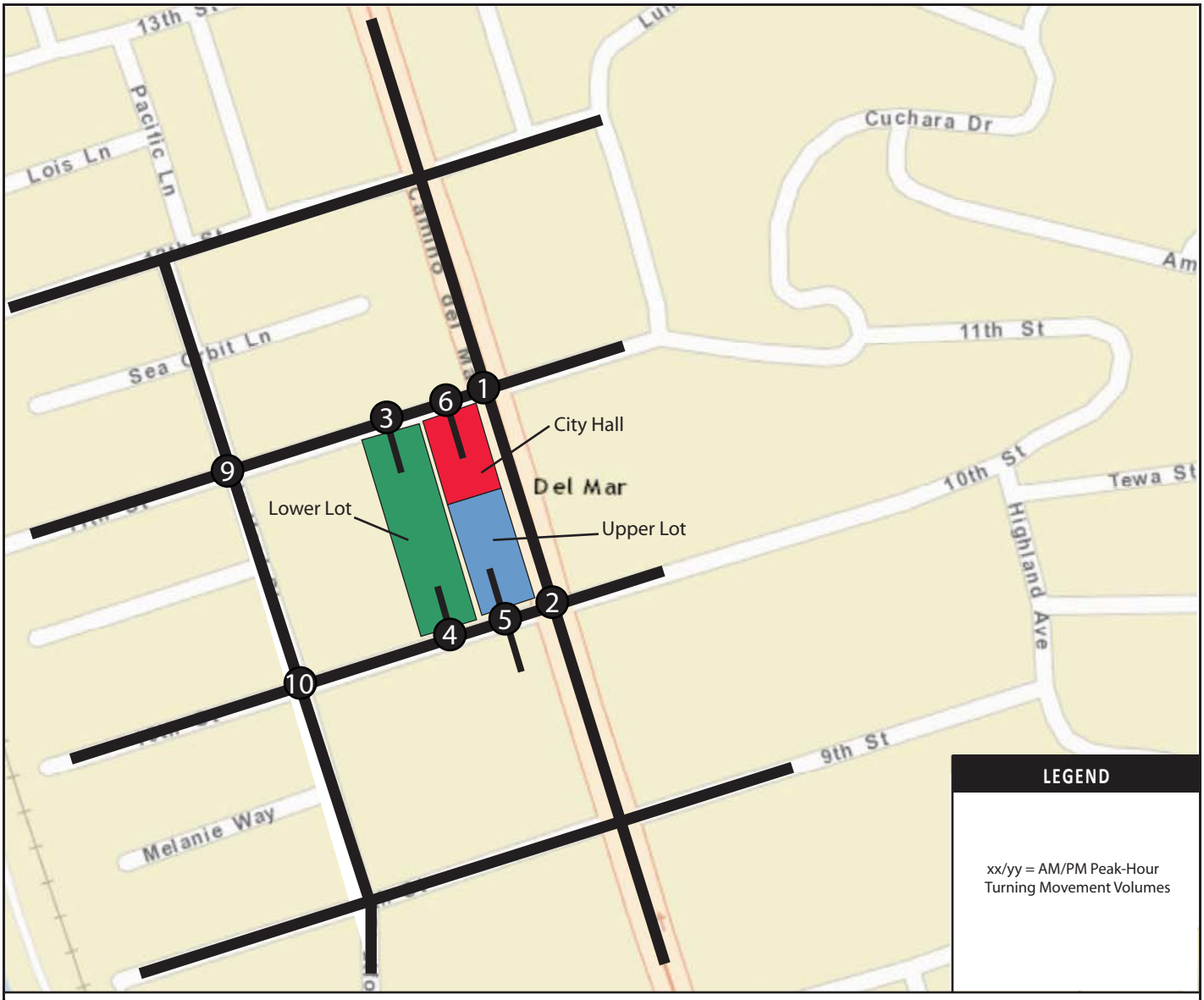
Figure 4-3
Trip Distribution
(109 New Parking Spaces)

Del Mar City Hall



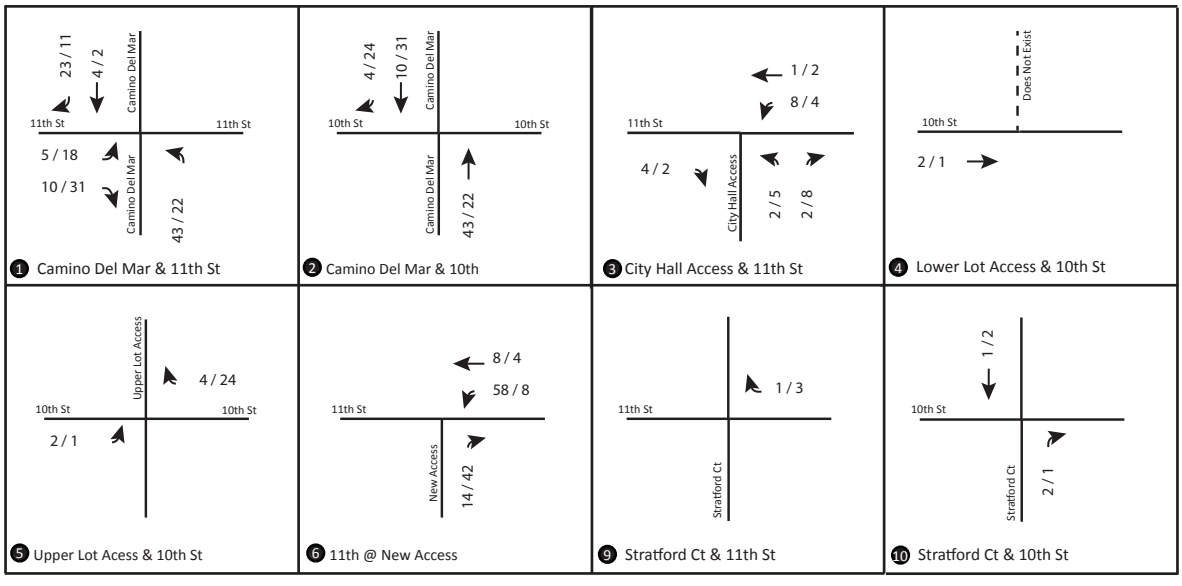


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Figure 4-4
Trip Assignment
(109 New Parking Spaces)

4.4 Access & Circulation

The City Hall site will have three access driveways:

- 2 full access driveways on 11th Street
- 1 inbound only driveway on 10th Street

Currently, there are two driveways on 10th Street and one on 11th Street. The change in access requires that the existing trips from the City Hall site be redistributed prior to evaluating the project conditions. **Figure 4-5** illustrates the existing City Hall related trips. The redistribution of existing City Hall related trips on the roadway network is illustrated in **Figure 4-6**.

The new City Hall parking garage will have surface parking on the western boundary of the project site, which will only be accessible from 11th Street. Inbound and outbound 2nd floor access into the garage will be provided from the northern boundary of the site on 11th Street and with inbound only access on 10th Street.

4.5 Pedestrian & Bicycle Amenities and Connectivity

Access to City Hall for pedestrians and bicycle will be improved through the construction of the parking garage. Currently, pedestrian access from the lower lot up to City Hall is provided either through use of the stairs on the property or the sidewalk along 11th Street. Grades along 11th Street exceed minimum ADA requirements thereby limiting accessible connectivity between City Hall and City Hall Annex. With the construction of the new site, City Hall and Town Hall will be provided on the same level with minimum elevation change between the buildings.

Access from the parking lot to the City Hall and Town Hall buildings will be provided through a publically accessible staircases and elevator. Since the parking lot will be open to the public after City Hall closes, the elevator will be constructed outside the City Hall and Town Hall buildings, allowing after-hours access from the garage to Camino del Mar.

Bicycle access and storage will remain unchanged with the new facility. The existing comfort station will remain on-site and bicycle parking will be provided. Additional covered bicycle parking spaces may be provided in the parking garage.

4.6 Access to Transit

The City Hall project will not improve or affect access to the existing transit stops along Camino del Mar.

Del Mar City Hall

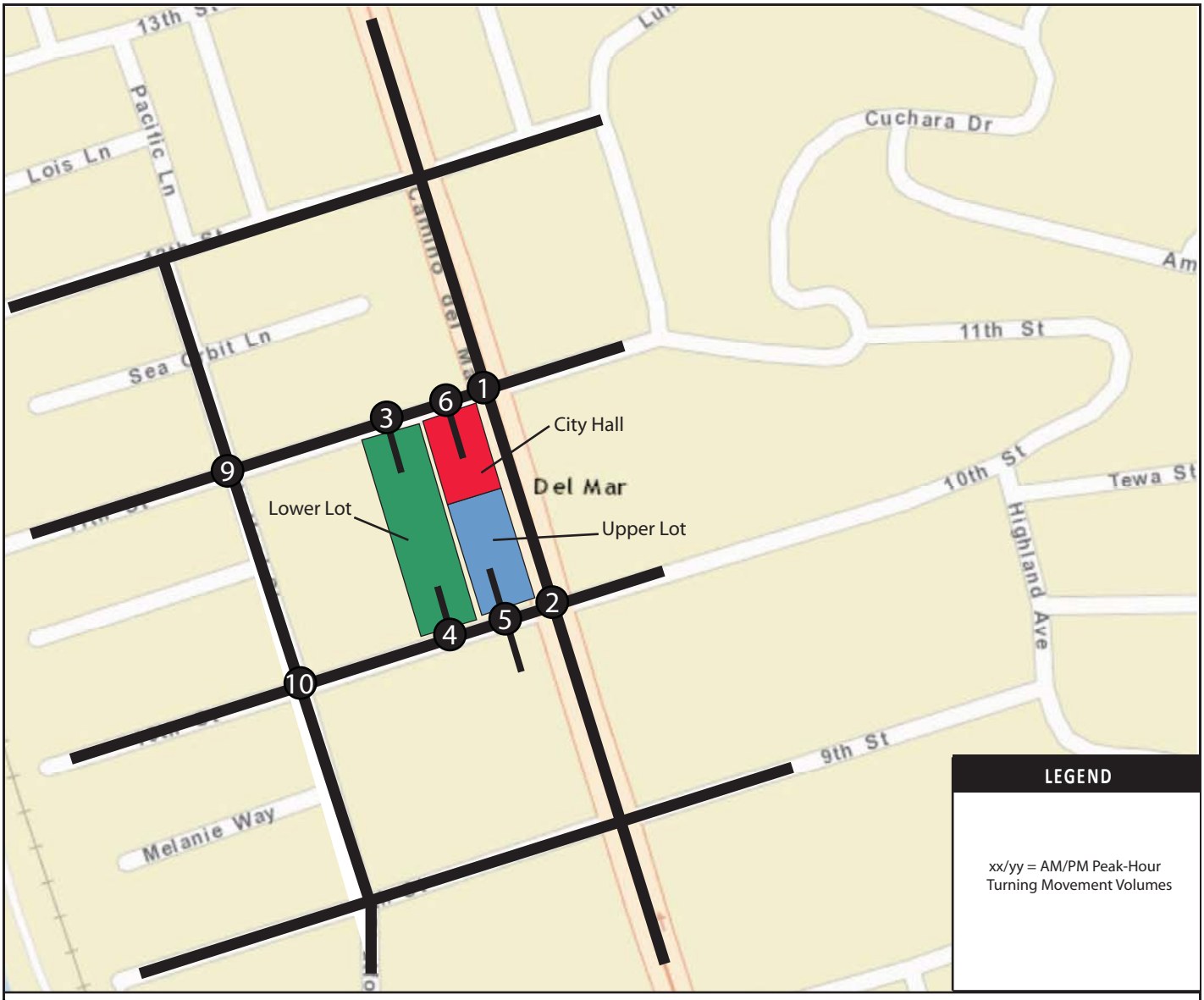

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Figure 4-5
Existing City Hall Trips

Del Mar City Hall

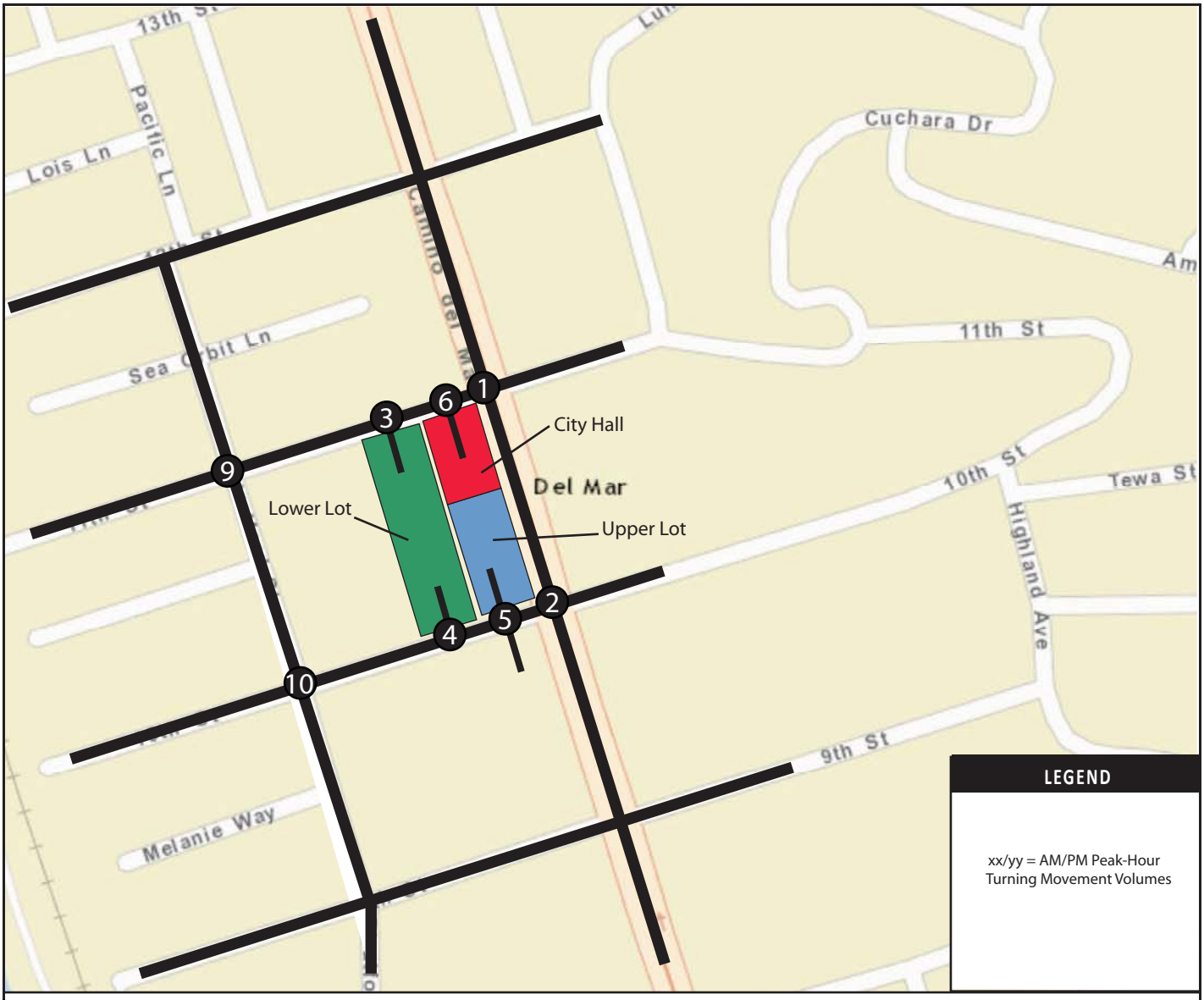

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Figure 4-6
Reassigned City Hall Trips

5 FUTURE YEAR TRAFFIC VOLUMES

The impacts of the project on the transportation system will be assessed for the following study scenarios:

- Existing Conditions
- Horizon Year Conditions

Baseline Horizon Year 2035 volumes were determined based on the SANDAG Series 12 regional traffic model. The model includes the existing City Hall site and future growth in the City of Del Mar as well as the surrounding communities. Based on the average daily traffic (ADT) volumes reported in the SANDAG series 12 model, daily traffic is forecast to increase from approximately 19,000 vehicles per day along the City Hall site to approximately 23,000 vehicles per day along this segment. The growth in daily traffic volumes were used to forecast the peak hour future year 2035 baseline volumes. Future year traffic volumes were cross-referenced with recently prepared traffic studies for projects in the City of Del Mar as well as the surrounding communities.

6 EXISTING PLUS PROJECT OPERATIONAL ANALYSIS

The following section summarizes the operating conditions at the study area intersections and roadway segments for the existing plus project conditions. The intersection configurations used in this analysis are presented in **Figure 6-1**.

6.1 Traffic Volumes

Traffic volumes for this study scenario are based on the existing conditions peak hour and intersection volumes. The project volumes, as described in Chapter 4 of this report, were added to the existing conditions volumes to determine the Existing plus Project volumes presented in **Figure 6-2**.

6.2 Intersection Analysis

Levels of service (LOS) were determined at the study area intersections for the AM and PM peak hours. **Table 6-1** presents the Existing plus Project conditions peak hour operational analysis. Synchro analysis worksheets are provided in **Appendix D.**

As shown in the table, most of the intersections continue to operate at acceptable LOS with additional trips. The intersections of Camino del Mar / 11th Street and Camino del Mar / 4th Street – Del Mar Heights are forecast to operate at deficient LOS with the project, however the new change in delay falls below the threshold of significance (2.0 seconds). Therefore, the impact is considered less than significant according to CEQA.

While mitigation is not required, in order to minimize the impact to the community during special events, special traffic control measures should be taken to direct traffic away from the residential neighborhood surrounding City Hall including Stratford Court, 10th Street west of City Hall and 11th Street west of City Hall when high traffic events are anticipated to take place at City Hall or at the Town Hall. Special events are defined as events that may result in a high concentration of ingress/egress trips that would occur over a short period of time such as a community performance. Special traffic control measures that could be implemented to control traffic patterns during high traffic events include the restriction of access west of City Hall on 10th and 11th Street, traffic control at the all-way stop intersection at Camino del Mar / 11th Street to reduce delay and congestion on Camino del Mar, and access control within the parking garage to minimize delay and congestion entering and exiting the parking garage. The time and duration of special traffic control measures will be determined for each special event.

TABLE 6-1: EXISTING PLUS PROJECT - PEAK-HOUR INTERSECTION LOS SUMMARY

#	Intersection	Traffic Control	Peak Hour	Existing Conditions		Existing Plus Project		Significant Impact?	
				Delay (sec) [a]	LOS[a]	Delay (sec) [a]	LOS [b]	Change in Delay (sec)	Impact?
1	Camino del Mar / 11th Street	AWS	AM	15.6	C	16.9	C	1.3	No
			PM	**45.9**	**E**	**46.6**	**E**	**0.7**	No
2	Camino del Mar / 10th Street	TWS	AM	11.0	B	11.2	B	0.2	No
			PM	14.6	B	14.8	B	0.2	No
3	11th Street and Existing Lower Lot Driveway	TWS	AM	8.8	A	8.6	A	-0.2[(C)]	No
			PM	8.7	A	8.8	A	0.1	No
4	10th Street and Existing Lower Lot Driveway	TWS	AM	8.4	A	Does Not Exist		---	No
			PM	7.3	A			---	No
5	10th Street and Existing Upper Lot Driveway	OWSC	AM	8.5	A	8.4	A	-0.1[(C)]	No
			PM	8.6	A	8.7	A	0.1	No
6	11th Street and NEW Parking Structure Driveway	TWS	AM	Does Not Exist		8.7	A	8.7	No
			PM			8.7	A	8.7	No
7	Camino del Mar / 9th Street	Signal	AM	17.0	B	17.0	B	0.0	No
			PM	17.7	B	17.7	B	0.0	No
8	Camino del Mar / 4th Street – Del Mar Heights	Signal	AM	41.4	D	41.4	D	0.0	No
			PM	**102.5**	**F**	**102.5**	**F**	**0.0**	No
9	Stratford Court / 11th Street	AWS	AM	6.9	A	7.0	A	0.1	No
			PM	7.2	A	7.2	A	0.0	No
10	Stratford Court / 10th Street	TWS	AM	9.3	A	9.3	A	0.0	No
			PM	9.2	A	9.2	A	0.0	No
11	Stratford Court / 9th Street	AWS	AM	7.1	A	7.1	A	0.0	No
			PM	7.3	A	7.3	A	0.0	No
12	Stratford Court / 4th Street – Del Mar Heights	AWS	AM	7.5	A	7.6	A	0.1	No
			PM	7.4	A	7.4	A	0.0	No

Notes:

Signal: Traffic signal, OWSC: One-way stopped control, TWS: two-way stop control, AWS: all-way stop control

(a) At signalized intersections, delay refers to the average control delay for the entire intersection.

(b) LOS calculations are based on the methodology outlined in the *2010 Highway Capacity Manual* and performed using Synchro 8.

(c) Change in delay is negative due to the change in access into City Hall from 10th & 11th Streets.

Del Mar City Hall

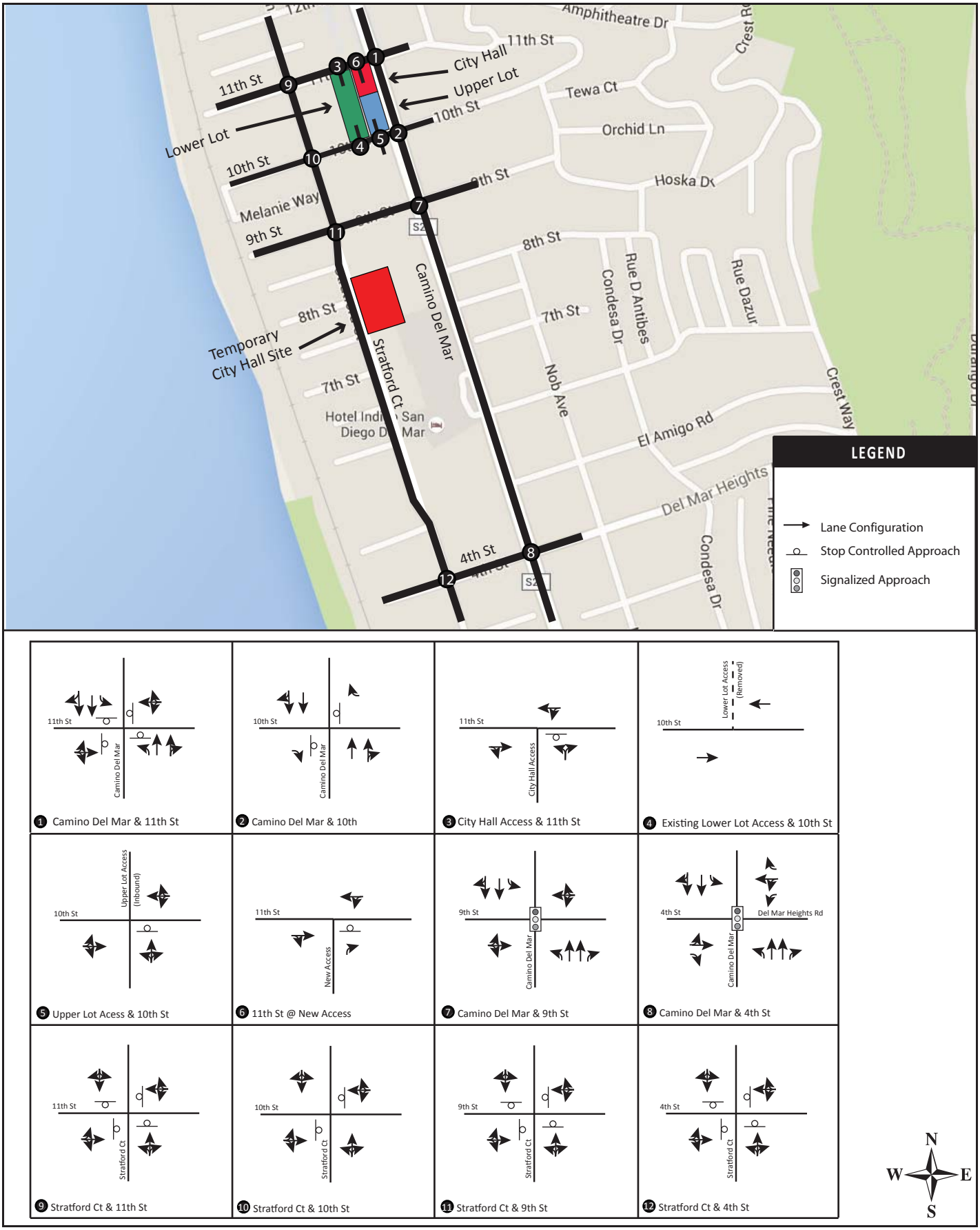

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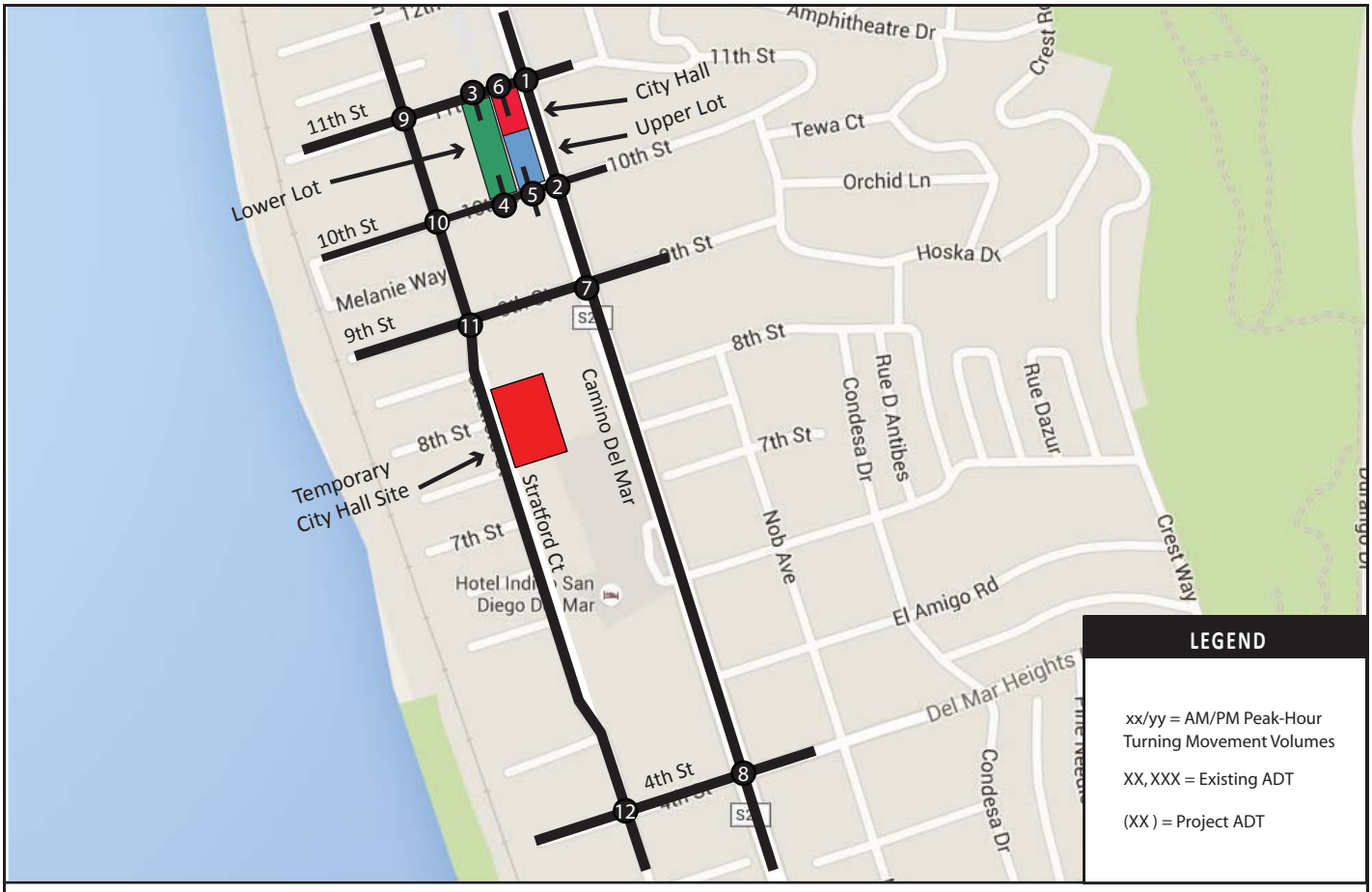
Figure 6-1
Existing + Project Intersection Geometries

Del Mar City Hall



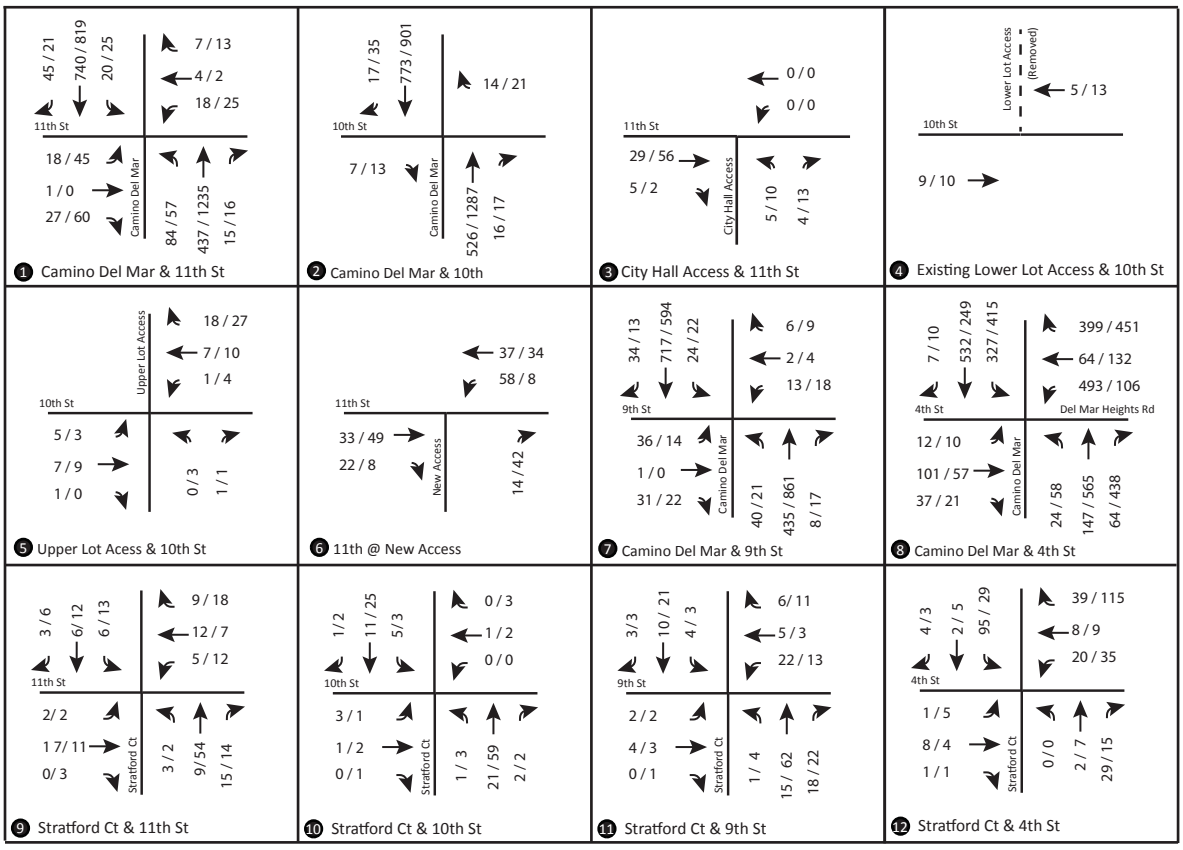


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Figure 6-2
Existing + Project Peak-Hour Traffic Volumes at Study Intersections
(85% Occupied Parking)

7 HORIZON YEAR CONDITIONS OPERATIONAL ANALYSIS

The following section summarizes the operating conditions at the study area intersections and roadway segments for the Horizon Year (2035) conditions.

7.1 Traffic Volumes

Traffic volumes for this study scenario are based on the forecast peak hour and daily traffic volumes for the buildout year (2035), as described in Chapter 5 of this report. Baseline (no project) Horizon Year (2035) Conditions peak hour and roadway segment volumes are presented in **Figure 7-1.**

The project volumes, as described in Chapter 4 of this report, were added to the baseline Horizon Year Conditions peak hour and daily roadway segment volumes to determine the Horizon Year plus Project peak hour and daily roadway segment volumes presented in **Figures 7-2**.

7.2 Intersection Analysis

Levels of service (LOS) were determined at the study area intersections for the AM and PM peak hours for the baseline and with project conditions. **Table 7-1** presents the Horizon Year (2035) Conditions peak hour operational analysis without and with the proposed project. Synchro analysis worksheets are provided in **Appendix E.**

As shown in the table, most intersections are forecast to operate at acceptable LOS through year 2035 without and with the proposed project. The intersections of Camino del Mar / 11th Street and Camino del Mar / 4th Street – Del Mar Heights are forecast to operate at deficient LOS by year 2035 without and with the proposed project. However, the net change in delay falls below the threshold of significance. Therefore, the project impacts are forecast to be less than significant according to CEQA.

Similar to above for Existing plus Project, while mitigation is not required impact to the community can be minimized during special event by implementing measures that would direct traffic away from the residential neighborhood surrounding City Hall including Stratford Court, 10th Street west of City Hall and 11th Street west of City Hall. Special traffic controls that should be implemented during special events that are anticipated to result in a high concentration of ingress/egress trips that would occur over a short period of time such as a community concert or play. Special traffic control measures that could be implemented to control traffic patterns and minimize access and circulation effects on the community during these high traffic events such as the restriction of access west of City Hall on 10th and 11th Street, traffic control at the all-way stop intersection at Camino del Mar / 11th Street to reduce delay and congestion on Camino del Mar, and access control within the parking garage to minimize delay and congestion entering and exiting the parking garage. The type of traffic control and duration will be determined for each event.

TABLE 7-1: HORIZON YEAR CONDITIONS - PEAK-HOUR INTERSECTION LOS SUMMARY

#	Intersection	Traffic Control	Peak Hour	Horizon Year (2035) (baseline)		Horizon Year (2035) with Project		Significant Impact?	
				Delay (sec) [a]	LOS[B]	Delay (sec) [a]	LOS [b]	Change in Delay (sec)	Impact?
1	Camino del Mar / 11th Street	AWS	AM	31.2	D	31.3	D	0.1	No
			PM	**53.8**	**F**	**54.3**	**F**	**0.5**	No
2	Camino del Mar / 10th Street	TWS	AM	12.5	B	12.5	B	0.0	No
			PM	15.6	C	15.8	C	0.2	No
3	11th Street and Existing Lower Lot Driveway	TWS	AM	9.1	A	9.3	A	0.2	No
			PM	8.8	A	9.1	A	0.3	No
4	10th Street and Existing Lower Lot Driveway	TWS	AM	8.4	A	Does Not ExistDoes Not Exit		--	No
			PM	8.4	A			--	No
5	10th Street and Existing Upper Lot Driveway	OWSC	AM	8.5	A	8.6	A	0.1	No
			PM	8.8	A	8.9	A	0.1	No
6	11th Street and NEW Parking Structure Driveway	TWS	AM	Does Not ExistDoes		8.9	A	8.9	No
			PM			8.9	A	8.9	No
7	Camino del Mar / 9th Street	Signal	AM	17.2	B	17.2	B	0.0	No
			PM	18.9	B	18.9	B	0.0	No
8	Camino del Mar / 4th Street – Del Mar Heights	Signal	AM	65.9	E	65.9	E	0.0	No
			PM	**113.8**	**F**	**113.8**	**F**	**0.0**	No
9	Stratford Court / 11th Street	AWS	AM	6.9	A	7.0	A	0.1	No
			PM	7.2	A	7.2	A	0.0	No
10	Stratford Court / 10th Street	TWS	AM	9.3	A	9.3	A	0.0	No
			PM	9.2	A	9.2	A	0.0	No
11	Stratford Court / 9th Street	AWS	AM	7.1	A	7.1	A	0.0	No
			PM	7.3	A	7.3	A	0.0	No
12	Stratford Court / 4th Street-Del Mar Heights	AWS	AM	7.5	A	7.5	A	0.0	No
			PM	7.4	A	7.4	A	0.0	No

Notes:

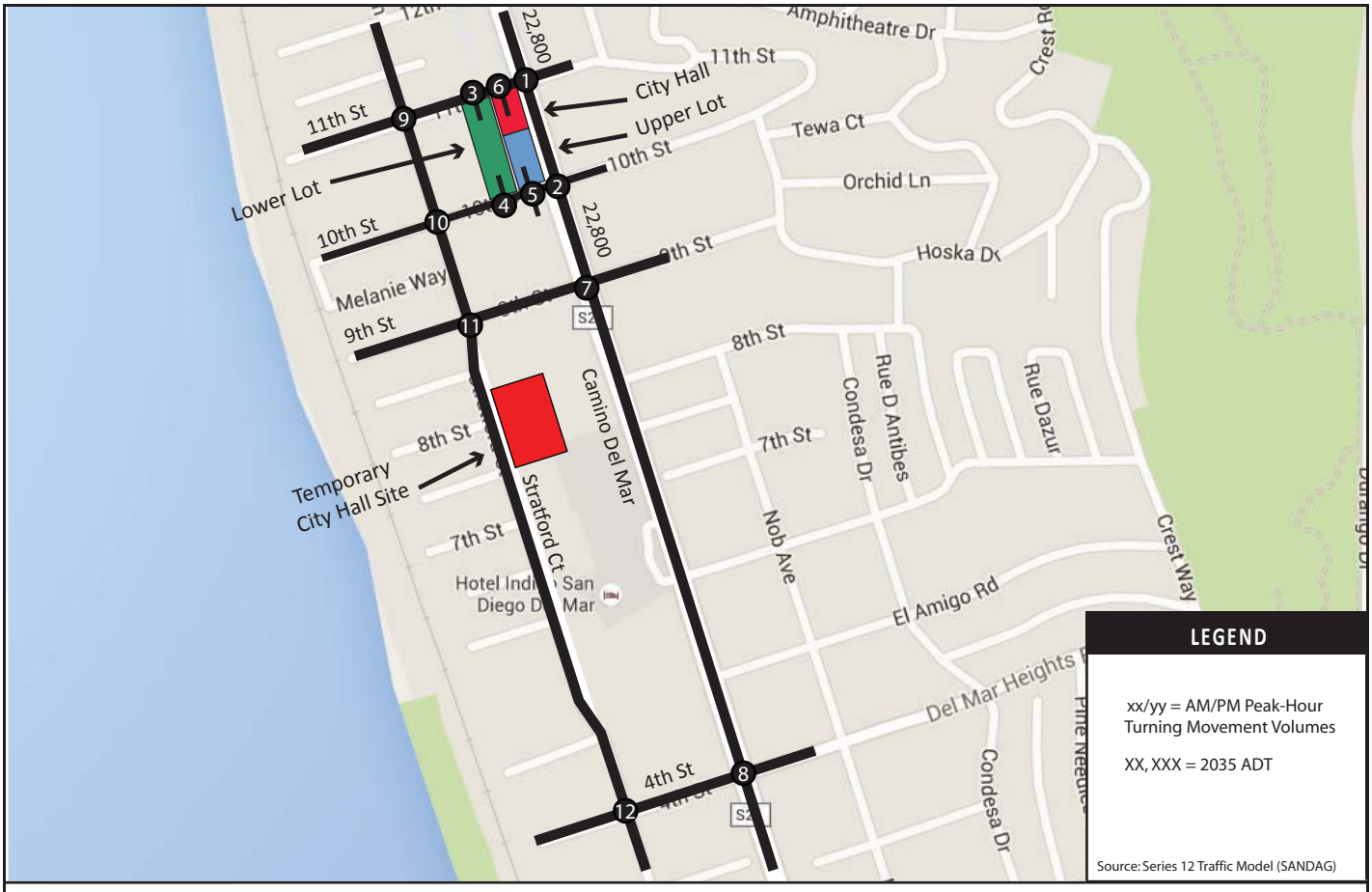
Signal: Traffic signal, OWSC: One-way stopped control, TWS: two-way stop control, AWS: all-way stop control

(a) At signalized intersections, delay refers to the average control delay for the entire intersection.

(b) LOS calculations are based on the methodology outlined in the *2010 Highway Capacity Manual* and performed using Synchro 8.

(c) Change in delay is negative due to the change in access into City Hall from 10th & 11th Streets.

Del Mar City Hall



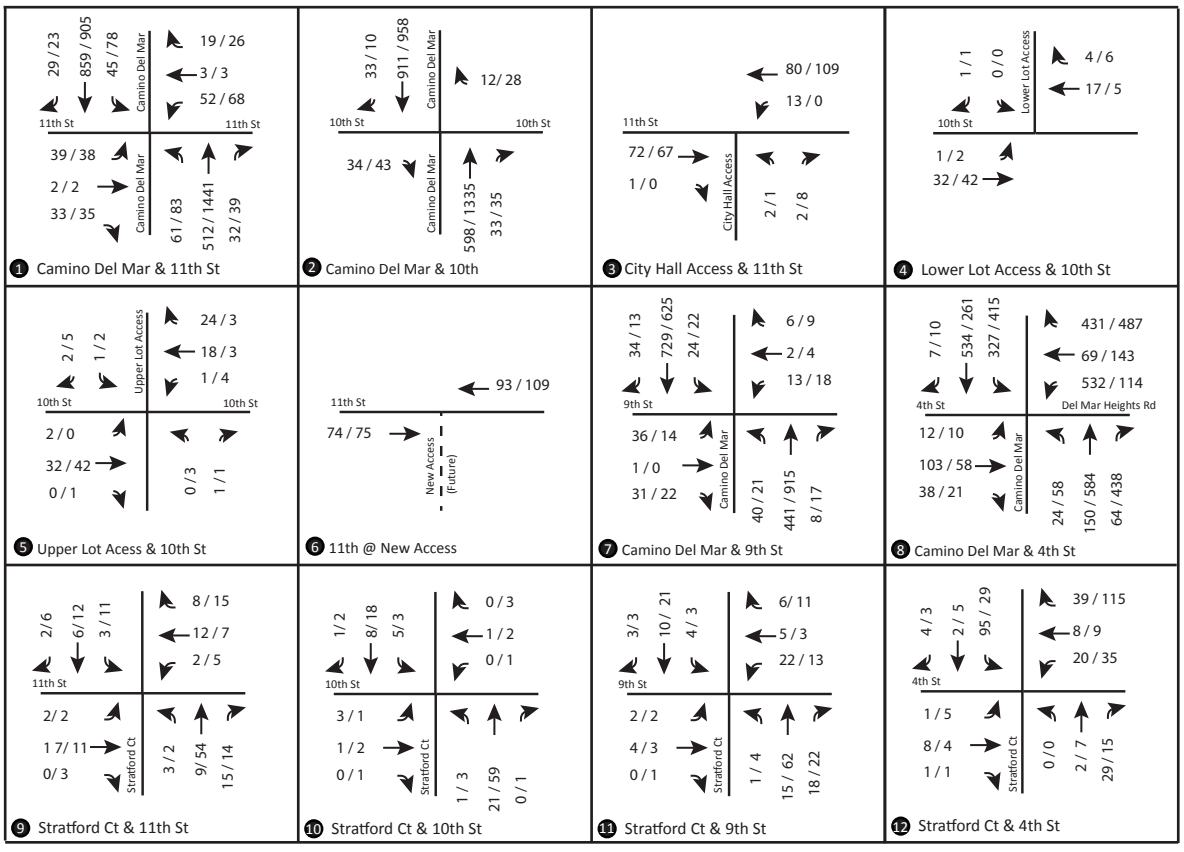


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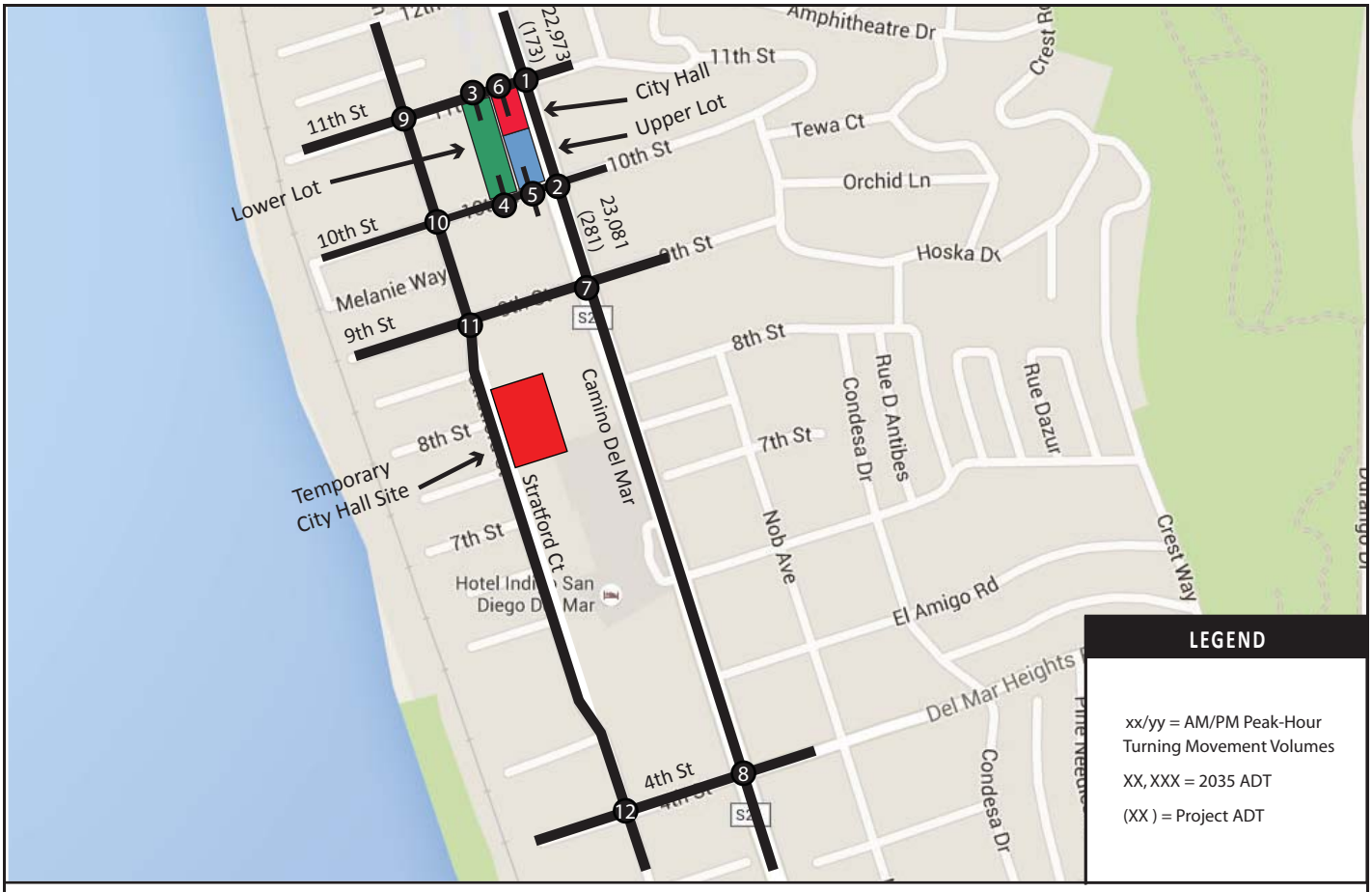
Figure 7-1
Year 2035 Baseline ADT and Peak Hour Volumes

Del Mar City Hall



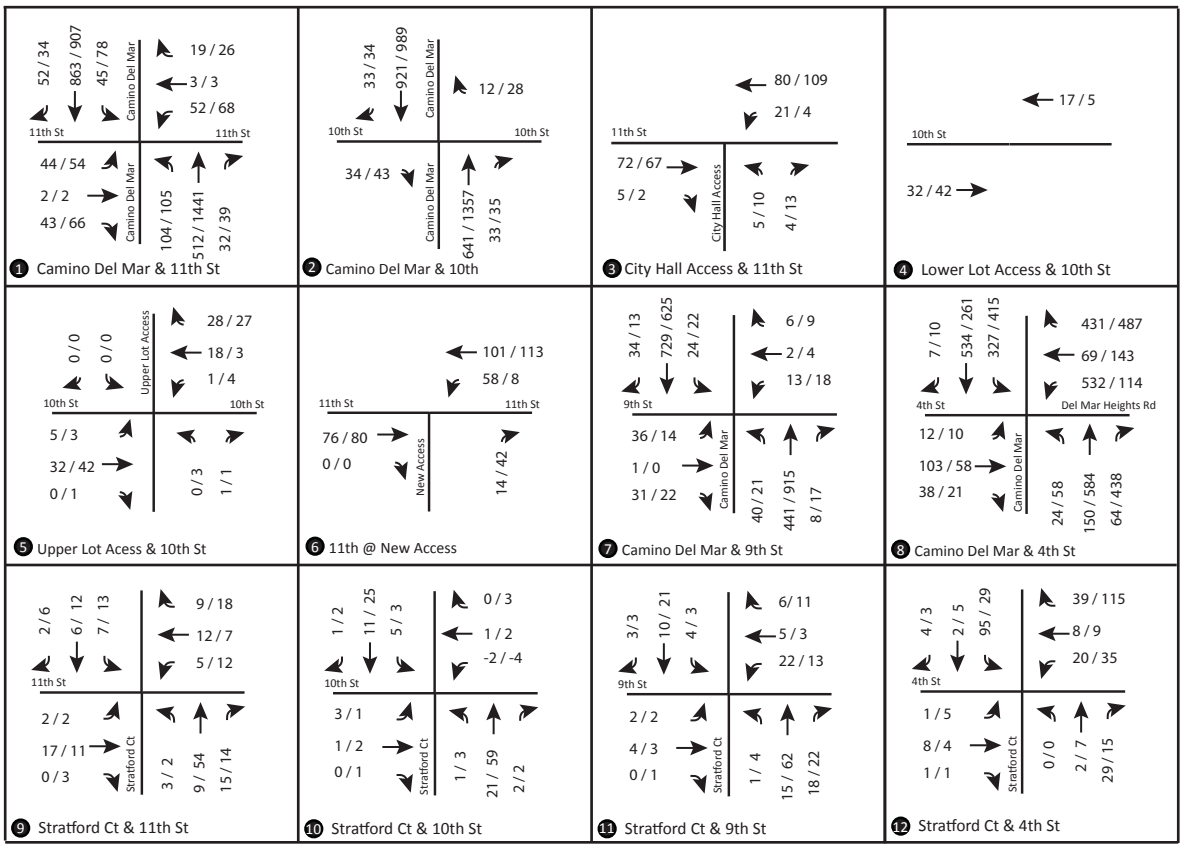


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Figure 7-2
Year 2035 with City Hall Project ADT and Peak Hour Volumes
(85% Occupied Parking)

8 CITY HALL CONSTRUCTION CONDITIONS

During the time which City Hall is constructed, staff that currently occupy the existing City Hall building will be relocated to a temporary facility. In addition to the change in traffic patterns associated with the temporary relocation, an increase in traffic will occur as a result of construction related activity. This section discusses the traffic related impacts associated with both the temporary relocation and the construction traffic activity.

8.1 Temporary Relocation

The proposed temporary City Hall site is on the existing Shores Park property, which is located south of 9th Street on the west side of Camino del Mar. Access to the Shores Park property would be taken from Stratford Court south of 9th Street at the existing driveway at the southwestern corner of the property. The existing driveway on Stratford Court is approximately 11 feet wide. In order to accommodate City Hall traffic, the driveway would need to be widened to a minimum of 24 feet and a clear line of sight would need to be provided both northboufnd and southbound on Stratford Court.

Figure 8-1 illustrates how traffic patterns to and from the existing City Hall site will be re-routed to the temporary City Hall site. An operational analysis of the following intersections was conducted to determine if the temporary redistribution of City Hall trips would result in an operational impacts:

- Camino del Mar / 11th Street
- Camino del Mar / 10th Street
- Camino del Mar/9th Street
- Camino del Mar/Del Mar Heights -4th Street
- Stratford Court / 11th Street
- Stratford Court / 10th Street
- Stratford Court /9th Street
- Stratford Court /Del Mar Heights -4th Street

Peak hour intersection volumes with the re-routed City Hall trips that were used in this analysis are provided in **Figure 8-2**. Synchro worksheets are provided in **Appendix F.**

Table 8-1 summarizes the findings of this analysis. As shown in Table 8-1, the intersections of Camino del Mar/ 11th Street and Camino del Mar/Del Mar Heights-4th Street operate at deficient levels of service in the PM peak period with the temporary City Hall trips redistributed on the roadway network. However, the results of the analysis demonstrate the change in delay falls below the levels of significance. Therefore, the temporary change in traffic patterns is not forecast to result in a significant impact within the study area based upon CEQA analysis criteria.

TABLE 8-1: EXISTING CONDITIONS WITH TEMPORARY CITY HALL – PEAK HOUR INTERSECTION LOS SUMMARY

#	Intersection	Traffic Control	Peak Hour	Existing Conditions		Existing Plus Temporary City Hall		Significant Impact?	
				Delay [a]	LOS[b]	Delay [a]	LOS [b]	Change in Delay	Impact?
1	Camino del Mar / 11th Street	AWS	AM	15.6	C	15.8	C	0.2	No
			PM	**45.9**	E	**45.8**	**E**	-0.1[c]	No
2	Camino del Mar / 10th Street	TWS	AM	11.0	B	11.1	B	0.1	No
			PM	14.6	B	14.6	B	0.0	No
7	Camino del Mar / 9th Street	Signal	AM	17.0	B	17.5	B	0.5	No
			PM	17.7	B	17.7	B	0.0	No
8	Camino del Mar / Del Mar Heights-4th Street	Signal	AM	41.4	D	44.6	D	3.2	No
			PM	**102.5**	**F**	**104.0**	**F**	1.5	No
9	Stratford Court / 11th Street	AWS	AM	6.9	A	7.0	A	0.1	No
			PM	7.2	A	7.2	A	0.0	No
10	Stratford Court / 10th Street	TWS	AM	9.3	A	9.3	A	0.0	No
			PM	9.2	A	9.2	A	0.0	No
11	Stratford Court / 9th Street	AWS	AM	7.1	A	7.3	A	0.2	No
			PM	7.3	A	7.3	A	0.0	No
12	Stratford Court / 4th Street – Del Mar Heights	AWS	AM	7.5	A	7.5	A	0.0	No
			PM	7.4	A	7.5	A	0.1	No

Notes:

Signal: Traffic signal, AWS: All-way stopped control; TWS: Two-way stopped control

(a) At signalized intersections, delay refers to the average control delay for the entire intersection.

(b) LOS calculations are based on the methodology outlined in the *2010 Highway Capacity Manual* and performed using Synchro 8.

(c) A reduction in delay occurs at these intersections as a result of the change in distribution of trips through the intersection The temporary City Hall site does not result in an increase in project related trips, but rather a redistribution of City Hall trips. Therefore, the overall volume of traffic evaluated remains consistent with the existing conditions assessment at both 9th Street and 11th Street in this study scenario.

The Winston School is located on the southwest corner of 9th Street / Stratford Court, on a leasehold on the Shores Park property. On the average, approximately 115 students per year attend the school with approximately 36 faculty and administrators. Most students who attend this school arrive by bus or are driven to the school by the parents or caretakers. Approximately 18 buses per day arrive at the school for drop off and pick up, which occurs between 7:30 and 8:30 AM and between 2:00 and 2:45 PM, respectively. Buses range from small buses to taxi cabs, which are provided by the local school districts served by this school. Buses circulate through the school campus along a one-way loop. The entrance to the bus drop off area is located approximately 90 feet south of 9th Street. The narrow driveway leads to the lower parking lot adjacent to the Shores Park property. Buses then exit the parking lot at the Shores Park driveway. The temporary City Hall would not take access from this one-way driveway through the Winston School, but a separate improved driveway farther south on the property. Gates or other access control devices would be installed by the City to limit access along this bus route to prevent City Hall trips from taking this route. The gate would be installed to limit both vehicular and pedestrian access.

In addition to those students who are bused, some students are dropped off by their parents (35%) and others drive themselves (9%). A small portion of students take public transportation or walk to campus. Parking for visitors, parents and students is provided on-site in a small parking lot located on at the corner of 9th Street and Stratford Court. Teacher and administrator parking is located behind the school on Stratford Court, in the same parking lot where the proposed temporary relocation buildings would be placed.

According to the Winston School, there are typically 35 vehicles parked on the Winston School campus on a typical day with fluctuations in parking on a daily basis relating to visitors, specialists and district administrators. Based on City of Del Mar Municipal Code, 48 parking spaces should be provided for the Winston School:

- 1 space per employee + 5 = 41 spaces
- 1 space per 5 students assuming 30% of the students are high school students = 7 spaces

A total of 16 parking spaces are provided in the small lot at the front of the school and 6 parking spaces at the back of the school. The remaining parking is provided on the Shores Park property, where the temporary City Hall is being considered.

When configured, the Shores Park property will provide sufficient parking to meet the parking requirements for City Hall and the Winston School. The temporary City Hall site will provide approximately 4,000 square feet of office and meeting space. Based on City of Del Mar Municipal Code, 13 parking spaces should be provided for the temporary City Hall site:

- 1 space per 300 square feet = 13 spaces

In order to prevent spillover of the Winston School and City Hall, 61 parking spaces would need to be provided on both the Shores Park property and the Winston School property to accommodate the typical demand, as summarized in **Table 8-2**.

TABLE 8-2: PARKING REQUIREMENTS FOR WINSTON SCHOOL AND TEMPORARY CITY HALL ON THE SHORES PARK PROPERTY

Land Use	City of Del Mar Municipal Code	Parking Required	Parking Provided
Winston School	1 space per employee + 5 spaces	41 spaces	16 spaces in front lot 6 spaces in back lot 26 spaces on Shores Property *TOTAL = 48 spaces*
	1 space per 5 students for high school	7 spaces (1)	
Temporary City Hall	1 space per 300 sf	13 spaces	13 Spaces on Shores Property
TOTAL			**61 SPACES**

Notes:

(1) 115 students * 30% high school = 35 students / 5 = 7 spaces

Parking demand for both Winston School and City Hall fluctuate throughout the day. Sharing the parking on the Shores Park property is feasible to meet the fluctuations in demand. To limit overflow parking from spilling over onto the local residential streets and to prevent City Hall visitors from parking in the Winston School parking spaces, signs would be erected on-site and along the residential streets directing City Hall parking to the Shores Park driveway.

8.2 Alternative Temporary City Hall Sites Considered

In addition to the proposed temporary relocation to the Shore Park lower parking lot, several alternatives or combinations for temporary relocation were considered by the City. A comparative analysis of the potential impacts to traffic is included for each of the alternatives.

- **Public Hearings at Powerhouse Park Community Building or Other Community Meeting Rooms:** The City administrative offices and the TV studio operations would be located on the Shores Park property, south of the Winston School, while all public hearings (e.g., City Council, Planning Commission, and Design Review Board) and workshops would be located at the Powerhouse Park Community Building or other community meeting room such as churches, schools or auditoriums. Driveway improvements at Stratford Court would be necessary to allow for both ingress and egress for the City administrative operations at the Shores Park site. No improvements to such community meeting facilities would be necessary to accommodate the public hearings at these sites as they are designed for large public gatherings. Traffic conditions near Powerhouse Park and other community meeting include regular use of the community meeting rooms for special events and were considered at the time the Powerhouse Park Community Building and other public meeting spaces were approved and constructed. The traffic activity generated by a public hearing would be no greater than a similar public event and would not create any unforeseen traffic or parking conditions near the community center.

- **Public Hearings at the Winston School Auditorium:** Under this alternative the proposed City administrative offices and TV studio operations would still be located on the lower pad at the Shores

site, south of the Winston School, while all public hearings (e.g., City Council, Planning Commission, and Design Review Board) and workshops would be located within the Winston School auditorium. The only physical improvements necessary for access to and from the site would be the driveway improvements on Stratford Court to allow for both ingress and egress on the existing driveway. . No other improvements to Winston School would be necessary. Impacts of this condition were evaluated as the "preferred condition" in the construction traffic assessment.

- **Public Hearing Portable Placed on the Shores Park Property:** The proposed City administrative offices and additional temporary portables for the hearing room and TV studio operations would be located on the Shores Park site, south of the Winston School. Temporary restroom facilities would be provided on the Shores Property for both the administrative office space and public meeting space part of this alternative. The driveway improvements at Stratford Court would be necessary to allow for both ingress and egress to the site, however the driveway to the upper lot would not be improved. No trees in the upper lot would be removed for this alternative, and limited, shallow trenching for utilities connections would be required. Should this alternative be selected, the analysis provided in the preferred condition would adequately reflect the traffic patterns that may since parking and access for this condition would be the same as the "preferred condition".

- **Commercial Properties for Administrative Offices:** This alternative would allow for specific administrative offices to be located at rented or leased commercial properties within the City. Under this reduced square footage, civic services could be separated into smaller leased facilities for the 30 month relocation period, thereby reducing the level of operation on the Shores Park site. The temporary relocation facilities at the Shores Park could be reduced, or if another alternative scenario is selected, not located on the property (e.g., such as with alternative use of Powerhouse Park or the Winston School Auditorium for public hearings) under this alternative. The driveway improvements at Stratford Court to allow for both ingress and egress would only be constructed if remaining services were proposed at the Shores Park property. Should City Hall administrative services be placed in commercial buildings within the City, they would replace similar office related uses that would generate similar traffic related trips. Therefore, there would be no unforeseen changes in traffic conditions as a result of this alternative.

In summary, there are several feasible alternatives for the administrative services and public hearings while City Hall is constructed. Placement of the administrative services in an existing office building and conducting the public meetings at the Powerhouse Park Community Building or other auditoriums/meeting rooms would result in traffic patterns that are consistent with the intended uses of these facilities and would not result in unexpected or new traffic patterns that would not otherwise occur if the office building or meeting space were occupied by uses other than City Hall. Locating the temporary City Hall on the Shores Park property will introduce new trips as the current site is underutilized and not currently generating or attracting trips similar to those generated by City Hall. Traffic volumes would increase along Stratford Court and on 9th Street as well as create a new demand for parking while the temporary City Hall was located on the Shores Park Property. As demonstrated in this analysis, the redistribution of traffic to the Shores Park property does not result in a

significant impact according to CEQA. However, measures should be taken to minimize impacts to the community including signage that will direct patrons of City Hall to park on-site and not in the adjacent neighborhood or at the Winston School.

8.3 Construction Activity

The temporary City Hall site is anticipated to occupy the Shores Park property for approximately 30 months with the following construction activity anticipated:

- 2-3 months of site set up temporary trailers and services
- 18-24 months of temporary occupancy during construction of new City Hall
- Up to 4 months to transfer staff to new site, site cleanup and trailer removal

Construction activity on the City Hall site was broken into seven stages:

- demolition
- site preparation
- grading
- building construction
- paving, and
- Architectural coatings.

The project is assumed to be constructed within 18 to 24 months, which includes the new City Hall, Town Hall, plaza area, parking structure and surface parking lot. For the proposed parking structure it was estimated that 750 cubic yards per day would be exported during project excavation and grading. This would result in a total of approximately 30,000 cubic yards over the 40 working day grading construction phase. Approximately 5-7 truck loads of material per day will be pick up from the site and haul to a receiving facility outside of Del Mar. The inbound primary haul route will be along Del Mar Heights Road to Camino del Mar to 11th Street. The outbound haul route will be along 10th Street, Camino del Mar and Del Mar Heights Road to access I-5.

Following grading, building construction will occur. During this time, construction worker trips will occur on a daily basis. On a given day between 7:00 AM and 4:00PM, construction workers will be on-site in addition to foreman, inspectors or other construction team members. On a typical day, the number of construction related trips will likely be less than the existing employee/visitor trips that occur on a given weekday based on the trip generation study conducted for this site. Therefore, the impact of construction related trips is less than the current use.

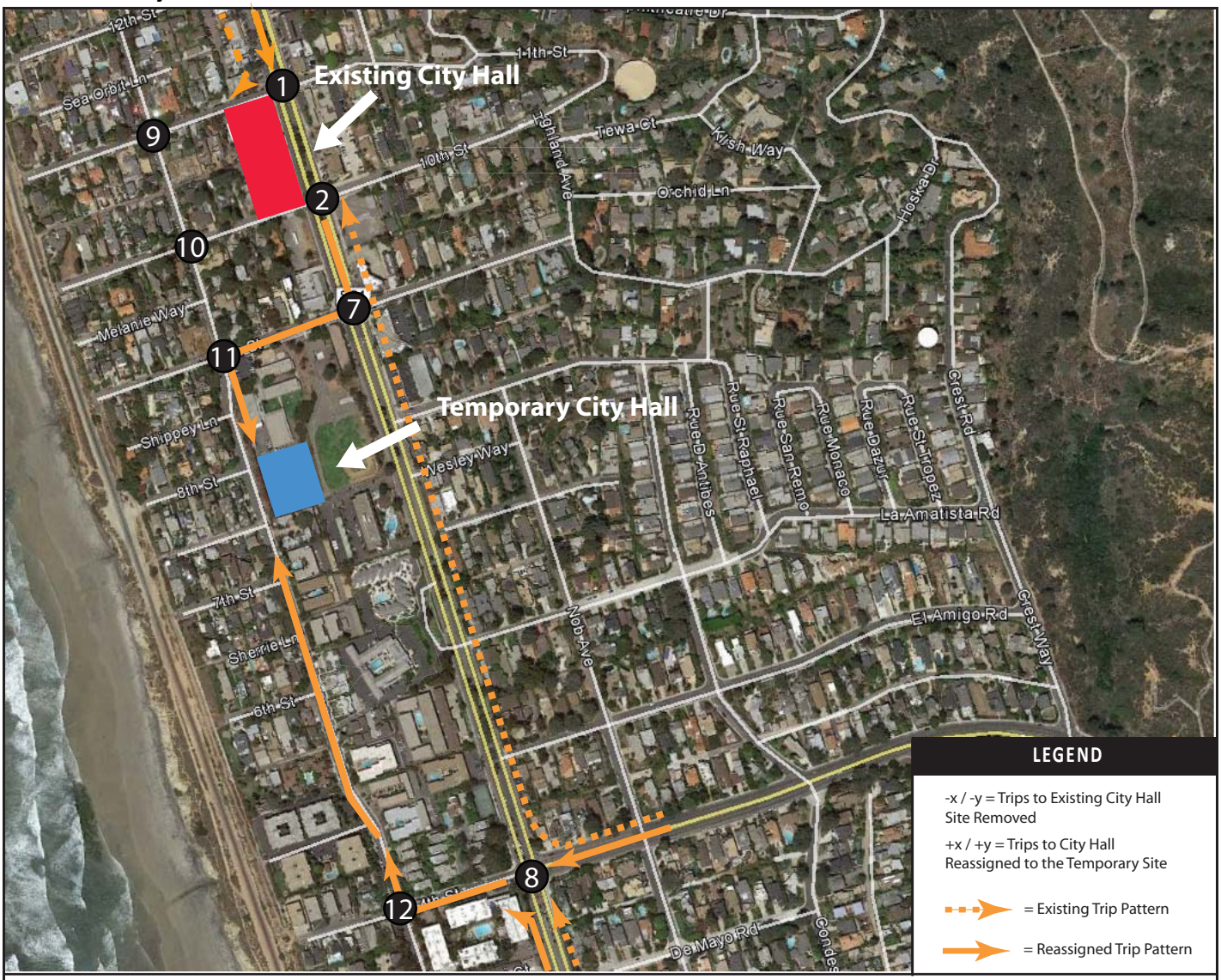
Measures will be taken by the City to control construction activity to minimize construction traffic, parking and noise issues that may affect the surrounding community. To minimize impact to the surrounding community during construction, the following traffic management measures are recommended:

- **Construction related parking will be provided on-site**. Construction workers will be prohibited from parking in the residential neighborhood once grading of the site is completed. During grading, an off-

site parking location will be identified for construction workers to minimize parking impacts in the surrounding community.

- **Construction traffic patterns will be regulated by the contractor to minimize impacts to the surrounding community.** City staff will work with the contractor to determine a reasonable transportation management plan that will clearly identify for the construction team allowable parking areas, access and circulation routes and restrictions. In addition, construction related traffic should commence prior to the PM peak to minimize the impacts to the PM peak hour delays along Camino del Mar.
- **Large trucks and deliveries to the site should be time restricted** during the AM and PM peak hours to minimize impacts during peak traffic conditions.

Del Mar City Hall



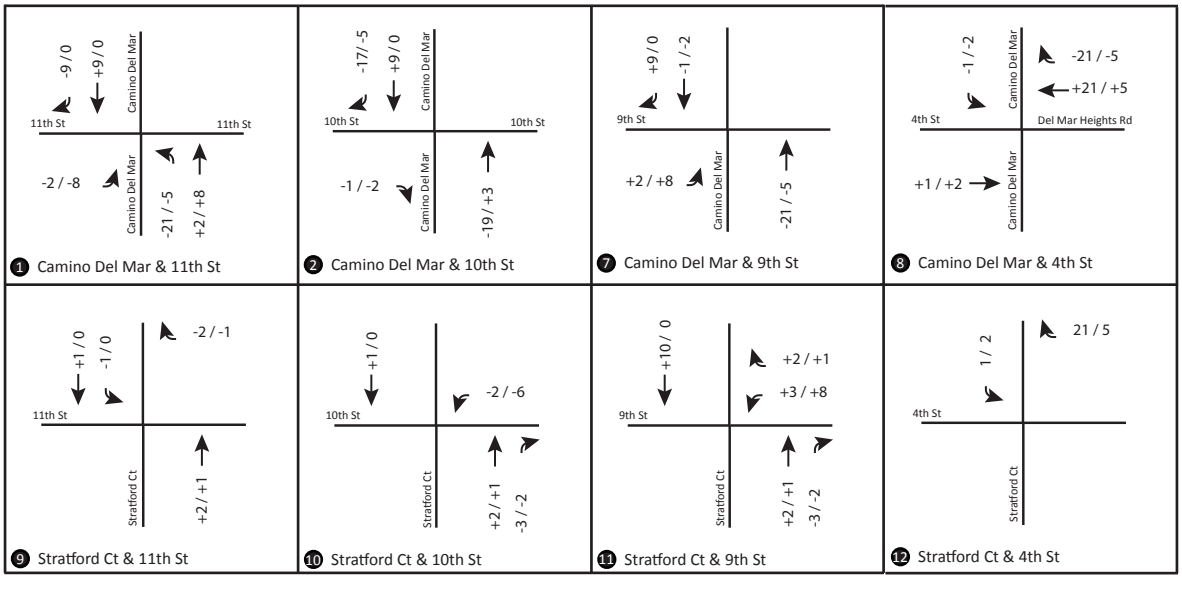


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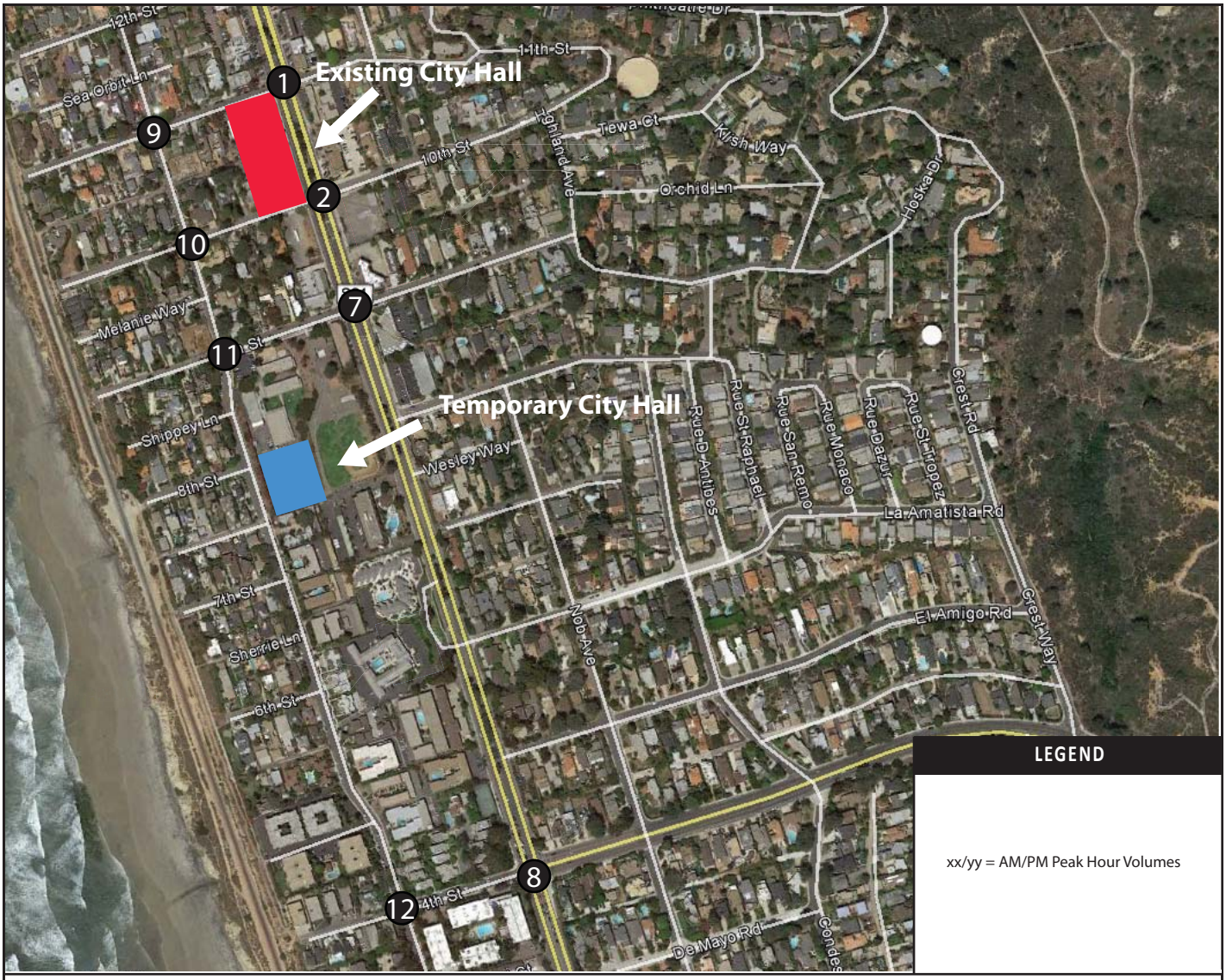
Figure 8-1
Reassignment of City Hall Trips to Temporary Site

Del Mar City Hall



LEGEND

xx/yy = AM/PM Peak Hour Volumes

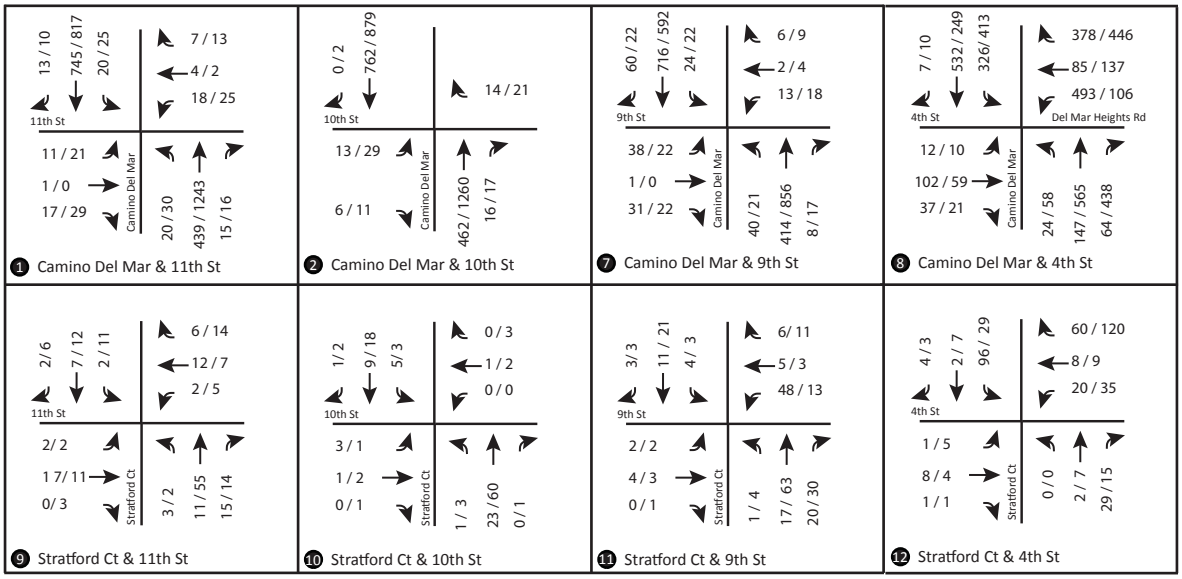


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Figure 8-2
Existing Plus Temporary City Hall Conditions

9 SIGNIFICANT IMPACTS AND MITIGATION MEASURES

As shown in the analysis, most intersections are forecast to operate LOS. The intersection of Camino del Mar / 11th Street is forecast to operate at LOS E under existing conditions and LOS F under Horizon year 2035 conditions in the PM peak. The increase in trip associated with the additional 109 parking spaces did not result in a change in delay that exceeds the thresholds of significance. Therefore, no significant impacts are forecast as a result of the project.

The temporary relocation of City Hall will result in a redistribution of trips along Camino del Mar, 9th Street, 10th Street, 4th Street, and Stratford Ct. Analysis of key intersections along Camino del Mar shows that no impacts are forecast to occur as a result of the temporary redistribution of City Hall trips.

10 FINDINGS AND CONCLUSIONS

The analysis provided in this traffic impact analysis report demonstrate that the City Hall project will not generate new trips as a result of the construction of a new City Hall and a new Town Hall building on the existing site. The additional 109 parking spaces (above the required 51 spaces for City Hall and Town Hall), will attract new trips to the site. These trips are associated with the existing and future businesses along the Camino del Mar corridor as well as the beach and other recreational activities. The traffic study evaluated the potential impacts to intersection operating conditions associated with the trips on Stratford Court, 10th Street and 11th Street. In addition to the net increase in parking, access into the parking garage that will serve the site will be different than the existing access to the property. Two access points will be provided on 11th Street and a single inbound only driveway will be provided on 10th Street. The redistribution of traffic associated with the existing City Hall trips was considered in this traffic assessment along with the net increase in trips associated with the new parking spaces.

The results of the analysis demonstrated that under both existing and horizon year conditions, the change in traffic patterns and net increase in trips associated with the increase in parking supply does not result in a significant impact at the study intersections along Stratford Court, 10th Street or 11th Street.

Pedestrian and bicycle access to the site will be improved with the construction of the new City Hall and Town Hall. Existing grades on both 10th and 11th Streets connecting City Hall to the City Hall Annex and TV studio exceed current ADA standards. Although stairs are provided between the upper and lower lots of the property, ADA access is currently limited between the buildings. The new City Hall design will provide for a multi-level parking garage and elevator access between the upper and lower lots on site. The elevator, which will be available after hours, will connect the lower parking lot to the street elevation along Camino del Mar providing access from the new public parking area to the businesses along the corridor. Bicycle parking and the existing comfort station will be provided on site for those who chose to arrive on site by bicycle.

Currently, there are no sidewalks on the south side of the City Hall property (along 10th Street). The new site design will reduce the grade of 10th Street and provide sidewalks along the project boundary. In addition, the 10th Street driveway will be inbound only, reducing pedestrian-vehicle conflicts and reducing traffic volumes at this driveway compared to the existing condition.

Overall, the proposed site will have no significant impacts to vehicular traffic and will significantly improve pedestrian access to the site. Bicycle and pedestrian amenities will be enhanced through new sidewalks, reduce grades on 10th Street, new bicycle parking and new public elevator.

During construction, administrative services and public meetings will be relocated to a temporary site for approximately 24 to 30 months. A comparative analysis of traffic impacts associated with alternative temporary City Hall sites was conducted. Alternative sites include:

- Placing administrative services in portable trailers on the Shores Park property

- Placing administrative services in office space within the City
- Conducting the public meetings at the Powerhouse Community Center or other meeting rooms/auditoriums
- Conducting public meetings in a portable office space on the Shores Park property
- Conducting public meetings at the Winston School

Placement of the administrative services in an existing office building and conducting the public meetings at the Powerhouse Park Community Building or similar meeting rooms/auditoriums would result in traffic patterns that are consistent with the intended uses of these facilities and would not result in unexpected or new traffic patterns that would not otherwise occur if the office building or meeting rooms/auditoriums were occupied by uses other than City Hall. Locating the temporary City Hall on the Shores Park property will introduce new trips as the current site is underutilized and not currently generating or attracting trips similar to those generated by City Hall. Traffic volumes would increase along Stratford Court and on 9th Street as well as create a new demand for parking while the temporary City Hall was located on the Shores Park property.

The preferred temporarily relocation site is the Shores Park property, which is located approximately 0.25 miles south of the existing City Hall property. Analysis of the temporary City Hall conditions demonstrated that the traffic impacts are less than significant based on CEQA analysis criteria. Sufficient parking for both the temporary City Hall site and overflow parking for the Winston School will be provided on-site. In order to minimizing the potential impacts to the surrounding community, signage should be installed directing visitors and staff to the Shores Park parking area, gates and signage should be erected on the existing bus entrance and at key entry points to the Winston School directing visitors and staff to the Shores Park driveway. Improvements to the Shores Park driveway should be constructed to improve access and egress to the Shores Park property.

Appendix A

Existing Traffic Volumes

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

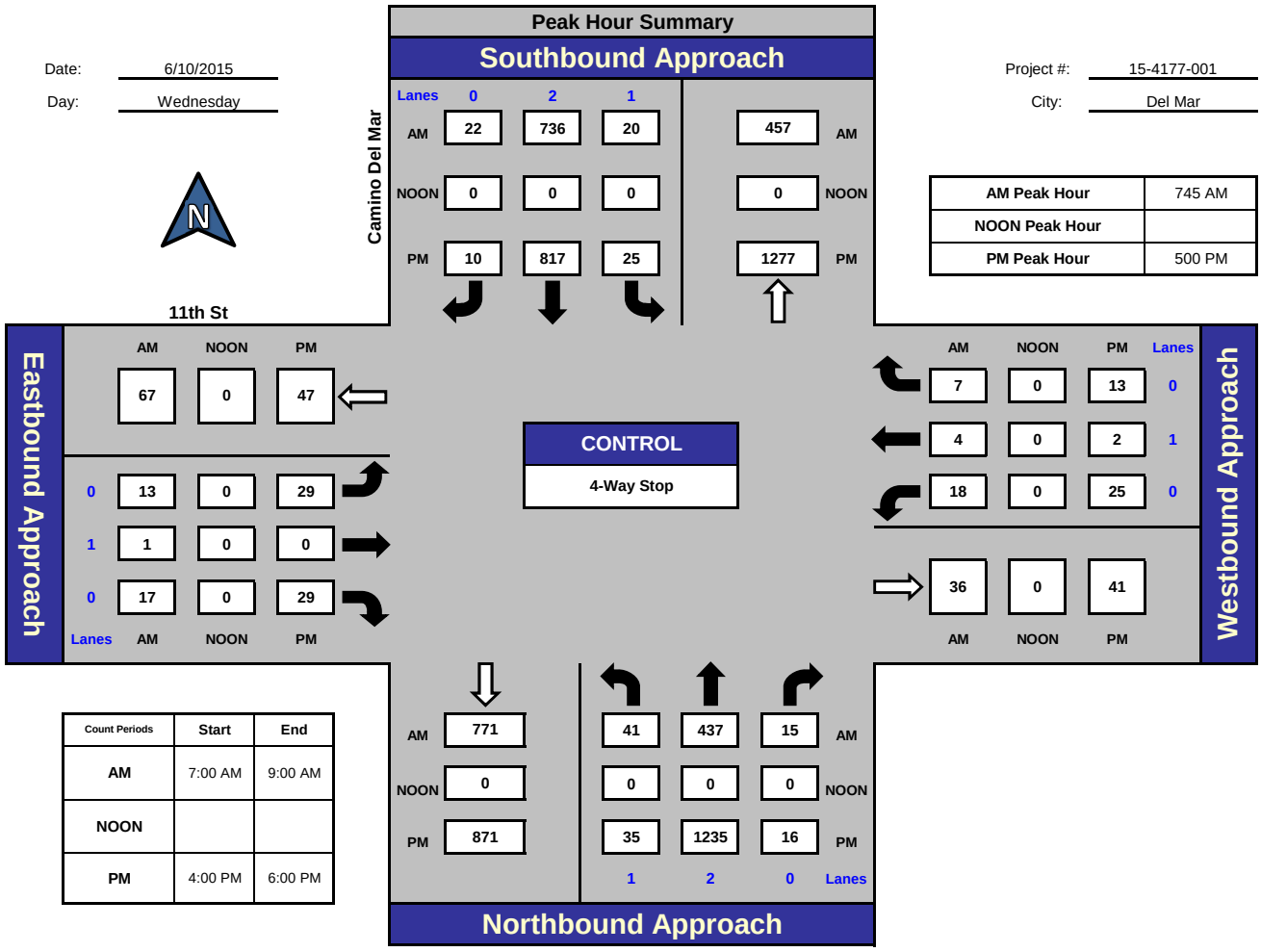
Camino Del Mar and 11th St , Del Mar

Date: 6/10/2015
Day: Wednesday

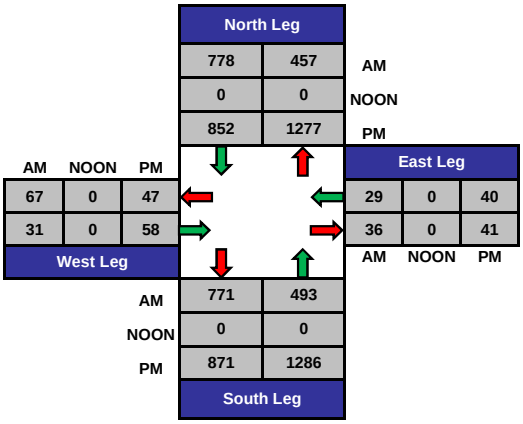
Project #: 15-4177-001
City: Del Mar

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

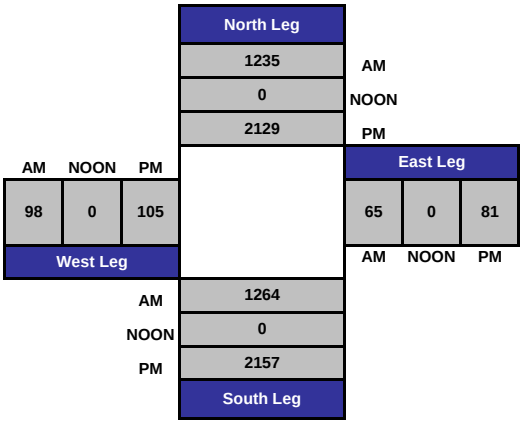
Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Camino Del Mar and 10th St , Del Mar

Date: 6/10/2015
Day: Wednesday

Project #: 15-4177-003
City: Del Mar

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

Peak Hour Summary

Southbound Approach (Camino Del Mar)

Lanes	0	2	0		
AM	17	763	0	497	AM
NOON	0	0	0	0	NOON
PM	11	870	0	1286	PM

Eastbound Approach (10th St)

Lanes	AM	NOON	PM
	17	0	11
0	0	0	0
1	0	0	0
0	7	0	13

Westbound Approach

Lanes	AM	NOON	PM
0	14	0	21
1	0	0	0
0	0	0	0
	16	0	17

CONTROL: 2-Way Stop (EB/WB)

Northbound Approach

AM	770	0	483	16	AM
NOON	0	0	0	0	NOON
PM	883	0	1265	17	PM
		0	2	0	Lanes

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	AM	NOON	PM
North Leg	780	0	881
East Leg	497	0	1286
West Leg	17	0	11
	7	0	13
South Leg	770	0	883
	499	0	1282

	AM	NOON	PM
East Leg	14	0	21
	16	0	17

Total Volume Per Leg

	AM	NOON	PM
North Leg	1277	0	2167
East Leg	30	0	38
West Leg	24	0	24
South Leg	1269	0	2165

ITM Peak Hour Summary

Prepared by:

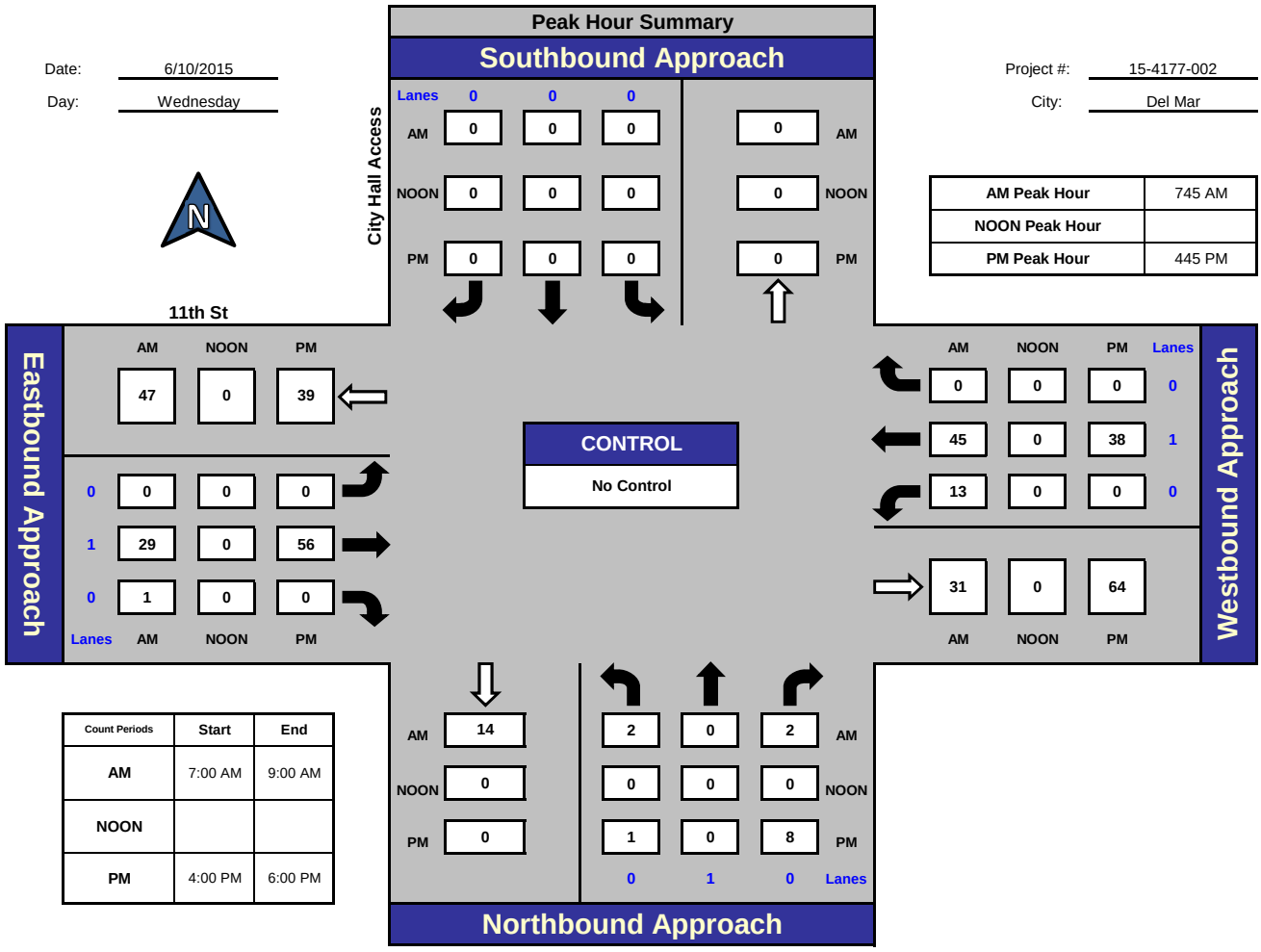
National Data & Surveying Services

City Hall Access and 11th St , Del Mar

Date: 6/10/2015
Day: Wednesday

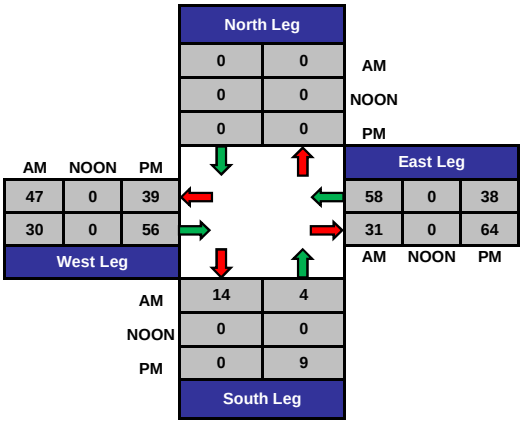
Project #: 15-4177-002
City: Del Mar

AM Peak Hour	745 AM
NOON Peak Hour	
PM Peak Hour	445 PM



Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



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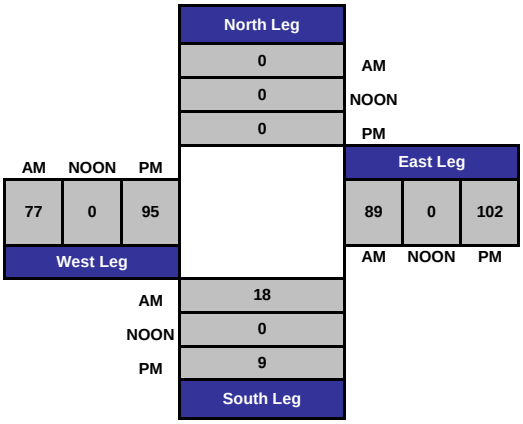


ITM Peak Hour Summary

Prepared by:

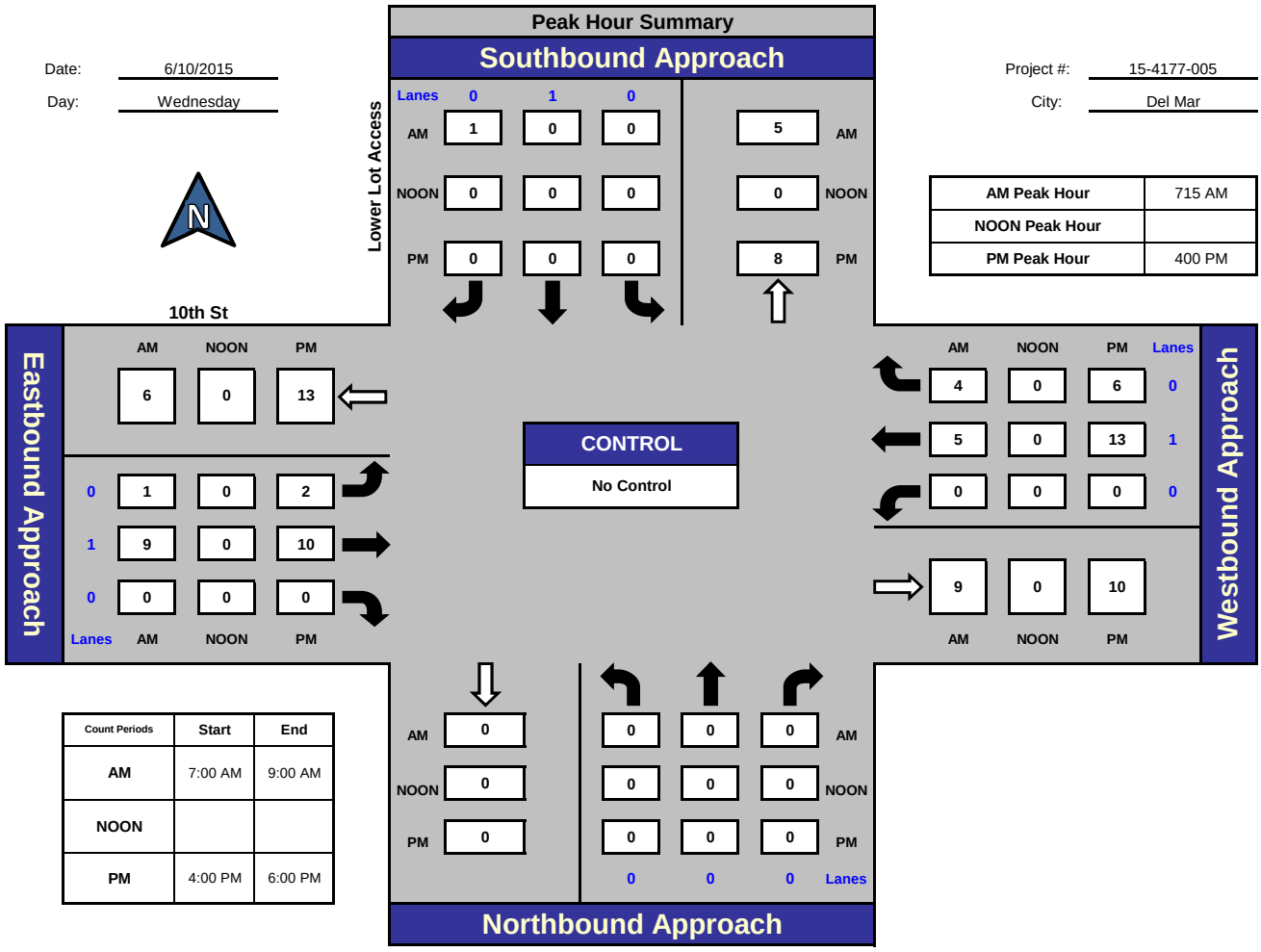
National Data & Surveying Services

Lower Lot Access and 10th St , Del Mar

Date: 6/10/2015
Day: Wednesday

Project #: 15-4177-005
City: Del Mar

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	400 PM



Count Periods	Start	End
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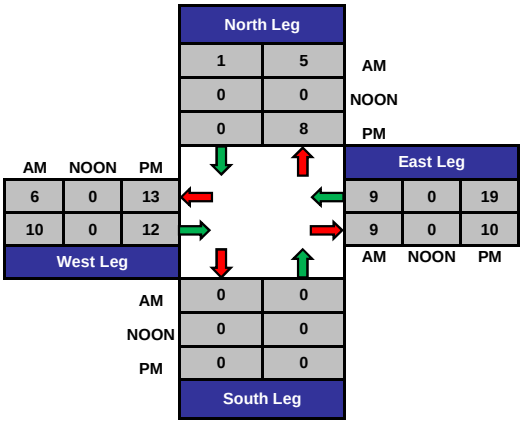
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



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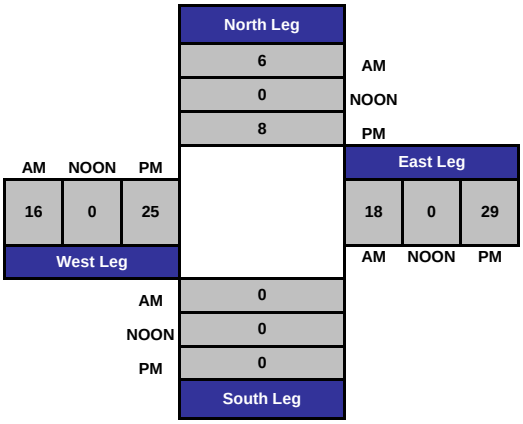


ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Upper Lot Access and 10th St , Del Mar

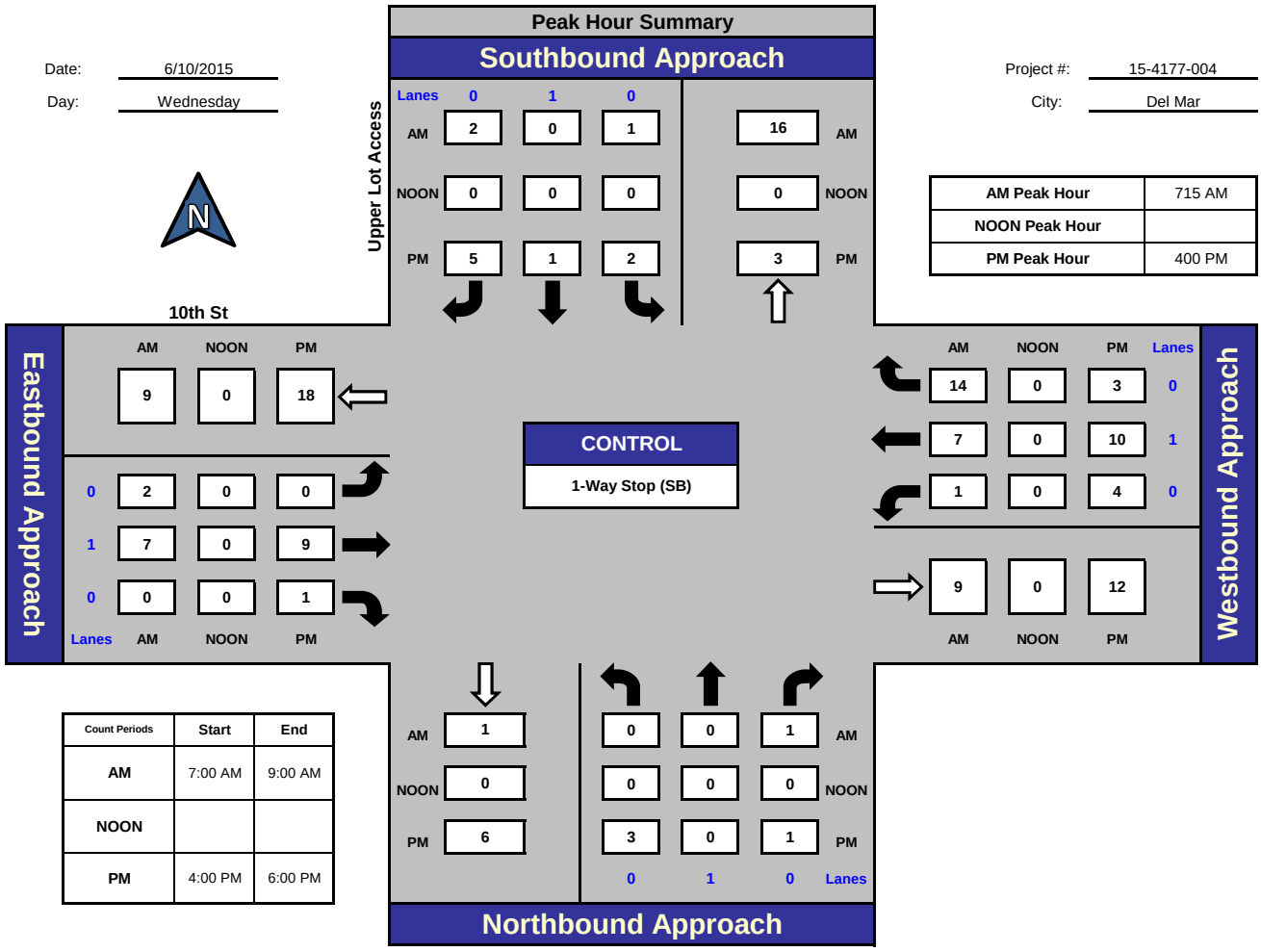
Date: 6/10/2015

Day: Wednesday

Project #: 15-4177-004

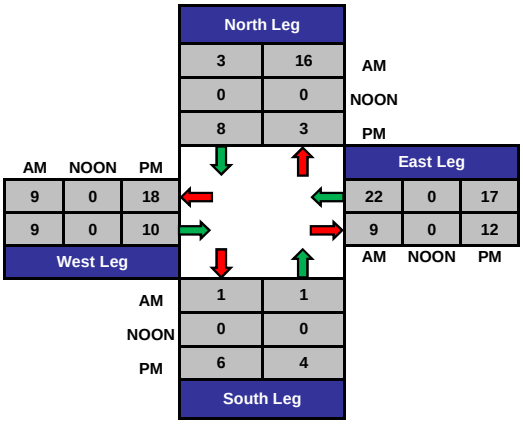
City: Del Mar

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	400 PM

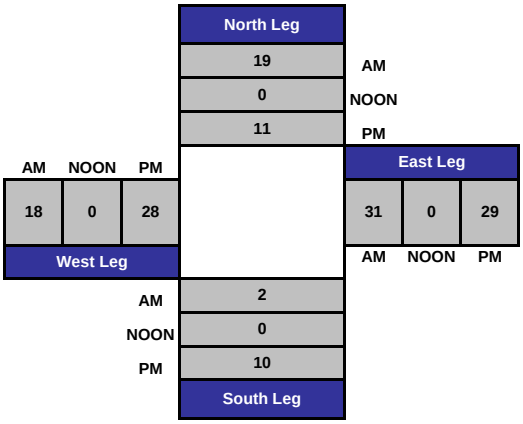


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



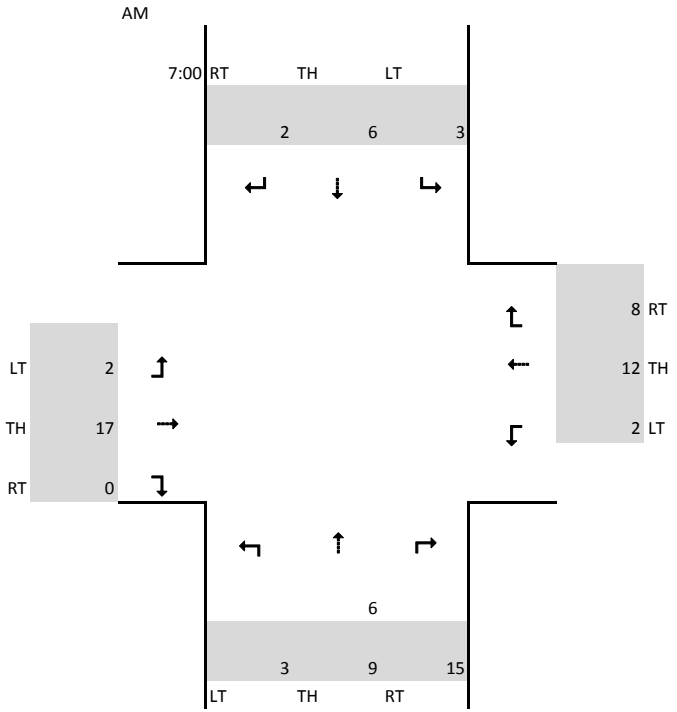
TRAFFIC COUNTS
DEL MAR CITY HALL

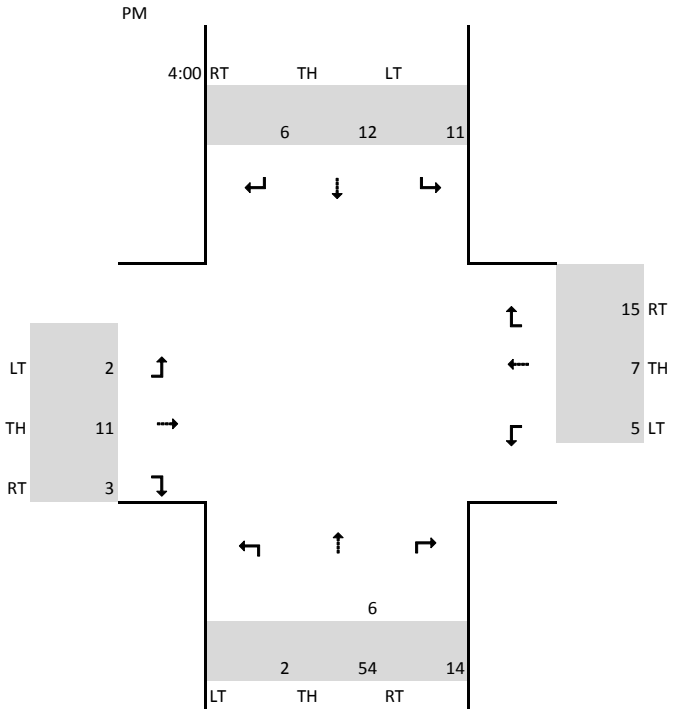
Count Location: Stratford Court / 11th Street

Analyst: YF

Date: 8/5/2015

Summary:



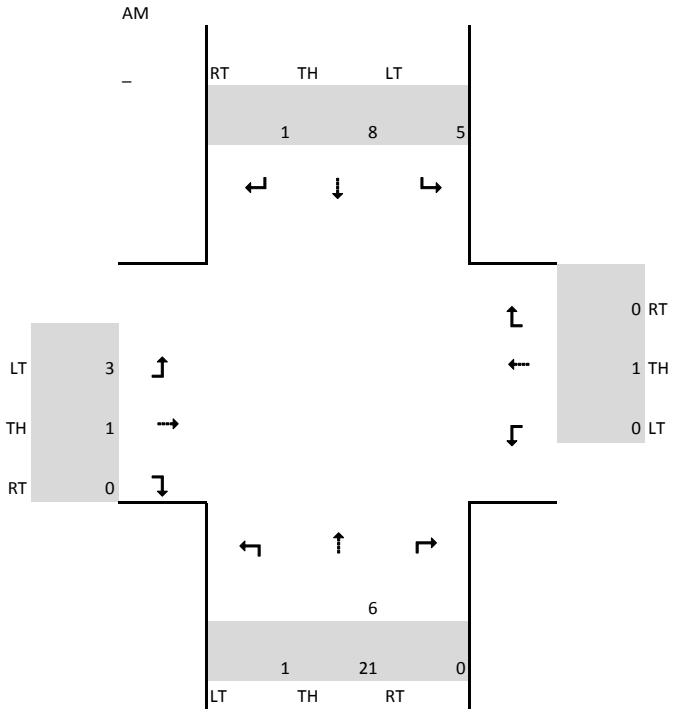


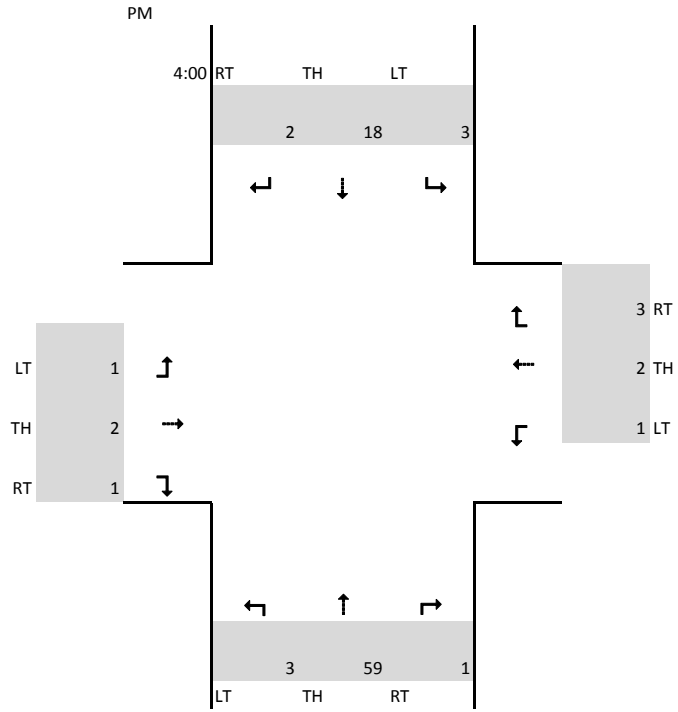
Count Location: Stratford Court / 10th Street

Analyst: NV

Date: 8/5/2015

Summary:





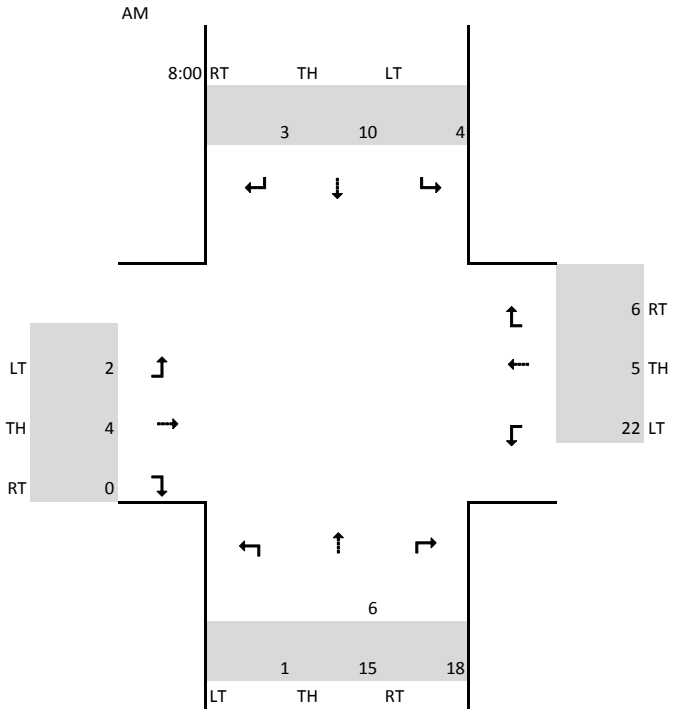
TRAFFIC COUNTS
DEL MAR CITY HALL

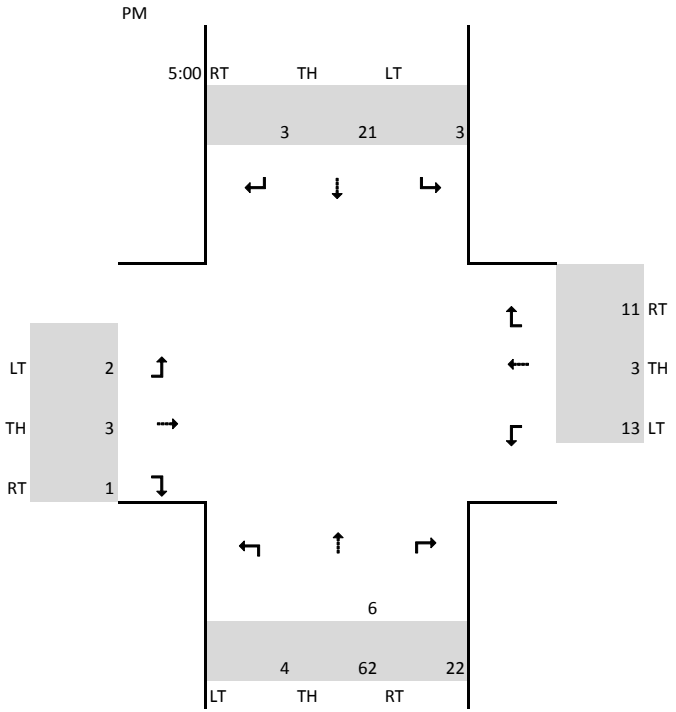
Count Location: Stratford Court / 9th Street

Analyst: NV

Date: 8/5/2015

Summary:





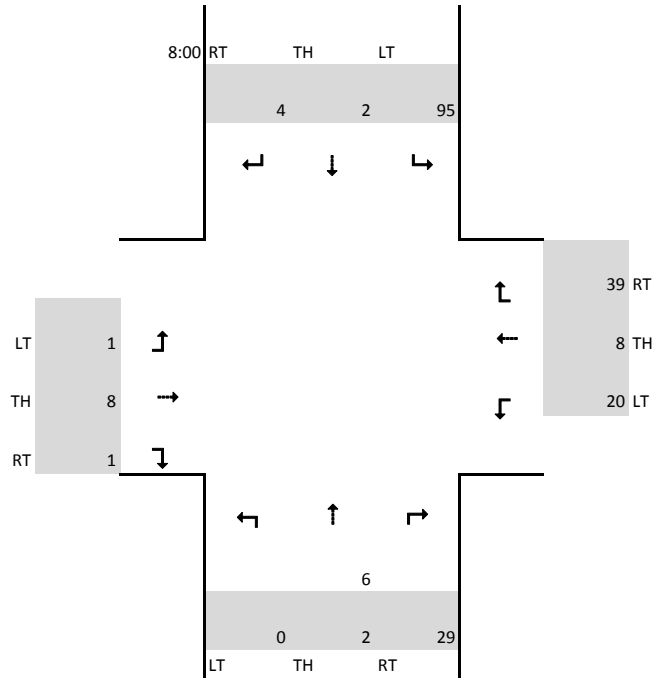
Count Location: Stratford Court / 4th Street - Del Mar Heights

Analyst: YF

Date: 8/5/2015

Summary:

AM



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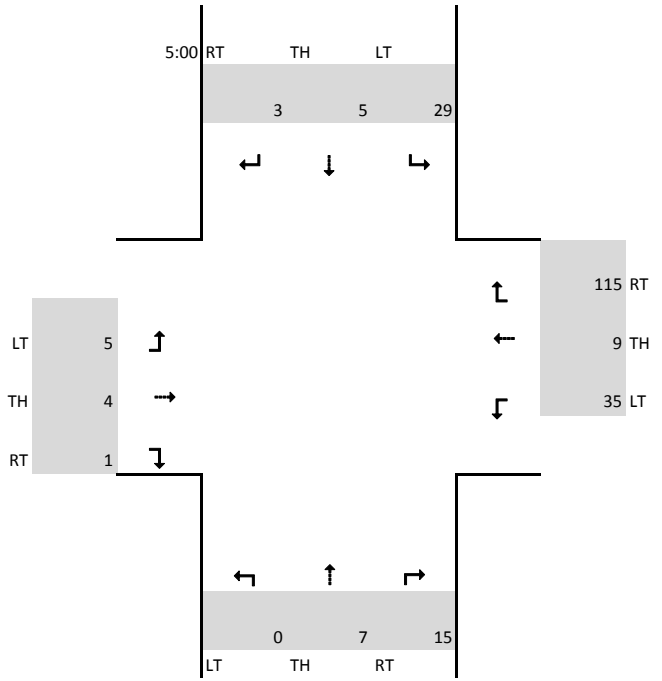

Appendix B

Existing LOS Worksheets

Intersection	
Intersection Delay, s/veh	15.6
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	13	1	17	0	18	4	7	0	41	437	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	1	18	0	19	4	7	0	43	460	16
Number of Lanes	0	0	1	0	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	10.3	10.6	12
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	42%	62%	100%	0%	0%
Vol Thru, %	0%	100%	91%	3%	14%	0%	100%	92%
Vol Right, %	0%	0%	9%	55%	24%	0%	0%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	41	291	161	31	29	20	491	267
LT Vol	0	291	146	1	4	0	491	245
Through Vol	0	0	15	17	7	0	0	22
RT Vol	41	0	0	13	18	20	0	0
Lane Flow Rate	43	307	169	33	31	21	516	281
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.073	0.472	0.257	0.065	0.063	0.034	0.753	0.406
Departure Headway (Hd)	6.15	5.648	5.582	7.121	7.441	5.751	5.249	5.191
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	586	641	648	506	484	617	682	687
Service Time	3.85	3.348	3.282	4.822	5.144	3.538	3.036	2.978
HCM Lane V/C Ratio	0.073	0.479	0.261	0.065	0.064	0.034	0.757	0.409
HCM Control Delay	9.3	13.3	10.2	10.3	10.6	8.7	22.4	11.5
HCM Lane LOS	A	B	B	B	B	A	C	B
HCM 95th-tile Q	0.2	2.5	1	0.2	0.2	0.1	6.9	2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	20	736	22
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	21	775	23
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	18.3
HCM LOS	C

Lane

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	7	0	0	14	0	483	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	7	0	0	15	0	508	17

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1038	1309	396	904	1310	263	793	0	0
Stage 1	784	784	-	517	517	-	-	-	-
Stage 2	254	525	-	387	793	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-
Pot Cap-1 Maneuver	185	158	603	232	158	735	824	-	-
Stage 1	352	402	-	509	532	-	-	-	-
Stage 2	728	528	-	608	398	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	181	158	603	229	158	735	824	-	-
Mov Cap-2 Maneuver	181	158	-	229	158	-	-	-	-
Stage 1	352	402	-	509	532	-	-	-	-
Stage 2	713	528	-	601	398	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	11	10	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	824	-	-	603	735	1038	-	-
HCM Lane V/C Ratio	-	-	-	0.012	0.02	-	-	-
HCM Control Delay (s)	0	-	-	11	10	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	736	17
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	775	18

Major/Minor	Major2		
Conflicting Flow All	525	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	1038	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1038	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	29	1	13	45	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	1	14	47	2	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	32	0	106	31
Stage 1	-	-	-	-	31	-
Stage 2	-	-	-	-	75	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1580	-	892	1043
Stage 1	-	-	-	-	992	-
Stage 2	-	-	-	-	948	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1580	-	884	1043
Mov Cap-2 Maneuver	-	-	-	-	884	-
Stage 1	-	-	-	-	992	-
Stage 2	-	-	-	-	939	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.6	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	957	-	-	1580	-
HCM Lane V/C Ratio	0.004	-	-	0.009	-
HCM Control Delay (s)	8.8	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	1	9	5	4	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	9	5	4	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	9	0	-	0	19	7
Stage 1	-	-	-	-	7	-
Stage 2	-	-	-	-	12	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1611	-	-	-	998	1075
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	1011	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1611	-	-	-	997	1075
Mov Cap-2 Maneuver	-	-	-	-	997	-
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	1010	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	8.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1611	-	-	-	1075
HCM Lane V/C Ratio	0.001	-	-	-	0.001
HCM Control Delay (s)	7.2	0	-	-	8.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	2	7	1	1	7	14	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	7	1	1	7	15	0	0	1

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	22	0	0	8	0	0	30	36	8
Stage 1	-	-	-	-	-	-	12	12	-
Stage 2	-	-	-	-	-	-	18	24	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1593	-	-	1612	-	-	979	856	1074
Stage 1	-	-	-	-	-	-	1009	886	-
Stage 2	-	-	-	-	-	-	1001	875	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1593	-	-	1612	-	-	976	854	1074
Mov Cap-2 Maneuver	-	-	-	-	-	-	976	854	-
Stage 1	-	-	-	-	-	-	1008	885	-
Stage 2	-	-	-	-	-	-	998	874	-

Approach	EB	WB	NB
HCM Control Delay, s	1.5	0.3	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1074	1593	-	-	1612	-	-	1034
HCM Lane V/C Ratio	0.001	0.001	-	-	0.001	-	-	0.003
HCM Control Delay (s)	8.4	7.3	0	-	7.2	0	-	8.5
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	1	0	2
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	1	0	2

Major/Minor	Minor2		
Conflicting Flow All	30	30	15
Stage 1	17	17	-
Stage 2	13	13	-
Critical Hdwy	7.12	6.52	6.22
Critical Hdwy Stg 1	6.12	5.52	-
Critical Hdwy Stg 2	6.12	5.52	-
Follow-up Hdwy	3.518	4.018	3.318
Pot Cap-1 Maneuver	979	863	1065
Stage 1	1002	881	-
Stage 2	1007	885	-
Platoon blocked, %			
Mov Cap-1 Maneuver	977	861	1065
Mov Cap-2 Maneuver	977	861	-
Stage 1	1001	880	-
Stage 2	1005	884	-

Approach	SB
HCM Control Delay, s	8.5
HCM LOS	A

Minor Lane/Major Mvmt

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	36	1	31	13	2	6	40	435	8	24	717	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	38	1	33	14	2	6	42	458	8	25	755	36
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	347	41	231	411	72	135	148	1180	528	148	1146	55
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.08	0.33	0.33	0.08	0.33	0.33
Sat Flow, veh/h	696	122	693	866	216	406	1774	3539	1583	1774	3439	164
Grp Volume(v), veh/h	72	0	0	22	0	0	42	458	8	25	388	403
Grp Sat Flow(s),veh/h/ln	1511	0	0	1487	0	0	1774	1770	1583	1774	1770	1834
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.1	4.8	0.2	0.6	9.0	9.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.4	0.0	0.0	1.1	4.8	0.2	0.6	9.0	9.0
Prop In Lane	0.53		0.46	0.64		0.27	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	618	0	0	618	0	0	148	1180	528	148	590	611
V/C Ratio(X)	0.12	0.00	0.00	0.04	0.00	0.00	0.28	0.39	0.02	0.17	0.66	0.66
Avail Cap(c_a), veh/h	618	0	0	618	0	0	148	1180	528	148	590	611
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	0.0	0.0	10.8	0.0	0.0	20.7	12.3	10.7	20.5	13.7	13.7
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.1	0.0	0.0	4.8	1.0	0.1	2.5	5.7	5.5
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	0.7	0.0	0.0	0.2	0.0	0.0	0.7	2.4	0.1	0.4	5.2	5.4
LnGrp Delay(d),s/veh	11.5	0.0	0.0	10.9	0.0	0.0	25.4	13.2	10.8	22.9	19.3	19.2
LnGrp LOS	B			B			C	B	B	C	B	B
Approach Vol, veh/h		72			22			508			816	
Approach Delay, s/veh		11.5			10.9			14.2			19.4	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	20.0		20.0	8.0	20.0		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	16.0		16.0	4.0	16.0		16.0
Max Q Clear Time (g_c+I1), s	2.6	6.8		3.4	3.1	11.0		2.4
Green Ext Time (p_c), s	0.0	5.2		0.3	0.0	3.2		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.0
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	101	37	493	64	399	24	147	64	327	532	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	13	106	39	519	67	420	25	155	67	344	560	7
Adj No. of Lanes	1	1	0	2	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	177	130	48	1110	72	450	34	776	347	380	1482	19
Arrive On Green	0.10	0.10	0.10	0.32	0.32	0.32	0.02	0.22	0.22	0.21	0.41	0.41
Sat Flow, veh/h	1774	1300	478	3442	222	1394	1774	3539	1583	1774	3580	45
Grp Volume(v), veh/h	13	0	145	519	0	487	25	155	67	344	277	290
Grp Sat Flow(s),veh/h/ln	1774	0	1778	1721	0	1617	1774	1770	1583	1774	1770	1855
Q Serve(g_s), s	0.7	0.0	8.9	13.4	0.0	32.4	1.6	4.0	3.8	21.0	12.1	12.1
Cycle Q Clear(g_c), s	0.7	0.0	8.9	13.4	0.0	32.4	1.6	4.0	3.8	21.0	12.1	12.1
Prop In Lane	1.00		0.27	1.00		0.86	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	177	0	178	1110	0	522	34	776	347	380	733	768
V/C Ratio(X)	0.07	0.00	0.82	0.47	0.00	0.93	0.73	0.20	0.19	0.91	0.38	0.38
Avail Cap(c_a), veh/h	255	0	256	1146	0	538	80	776	347	543	733	768
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	0.69	0.69	0.69
Uniform Delay (d), s/veh	45.3	0.0	49.0	30.0	0.0	36.5	54.2	35.4	35.4	42.6	22.6	22.6
Incr Delay (d2), s/veh	0.2	0.0	12.4	0.3	0.0	23.2	25.1	0.6	1.2	10.7	1.0	1.0
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	0.4	0.0	5.0	6.4	0.0	17.8	1.0	2.0	1.8	11.4	6.1	6.4
LnGrp Delay(d),s/veh	45.5	0.0	61.4	30.3	0.0	59.7	79.3	36.0	36.6	53.2	23.6	23.6
LnGrp LOS	D		E	C		E	E	D	D	D	C	C
Approach Vol, veh/h		158			1006			247			911	
Approach Delay, s/veh		60.1			44.6			40.5			34.8	
Approach LOS		E			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	27.8	37.3		15.1	6.2	58.9		39.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	34.0	17.0		16.0	5.0	46.0		37.0
Max Q Clear Time (g_c+I1), s	23.0	6.0		10.9	3.6	14.1		34.4
Green Ext Time (p_c), s	0.8	3.3		0.3	0.0	4.7		1.4

Intersection Summary		
HCM 2010 Ctrl Delay		41.4
HCM 2010 LOS		D

Intersection	
Intersection Delay, s/veh	6.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	17	0	0	2	12	8	0	3	9	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	18	0	0	2	13	8	0	3	9	16
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.1	6.9	6.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	11%	9%	27%
Vol Thru, %	33%	89%	55%	55%
Vol Right, %	56%	0%	36%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	19	22	11
LT Vol	9	17	12	6
Through Vol	15	0	8	2
RT Vol	3	2	2	3
Lane Flow Rate	28	20	23	12
Geometry Grp	1	1	1	1
Degree of Util (X)	0.029	0.022	0.025	0.013
Departure Headway (Hd)	3.707	4.041	3.818	3.977
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	967	887	939	901
Service Time	1.725	2.058	1.835	1.996
HCM Lane V/C Ratio	0.029	0.023	0.024	0.013
HCM Control Delay	6.8	7.1	6.9	7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.1	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	3	6	2
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	3	6	2
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7
HCM LOS	A

Lane

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	3	1	0	0	1	0	1	21	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1	0	0	1	0	1	22	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	44	43	9	44	44	22	9	0	0
Stage 1	19	19	-	24	24	-	-	-	-
Stage 2	25	24	-	20	20	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	958	849	1073	958	848	1055	1611	-	-
Stage 1	1000	880	-	994	875	-	-	-	-
Stage 2	993	875	-	999	879	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	954	846	1073	954	845	1055	1611	-	-
Mov Cap-2 Maneuver	954	846	-	954	845	-	-	-	-
Stage 1	999	877	-	993	874	-	-	-	-
Stage 2	991	874	-	995	876	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	8.9	9.3	0.3
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1611	-	-	924	845	1593	-	-
HCM Lane V/C Ratio	0.001	-	-	0.005	0.001	0.003	-	-
HCM Control Delay (s)	7.2	0	-	8.9	9.3	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	5	8	1
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	5	8	1

Major/Minor	Major2		
Conflicting Flow All	22	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1593	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1593	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	2.6
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	4	0	0	22	5	6	0	1	15	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	4	0	0	23	5	6	0	1	16	19
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7.2	6.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	33%	67%	24%
Vol Thru, %	44%	67%	15%	59%
Vol Right, %	53%	0%	18%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	6	33	17
LT Vol	15	4	5	10
Through Vol	18	0	6	3
RT Vol	1	2	22	4
Lane Flow Rate	36	6	35	18
Geometry Grp	1	1	1	1
Degree of Util (X)	0.037	0.007	0.039	0.02
Departure Headway (Hd)	3.708	4.121	4.057	3.975
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	966	869	884	901
Service Time	1.729	2.145	2.076	1.997
HCM Lane V/C Ratio	0.037	0.007	0.04	0.02
HCM Control Delay	6.9	7.2	7.2	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	4	10	3
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	4	11	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.1
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	1	8	1	0	20	8	39	0	0	2	29
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1	8	1	0	21	8	41	0	0	2	31
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	7.3	6.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	10%	30%	94%
Vol Thru, %	6%	80%	12%	2%
Vol Right, %	94%	10%	58%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	10	67	101
LT Vol	2	8	8	2
Through Vol	29	1	39	4
RT Vol	0	1	20	95
Lane Flow Rate	33	11	71	106
Geometry Grp	1	1	1	1
Degree of Util (X)	0.033	0.012	0.076	0.126
Departure Headway (Hd)	3.594	4.191	3.893	4.264
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	986	843	910	839
Service Time	1.653	2.272	1.963	2.299
HCM Lane V/C Ratio	0.033	0.013	0.078	0.126
HCM Control Delay	6.8	7.3	7.3	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.2	0.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	95	2	4
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	100	2	4
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.9
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	45.9
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	29	0	29	0	25	2	13	0	35	1235	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	31	0	31	0	26	2	14	0	37	1300	17
Number of Lanes	0	0	1	0	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	12.4	12.3	48.6
HCM LOS	B	B	E

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	50%	62%	100%	0%	0%
Vol Thru, %	0%	100%	96%	0%	5%	0%	100%	96%
Vol Right, %	0%	0%	4%	50%	33%	0%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	823	428	58	40	25	545	282
LT Vol	0	823	412	0	2	0	545	272
Through Vol	0	0	16	29	13	0	0	10
RT Vol	35	0	0	29	25	25	0	0
Lane Flow Rate	37	867	450	61	42	26	573	297
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.069	1	0.772	0.141	0.1	0.05	1	0.524
Departure Headway (Hd)	6.704	6.199	6.173	8.304	8.554	6.877	6.378	6.353
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	540	598	594	431	418	521	568	568
Service Time	4.375	3.876	3.85	6.072	6.321	4.614	4.116	4.091
HCM Lane V/C Ratio	0.069	1.45	0.758	0.142	0.1	0.05	1.009	0.523
HCM Control Delay	9.9	61.6	26.6	12.4	12.3	10	62.8	15.9
HCM Lane LOS	A	F	D	B	B	A	F	C
HCM 95th-tile Q	0.2	14.8	7.1	0.5	0.3	0.2	14.5	3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	25	817	10
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	26	860	11
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	45.7
HCM LOS	E

Lane

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	13	0	0	21	0	1265	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	14	0	0	22	0	1332	18

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1588	2271	464	1799	2268	675	927	0	0
Stage 1	922	922	-	1341	1341	-	-	-	-
Stage 2	666	1349	-	458	927	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-
Pot Cap-1 Maneuver	72	40	545	50	40	396	733	-	-
Stage 1	291	347	-	161	219	-	-	-	-
Stage 2	415	217	-	552	345	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	68	40	545	49	40	396	733	-	-
Mov Cap-2 Maneuver	68	40	-	49	40	-	-	-	-
Stage 1	291	347	-	161	219	-	-	-	-
Stage 2	392	217	-	538	345	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	11.8	14.6	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	733	-	-	545	396	506	-	-
HCM Lane V/C Ratio	-	-	-	0.025	0.056	-	-	-
HCM Control Delay (s)	0	-	-	11.8	14.6	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	870	11
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	916	12

Major/Minor	Major2		
Conflicting Flow All	1349	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	506	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	506	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	56	0	0	38	1	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	59	0	0	40	1	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	59	0	99	59
Stage 1	-	-	-	-	59	-
Stage 2	-	-	-	-	40	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1545	-	900	1007
Stage 1	-	-	-	-	964	-
Stage 2	-	-	-	-	982	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1545	-	900	1007
Mov Cap-2 Maneuver	-	-	-	-	900	-
Stage 1	-	-	-	-	964	-
Stage 2	-	-	-	-	982	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	994	-	-	1545	-
HCM Lane V/C Ratio	0.01	-	-	-	-
HCM Control Delay (s)	8.7	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	2	10	13	6	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	11	14	6	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	20	0	-	0	32	17
Stage 1	-	-	-	-	17	-
Stage 2	-	-	-	-	15	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1596	-	-	-	982	1062
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	1008	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1596	-	-	-	981	1062
Mov Cap-2 Maneuver	-	-	-	-	981	-
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	1007	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1596	-	-	-	-
HCM Lane V/C Ratio	0.001	-	-	-	-
HCM Control Delay (s)	7.3	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	9	0	4	10	3	3	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	9	0	4	11	3	3	0	1

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	14	0	0	9	0	0	32	31	9
Stage 1	-	-	-	-	-	-	9	9	-
Stage 2	-	-	-	-	-	-	23	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1604	-	-	1611	-	-	976	862	1073
Stage 1	-	-	-	-	-	-	1012	888	-
Stage 2	-	-	-	-	-	-	995	877	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1604	-	-	1611	-	-	969	859	1073
Mov Cap-2 Maneuver	-	-	-	-	-	-	969	859	-
Stage 1	-	-	-	-	-	-	1012	888	-
Stage 2	-	-	-	-	-	-	987	874	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	993	1604	-	-	1611	-	-	1040
HCM Lane V/C Ratio	0.004	-	-	-	0.003	-	-	0.007
HCM Control Delay (s)	8.6	0	-	-	7.2	0	-	8.5
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	2	0	5
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	2	0	5

Major/Minor	Minor2		
Conflicting Flow All	31	30	12
Stage 1	21	21	-
Stage 2	10	9	-
Critical Hdwy	7.12	6.52	6.22
Critical Hdwy Stg 1	6.12	5.52	-
Critical Hdwy Stg 2	6.12	5.52	-
Follow-up Hdwy	3.518	4.018	3.318
Pot Cap-1 Maneuver	977	863	1069
Stage 1	998	878	-
Stage 2	1011	888	-
Platoon blocked, %			
Mov Cap-1 Maneuver	974	860	1069
Mov Cap-2 Maneuver	974	860	-
Stage 1	998	875	-
Stage 2	1010	888	-

Approach	SB
HCM Control Delay, s	8.5
HCM LOS	A

Minor Lane/Major Mvmt

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	0	22	18	4	9	21	861	17	22	594	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	15	0	23	19	4	9	22	906	18	23	625	14
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	265	42	310	388	93	141	148	1180	528	148	1180	26
Arrive On Green	0.33	0.00	0.33	0.33	0.33	0.33	0.08	0.33	0.33	0.08	0.33	0.33
Sat Flow, veh/h	482	125	930	805	279	424	1774	3539	1583	1774	3539	79
Grp Volume(v), veh/h	38	0	0	32	0	0	22	906	18	23	312	327
Grp Sat Flow(s),veh/h/ln	1537	0	0	1508	0	0	1774	1770	1583	1774	1770	1849
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.6	11.0	0.4	0.6	6.9	6.9
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.6	0.0	0.0	0.6	11.0	0.4	0.6	6.9	6.9
Prop In Lane	0.39		0.61	0.59		0.28	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	617	0	0	622	0	0	148	1180	528	148	590	616
V/C Ratio(X)	0.06	0.00	0.00	0.05	0.00	0.00	0.15	0.77	0.03	0.16	0.53	0.53
Avail Cap(c_a), veh/h	617	0	0	622	0	0	148	1180	528	148	590	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.9	0.0	0.0	10.9	0.0	0.0	20.4	14.3	10.8	20.4	13.0	13.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	2.1	4.8	0.1	2.2	3.4	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	0.4	0.0	0.0	0.3	0.0	0.0	0.4	6.1	0.2	0.4	3.9	4.0
LnGrp Delay(d),s/veh	11.1	0.0	0.0	11.0	0.0	0.0	22.5	19.2	10.9	22.7	16.3	16.2
LnGrp LOS	B			B			C	B	B	C	B	B
Approach Vol, veh/h		38			32			946			662	
Approach Delay, s/veh		11.1			11.0			19.1			16.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	20.0		20.0	8.0	20.0		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	16.0		16.0	4.0	16.0		16.0
Max Q Clear Time (g_c+I1), s	2.6	13.0		2.7	2.6	8.9		2.6
Green Ext Time (p_c), s	0.0	2.3		0.2	0.0	5.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	57	21	106	132	451	58	565	438	415	249	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	11	60	22	112	139	475	61	595	461	437	262	11
Adj No. of Lanes	1	1	0	2	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	110	80	30	1132	122	417	79	712	318	465	1449	61
Arrive On Green	0.06	0.06	0.06	0.33	0.33	0.33	0.04	0.20	0.20	0.26	0.42	0.42
Sat Flow, veh/h	1774	1301	477	3442	371	1268	1774	3539	1583	1774	3462	145
Grp Volume(v), veh/h	11	0	82	112	0	614	61	595	461	437	133	140
Grp Sat Flow(s),veh/h/ln	1774	0	1779	1721	0	1639	1774	1770	1583	1774	1770	1837
Q Serve(g_s), s	0.6	0.0	5.0	2.5	0.0	36.0	3.7	17.7	22.0	26.4	5.2	5.2
Cycle Q Clear(g_c), s	0.6	0.0	5.0	2.5	0.0	36.0	3.7	17.7	22.0	26.4	5.2	5.2
Prop In Lane	1.00		0.27	1.00		0.77	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	110	0	110	1132	0	539	79	712	318	465	741	769
V/C Ratio(X)	0.10	0.00	0.75	0.10	0.00	1.14	0.78	0.84	1.45	0.94	0.18	0.18
Avail Cap(c_a), veh/h	259	0	260	1132	0	539	146	712	318	486	741	769
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	0.82	0.82	0.82
Uniform Delay (d), s/veh	48.5	0.0	50.5	25.5	0.0	36.7	51.8	42.0	43.7	39.5	20.0	20.0
Incr Delay (d2), s/veh	0.4	0.0	9.6	0.0	0.0	83.0	14.9	11.2	218.6	22.9	0.4	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	0.3	0.0	2.7	1.2	0.0	28.6	2.2	9.7	28.9	15.8	2.6	2.7
LnGrp Delay(d),s/veh	48.9	0.0	60.1	25.5	0.0	119.7	66.7	53.2	262.3	62.4	20.4	20.4
LnGrp LOS	D		E	C		F	E	D	F	E	C	C
Approach Vol, veh/h		93			726			1117			710	
Approach Delay, s/veh		58.7			105.2			140.2			46.3	
Approach LOS		E			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	32.7	36.6		10.8	8.8	60.4		40.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	30.0	22.0		16.0	9.0	43.0		36.0
Max Q Clear Time (g_c+I1), s	28.4	24.0		7.0	5.7	7.2		38.0
Green Ext Time (p_c), s	0.3	0.0		0.2	0.0	8.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	102.5
HCM 2010 LOS	F

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	11	3	0	5	7	15	0	2	54	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	12	3	0	5	7	16	0	2	57	15
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	12%	19%	38%
Vol Thru, %	77%	69%	26%	41%
Vol Right, %	20%	19%	56%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	16	27	29
LT Vol	54	11	7	12
Through Vol	14	3	15	6
RT Vol	2	2	5	11
Lane Flow Rate	74	17	28	31
Geometry Grp	1	1	1	1
Degree of Util (X)	0.08	0.019	0.03	0.034
Departure Headway (Hd)	3.921	4.047	3.829	4.019
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	914	880	929	889
Service Time	1.944	2.094	1.876	2.05
HCM Lane V/C Ratio	0.081	0.019	0.03	0.035
HCM Control Delay	7.3	7.2	7	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.1	0.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	11	12	6
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	12	13	6
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	1	2	1	1	2	3	3	59	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	2	1	1	2	3	3	62	1

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	98	95	20	97	96	63	21	0	0
Stage 1	26	26	-	69	69	-	-	-	-
Stage 2	72	69	-	28	27	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	884	795	1058	885	794	1002	1595	-	-
Stage 1	992	874	-	941	837	-	-	-	-
Stage 2	938	837	-	989	873	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	877	792	1058	880	791	1002	1595	-	-
Mov Cap-2 Maneuver	877	792	-	880	791	-	-	-	-
Stage 1	990	872	-	939	835	-	-	-	-
Stage 2	931	835	-	984	871	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	9.2	9	0.3
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1595	-	-	868	901	1540	-	-
HCM Lane V/C Ratio	0.002	-	-	0.005	0.007	0.002	-	-
HCM Control Delay (s)	7.3	0	-	9.2	9	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	3	18	2
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	3	19	2

Major/Minor	Major2		
Conflicting Flow All	63	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1540	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1540	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	1
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	3	1	0	13	3	11	0	4	62	22
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	3	1	0	14	3	12	0	4	65	23
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7.2	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	33%	48%	11%
Vol Thru, %	70%	50%	11%	78%
Vol Right, %	25%	17%	41%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	88	6	27	27
LT Vol	62	3	3	21
Through Vol	22	1	11	3
RT Vol	4	2	13	3
Lane Flow Rate	93	6	28	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.1	0.007	0.032	0.032
Departure Headway (Hd)	3.875	4.131	3.999	4.02
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	925	860	890	889
Service Time	1.896	2.186	2.048	2.051
HCM Lane V/C Ratio	0.101	0.007	0.031	0.031
HCM Control Delay	7.3	7.2	7.2	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0	0.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	3	21	3
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	3	22	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	5	4	1	0	35	9	115	0	0	7	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	4	1	0	37	9	121	0	0	7	16
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	7.4	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	50%	22%	78%
Vol Thru, %	32%	40%	6%	14%
Vol Right, %	68%	10%	72%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	10	159	37
LT Vol	7	4	9	5
Through Vol	15	1	115	3
RT Vol	0	5	35	29
Lane Flow Rate	23	11	167	39
Geometry Grp	1	1	1	1
Degree of Util (X)	0.025	0.012	0.17	0.047
Departure Headway (Hd)	3.864	4.211	3.661	4.37
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	918	845	977	815
Service Time	1.922	2.262	1.694	2.421
HCM Lane V/C Ratio	0.025	0.013	0.171	0.048
HCM Control Delay	7	7.3	7.4	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.6	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	29	5	3
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	31	5	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.6
HCM LOS	A

Lane

Appendix C

Parking Survey

Prepared by National Data & Surveying Services

Del Mar City Hall Parking Study

Location: Camino Del Mar bet 11th St & 10th St
City: Del Mar

Day: Wednesday
Date: 6/10/2015

Space	Space Type	LOT A (Easterly Lot) Licence Plate:													
		8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM
1	Reg	X	88NI	88NI	88NI	88NI	88NI	88NI	88NI	88NI	88NI	X	X	X	X
2	Reg	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3	Reg	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4	Reg	X	V438	V438	V438	V438	V438	V438	V438	V438	V438	X	X	X	X
5	Reg	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6	Reg	6628	6628	6628	6628	6628	6628	6628	6628	6628	6628	6628	6628	6628	6628
7	Reg	X	X	X	X	X	H375	X	X	X	X	W624	W624	X	X
8	Reg	F405	F405	F405	X	X	X	X	X	X	X	X	X	X	X
9	Reg	X	6694	6694	6694	6694	6694	6694	6694	6694	6694	X	X	X	X
10	Reg	D490	D490	D490	D490	D490	D490	D490	D490	D490	D490	D490	X	X	X
11	Reg	L340	L340	L340	L340	L340	L340	X	L340	L340	L340	L340	X	X	X
12	Reg	L183	L183	L183	X	X	L183	L183	L183	L183	LI83	X	X	X	X
13	Reg	X	08FI	08FI	08FI	08FI	08FI	08FI	08FI	08FI	08FI	X	X	X	X
14	20 Min	X	X	X	X	X	X	X	X	L660	X	X	X	X	X
15	20 Min	X	X	X	X	X	X	X	X	X	W254	X	X	X	X
16	HC	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17	Reg	D391	D391	D391	D391	D391	D391	D391	D391	D391	X	X	X	X	X
18	Reg	H454	H454	H454	H454	H454	H454	H454	H454	H454	H454	X	X	X	X
19	Reg	X	X	X	X	X	X	X	8865	8865	8865	X	X	X	X
20	Reg	J422	J422	J422	J422	X	J422	J422	X	X	X	C205	C205	X	X
21	Reg	X	P106	P106	P106	X	X	X	X	J422	X	X	X	X	X
22	Reg	B085	B085	X	X	X	X	X	BO85	C862	X	X	X	X	X
23	Reg	X	X	X	X	F405	F405	F405	F405	F405	X	X	X	X	X
24	Reg	S385	S385	S385	S385	S385	S385	S385	S385	S385	S385	S385	S385	X	X
25	Reg	M203	M203	M203	M203	M203	M203	M203	M203	M203	M203	X	X	X	X
26	Reg	T099	T099	T099	T099	T099	T099	X	X	T099	T099	X	X	X	X
27	Reg	X	C775	X	X	X	X	X	X	X	X	X	X	X	X
28	Reg	X	X	X	X	X	L643	X	X	X	X	U966	U966	U966	X
29	Reg	X	X	B735	B735	B735	B735	X	X	X	X	X	X	X	X
30	Reg	M028	X	X	X	X	X	X	X	X	X	X	X	X	X
31	Reg	5335	5335	5335	5335	5335	5335	5335	5335	5335	5335	X	X	X	X

HC = Handicapped

Prepared by National Data & Surveying Services

Del Mar City Hall Parking Study

Location: Camino Del Mar bet 11th St & 10th St
City: Del Mar

Day: Wednesday
Date: 6/10/2015

Space	Space Type	LOT B (Westerly Lot) Licence Plate:													
		8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM
1	Reg	Y185	Y185	Y185	X	X	S318	X	X	S318	S318	S318	X	X	X
2	Reg	BY35	BY35	X	X	X	X	5823	S318	X	X	X	X	X	X
3	Reg	P946	P946	P946	P946	P946	P946	P946	P946	P946	X	X	X	X	X
4	Reg	N/P	N/P	N/P	N/P	N/P	N/P	N/P	N/P	N/P	X	X	X	X	X
5	Reg	S327	S327	X	AMAP	X	31P1	6446	6446	N526	X	X	X	X	X
6	HC	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7	Reg	3310	3310	3310	3310	3310	3310	3310	3310	3310	3310	3310	3310	3310	3310
8	Reg	X	S086	S086	S086	S086	S086	S086	S086	S086	X	X	X	X	X
9	Reg	N744	N744	N744	X	X	EAY	N678	U296	U296	U296	U296	X	X	X
10	Reg	E075	E075	X	X	X	X	X	X	X	X	X	X	X	X
11	Reg	S484	S484	S484	S484	X	S484	S484	S484	S484	S484	X	X	X	X
12	Reg	U121	U121	U121	U121	X	U121	U121	U121	U121	X	X	X	X	X
13	Reg	S243	S243	S243	X513	X513	X513	X	C548	C548	X	X	X	K039	X
14	Reg	1060	1060	1060	1060	1060	1060	1060	1060	1060	1060	X	X	X	X
15	Reg	Y292	Y292	Y292	X	F155	F155	F155	F155	F155	F155	F155	F155	X	X
16	Reg	C548	C548	X	X	X	Y034	Y034	Y034	Y034	Y034	Y034	Y034	Y034	X
17	Reg	A902	A902	X	X	X	X	P191	HOMS	X	X	X	X	X	X
18	Reg	F238	F238	F238	F238	F238	F238	F238	F238	F238	F238	X	X	X	X
19	Reg	C854	C854	C854	C854	X	X	C733	C733		X	X	X	X	X
20	Reg	A032	X	X	X	X	F583	F583	F583	F583	F583	X	X	X	X
21	Reg	E121	E121	X	4085	4085	4085	4085	X	X	X	X	X	X	X
22	Reg	RMBL	RMBL	RMBL	RMBL	RMBL	RMBL	RMBL	RMBL	RMBL	RMBL	X	X	X	X
23	EV	X	K785	K785	K785	K785	X	S062	X	X	X	X	X	X	X
24	EV	X	X	X	R901	R901	R901	R901	R901	R901	R901	X	X	X	X
25	HC	X	X	X	X	X	X	X	X	X	X	X	X	X	X
26	HC	X	X	X	X	X	X	X	X	X	X	X	X	X	X

HC = Handicapped
EV = Electric Vehicle

Appendix D

Existing Plus Project Intersection LOS Worksheets

Intersection	
Intersection Delay, s/veh	16.9
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	18	1	27	0	18	4	7	0	84	437	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	19	1	28	0	19	4	7	0	88	460	16
Number of Lanes	0	0	1	0	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	10.7	10.9	12.4
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	39%	62%	100%	0%	0%
Vol Thru, %	0%	100%	91%	2%	14%	0%	100%	85%
Vol Right, %	0%	0%	9%	59%	24%	0%	0%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	84	291	161	46	29	20	493	292
LT Vol	0	291	146	1	4	0	493	247
Through Vol	0	0	15	27	7	0	0	45
RT Vol	84	0	0	18	18	20	0	0
Lane Flow Rate	88	307	169	48	31	21	519	307
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.154	0.492	0.268	0.097	0.065	0.035	0.79	0.458
Departure Headway (Hd)	6.28	5.777	5.711	7.219	7.632	5.982	5.479	5.37
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	572	626	629	497	469	600	660	672
Service Time	4.01	3.507	3.441	4.96	5.374	3.705	3.202	3.093
HCM Lane V/C Ratio	0.154	0.49	0.269	0.097	0.066	0.035	0.786	0.457
HCM Control Delay	10.2	14	10.5	10.7	10.9	8.9	25.7	12.6
HCM Lane LOS	B	B	B	B	B	A	D	B
HCM 95th-tile Q	0.5	2.7	1.1	0.3	0.2	0.1	7.8	2.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	20	740	45
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	21	779	47
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	20.5
HCM LOS	C

Lane

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	7	0	0	14	0	526	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	7	0	0	15	0	554	17

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1100	1394	416	969	1394	285	832	0	0
Stage 1	823	823	-	562	562	-	-	-	-
Stage 2	277	571	-	407	832	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-
Pot Cap-1 Maneuver	167	140	585	208	140	712	796	-	-
Stage 1	334	386	-	479	508	-	-	-	-
Stage 2	706	503	-	592	382	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	164	140	585	205	140	712	796	-	-
Mov Cap-2 Maneuver	164	140	-	205	140	-	-	-	-
Stage 1	334	386	-	479	508	-	-	-	-
Stage 2	691	503	-	585	382	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	11.2	10.2	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	796	-	-	585	712	998	-	-
HCM Lane V/C Ratio	-	-	-	0.013	0.021	-	-	-
HCM Control Delay (s)	0	-	-	11.2	10.2	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	773	17
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	814	18

Major/Minor	Major2		
Conflicting Flow All	571	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	998	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	998	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	29	5	0	0	5	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	5	0	0	5	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	36	0	33	33
Stage 1	-	-	-	-	33	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1575	-	980	1041
Stage 1	-	-	-	-	989	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1575	-	980	1041
Mov Cap-2 Maneuver	-	-	-	-	980	-
Stage 1	-	-	-	-	989	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1006	-	-	1575	-
HCM Lane V/C Ratio	0.009	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	5	7	1	1	7	18	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	7	1	1	7	19	0	0	1

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	26	0	0	8	0	0	37	46	8
Stage 1	-	-	-	-	-	-	18	18	-
Stage 2	-	-	-	-	-	-	19	28	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1588	-	-	1612	-	-	968	846	1074
Stage 1	-	-	-	-	-	-	1001	880	-
Stage 2	-	-	-	-	-	-	1000	872	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1588	-	-	1612	-	-	965	843	1074
Mov Cap-2 Maneuver	-	-	-	-	-	-	965	843	-
Stage 1	-	-	-	-	-	-	998	877	-
Stage 2	-	-	-	-	-	-	999	871	-

Approach	EB	WB	NB
HCM Control Delay, s	2.8	0.3	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1074	1588	-	-	1612	-	-	-
HCM Lane V/C Ratio	0.001	0.003	-	-	0.001	-	-	-
HCM Control Delay (s)	8.4	7.3	0	-	7.2	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	0	0
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	0	0

Major/Minor	Minor2		
Conflicting Flow All	38	38	17
Stage 1	19	19	-
Stage 2	19	19	-
Critical Hdwy	7.12	6.52	6.22
Critical Hdwy Stg 1	6.12	5.52	-
Critical Hdwy Stg 2	6.12	5.52	-
Follow-up Hdwy	3.518	4.018	3.318
Pot Cap-1 Maneuver	967	854	1062
Stage 1	1000	880	-
Stage 2	1000	880	-
Platoon blocked, %			
Mov Cap-1 Maneuver	963	851	1062
Mov Cap-2 Maneuver	963	851	-
Stage 1	997	879	-
Stage 2	996	877	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	A

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	33	22	58	37	1	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	23	61	39	1	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	58	0	207	46
Stage 1	-	-	-	-	46	-
Stage 2	-	-	-	-	161	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1546	-	781	1023
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	868	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1546	-	750	1023
Mov Cap-2 Maneuver	-	-	-	-	750	-
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	833	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.5	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	999	-	-	1546	-
HCM Lane V/C Ratio	0.016	-	-	0.039	-
HCM Control Delay (s)	8.7	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	0	22	9	4	18	21	861	17	22	594	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	15	0	23	9	4	19	22	906	18	23	625	14
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	265	42	309	198	113	315	148	1180	528	148	1180	26
Arrive On Green	0.33	0.00	0.33	0.33	0.33	0.33	0.08	0.33	0.33	0.08	0.33	0.33
Sat Flow, veh/h	480	125	928	306	339	944	1774	3539	1583	1774	3539	79
Grp Volume(v), veh/h	38	0	0	32	0	0	22	906	18	23	312	327
Grp Sat Flow(s),veh/h/ln	1532	0	0	1590	0	0	1774	1770	1583	1774	1770	1849
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.6	11.0	0.4	0.6	6.9	6.9
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.6	0.0	0.0	0.6	11.0	0.4	0.6	6.9	6.9
Prop In Lane	0.39		0.61	0.28		0.59	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	615	0	0	626	0	0	148	1180	528	148	590	616
V/C Ratio(X)	0.06	0.00	0.00	0.05	0.00	0.00	0.15	0.77	0.03	0.16	0.53	0.53
Avail Cap(c_a), veh/h	615	0	0	626	0	0	148	1180	528	148	590	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.9	0.0	0.0	10.9	0.0	0.0	20.4	14.3	10.8	20.4	13.0	13.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	2.1	4.8	0.1	2.2	3.4	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	0.4	0.0	0.0	0.3	0.0	0.0	0.4	6.1	0.2	0.4	3.9	4.0
LnGrp Delay(d),s/veh	11.1	0.0	0.0	11.0	0.0	0.0	22.5	19.2	10.9	22.7	16.3	16.2
LnGrp LOS	B			B			C	B	B	C	B	B
Approach Vol, veh/h		38			32			946			662	
Approach Delay, s/veh		11.1			11.0			19.1			16.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	20.0		20.0	8.0	20.0		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	16.0		16.0	4.0	16.0		16.0
Max Q Clear Time (g_c+I1), s	2.6	13.0		2.7	2.6	8.9		2.6
Green Ext Time (p_c), s	0.0	2.3		0.2	0.0	5.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	57	21	451	132	106	58	565	438	415	249	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	11	60	22	475	139	112	61	595	461	437	262	11
Adj No. of Lanes	1	1	0	2	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	81	30	610	169	137	79	1182	529	478	1935	81
Arrive On Green	0.06	0.06	0.06	0.18	0.18	0.18	0.04	0.33	0.33	0.27	0.56	0.56
Sat Flow, veh/h	1774	1301	477	3442	956	771	1774	3539	1583	1774	3462	145
Grp Volume(v), veh/h	11	0	82	475	0	251	61	595	461	437	133	140
Grp Sat Flow(s),veh/h/ln	1774	0	1779	1721	0	1727	1774	1770	1583	1774	1770	1837
Q Serve(g_s), s	0.6	0.0	4.6	13.4	0.0	14.3	3.5	13.7	27.9	24.3	3.7	3.7
Cycle Q Clear(g_c), s	0.6	0.0	4.6	13.4	0.0	14.3	3.5	13.7	27.9	24.3	3.7	3.7
Prop In Lane	1.00		0.27	1.00		0.45	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	111	0	111	610	0	306	79	1182	529	478	989	1027
V/C Ratio(X)	0.10	0.00	0.74	0.78	0.00	0.82	0.78	0.50	0.87	0.91	0.13	0.14
Avail Cap(c_a), veh/h	278	0	279	743	0	373	157	1182	529	679	989	1027
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	0.82	0.82	0.82
Uniform Delay (d), s/veh	45.1	0.0	47.0	40.0	0.0	40.4	48.2	27.2	31.9	36.1	10.7	10.7
Incr Delay (d2), s/veh	0.4	0.0	9.2	4.3	0.0	11.5	14.9	1.5	17.7	11.3	0.2	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	0.3	0.0	2.6	6.8	0.0	7.7	2.0	6.9	14.8	13.4	1.8	1.9
LnGrp Delay(d),s/veh	45.5	0.0	56.2	44.4	0.0	51.8	63.1	28.7	49.6	47.4	11.0	11.0
LnGrp LOS	D		E	D		D	E	C	D	D	B	B
Approach Vol, veh/h		93			726			1117			710	
Approach Delay, s/veh		54.9			46.9			39.2			33.4	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	31.5	56.1		10.4	8.5	79.0		22.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	39.0	27.0		16.0	9.0	57.0		22.0
Max Q Clear Time (g_c+I1), s	26.3	29.9		6.6	5.5	5.7		16.3
Green Ext Time (p_c), s	1.1	0.0		0.2	0.0	8.7		1.8

Intersection Summary		
HCM 2010 Ctrl Delay		41.4
HCM 2010 LOS		D

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	17	0	0	5	12	9	0	3	9	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	18	0	0	5	13	9	0	3	9	16
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7	6.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	11%	19%	40%
Vol Thru, %	33%	89%	46%	40%
Vol Right, %	56%	0%	35%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	19	26	15
LT Vol	9	17	12	6
Through Vol	15	0	9	3
RT Vol	3	2	5	6
Lane Flow Rate	28	20	27	16
Geometry Grp	1	1	1	1
Degree of Util (X)	0.029	0.023	0.029	0.018
Departure Headway (Hd)	3.717	4.052	3.856	3.997
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	963	884	929	896
Service Time	1.739	2.072	1.876	2.02
HCM Lane V/C Ratio	0.029	0.023	0.029	0.018
HCM Control Delay	6.9	7.2	7	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	6	6	3
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	6	6	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.1
HCM LOS	A

Lane

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	3	1	0	0	1	0	1	21	2
Conflicting Peds, #/hr	3	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1	0	0	1	0	1	22	2

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	52	52	15	51	51	23	16	0	0
Stage 1	26	26	-	25	25	-	-	-	-
Stage 2	26	26	-	26	26	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	947	839	1065	948	840	1054	1602	-	-
Stage 1	992	874	-	993	874	-	-	-	-
Stage 2	992	874	-	992	874	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	941	834	1062	944	835	1054	1602	-	-
Mov Cap-2 Maneuver	941	834	-	944	835	-	-	-	-
Stage 1	989	869	-	992	873	-	-	-	-
Stage 2	990	873	-	988	869	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	9	9.3	0.3
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1602	-	-	912	835	1591	-	-
HCM Lane V/C Ratio	0.001	-	-	0.005	0.001	0.003	-	-
HCM Control Delay (s)	7.2	0	-	9	9.3	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	5	11	1
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	5	12	1

Major/Minor	Major2		
Conflicting Flow All	24	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1591	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1591	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	2.1
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	4	0	0	22	5	6	0	1	15	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	4	0	0	23	5	6	0	1	16	19
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7.2	6.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	33%	67%	24%
Vol Thru, %	44%	67%	15%	59%
Vol Right, %	53%	0%	18%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	6	33	17
LT Vol	15	4	5	10
Through Vol	18	0	6	3
RT Vol	1	2	22	4
Lane Flow Rate	36	6	35	18
Geometry Grp	1	1	1	1
Degree of Util (X)	0.037	0.007	0.039	0.02
Departure Headway (Hd)	3.708	4.121	4.057	3.975
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	966	869	884	901
Service Time	1.729	2.145	2.076	1.997
HCM Lane V/C Ratio	0.037	0.007	0.04	0.02
HCM Control Delay	6.9	7.2	7.2	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	4	10	3
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	4	11	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.1
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	1	8	1	0	20	8	39	0	0	7	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1	8	1	0	21	8	41	0	0	7	16
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	7.3	6.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	10%	30%	94%
Vol Thru, %	32%	80%	12%	2%
Vol Right, %	68%	10%	58%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	10	67	101
LT Vol	7	8	8	2
Through Vol	15	1	39	4
RT Vol	0	1	20	95
Lane Flow Rate	23	11	71	106
Geometry Grp	1	1	1	1
Degree of Util (X)	0.024	0.012	0.076	0.126
Departure Headway (Hd)	3.747	4.176	3.878	4.258
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	946	846	913	841
Service Time	1.806	2.254	1.946	2.291
HCM Lane V/C Ratio	0.024	0.013	0.078	0.126
HCM Control Delay	6.9	7.3	7.3	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.2	0.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	95	2	4
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	100	2	4
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.9
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	46.6
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	45	0	60	0	25	2	13	0	57	1235	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	47	0	63	0	26	2	14	0	60	1300	17
Number of Lanes	0	0	1	0	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	13.9	12.6	50
HCM LOS	B	B	E

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	43%	62%	100%	0%	0%
Vol Thru, %	0%	100%	96%	0%	5%	0%	100%	93%
Vol Right, %	0%	0%	4%	57%	33%	0%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	57	823	428	105	40	25	546	294
LT Vol	0	823	412	0	2	0	546	273
Through Vol	0	0	16	60	13	0	0	21
RT Vol	57	0	0	45	25	25	0	0
Lane Flow Rate	60	867	450	111	42	26	575	309
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.115	1	0.801	0.256	0.103	0.052	1	0.568
Departure Headway (Hd)	6.929	6.43	6.403	8.342	8.846	7.152	6.653	6.603
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	518	572	567	431	406	501	546	548
Service Time	4.666	4.167	4.141	6.075	6.585	4.891	4.392	4.342
HCM Lane V/C Ratio	0.116	1.516	0.794	0.258	0.103	0.052	1.053	0.564
HCM Control Delay	10.6	63.1	30.1	13.9	12.6	10.3	64.3	17.7
HCM Lane LOS	B	F	D	B	B	B	F	C
HCM 95th-tile Q	0.4	14.4	7.8	1	0.3	0.2	14.2	3.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	25	819	21
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	26	862	22
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	46.9
HCM LOS	E

Lane

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	13	0	0	21	0	1287	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	14	0	0	22	0	1355	18

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1644	2340	493	1838	2349	686	985	0	0
Stage 1	967	967	-	1364	1364	-	-	-	-
Stage 2	677	1373	-	474	985	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-
Pot Cap-1 Maneuver	66	36	522	47	36	390	697	-	-
Stage 1	273	331	-	155	214	-	-	-	-
Stage 2	409	212	-	540	324	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	62	36	522	46	36	390	697	-	-
Mov Cap-2 Maneuver	62	36	-	46	36	-	-	-	-
Stage 1	273	331	-	155	214	-	-	-	-
Stage 2	386	212	-	526	324	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	12.1	14.8	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	697	-	-	522	390	496	-	-
HCM Lane V/C Ratio	-	-	-	0.026	0.057	-	-	-
HCM Control Delay (s)	0	-	-	12.1	14.8	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	901	35
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	948	37

Major/Minor	Major2		
Conflicting Flow All	1373	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	496	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	496	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	56	2	0	0	10	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	59	2	0	0	11	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	61	0	60	60
Stage 1	-	-	-	-	60	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1542	-	947	1005
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1542	-	947	1005
Mov Cap-2 Maneuver	-	-	-	-	947	-
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	979	-	-	1542	-
HCM Lane V/C Ratio	0.025	-	-	-	-
HCM Control Delay (s)	8.8	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	10	13	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	14	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	14	0	-	0	25	14
Stage 1	-	-	-	-	14	-
Stage 2	-	-	-	-	11	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1604	-	-	-	991	1066
Stage 1	-	-	-	-	1009	-
Stage 2	-	-	-	-	1012	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1604	-	-	-	991	1066
Mov Cap-2 Maneuver	-	-	-	-	991	-
Stage 1	-	-	-	-	1009	-
Stage 2	-	-	-	-	1012	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1604	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	3	9	0	4	10	27	3	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	9	0	4	11	28	3	0	1

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	39	0	0	9	0	0	49	63	9
Stage 1	-	-	-	-	-	-	16	16	-
Stage 2	-	-	-	-	-	-	33	47	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1571	-	-	1611	-	-	951	828	1073
Stage 1	-	-	-	-	-	-	1004	882	-
Stage 2	-	-	-	-	-	-	983	856	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1571	-	-	1611	-	-	947	824	1073
Mov Cap-2 Maneuver	-	-	-	-	-	-	947	824	-
Stage 1	-	-	-	-	-	-	1002	880	-
Stage 2	-	-	-	-	-	-	980	853	-

Approach	EB	WB	NB
HCM Control Delay, s	1.8	0.7	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	976	1571	-	-	1611	-	-	-
HCM Lane V/C Ratio	0.004	0.002	-	-	0.003	-	-	-
HCM Control Delay (s)	8.7	7.3	0	-	7.2	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	0	0
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	0	0

Major/Minor	Minor2		
Conflicting Flow All	49	49	25
Stage 1	33	33	-
Stage 2	16	16	-
Critical Hdwy	7.12	6.52	6.22
Critical Hdwy Stg 1	6.12	5.52	-
Critical Hdwy Stg 2	6.12	5.52	-
Follow-up Hdwy	3.518	4.018	3.318
Pot Cap-1 Maneuver	951	843	1051
Stage 1	983	868	-
Stage 2	1004	882	-
Platoon blocked, %			
Mov Cap-1 Maneuver	946	839	1051
Mov Cap-2 Maneuver	946	839	-
Stage 1	981	865	-
Stage 2	1001	880	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	A

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	49	8	8	34	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	8	8	36	0	44

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	60	0	109	56
Stage 1	-	-	-	-	56	-
Stage 2	-	-	-	-	53	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1544	-	888	1011
Stage 1	-	-	-	-	967	-
Stage 2	-	-	-	-	970	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1544	-	884	1011
Mov Cap-2 Maneuver	-	-	-	-	884	-
Stage 1	-	-	-	-	967	-
Stage 2	-	-	-	-	965	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1011	-	-	1544	-
HCM Lane V/C Ratio	0.044	-	-	0.005	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	0	22	9	4	18	21	861	17	22	594	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	15	0	23	9	4	19	22	906	18	23	625	14
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	265	42	309	198	113	315	148	1180	528	148	1180	26
Arrive On Green	0.33	0.00	0.33	0.33	0.33	0.33	0.08	0.33	0.33	0.08	0.33	0.33
Sat Flow, veh/h	480	125	928	306	339	944	1774	3539	1583	1774	3539	79
Grp Volume(v), veh/h	38	0	0	32	0	0	22	906	18	23	312	327
Grp Sat Flow(s),veh/h/ln	1532	0	0	1590	0	0	1774	1770	1583	1774	1770	1849
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.6	11.0	0.4	0.6	6.9	6.9
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.6	0.0	0.0	0.6	11.0	0.4	0.6	6.9	6.9
Prop In Lane	0.39		0.61	0.28		0.59	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	615	0	0	626	0	0	148	1180	528	148	590	616
V/C Ratio(X)	0.06	0.00	0.00	0.05	0.00	0.00	0.15	0.77	0.03	0.16	0.53	0.53
Avail Cap(c_a), veh/h	615	0	0	626	0	0	148	1180	528	148	590	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.9	0.0	0.0	10.9	0.0	0.0	20.4	14.3	10.8	20.4	13.0	13.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	2.1	4.8	0.1	2.2	3.4	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	0.4	0.0	0.0	0.3	0.0	0.0	0.4	6.1	0.2	0.4	3.9	4.0
LnGrp Delay(d),s/veh	11.1	0.0	0.0	11.0	0.0	0.0	22.5	19.2	10.9	22.7	16.3	16.2
LnGrp LOS	B			B			C	B	B	C	B	B
Approach Vol, veh/h		38			32			946			662	
Approach Delay, s/veh		11.1			11.0			19.1			16.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	20.0		20.0	8.0	20.0		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	16.0		16.0	4.0	16.0		16.0
Max Q Clear Time (g_c+I1), s	2.6	13.0		2.7	2.6	8.9		2.6
Green Ext Time (p_c), s	0.0	2.3		0.2	0.0	5.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	57	21	106	132	451	58	565	438	415	249	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	11	60	22	112	139	475	61	595	461	437	262	11
Adj No. of Lanes	1	1	0	2	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	110	80	30	1132	122	417	79	712	318	465	1449	61
Arrive On Green	0.06	0.06	0.06	0.33	0.33	0.33	0.04	0.20	0.20	0.26	0.42	0.42
Sat Flow, veh/h	1774	1301	477	3442	371	1268	1774	3539	1583	1774	3462	145
Grp Volume(v), veh/h	11	0	82	112	0	614	61	595	461	437	133	140
Grp Sat Flow(s),veh/h/ln	1774	0	1779	1721	0	1639	1774	1770	1583	1774	1770	1837
Q Serve(g_s), s	0.6	0.0	5.0	2.5	0.0	36.0	3.7	17.7	22.0	26.4	5.2	5.2
Cycle Q Clear(g_c), s	0.6	0.0	5.0	2.5	0.0	36.0	3.7	17.7	22.0	26.4	5.2	5.2
Prop In Lane	1.00		0.27	1.00		0.77	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	110	0	110	1132	0	539	79	712	318	465	741	769
V/C Ratio(X)	0.10	0.00	0.75	0.10	0.00	1.14	0.78	0.84	1.45	0.94	0.18	0.18
Avail Cap(c_a), veh/h	259	0	260	1132	0	539	146	712	318	486	741	769
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	0.82	0.82	0.82
Uniform Delay (d), s/veh	48.5	0.0	50.5	25.5	0.0	36.7	51.8	42.0	43.7	39.5	20.0	20.0
Incr Delay (d2), s/veh	0.4	0.0	9.6	0.0	0.0	83.0	14.9	11.2	218.6	22.9	0.4	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	0.3	0.0	2.7	1.2	0.0	28.6	2.2	9.7	28.9	15.8	2.6	2.7
LnGrp Delay(d),s/veh	48.9	0.0	60.1	25.5	0.0	119.7	66.7	53.2	262.3	62.4	20.4	20.4
LnGrp LOS	D		E	C		F	E	D	F	E	C	C
Approach Vol, veh/h		93			726			1117			710	
Approach Delay, s/veh		58.7			105.2			140.2			46.3	
Approach LOS		E			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	32.7	36.6		10.8	8.8	60.4		40.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	30.0	22.0		16.0	9.0	43.0		36.0
Max Q Clear Time (g_c+I1), s	28.4	24.0		7.0	5.7	7.2		38.0
Green Ext Time (p_c), s	0.3	0.0		0.2	0.0	8.4		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		102.5
HCM 2010 LOS		F

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	11	3	0	12	7	18	0	2	54	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	12	3	0	13	7	19	0	2	57	15
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7.1	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	12%	32%	42%
Vol Thru, %	77%	69%	19%	39%
Vol Right, %	20%	19%	49%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	16	37	31
LT Vol	54	11	7	12
Through Vol	14	3	18	6
RT Vol	2	2	12	13
Lane Flow Rate	74	17	39	33
Geometry Grp	1	1	1	1
Degree of Util (X)	0.081	0.019	0.042	0.037
Departure Headway (Hd)	3.942	4.06	3.903	4.055
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	908	875	911	881
Service Time	1.97	2.113	1.953	2.09
HCM Lane V/C Ratio	0.081	0.019	0.043	0.037
HCM Control Delay	7.3	7.2	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.1	0.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	13	12	6
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	14	13	6
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	1	2	1	0	2	3	3	59	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	2	1	0	2	3	3	62	2

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	106	105	27	104	104	63	28	0	0
Stage 1	34	34	-	69	69	-	-	-	-
Stage 2	72	71	-	35	35	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	873	785	1048	876	786	1002	1585	-	-
Stage 1	982	867	-	941	837	-	-	-	-
Stage 2	938	836	-	981	866	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	866	782	1048	871	783	1002	1585	-	-
Mov Cap-2 Maneuver	866	782	-	871	783	-	-	-	-
Stage 1	980	865	-	939	835	-	-	-	-
Stage 2	931	834	-	976	864	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	9.2	9	0.3
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1585	-	-	857	901	1538	-	-
HCM Lane V/C Ratio	0.002	-	-	0.005	0.006	0.002	-	-
HCM Control Delay (s)	7.3	0	-	9.2	9	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	3	25	2
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	3	26	2

Major/Minor	Major2		
Conflicting Flow All	64	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1538	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1538	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0.7
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	3	1	0	13	3	11	0	4	62	22
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	3	1	0	14	3	12	0	4	65	23
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7.2	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	33%	48%	11%
Vol Thru, %	70%	50%	11%	78%
Vol Right, %	25%	17%	41%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	88	6	27	27
LT Vol	62	3	3	21
Through Vol	22	1	11	3
RT Vol	4	2	13	3
Lane Flow Rate	93	6	28	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.1	0.007	0.032	0.032
Departure Headway (Hd)	3.875	4.131	3.999	4.02
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	925	860	890	889
Service Time	1.896	2.186	2.048	2.051
HCM Lane V/C Ratio	0.101	0.007	0.031	0.031
HCM Control Delay	7.3	7.2	7.2	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0	0.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	3	21	3
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	3	22	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	5	4	1	0	35	9	115	0	0	7	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	4	1	0	37	9	121	0	0	7	16
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	7.4	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	50%	22%	78%
Vol Thru, %	32%	40%	6%	14%
Vol Right, %	68%	10%	72%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	10	159	37
LT Vol	7	4	9	5
Through Vol	15	1	115	3
RT Vol	0	5	35	29
Lane Flow Rate	23	11	167	39
Geometry Grp	1	1	1	1
Degree of Util (X)	0.025	0.012	0.17	0.047
Departure Headway (Hd)	3.864	4.211	3.661	4.37
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	918	845	977	815
Service Time	1.922	2.262	1.694	2.421
HCM Lane V/C Ratio	0.025	0.013	0.171	0.048
HCM Control Delay	7	7.3	7.4	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.6	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	29	5	3
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	31	5	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.6
HCM LOS	A

Lane

Appendix E

Horizon Year Intersection LOS Worksheet

Intersection	
Intersection Delay, s/veh	31.2
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	39	2	33	0	52	3	19	0	61	512	32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	41	2	35	0	55	3	20	0	64	539	34
Number of Lanes	0	0	1	0	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	12.4	12.7	16.7
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	53%	70%	100%	0%	0%
Vol Thru, %	0%	100%	84%	3%	4%	0%	100%	91%
Vol Right, %	0%	0%	16%	45%	26%	0%	0%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	61	341	203	74	74	45	573	315
LT Vol	0	341	171	2	3	0	573	286
Through Vol	0	0	32	33	19	0	0	29
RT Vol	61	0	0	39	52	45	0	0
Lane Flow Rate	64	359	213	78	78	47	603	332
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.124	0.645	0.377	0.174	0.179	0.086	1	0.553
Departure Headway (Hd)	6.974	6.467	6.355	8.051	8.267	6.571	6.064	5.999
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	518	564	570	449	438	543	597	597
Service Time	4.66	4.161	4.051	5.738	5.948	4.338	3.831	3.766
HCM Lane V/C Ratio	0.124	0.637	0.374	0.174	0.178	0.087	1.01	0.556
HCM Control Delay	10.6	20.1	12.8	12.4	12.7	10	61.4	16
HCM Lane LOS	B	C	B	B	B	A	F	C
HCM 95th-tile Q	0.4	4.6	1.7	0.6	0.6	0.3	14.8	3.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	45	859	29
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	47	904	31
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	43.6
HCM LOS	E

Lane

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	34	0	0	12	0	598	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	36	0	0	13	0	629	35

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1291	1640	497	1126	1641	332	994	0	0
Stage 1	976	976	-	647	647	-	-	-	-
Stage 2	315	664	-	479	994	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-
Pot Cap-1 Maneuver	121	99	519	160	99	664	692	-	-
Stage 1	270	327	-	426	465	-	-	-	-
Stage 2	671	456	-	537	321	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	119	99	519	149	99	664	692	-	-
Mov Cap-2 Maneuver	119	99	-	149	99	-	-	-	-
Stage 1	270	327	-	426	465	-	-	-	-
Stage 2	658	456	-	500	321	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	12.5	10.5	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	692	-	-	519	664	921	-	-
HCM Lane V/C Ratio	-	-	-	0.069	0.019	-	-	-
HCM Control Delay (s)	0	-	-	12.5	10.5	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	911	33
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	959	35

Major/Minor	Major2		
Conflicting Flow All	664	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	921	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	921	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	72	1	13	80	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	76	1	14	84	2	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	77	0	188	76
Stage 1	-	-	-	-	76	-
Stage 2	-	-	-	-	112	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1522	-	801	985
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	913	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1522	-	793	985
Mov Cap-2 Maneuver	-	-	-	-	793	-
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	904	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	879	-	-	1522	-
HCM Lane V/C Ratio	0.005	-	-	0.009	-
HCM Control Delay (s)	9.1	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	1	32	17	4	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	34	18	4	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	22	0	-	0	56	20
Stage 1	-	-	-	-	20	-
Stage 2	-	-	-	-	36	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1593	-	-	-	952	1058
Stage 1	-	-	-	-	1003	-
Stage 2	-	-	-	-	986	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1593	-	-	-	951	1058
Mov Cap-2 Maneuver	-	-	-	-	951	-
Stage 1	-	-	-	-	1003	-
Stage 2	-	-	-	-	985	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	8.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1593	-	-	-	1058
HCM Lane V/C Ratio	0.001	-	-	-	0.001
HCM Control Delay (s)	7.3	0	-	-	8.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	2	32	0	1	18	24	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	34	0	1	19	25	0	0	1

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	44	0	0	34	0	0	72	84	34
Stage 1	-	-	-	-	-	-	38	38	-
Stage 2	-	-	-	-	-	-	34	46	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1564	-	-	1578	-	-	919	806	1039
Stage 1	-	-	-	-	-	-	977	863	-
Stage 2	-	-	-	-	-	-	982	857	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1564	-	-	1578	-	-	917	804	1039
Mov Cap-2 Maneuver	-	-	-	-	-	-	917	804	-
Stage 1	-	-	-	-	-	-	976	862	-
Stage 2	-	-	-	-	-	-	980	856	-

Approach	EB	WB	NB
HCM Control Delay, s	0.4	0.2	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1039	1564	-	-	1578	-	-	1042
HCM Lane V/C Ratio	0.001	0.001	-	-	0.001	-	-	0.001
HCM Control Delay (s)	8.5	7.3	0	-	7.3	0	-	8.5
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	0	1
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	0	1

Major/Minor	Minor2		
Conflicting Flow All	72	72	32
Stage 1	34	34	-
Stage 2	38	38	-
Critical Hdwy	7.12	6.52	6.22
Critical Hdwy Stg 1	6.12	5.52	-
Critical Hdwy Stg 2	6.12	5.52	-
Follow-up Hdwy	3.518	4.018	3.318
Pot Cap-1 Maneuver	919	818	1042
Stage 1	982	867	-
Stage 2	977	863	-
Platoon blocked, %			
Mov Cap-1 Maneuver	917	816	1042
Mov Cap-2 Maneuver	917	816	-
Stage 1	981	866	-
Stage 2	975	862	-

Approach	SB
HCM Control Delay, s	8.5
HCM LOS	A

Minor Lane/Major Mvmt

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	36	1	31	13	2	6	40	441	8	24	729	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	38	1	33	14	2	6	42	464	8	25	767	36
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	347	41	231	411	72	135	148	1180	528	148	1147	54
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
Prop Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.08	0.33	0.33	0.08	0.33	0.33
Ln Grp Delay, s/veh	11.5	0.0	0.0	10.9	0.0	0.0	25.4	13.3	10.8	22.9	19.6	19.4
Ln Grp LOS	B			B			C	B	B	C	B	B
Approach Vol, veh/h		72			22			514			828	
Approach Delay, s/veh		11.5			10.9			14.2			19.6	
Approach LOS		B			B			B			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Case No	2.0	3.0		8.0	2.0	4.0		8.0
Phs Duration (G+Y+Rc), s	8.0	20.0		20.0	8.0	20.0		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green (Gmax), s	4.0	16.0		16.0	4.0	16.0		16.0
Max Allow Headway (MAH), s	3.9	5.2		5.5	3.7	5.2		5.5
Max Q Clear (g_c+I1), s	2.6	6.8		3.4	3.1	11.2		2.4
Green Ext Time (g_e), s	0.0	5.2		0.3	0.0	3.1		0.3
Prob of Phs Call (p_c)	1.00	1.00		1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	1.00	0.73		0.01	1.00	1.00		0.00

Left-Turn Movement Data								
Assigned Mvmt	1			7	5			3
Mvmt Sat Flow, veh/h	1774			696	1774			866

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3539		122		3442		216

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1583		693		162		406

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	5	0	0	3
Lane Assignment	(Prot)			L+T+R	(Prot)			L+T+R
Lanes in Grp	1	0	0	1	1	0	0	1

Grp Vol (v), veh/h	25	0	0	72	42	0	0	22
Grp Sat Flow (s), veh/h/ln	1774	0	0	1511	1774	0	0	1487
Q Serve Time (g_s), s	0.6	0.0	0.0	0.0	1.1	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.6	0.0	0.0	1.4	1.1	0.0	0.0	0.4
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1430	0	0	0	1396
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1863	0	0	0	1863
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	16.0	0.0	0.0	0.0	16.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	15.6	0.0	0.0	0.0	14.6
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	1.8	0.0	0.0	0.0	1.1
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.4
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.53	1.00	0.00	0.00	0.64
Lane Grp Cap (c), veh/h	148	0	0	618	148	0	0	618
V/C Ratio (X)	0.17	0.00	0.00	0.12	0.28	0.00	0.00	0.04
Avail Cap (c_a), veh/h	148	0	0	618	148	0	0	618
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	20.5	0.0	0.0	11.1	20.7	0.0	0.0	10.8
Incr Delay (d2), s/veh	2.5	0.0	0.0	0.4	4.8	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	22.9	0.0	0.0	11.5	25.4	0.0	0.0	10.9
1st-Term Q (Q1), veh/ln	0.3	0.0	0.0	0.7	0.5	0.0	0.0	0.2
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.4	0.0	0.0	0.7	0.7	0.0	0.0	0.2
%ile Storage Ratio (RQ%)	0.09	0.00	0.00	0.05	0.11	0.00	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	1	0	0
Grp Vol (v), veh/h	0	464	0	0	0	394	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	4.8	0.0	0.0	0.0	9.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.8	0.0	0.0	0.0	9.2	0.0	0.0
Lane Grp Cap (c), veh/h	0	1180	0	0	0	590	0	0
V/C Ratio (X)	0.00	0.39	0.00	0.00	0.00	0.67	0.00	0.00
Avail Cap (c_a), veh/h	0	1180	0	0	0	590	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	12.3	0.0	0.0	0.0	13.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.0	0.0	5.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.3	0.0	0.0	0.0	19.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.3	0.0	0.0	0.0	4.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	1.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	0.0	0.0	5.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.00	0.00	0.43	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R				T+R		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	8	0	0	0	409	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	0	0	0	1834	0	0
Q Serve Time (g_s), s	0.0	0.2	0.0	0.0	0.0	9.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.2	0.0	0.0	0.0	9.2	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.46	0.00	0.09	0.00	0.27
Lane Grp Cap (c), veh/h	0	528	0	0	0	611	0	0
V/C Ratio (X)	0.00	0.02	0.00	0.00	0.00	0.67	0.00	0.00
Avail Cap (c_a), veh/h	0	528	0	0	0	611	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.7	0.0	0.0	0.0	13.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	5.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.8	0.0	0.0	0.0	19.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.0	0.0	4.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.0	0.0	5.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.00	0.00	0.44	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	17.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	103	38	532	69	431	24	150	64	327	534	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	13	108	40	560	73	454	25	158	67	344	562	7
Adj No. of Lanes	1	1	0	2	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	190	139	52	979	64	396	35	1007	450	296	1544	19
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
Prop Arrive On Green	0.11	0.11	0.11	0.28	0.28	0.28	0.02	0.28	0.28	0.17	0.43	0.43
Ln Grp Delay, s/veh	41.1	0.0	50.9	32.0	0.0	124.8	72.4	27.6	27.9	138.1	20.5	20.4
Ln Grp LOS	D		D	C		F	E	C	C	F	C	C
Approach Vol, veh/h		161			1087			250			913	
Approach Delay, s/veh		50.1			77.0			32.2			64.8	
Approach LOS		D			E			C			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4	5	6		
Case No	2.0	3.0	10.0	10.0	2.0	4.0		
Phs Duration (G+Y+Rc), s	21.0	51.1	33.0	14.9	6.0	66.0		
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0		
Max Green (Gmax), s	17.0	29.0	29.0	29.0	17.0	29.0		
Max Allow Headway (MAH), s	3.7	4.9	4.8	5.3	3.7	4.9		
Max Q Clear (g_c+I1), s	19.0	5.4	31.0	10.3	3.4	12.8		
Green Ext Time (g_e), s	0.0	4.5	0.0	0.8	0.0	4.0		
Prob of Phs Call (p_c)	1.00	1.00	1.00	0.99	0.51	1.00		
Prob of Max Out (p_x)	1.00	0.03	1.00	0.00	0.00	0.13		

Left-Turn Movement Data								
Assigned Mvmt	1		3	7	5			
Mvmt Sat Flow, veh/h	1774		3442	1774	1774			

Through Movement Data								
Assigned Mvmt		2	8	4		6		
Mvmt Sat Flow, veh/h		3539	224	1297		3580		

Right-Turn Movement Data								
Assigned Mvmt		12	18	14		16		
Mvmt Sat Flow, veh/h		1583	1393	481		45		

Left Lane Group Data								
Assigned Mvmt	1	0	3	7	5	0	0	0
Lane Assignment	(Prot)				(Prot)			
Lanes in Grp	1	0	2	1	1	0	0	0

Grp Vol (v), veh/h	344	0	560	13	25	0	0	0
Grp Sat Flow (s), veh/h/ln	1774	0	1721	1774	1774	0	0	0
Q Serve Time (g_s), s	17.0	0.0	14.2	0.7	1.4	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	17.0	0.0	14.2	0.7	1.4	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1721	1774	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	296	0	979	190	35	0	0	0
V/C Ratio (X)	1.16	0.00	0.57	0.07	0.71	0.00	0.00	0.00
Avail Cap (c_a), veh/h	296	0	979	505	296	0	0	0
Upstream Filter (I)	0.67	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	42.5	0.0	31.2	40.9	49.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	95.6	0.0	0.8	0.1	22.7	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	138.1	0.0	32.0	41.1	72.4	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	8.3	0.0	6.7	0.3	0.7	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	7.9	0.0	0.1	0.0	0.2	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	16.2	0.0	6.8	0.3	0.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	1.95	0.00	1.73	0.02	0.16	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	1	0	0
Grp Vol (v), veh/h	0	158	0	0	0	278	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	3.4	0.0	0.0	0.0	10.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.4	0.0	0.0	0.0	10.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	1007	0	0	0	763	0	0
V/C Ratio (X)	0.00	0.16	0.00	0.00	0.00	0.36	0.00	0.00
Avail Cap (c_a), veh/h	0	1007	0	0	0	763	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.67	0.00	0.00
Uniform Delay (d1), s/veh	0.0	27.3	0.0	0.0	0.0	19.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	27.6	0.0	0.0	0.0	20.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.7	0.0	0.0	0.0	5.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.7	0.0	0.0	0.0	5.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.00	0.00	0.07	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	14	0	16	0	0
Lane Assignment		R	T+R	T+R		T+R		
Lanes in Grp	0	1	1	1	0	1	0	0
Grp Vol (v), veh/h	0	67	527	148	0	291	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	1617	1778	0	1855	0	0
Q Serve Time (g_s), s	0.0	3.2	29.0	8.3	0.0	10.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.2	29.0	8.3	0.0	10.8	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.86	0.27	0.00	0.02	0.00	0.00
Lane Grp Cap (c), veh/h	0	450	460	191	0	800	0	0
V/C Ratio (X)	0.00	0.15	1.15	0.78	0.00	0.36	0.00	0.00
Avail Cap (c_a), veh/h	0	450	460	506	0	800	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	0.00	0.67	0.00	0.00
Uniform Delay (d1), s/veh	0.0	27.2	36.5	44.3	0.0	19.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	88.3	6.6	0.0	0.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	27.9	124.8	50.9	0.0	20.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.4	12.9	4.1	0.0	5.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	11.3	0.4	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.5	24.2	4.4	0.0	5.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.10	1.50	0.33	0.00	0.08	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	65.9
HCM 2010 LOS	E

Intersection	
Intersection Delay, s/veh	6.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	17	0	0	2	12	8	0	3	9	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	18	0	0	2	13	8	0	3	9	16
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.1	6.9	6.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	11%	9%	27%
Vol Thru, %	33%	89%	55%	55%
Vol Right, %	56%	0%	36%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	19	22	11
LT Vol	9	17	12	6
Through Vol	15	0	8	2
RT Vol	3	2	2	3
Lane Flow Rate	28	20	23	12
Geometry Grp	1	1	1	1
Degree of Util (X)	0.029	0.022	0.025	0.013
Departure Headway (Hd)	3.707	4.041	3.818	3.977
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	967	887	939	901
Service Time	1.725	2.058	1.835	1.996
HCM Lane V/C Ratio	0.029	0.023	0.024	0.013
HCM Control Delay	6.8	7.1	6.9	7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.1	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	3	6	2
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	3	6	2
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7
HCM LOS	A

Lane

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	3	1	0	0	1	0	1	21	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1	0	0	1	0	1	22	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	44	43	9	44	44	22	9	0	0
Stage 1	19	19	-	24	24	-	-	-	-
Stage 2	25	24	-	20	20	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	958	849	1073	958	848	1055	1611	-	-
Stage 1	1000	880	-	994	875	-	-	-	-
Stage 2	993	875	-	999	879	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	954	846	1073	954	845	1055	1611	-	-
Mov Cap-2 Maneuver	954	846	-	954	845	-	-	-	-
Stage 1	999	877	-	993	874	-	-	-	-
Stage 2	991	874	-	995	876	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	8.9	9.3	0.3
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1611	-	-	924	845	1593	-	-
HCM Lane V/C Ratio	0.001	-	-	0.005	0.001	0.003	-	-
HCM Control Delay (s)	7.2	0	-	8.9	9.3	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	5	8	1
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	5	8	1

Major/Minor	Major2		
Conflicting Flow All	22	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1593	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1593	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	2.6
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	4	0	0	22	5	6	0	1	15	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	4	0	0	23	5	6	0	1	16	19
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7.2	6.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	33%	67%	24%
Vol Thru, %	44%	67%	15%	59%
Vol Right, %	53%	0%	18%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	6	33	17
LT Vol	15	4	5	10
Through Vol	18	0	6	3
RT Vol	1	2	22	4
Lane Flow Rate	36	6	35	18
Geometry Grp	1	1	1	1
Degree of Util (X)	0.037	0.007	0.039	0.02
Departure Headway (Hd)	3.708	4.121	4.057	3.975
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	966	869	884	901
Service Time	1.729	2.145	2.076	1.997
HCM Lane V/C Ratio	0.037	0.007	0.04	0.02
HCM Control Delay	6.9	7.2	7.2	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	4	10	3
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	4	11	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.1
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	1	8	1	0	20	8	39	0	0	2	29
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1	8	1	0	21	8	41	0	0	2	31
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	7.3	6.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	10%	30%	94%
Vol Thru, %	6%	80%	12%	2%
Vol Right, %	94%	10%	58%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	10	67	101
LT Vol	2	8	8	2
Through Vol	29	1	39	4
RT Vol	0	1	20	95
Lane Flow Rate	33	11	71	106
Geometry Grp	1	1	1	1
Degree of Util (X)	0.033	0.012	0.076	0.126
Departure Headway (Hd)	3.594	4.191	3.893	4.264
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	986	843	910	839
Service Time	1.653	2.272	1.963	2.299
HCM Lane V/C Ratio	0.033	0.013	0.078	0.126
HCM Control Delay	6.8	7.3	7.3	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.2	0.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	95	2	4
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	100	2	4
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.9
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	53.8
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	38	2	35	0	68	3	26	0	83	1441	39
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	40	2	37	0	72	3	27	0	87	1517	41
Number of Lanes	0	0	1	0	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	14	15.1	62
HCM LOS	B	C	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	51%	70%	100%	0%	0%
Vol Thru, %	0%	100%	92%	3%	3%	0%	100%	93%
Vol Right, %	0%	0%	8%	47%	27%	0%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	83	961	519	75	97	78	603	325
LT Vol	0	961	480	2	3	0	603	302
Through Vol	0	0	39	35	26	0	0	23
RT Vol	83	0	0	38	68	78	0	0
Lane Flow Rate	87	1011	547	79	102	82	635	342
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.176	1	1	0.197	0.259	0.172	1	0.662
Departure Headway (Hd)	7.267	6.767	6.714	8.994	9.134	7.527	7.027	6.977
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	494	546	541	399	393	478	521	519
Service Time	5.009	4.509	4.456	6.756	6.895	5.256	4.756	4.706
HCM Lane V/C Ratio	0.176	1.852	1.011	0.198	0.26	0.172	1.219	0.659
HCM Control Delay	11.6	64.9	64.6	14	15.1	11.8	66.1	22.4
HCM Lane LOS	B	F	F	B	C	B	F	C
HCM 95th-tile Q	0.6	14.1	14.1	0.7	1	0.6	13.8	4.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	78	905	23
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	82	953	24
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	47.8
HCM LOS	E

Lane

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	43	0	0	28	0	1335	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	45	0	0	29	0	1405	37

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1717	2456	509	1928	2443	721	1019	0	0
Stage 1	1014	1014	-	1424	1424	-	-	-	-
Stage 2	703	1442	-	504	1019	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-
Pot Cap-1 Maneuver	58	30	509	40	31	370	677	-	-
Stage 1	256	314	-	143	200	-	-	-	-
Stage 2	394	196	-	518	313	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	53	30	509	36	31	370	677	-	-
Mov Cap-2 Maneuver	53	30	-	36	31	-	-	-	-
Stage 1	256	314	-	143	200	-	-	-	-
Stage 2	363	196	-	472	313	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	12.8	15.6	0
HCM LOS	B	C	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	677	-	-	509	370	466	-	-
HCM Lane V/C Ratio	-	-	-	0.089	0.08	-	-	-
HCM Control Delay (s)	0	-	-	12.8	15.6	0	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.3	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	958	10
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	1008	11

Major/Minor	Major2		
Conflicting Flow All	1442	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	466	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	466	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	67	0	0	109	1	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	0	0	115	1	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	71	0	186	71
Stage 1	-	-	-	-	71	-
Stage 2	-	-	-	-	115	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1529	-	803	991
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	910	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1529	-	803	991
Mov Cap-2 Maneuver	-	-	-	-	803	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	910	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	966	-	-	1529	-
HCM Lane V/C Ratio	0.01	-	-	-	-
HCM Control Delay (s)	8.8	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	2	42	5	6	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	44	5	6	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	12	0	-	0	56	8
Stage 1	-	-	-	-	8	-
Stage 2	-	-	-	-	48	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1607	-	-	-	952	1074
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	974	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1607	-	-	-	951	1074
Mov Cap-2 Maneuver	-	-	-	-	951	-
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	973	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	8.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1607	-	-	-	1074
HCM Lane V/C Ratio	0.001	-	-	-	0.001
HCM Control Delay (s)	7.2	0	-	-	8.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	42	1	4	3	3	3	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	44	1	4	3	3	3	0	1

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	6	0	0	45	0	0	61	60	45
Stage 1	-	-	-	-	-	-	45	45	-
Stage 2	-	-	-	-	-	-	16	15	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1615	-	-	1563	-	-	934	831	1025
Stage 1	-	-	-	-	-	-	969	857	-
Stage 2	-	-	-	-	-	-	1004	883	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1615	-	-	1563	-	-	927	829	1025
Mov Cap-2 Maneuver	-	-	-	-	-	-	927	829	-
Stage 1	-	-	-	-	-	-	969	857	-
Stage 2	-	-	-	-	-	-	996	880	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.9	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	950	1615	-	-	1563	-	-	1033
HCM Lane V/C Ratio	0.004	-	-	-	0.003	-	-	0.007
HCM Control Delay (s)	8.8	0	-	-	7.3	0	-	8.5
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	2	0	5
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	2	0	5

Major/Minor	Minor2		
Conflicting Flow All	58	58	5
Stage 1	13	13	-
Stage 2	45	45	-
Critical Hdwy	7.12	6.52	6.22
Critical Hdwy Stg 1	6.12	5.52	-
Critical Hdwy Stg 2	6.12	5.52	-
Follow-up Hdwy	3.518	4.018	3.318
Pot Cap-1 Maneuver	939	833	1078
Stage 1	1007	885	-
Stage 2	969	857	-
Platoon blocked, %			
Mov Cap-1 Maneuver	936	831	1078
Mov Cap-2 Maneuver	936	831	-
Stage 1	1007	882	-
Stage 2	968	857	-

Approach	SB
HCM Control Delay, s	8.5
HCM LOS	A

Minor Lane/Major Mvmt

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	0	22	18	4	9	21	915	17	22	625	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	15	0	23	19	4	9	22	963	18	23	658	14
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	265	42	310	388	93	141	148	1180	528	148	1181	25
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
Prop Arrive On Green	0.33	0.00	0.33	0.33	0.33	0.33	0.08	0.33	0.33	0.08	0.33	0.33
Ln Grp Delay, s/veh	11.1	0.0	0.0	11.0	0.0	0.0	22.5	21.0	10.9	22.7	16.9	16.7
Ln Grp LOS	B			B			C	C	B	C	B	B
Approach Vol, veh/h		38			32			1003			695	
Approach Delay, s/veh		11.1			11.0			20.8			17.0	
Approach LOS		B			B			C			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Case No	2.0	3.0		8.0	2.0	4.0		8.0
Phs Duration (G+Y+Rc), s	8.0	20.0		20.0	8.0	20.0		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green (Gmax), s	4.0	16.0		16.0	4.0	16.0		16.0
Max Allow Headway (MAH), s	3.9	5.1		5.6	3.7	5.1		5.6
Max Q Clear (g_c+I1), s	2.6	14.0		2.7	2.6	9.3		2.6
Green Ext Time (g_e), s	0.0	1.7		0.2	0.0	4.9		0.2
Prob of Phs Call (p_c)	1.00	1.00		1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	1.00	1.00		0.00	1.00	0.92		0.00

Left-Turn Movement Data								
Assigned Mvmt	1			7	5			3
Mvmt Sat Flow, veh/h	1774			482	1774			805

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3539		125		3544		279

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1583		930		75		424

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	5	0	0	3
Lane Assignment	(Prot)			L+T+R	(Prot)			L+T+R
Lanes in Grp	1	0	0	1	1	0	0	1

Grp Vol (v), veh/h	23	0	0	38	22	0	0	32
Grp Sat Flow (s), veh/h/ln	1774	0	0	1537	1774	0	0	1508
Q Serve Time (g_s), s	0.6	0.0	0.0	0.0	0.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.6	0.0	0.0	0.7	0.6	0.0	0.0	0.6
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1423	0	0	0	1410
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1863	0	0	0	1863
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	16.0	0.0	0.0	0.0	16.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	15.4	0.0	0.0	0.0	15.3
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	3.0	0.0	0.0	0.0	1.4
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.6
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.39	1.00	0.00	0.00	0.59
Lane Grp Cap (c), veh/h	148	0	0	617	148	0	0	622
V/C Ratio (X)	0.16	0.00	0.00	0.06	0.15	0.00	0.00	0.05
Avail Cap (c_a), veh/h	148	0	0	617	148	0	0	622
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	20.4	0.0	0.0	10.9	20.4	0.0	0.0	10.9
Incr Delay (d2), s/veh	2.2	0.0	0.0	0.2	2.1	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	22.7	0.0	0.0	11.1	22.5	0.0	0.0	11.0
1st-Term Q (Q1), veh/ln	0.3	0.0	0.0	0.3	0.3	0.0	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.4	0.0	0.0	0.4	0.4	0.0	0.0	0.3
%ile Storage Ratio (RQ%)	0.09	0.00	0.00	0.02	0.06	0.00	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	1	0	0
Grp Vol (v), veh/h	0	963	0	0	0	328	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	12.0	0.0	0.0	0.0	7.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	12.0	0.0	0.0	0.0	7.3	0.0	0.0
Lane Grp Cap (c), veh/h	0	1180	0	0	0	590	0	0
V/C Ratio (X)	0.00	0.82	0.00	0.00	0.00	0.56	0.00	0.00
Avail Cap (c_a), veh/h	0	1180	0	0	0	590	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	14.7	0.0	0.0	0.0	13.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	6.3	0.0	0.0	0.0	3.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	21.0	0.0	0.0	0.0	16.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	5.8	0.0	0.0	0.0	3.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.0	0.0	0.0	0.0	0.6	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.8	0.0	0.0	0.0	4.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.00	0.00	0.34	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R				T+R		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	18	0	0	0	344	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	0	0	0	1849	0	0
Q Serve Time (g_s), s	0.0	0.4	0.0	0.0	0.0	7.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.4	0.0	0.0	0.0	7.3	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.61	0.00	0.04	0.00	0.28
Lane Grp Cap (c), veh/h	0	528	0	0	0	616	0	0
V/C Ratio (X)	0.00	0.03	0.00	0.00	0.00	0.56	0.00	0.00
Avail Cap (c_a), veh/h	0	528	0	0	0	616	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.8	0.0	0.0	0.0	13.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	3.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.9	0.0	0.0	0.0	16.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	0.0	0.0	3.7	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	0.0	0.0	4.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.00	0.00	0.35	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	18.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	58	21	114	143	487	58	584	438	415	261	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	11	61	22	120	151	513	61	615	461	437	275	11
Adj No. of Lanes	1	1	0	2	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	115	85	31	1025	111	377	79	1055	472	310	1485	59
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
Prop Arrive On Green	0.07	0.07	0.07	0.30	0.30	0.30	0.04	0.30	0.30	0.17	0.43	0.43
Ln Grp Delay, s/veh	43.2	0.0	52.6	24.9	0.0	208.8	60.4	31.4	70.0	239.6	17.7	17.7
Ln Grp LOS	D		D	C		F	E	C	E	F	B	B
Approach Vol, veh/h		94			784			1137			723	
Approach Delay, s/veh		51.5			180.7			48.6			151.8	
Approach LOS		D			F			D			F	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4	5	6		
Case No	2.0	3.0	10.0	10.0	2.0	4.0		
Phs Duration (G+Y+Rc), s	21.0	55.7	33.0	10.3	8.4	68.3		
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0		
Max Green (Gmax), s	17.0	29.0	29.0	29.0	17.0	29.0		
Max Allow Headway (MAH), s	3.7	4.6	5.4	5.3	3.7	4.6		
Max Q Clear (g_c+I1), s	19.0	30.1	31.0	6.5	5.3	6.8		
Green Ext Time (g_e), s	0.0	0.0	0.0	0.4	0.1	7.7		
Prob of Phs Call (p_c)	1.00	1.00	1.00	0.92	0.81	1.00		
Prob of Max Out (p_x)	1.00	1.00	1.00	0.00	0.00	0.17		

Left-Turn Movement Data								
Assigned Mvmt	1		3	7	5			
Mvmt Sat Flow, veh/h	1774		3442	1774	1774			

Through Movement Data								
Assigned Mvmt		2	8	4		6		
Mvmt Sat Flow, veh/h		3539	373	1308		3470		

Right-Turn Movement Data								
Assigned Mvmt		12	18	14		16		
Mvmt Sat Flow, veh/h		1583	1266	472		138		

Left Lane Group Data								
Assigned Mvmt	1	0	3	7	5	0	0	0
Lane Assignment	(Prot)				(Prot)			
Lanes in Grp	1	0	2	1	1	0	0	0

Grp Vol (v), veh/h	437	0	120	11	61	0	0	0
Grp Sat Flow (s), veh/h/ln	1774	0	1721	1774	1774	0	0	0
Q Serve Time (g_s), s	17.0	0.0	2.5	0.6	3.3	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	17.0	0.0	2.5	0.6	3.3	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1721	1774	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	310	0	1025	115	79	0	0	0
V/C Ratio (X)	1.41	0.00	0.12	0.10	0.77	0.00	0.00	0.00
Avail Cap (c_a), veh/h	310	0	1025	529	310	0	0	0
Upstream Filter (I)	0.80	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	40.2	0.0	24.9	42.8	46.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	199.4	0.0	0.1	0.4	14.4	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	239.6	0.0	24.9	43.2	60.4	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	8.3	0.0	1.2	0.3	1.6	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	17.2	0.0	0.0	0.0	0.3	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	25.4	0.0	1.2	0.3	1.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	3.08	0.00	0.30	0.02	0.33	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	31.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	1	0	0
Grp Vol (v), veh/h	0	615	0	0	0	140	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	14.4	0.0	0.0	0.0	4.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	14.4	0.0	0.0	0.0	4.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	1055	0	0	0	757	0	0
V/C Ratio (X)	0.00	0.58	0.00	0.00	0.00	0.18	0.00	0.00
Avail Cap (c_a), veh/h	0	1055	0	0	0	757	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.80	0.00	0.00
Uniform Delay (d1), s/veh	0.0	29.0	0.0	0.0	0.0	17.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.4	0.0	0.0	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	31.4	0.0	0.0	0.0	17.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	7.0	0.0	0.0	0.0	2.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.1	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	7.3	0.0	0.0	0.0	2.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.50	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	14	0	16	0	0
Lane Assignment		R	T+R	T+R		T+R		
Lanes in Grp	0	1	1	1	0	1	0	0
Grp Vol (v), veh/h	0	461	664	83	0	146	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	1639	1780	0	1838	0	0
Q Serve Time (g_s), s	0.0	28.1	29.0	4.5	0.0	4.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	28.1	29.0	4.5	0.0	4.8	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.77	0.27	0.00	0.08	0.00	0.00
Lane Grp Cap (c), veh/h	0	472	488	116	0	787	0	0
V/C Ratio (X)	0.00	0.98	1.36	0.72	0.00	0.19	0.00	0.00
Avail Cap (c_a), veh/h	0	472	488	530	0	787	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	0.00	0.80	0.00	0.00
Uniform Delay (d1), s/veh	0.0	33.8	34.2	44.6	0.0	17.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	36.2	174.7	8.0	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	70.0	208.8	52.6	0.0	17.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	12.3	13.0	2.2	0.0	2.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	4.7	23.7	0.3	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	17.0	36.7	2.4	0.0	2.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.16	2.28	0.18	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	43.9	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	113.8
HCM 2010 LOS	F

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	11	3	0	5	7	15	0	2	54	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	12	3	0	5	7	16	0	2	57	15
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	12%	19%	38%
Vol Thru, %	77%	69%	26%	41%
Vol Right, %	20%	19%	56%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	16	27	29
LT Vol	54	11	7	12
Through Vol	14	3	15	6
RT Vol	2	2	5	11
Lane Flow Rate	74	17	28	31
Geometry Grp	1	1	1	1
Degree of Util (X)	0.08	0.019	0.03	0.034
Departure Headway (Hd)	3.921	4.047	3.829	4.019
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	914	880	929	889
Service Time	1.944	2.094	1.876	2.05
HCM Lane V/C Ratio	0.081	0.019	0.03	0.035
HCM Control Delay	7.3	7.2	7	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.1	0.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	11	12	6
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	12	13	6
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	1	2	1	1	2	3	3	59	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	2	1	1	2	3	3	62	1

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	98	95	20	97	96	63	21	0	0
Stage 1	26	26	-	69	69	-	-	-	-
Stage 2	72	69	-	28	27	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	884	795	1058	885	794	1002	1595	-	-
Stage 1	992	874	-	941	837	-	-	-	-
Stage 2	938	837	-	989	873	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	877	792	1058	880	791	1002	1595	-	-
Mov Cap-2 Maneuver	877	792	-	880	791	-	-	-	-
Stage 1	990	872	-	939	835	-	-	-	-
Stage 2	931	835	-	984	871	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	9.2	9	0.3
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1595	-	-	868	901	1540	-	-
HCM Lane V/C Ratio	0.002	-	-	0.005	0.007	0.002	-	-
HCM Control Delay (s)	7.3	0	-	9.2	9	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	3	18	2
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	3	19	2

Major/Minor	Major2		
Conflicting Flow All	63	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1540	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1540	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	1
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	3	1	0	13	3	11	0	4	62	22
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	3	1	0	14	3	12	0	4	65	23
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7.2	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	33%	48%	11%
Vol Thru, %	70%	50%	11%	78%
Vol Right, %	25%	17%	41%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	88	6	27	27
LT Vol	62	3	3	21
Through Vol	22	1	11	3
RT Vol	4	2	13	3
Lane Flow Rate	93	6	28	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.1	0.007	0.032	0.032
Departure Headway (Hd)	3.875	4.131	3.999	4.02
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	925	860	890	889
Service Time	1.896	2.186	2.048	2.051
HCM Lane V/C Ratio	0.101	0.007	0.031	0.031
HCM Control Delay	7.3	7.2	7.2	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0	0.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	3	21	3
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	3	22	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	5	4	1	0	35	9	115	0	0	7	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	4	1	0	37	9	121	0	0	7	16
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	7.4	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	50%	22%	78%
Vol Thru, %	32%	40%	6%	14%
Vol Right, %	68%	10%	72%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	10	159	37
LT Vol	7	4	9	5
Through Vol	15	1	115	3
RT Vol	0	5	35	29
Lane Flow Rate	23	11	167	39
Geometry Grp	1	1	1	1
Degree of Util (X)	0.025	0.012	0.17	0.047
Departure Headway (Hd)	3.864	4.211	3.661	4.37
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	918	845	977	815
Service Time	1.922	2.262	1.694	2.421
HCM Lane V/C Ratio	0.025	0.013	0.171	0.048
HCM Control Delay	7	7.3	7.4	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.6	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	29	5	3
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	31	5	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.6
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	31.3
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	38	2	49	0	52	3	19	0	104	512	32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	40	2	52	0	55	3	20	0	109	539	34
Number of Lanes	0	0	1	0	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	12.8	13	16.9
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	43%	70%	100%	0%	0%
Vol Thru, %	0%	100%	84%	2%	4%	0%	100%	85%
Vol Right, %	0%	0%	16%	55%	26%	0%	0%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	104	341	203	89	74	45	575	340
LT Vol	0	341	171	2	3	0	575	288
Through Vol	0	0	32	49	19	0	0	52
RT Vol	104	0	0	38	52	45	0	0
Lane Flow Rate	109	359	213	94	78	47	606	358
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.214	0.652	0.381	0.207	0.181	0.089	1	0.608
Departure Headway (Hd)	7.033	6.533	6.423	7.968	8.351	6.736	6.228	6.119
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	510	553	559	450	429	531	581	590
Service Time	4.781	4.281	4.17	5.724	6.108	4.494	3.986	3.877
HCM Lane V/C Ratio	0.214	0.649	0.381	0.209	0.182	0.089	1.043	0.607
HCM Control Delay	11.7	20.8	13.1	12.8	13	10.2	62.2	18
HCM Lane LOS	B	C	B	B	B	B	F	C
HCM 95th-tile Q	0.8	4.7	1.8	0.8	0.7	0.3	14.7	4.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	45	863	52
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	47	908	55
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	44.1
HCM LOS	E

Lane

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	34	0	0	12	0	641	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	36	0	0	13	0	675	35

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1324	1696	502	1177	1696	355	1004	0	0
Stage 1	987	987	-	692	692	-	-	-	-
Stage 2	337	709	-	485	1004	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-
Pot Cap-1 Maneuver	114	92	515	146	92	641	686	-	-
Stage 1	265	324	-	400	443	-	-	-	-
Stage 2	651	435	-	532	318	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	112	92	515	136	92	641	686	-	-
Mov Cap-2 Maneuver	112	92	-	136	92	-	-	-	-
Stage 1	265	324	-	400	443	-	-	-	-
Stage 2	638	435	-	495	318	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	12.5	10.7	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	686	-	-	515	641	886	-	-
HCM Lane V/C Ratio	-	-	-	0.069	0.02	-	-	-
HCM Control Delay (s)	0	-	-	12.5	10.7	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	921	33
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	969	35

Major/Minor	Major2		
Conflicting Flow All	709	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	886	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	886	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	72	5	21	80	5	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	76	5	22	84	5	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	81	0	206	78
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	128	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1517	-	782	983
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	898	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1517	-	770	983
Mov Cap-2 Maneuver	-	-	-	-	770	-
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	885	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	852	-	-	1517	-
HCM Lane V/C Ratio	0.011	-	-	0.015	-
HCM Control Delay (s)	9.3	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	5	32	0	1	18	28	1	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	34	0	1	19	29	1	0	2

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	48	0	0	34	0	0	80	95	34
Stage 1	-	-	-	-	-	-	44	44	-
Stage 2	-	-	-	-	-	-	36	51	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1559	-	-	1578	-	-	908	795	1039
Stage 1	-	-	-	-	-	-	970	858	-
Stage 2	-	-	-	-	-	-	980	852	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1559	-	-	1578	-	-	905	792	1039
Mov Cap-2 Maneuver	-	-	-	-	-	-	905	792	-
Stage 1	-	-	-	-	-	-	967	855	-
Stage 2	-	-	-	-	-	-	979	851	-

Approach	EB	WB	NB
HCM Control Delay, s	1	0.2	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	990	1559	-	-	1578	-	-	-
HCM Lane V/C Ratio	0.003	0.003	-	-	0.001	-	-	-
HCM Control Delay (s)	8.6	7.3	0	-	7.3	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	0	0
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	0	0

Major/Minor	Minor2		
Conflicting Flow All	81	80	34
Stage 1	36	36	-
Stage 2	45	44	-
Critical Hdwy	7.12	6.52	6.22
Critical Hdwy Stg 1	6.12	5.52	-
Critical Hdwy Stg 2	6.12	5.52	-
Follow-up Hdwy	3.518	4.018	3.318
Pot Cap-1 Maneuver	907	810	1039
Stage 1	980	865	-
Stage 2	969	858	-
Platoon blocked, %			
Mov Cap-1 Maneuver	902	807	1039
Mov Cap-2 Maneuver	902	807	-
Stage 1	977	864	-
Stage 2	964	855	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	A

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	76	0	58	101	1	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	80	0	61	106	1	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	80	0	308	80
Stage 1	-	-	-	-	80	-
Stage 2	-	-	-	-	228	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1518	-	684	980
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	810	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1518	-	655	980
Mov Cap-2 Maneuver	-	-	-	-	655	-
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	775	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.7	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	949	-	-	1518	-
HCM Lane V/C Ratio	0.017	-	-	0.04	-
HCM Control Delay (s)	8.9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	36	1	31	13	2	6	40	441	8	24	729	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	38	1	33	14	2	6	42	464	8	25	767	36
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	347	41	231	411	72	135	148	1180	528	148	1147	54
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
Prop Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.08	0.33	0.33	0.08	0.33	0.33
Ln Grp Delay, s/veh	11.5	0.0	0.0	10.9	0.0	0.0	25.4	13.3	10.8	22.9	19.6	19.4
Ln Grp LOS	B			B			C	B	B	C	B	B
Approach Vol, veh/h		72			22			514			828	
Approach Delay, s/veh		11.5			10.9			14.2			19.6	
Approach LOS		B			B			B			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Case No	2.0	3.0		8.0	2.0	4.0		8.0
Phs Duration (G+Y+Rc), s	8.0	20.0		20.0	8.0	20.0		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green (Gmax), s	4.0	16.0		16.0	4.0	16.0		16.0
Max Allow Headway (MAH), s	3.9	5.2		5.5	3.7	5.2		5.5
Max Q Clear (g_c+I1), s	2.6	6.8		3.4	3.1	11.2		2.4
Green Ext Time (g_e), s	0.0	5.2		0.3	0.0	3.1		0.3
Prob of Phs Call (p_c)	1.00	1.00		1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	1.00	0.73		0.01	1.00	1.00		0.00

Left-Turn Movement Data								
Assigned Mvmt	1			7	5			3
Mvmt Sat Flow, veh/h	1774			696	1774			866

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3539		122		3442		216

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1583		693		162		406

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	5	0	0	3
Lane Assignment	(Prot)			L+T+R	(Prot)			L+T+R
Lanes in Grp	1	0	0	1	1	0	0	1

Grp Vol (v), veh/h	25	0	0	72	42	0	0	22
Grp Sat Flow (s), veh/h/ln	1774	0	0	1511	1774	0	0	1487
Q Serve Time (g_s), s	0.6	0.0	0.0	0.0	1.1	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.6	0.0	0.0	1.4	1.1	0.0	0.0	0.4
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1430	0	0	0	1396
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1863	0	0	0	1863
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	16.0	0.0	0.0	0.0	16.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	15.6	0.0	0.0	0.0	14.6
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	1.8	0.0	0.0	0.0	1.1
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.4
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.53	1.00	0.00	0.00	0.64
Lane Grp Cap (c), veh/h	148	0	0	618	148	0	0	618
V/C Ratio (X)	0.17	0.00	0.00	0.12	0.28	0.00	0.00	0.04
Avail Cap (c_a), veh/h	148	0	0	618	148	0	0	618
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	20.5	0.0	0.0	11.1	20.7	0.0	0.0	10.8
Incr Delay (d2), s/veh	2.5	0.0	0.0	0.4	4.8	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	22.9	0.0	0.0	11.5	25.4	0.0	0.0	10.9
1st-Term Q (Q1), veh/ln	0.3	0.0	0.0	0.7	0.5	0.0	0.0	0.2
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.4	0.0	0.0	0.7	0.7	0.0	0.0	0.2
%ile Storage Ratio (RQ%)	0.09	0.00	0.00	0.05	0.11	0.00	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	1	0	0
Grp Vol (v), veh/h	0	464	0	0	0	394	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	4.8	0.0	0.0	0.0	9.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.8	0.0	0.0	0.0	9.2	0.0	0.0
Lane Grp Cap (c), veh/h	0	1180	0	0	0	590	0	0
V/C Ratio (X)	0.00	0.39	0.00	0.00	0.00	0.67	0.00	0.00
Avail Cap (c_a), veh/h	0	1180	0	0	0	590	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	12.3	0.0	0.0	0.0	13.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.0	0.0	5.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.3	0.0	0.0	0.0	19.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.3	0.0	0.0	0.0	4.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	1.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	0.0	0.0	5.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.00	0.00	0.43	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R				T+R		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	8	0	0	0	409	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	0	0	0	1834	0	0
Q Serve Time (g_s), s	0.0	0.2	0.0	0.0	0.0	9.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.2	0.0	0.0	0.0	9.2	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.46	0.00	0.09	0.00	0.27
Lane Grp Cap (c), veh/h	0	528	0	0	0	611	0	0
V/C Ratio (X)	0.00	0.02	0.00	0.00	0.00	0.67	0.00	0.00
Avail Cap (c_a), veh/h	0	528	0	0	0	611	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.7	0.0	0.0	0.0	13.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	5.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.8	0.0	0.0	0.0	19.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.0	0.0	4.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.0	0.0	5.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.00	0.00	0.44	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	17.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	103	38	532	69	431	24	150	64	327	534	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	13	108	40	560	73	454	25	158	67	344	562	7
Adj No. of Lanes	1	1	0	2	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	190	139	52	979	64	396	35	1007	450	296	1544	19
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
Prop Arrive On Green	0.11	0.11	0.11	0.28	0.28	0.28	0.02	0.28	0.28	0.17	0.43	0.43
Ln Grp Delay, s/veh	41.1	0.0	50.9	32.0	0.0	124.8	72.4	27.6	27.9	138.1	20.5	20.4
Ln Grp LOS	D		D	C		F	E	C	C	F	C	C
Approach Vol, veh/h		161			1087			250			913	
Approach Delay, s/veh		50.1			77.0			32.2			64.8	
Approach LOS		D			E			C			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4	5	6		
Case No	2.0	3.0	10.0	10.0	2.0	4.0		
Phs Duration (G+Y+Rc), s	21.0	51.1	33.0	14.9	6.0	66.0		
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0		
Max Green (Gmax), s	17.0	29.0	29.0	29.0	17.0	29.0		
Max Allow Headway (MAH), s	3.7	4.9	4.8	5.3	3.7	4.9		
Max Q Clear (g_c+I1), s	19.0	5.4	31.0	10.3	3.4	12.8		
Green Ext Time (g_e), s	0.0	4.5	0.0	0.8	0.0	4.0		
Prob of Phs Call (p_c)	1.00	1.00	1.00	0.99	0.51	1.00		
Prob of Max Out (p_x)	1.00	0.03	1.00	0.00	0.00	0.13		

Left-Turn Movement Data								
Assigned Mvmt	1		3	7	5			
Mvmt Sat Flow, veh/h	1774		3442	1774	1774			

Through Movement Data								
Assigned Mvmt		2	8	4		6		
Mvmt Sat Flow, veh/h		3539	224	1297		3580		

Right-Turn Movement Data								
Assigned Mvmt		12	18	14		16		
Mvmt Sat Flow, veh/h		1583	1393	481		45		

Left Lane Group Data								
Assigned Mvmt	1	0	3	7	5	0	0	0
Lane Assignment	(Prot)				(Prot)			
Lanes in Grp	1	0	2	1	1	0	0	0

Grp Vol (v), veh/h	344	0	560	13	25	0	0	0
Grp Sat Flow (s), veh/h/ln	1774	0	1721	1774	1774	0	0	0
Q Serve Time (g_s), s	17.0	0.0	14.2	0.7	1.4	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	17.0	0.0	14.2	0.7	1.4	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1721	1774	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	296	0	979	190	35	0	0	0
V/C Ratio (X)	1.16	0.00	0.57	0.07	0.71	0.00	0.00	0.00
Avail Cap (c_a), veh/h	296	0	979	505	296	0	0	0
Upstream Filter (I)	0.67	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	42.5	0.0	31.2	40.9	49.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	95.6	0.0	0.8	0.1	22.7	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	138.1	0.0	32.0	41.1	72.4	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	8.3	0.0	6.7	0.3	0.7	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	7.9	0.0	0.1	0.0	0.2	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	16.2	0.0	6.8	0.3	0.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	1.95	0.00	1.73	0.02	0.16	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	1	0	0
Grp Vol (v), veh/h	0	158	0	0	0	278	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	3.4	0.0	0.0	0.0	10.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.4	0.0	0.0	0.0	10.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	1007	0	0	0	763	0	0
V/C Ratio (X)	0.00	0.16	0.00	0.00	0.00	0.36	0.00	0.00
Avail Cap (c_a), veh/h	0	1007	0	0	0	763	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.67	0.00	0.00
Uniform Delay (d1), s/veh	0.0	27.3	0.0	0.0	0.0	19.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	27.6	0.0	0.0	0.0	20.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.7	0.0	0.0	0.0	5.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.7	0.0	0.0	0.0	5.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.00	0.00	0.07	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	14	0	16	0	0
Lane Assignment		R	T+R	T+R		T+R		
Lanes in Grp	0	1	1	1	0	1	0	0
Grp Vol (v), veh/h	0	67	527	148	0	291	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	1617	1778	0	1855	0	0
Q Serve Time (g_s), s	0.0	3.2	29.0	8.3	0.0	10.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.2	29.0	8.3	0.0	10.8	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.86	0.27	0.00	0.02	0.00	0.00
Lane Grp Cap (c), veh/h	0	450	460	191	0	800	0	0
V/C Ratio (X)	0.00	0.15	1.15	0.78	0.00	0.36	0.00	0.00
Avail Cap (c_a), veh/h	0	450	460	506	0	800	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	0.00	0.67	0.00	0.00
Uniform Delay (d1), s/veh	0.0	27.2	36.5	44.3	0.0	19.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	88.3	6.6	0.0	0.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	27.9	124.8	50.9	0.0	20.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.4	12.9	4.1	0.0	5.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	11.3	0.4	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.5	24.2	4.4	0.0	5.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.10	1.50	0.33	0.00	0.08	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	65.9
HCM 2010 LOS	E

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	17	0	0	5	12	9	0	3	9	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	18	0	0	5	13	9	0	3	9	16
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7	6.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	11%	19%	47%
Vol Thru, %	33%	89%	46%	40%
Vol Right, %	56%	0%	35%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	19	26	15
LT Vol	9	17	12	6
Through Vol	15	0	9	2
RT Vol	3	2	5	7
Lane Flow Rate	28	20	27	16
Geometry Grp	1	1	1	1
Degree of Util (X)	0.029	0.023	0.029	0.018
Departure Headway (Hd)	3.717	4.052	3.856	4.051
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	963	884	929	884
Service Time	1.739	2.072	1.876	2.074
HCM Lane V/C Ratio	0.029	0.023	0.029	0.018
HCM Control Delay	6.9	7.2	7	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	7	6	2
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	6	2
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.1
HCM LOS	A

Lane

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	3	1	0	0	1	0	1	21	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1	0	0	1	0	1	22	2

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	49	49	12	48	48	23	13	0	0
Stage 1	23	23	-	25	25	-	-	-	-
Stage 2	26	26	-	23	23	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	951	843	1069	953	844	1054	1606	-	-
Stage 1	995	876	-	993	874	-	-	-	-
Stage 2	992	874	-	995	876	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	947	840	1069	949	841	1054	1606	-	-
Mov Cap-2 Maneuver	947	840	-	949	841	-	-	-	-
Stage 1	994	873	-	992	873	-	-	-	-
Stage 2	990	873	-	991	873	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	8.9	9.3	0.3
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1606	-	-	918	841	1591	-	-
HCM Lane V/C Ratio	0.001	-	-	0.005	0.001	0.003	-	-
HCM Control Delay (s)	7.2	0	-	8.9	9.3	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	5	11	1
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	5	12	1

Major/Minor	Major2		
Conflicting Flow All	24	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1591	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1591	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	2.1
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	4	0	0	22	5	6	0	1	15	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	4	0	0	23	5	6	0	1	16	19
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7.2	6.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	33%	67%	24%
Vol Thru, %	44%	67%	15%	59%
Vol Right, %	53%	0%	18%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	6	33	17
LT Vol	15	4	5	10
Through Vol	18	0	6	3
RT Vol	1	2	22	4
Lane Flow Rate	36	6	35	18
Geometry Grp	1	1	1	1
Degree of Util (X)	0.037	0.007	0.039	0.02
Departure Headway (Hd)	3.708	4.121	4.057	3.975
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	966	869	884	901
Service Time	1.729	2.145	2.076	1.997
HCM Lane V/C Ratio	0.037	0.007	0.04	0.02
HCM Control Delay	6.9	7.2	7.2	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	4	10	3
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	4	11	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.1
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	1	8	1	0	20	8	39	0	0	2	29
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1	8	1	0	21	8	41	0	0	2	31
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	7.3	6.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	10%	30%	94%
Vol Thru, %	6%	80%	12%	2%
Vol Right, %	94%	10%	58%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	10	67	101
LT Vol	2	8	8	2
Through Vol	29	1	39	4
RT Vol	0	1	20	95
Lane Flow Rate	33	11	71	106
Geometry Grp	1	1	1	1
Degree of Util (X)	0.033	0.012	0.076	0.126
Departure Headway (Hd)	3.594	4.191	3.893	4.264
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	986	843	910	839
Service Time	1.653	2.272	1.963	2.299
HCM Lane V/C Ratio	0.033	0.013	0.078	0.126
HCM Control Delay	6.8	7.3	7.3	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.2	0.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	95	2	4
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	100	2	4
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.9
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	54.3
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	54	2	66	0	68	3	26	0	105	1441	39
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	57	2	69	0	72	3	27	0	111	1517	41
Number of Lanes	0	0	1	0	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	16	15.6	62.7
HCM LOS	C	C	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	44%	70%	100%	0%	0%
Vol Thru, %	0%	100%	92%	2%	3%	0%	100%	90%
Vol Right, %	0%	0%	8%	54%	27%	0%	0%	10%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	105	961	519	122	97	78	605	336
LT Vol	0	961	480	2	3	0	605	302
Through Vol	0	0	39	66	26	0	0	34
RT Vol	105	0	0	54	68	78	0	0
Lane Flow Rate	111	1011	547	128	102	82	636	354
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.232	1	1	0.322	0.267	0.178	1	0.71
Departure Headway (Hd)	7.559	7.058	7.006	9.013	9.416	7.792	7.292	7.221
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	474	526	519	399	382	461	503	503
Service Time	5.316	4.815	4.763	6.751	7.158	5.529	5.029	4.958
HCM Lane V/C Ratio	0.234	1.922	1.054	0.321	0.267	0.178	1.264	0.704
HCM Control Delay	12.6	66.4	66.1	16	15.6	12.2	67.5	25.8
HCM Lane LOS	B	F	F	C	C	B	F	D
HCM 95th-tile Q	0.9	13.8	13.8	1.4	1.1	0.6	13.6	5.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	78	907	34
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	82	955	36
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	49.5
HCM LOS	E

Lane

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	43	0	0	28	0	1357	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	45	0	0	29	0	1428	37

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1773	2524	538	1968	2524	733	1077	0	0
Stage 1	1059	1059	-	1447	1447	-	-	-	-
Stage 2	714	1465	-	521	1077	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-
Pot Cap-1 Maneuver	53	27	488	37	27	363	643	-	-
Stage 1	240	299	-	138	195	-	-	-	-
Stage 2	388	191	-	507	293	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	49	27	488	34	27	363	643	-	-
Mov Cap-2 Maneuver	49	27	-	34	27	-	-	-	-
Stage 1	240	299	-	138	195	-	-	-	-
Stage 2	356	191	-	460	293	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	13.1	15.8	0
HCM LOS	B	C	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	643	-	-	488	363	457	-	-
HCM Lane V/C Ratio	-	-	-	0.093	0.081	-	-	-
HCM Control Delay (s)	0	-	-	13.1	15.8	0	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.3	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	989	34
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	1041	36

Major/Minor	Major2		
Conflicting Flow All	1465	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	457	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	457	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	67	2	4	109	10	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	2	4	115	11	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	73	0	195	72
Stage 1	-	-	-	-	72	-
Stage 2	-	-	-	-	123	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1527	-	794	990
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	902	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1527	-	792	990
Mov Cap-2 Maneuver	-	-	-	-	792	-
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	899	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	893	-	-	1527	-
HCM Lane V/C Ratio	0.027	-	-	0.003	-
HCM Control Delay (s)	9.1	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	42	5	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	44	5	0	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	5	0	-	0	49	5
Stage 1	-	-	-	-	5	-
Stage 2	-	-	-	-	44	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1616	-	-	-	960	1078
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	978	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1616	-	-	-	960	1078
Mov Cap-2 Maneuver	-	-	-	-	960	-
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	978	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1616	-	-	-	1078
HCM Lane V/C Ratio	-	-	-	-	0.001
HCM Control Delay (s)	0	-	-	-	8.3
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	3	42	1	4	3	27	3	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	44	1	4	3	28	3	0	1

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	32	0	0	45	0	0	77	91	45
Stage 1	-	-	-	-	-	-	51	51	-
Stage 2	-	-	-	-	-	-	26	40	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1580	-	-	1563	-	-	912	799	1025
Stage 1	-	-	-	-	-	-	962	852	-
Stage 2	-	-	-	-	-	-	992	862	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1580	-	-	1563	-	-	909	795	1025
Mov Cap-2 Maneuver	-	-	-	-	-	-	909	795	-
Stage 1	-	-	-	-	-	-	960	850	-
Stage 2	-	-	-	-	-	-	989	859	-

Approach	EB	WB	NB
HCM Control Delay, s	0.5	0.9	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	935	1580	-	-	1563	-	-	-
HCM Lane V/C Ratio	0.005	0.002	-	-	0.003	-	-	-
HCM Control Delay (s)	8.9	7.3	0	-	7.3	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	0	0
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	0	0

Major/Minor	Minor2		
Conflicting Flow All	78	78	17
Stage 1	26	26	-
Stage 2	52	52	-
Critical Hdwy	7.12	6.52	6.22
Critical Hdwy Stg 1	6.12	5.52	-
Critical Hdwy Stg 2	6.12	5.52	-
Follow-up Hdwy	3.518	4.018	3.318
Pot Cap-1 Maneuver	911	812	1062
Stage 1	992	874	-
Stage 2	961	852	-
Platoon blocked, %			
Mov Cap-1 Maneuver	907	808	1062
Mov Cap-2 Maneuver	907	808	-
Stage 1	990	871	-
Stage 2	958	850	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	A

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	80	0	8	113	2	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	0	8	119	2	44

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	84	0	220	84
Stage 1	-	-	-	-	84	-
Stage 2	-	-	-	-	136	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1513	-	768	975
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	890	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1513	-	763	975
Mov Cap-2 Maneuver	-	-	-	-	763	-
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	885	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	963	-	-	1513	-
HCM Lane V/C Ratio	0.048	-	-	0.006	-
HCM Control Delay (s)	8.9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	0	22	18	4	9	21	915	17	22	625	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	15	0	23	19	4	9	22	963	18	23	658	14
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	265	42	310	388	93	141	148	1180	528	148	1181	25
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
Prop Arrive On Green	0.33	0.00	0.33	0.33	0.33	0.33	0.08	0.33	0.33	0.08	0.33	0.33
Ln Grp Delay, s/veh	11.1	0.0	0.0	11.0	0.0	0.0	22.5	21.0	10.9	22.7	16.9	16.7
Ln Grp LOS	B			B			C	C	B	C	B	B
Approach Vol, veh/h		38			32			1003			695	
Approach Delay, s/veh		11.1			11.0			20.8			17.0	
Approach LOS		B			B			C			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Case No	2.0	3.0		8.0	2.0	4.0		8.0
Phs Duration (G+Y+Rc), s	8.0	20.0		20.0	8.0	20.0		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green (Gmax), s	4.0	16.0		16.0	4.0	16.0		16.0
Max Allow Headway (MAH), s	3.9	5.1		5.6	3.7	5.1		5.6
Max Q Clear (g_c+I1), s	2.6	14.0		2.7	2.6	9.3		2.6
Green Ext Time (g_e), s	0.0	1.7		0.2	0.0	4.9		0.2
Prob of Phs Call (p_c)	1.00	1.00		1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	1.00	1.00		0.00	1.00	0.92		0.00

Left-Turn Movement Data								
Assigned Mvmt	1			7	5			3
Mvmt Sat Flow, veh/h	1774			482	1774			805

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3539		125		3544		279

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1583		930		75		424

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	5	0	0	3
Lane Assignment	(Prot)			L+T+R	(Prot)			L+T+R
Lanes in Grp	1	0	0	1	1	0	0	1

Grp Vol (v), veh/h	23	0	0	38	22	0	0	32
Grp Sat Flow (s), veh/h/ln	1774	0	0	1537	1774	0	0	1508
Q Serve Time (g_s), s	0.6	0.0	0.0	0.0	0.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.6	0.0	0.0	0.7	0.6	0.0	0.0	0.6
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1423	0	0	0	1410
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1863	0	0	0	1863
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	16.0	0.0	0.0	0.0	16.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	15.4	0.0	0.0	0.0	15.3
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	3.0	0.0	0.0	0.0	1.4
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.6
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.39	1.00	0.00	0.00	0.59
Lane Grp Cap (c), veh/h	148	0	0	617	148	0	0	622
V/C Ratio (X)	0.16	0.00	0.00	0.06	0.15	0.00	0.00	0.05
Avail Cap (c_a), veh/h	148	0	0	617	148	0	0	622
Upstream Filter (I)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	20.4	0.0	0.0	10.9	20.4	0.0	0.0	10.9
Incr Delay (d2), s/veh	2.2	0.0	0.0	0.2	2.1	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	22.7	0.0	0.0	11.1	22.5	0.0	0.0	11.0
1st-Term Q (Q1), veh/ln	0.3	0.0	0.0	0.3	0.3	0.0	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.4	0.0	0.0	0.4	0.4	0.0	0.0	0.3
%ile Storage Ratio (RQ%)	0.09	0.00	0.00	0.02	0.06	0.00	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	1	0	0
Grp Vol (v), veh/h	0	963	0	0	0	328	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	12.0	0.0	0.0	0.0	7.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	12.0	0.0	0.0	0.0	7.3	0.0	0.0
Lane Grp Cap (c), veh/h	0	1180	0	0	0	590	0	0
V/C Ratio (X)	0.00	0.82	0.00	0.00	0.00	0.56	0.00	0.00
Avail Cap (c_a), veh/h	0	1180	0	0	0	590	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	14.7	0.0	0.0	0.0	13.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	6.3	0.0	0.0	0.0	3.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	21.0	0.0	0.0	0.0	16.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	5.8	0.0	0.0	0.0	3.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.0	0.0	0.0	0.0	0.6	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.8	0.0	0.0	0.0	4.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.00	0.00	0.34	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R				T+R		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	18	0	0	0	344	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	0	0	0	1849	0	0
Q Serve Time (g_s), s	0.0	0.4	0.0	0.0	0.0	7.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.4	0.0	0.0	0.0	7.3	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.61	0.00	0.04	0.00	0.28
Lane Grp Cap (c), veh/h	0	528	0	0	0	616	0	0
V/C Ratio (X)	0.00	0.03	0.00	0.00	0.00	0.56	0.00	0.00
Avail Cap (c_a), veh/h	0	528	0	0	0	616	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.8	0.0	0.0	0.0	13.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	3.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.9	0.0	0.0	0.0	16.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	0.0	0.0	3.7	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	0.0	0.0	4.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.00	0.00	0.35	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	18.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	58	21	114	143	487	58	584	438	415	261	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	11	61	22	120	151	513	61	615	461	437	275	11
Adj No. of Lanes	1	1	0	2	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	115	85	31	1025	111	377	79	1055	472	310	1485	59
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
Prop Arrive On Green	0.07	0.07	0.07	0.30	0.30	0.30	0.04	0.30	0.30	0.17	0.43	0.43
Ln Grp Delay, s/veh	43.2	0.0	52.6	24.9	0.0	208.8	60.4	31.4	70.0	239.6	17.7	17.7
Ln Grp LOS	D		D	C		F	E	C	E	F	B	B
Approach Vol, veh/h		94			784			1137			723	
Approach Delay, s/veh		51.5			180.7			48.6			151.8	
Approach LOS		D			F			D			F	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8	4	5	6		
Case No	2.0	3.0	10.0	10.0	2.0	4.0		
Phs Duration (G+Y+Rc), s	21.0	55.7	33.0	10.3	8.4	68.3		
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0		
Max Green (Gmax), s	17.0	29.0	29.0	29.0	17.0	29.0		
Max Allow Headway (MAH), s	3.7	4.6	5.4	5.3	3.7	4.6		
Max Q Clear (g_c+I1), s	19.0	30.1	31.0	6.5	5.3	6.8		
Green Ext Time (g_e), s	0.0	0.0	0.0	0.4	0.1	7.7		
Prob of Phs Call (p_c)	1.00	1.00	1.00	0.92	0.81	1.00		
Prob of Max Out (p_x)	1.00	1.00	1.00	0.00	0.00	0.17		

Left-Turn Movement Data								
Assigned Mvmt	1		3	7	5			
Mvmt Sat Flow, veh/h	1774		3442	1774	1774			

Through Movement Data								
Assigned Mvmt		2	8	4		6		
Mvmt Sat Flow, veh/h		3539	373	1308		3470		

Right-Turn Movement Data								
Assigned Mvmt		12	18	14		16		
Mvmt Sat Flow, veh/h		1583	1266	472		138		

Left Lane Group Data								
Assigned Mvmt	1	0	3	7	5	0	0	0
Lane Assignment	(Prot)				(Prot)			
Lanes in Grp	1	0	2	1	1	0	0	0

Grp Vol (v), veh/h	437	0	120	11	61	0	0	0
Grp Sat Flow (s), veh/h/ln	1774	0	1721	1774	1774	0	0	0
Q Serve Time (g_s), s	17.0	0.0	2.5	0.6	3.3	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	17.0	0.0	2.5	0.6	3.3	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1721	1774	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	310	0	1025	115	79	0	0	0
V/C Ratio (X)	1.41	0.00	0.12	0.10	0.77	0.00	0.00	0.00
Avail Cap (c_a), veh/h	310	0	1025	529	310	0	0	0
Upstream Filter (I)	0.80	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	40.2	0.0	24.9	42.8	46.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	199.4	0.0	0.1	0.4	14.4	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	239.6	0.0	24.9	43.2	60.4	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	8.3	0.0	1.2	0.3	1.6	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	17.2	0.0	0.0	0.0	0.3	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	25.4	0.0	1.2	0.3	1.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	3.08	0.00	0.30	0.02	0.33	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	31.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	1	0	0
Grp Vol (v), veh/h	0	615	0	0	0	140	0	0
Grp Sat Flow (s), veh/h/ln	0	1770	0	0	0	1770	0	0
Q Serve Time (g_s), s	0.0	14.4	0.0	0.0	0.0	4.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	14.4	0.0	0.0	0.0	4.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	1055	0	0	0	757	0	0
V/C Ratio (X)	0.00	0.58	0.00	0.00	0.00	0.18	0.00	0.00
Avail Cap (c_a), veh/h	0	1055	0	0	0	757	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.80	0.00	0.00
Uniform Delay (d1), s/veh	0.0	29.0	0.0	0.0	0.0	17.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.4	0.0	0.0	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	31.4	0.0	0.0	0.0	17.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	7.0	0.0	0.0	0.0	2.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.1	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	7.3	0.0	0.0	0.0	2.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.50	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	14	0	16	0	0
Lane Assignment		R	T+R	T+R		T+R		
Lanes in Grp	0	1	1	1	0	1	0	0
Grp Vol (v), veh/h	0	461	664	83	0	146	0	0
Grp Sat Flow (s), veh/h/ln	0	1583	1639	1780	0	1838	0	0
Q Serve Time (g_s), s	0.0	28.1	29.0	4.5	0.0	4.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	28.1	29.0	4.5	0.0	4.8	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.77	0.27	0.00	0.08	0.00	0.00
Lane Grp Cap (c), veh/h	0	472	488	116	0	787	0	0
V/C Ratio (X)	0.00	0.98	1.36	0.72	0.00	0.19	0.00	0.00
Avail Cap (c_a), veh/h	0	472	488	530	0	787	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	0.00	0.80	0.00	0.00
Uniform Delay (d1), s/veh	0.0	33.8	34.2	44.6	0.0	17.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	36.2	174.7	8.0	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	70.0	208.8	52.6	0.0	17.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	12.3	13.0	2.2	0.0	2.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	4.7	23.7	0.3	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	17.0	36.7	2.4	0.0	2.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.16	2.28	0.18	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	43.9	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	113.8
HCM 2010 LOS	F

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	11	3	0	12	7	18	0	2	54	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	12	3	0	13	7	19	0	2	57	15
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7.1	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	12%	32%	42%
Vol Thru, %	77%	69%	19%	39%
Vol Right, %	20%	19%	49%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	16	37	31
LT Vol	54	11	7	12
Through Vol	14	3	18	6
RT Vol	2	2	12	13
Lane Flow Rate	74	17	39	33
Geometry Grp	1	1	1	1
Degree of Util (X)	0.081	0.019	0.042	0.037
Departure Headway (Hd)	3.942	4.06	3.903	4.055
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	908	875	911	881
Service Time	1.97	2.113	1.953	2.09
HCM Lane V/C Ratio	0.081	0.019	0.043	0.037
HCM Control Delay	7.3	7.2	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.1	0.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	13	12	6
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	14	13	6
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	1	2	1	0	2	3	3	59	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	2	1	0	2	3	3	62	2

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	106	105	27	104	104	63	28	0	0
Stage 1	34	34	-	69	69	-	-	-	-
Stage 2	72	71	-	35	35	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	873	785	1048	876	786	1002	1585	-	-
Stage 1	982	867	-	941	837	-	-	-	-
Stage 2	938	836	-	981	866	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	866	782	1048	871	783	1002	1585	-	-
Mov Cap-2 Maneuver	866	782	-	871	783	-	-	-	-
Stage 1	980	865	-	939	835	-	-	-	-
Stage 2	931	834	-	976	864	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	9.2	9	0.3
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1585	-	-	857	901	1538	-	-
HCM Lane V/C Ratio	0.002	-	-	0.005	0.006	0.002	-	-
HCM Control Delay (s)	7.3	0	-	9.2	9	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	3	25	2
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	3	26	2

Major/Minor	Major2		
Conflicting Flow All	64	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1538	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1538	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0.7
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	3	1	0	13	3	11	0	4	62	22
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	3	1	0	14	3	12	0	4	65	23
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7.2	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	33%	48%	11%
Vol Thru, %	70%	50%	11%	78%
Vol Right, %	25%	17%	41%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	88	6	27	27
LT Vol	62	3	3	21
Through Vol	22	1	11	3
RT Vol	4	2	13	3
Lane Flow Rate	93	6	28	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.1	0.007	0.032	0.032
Departure Headway (Hd)	3.875	4.131	3.999	4.02
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	925	860	890	889
Service Time	1.896	2.186	2.048	2.051
HCM Lane V/C Ratio	0.101	0.007	0.031	0.031
HCM Control Delay	7.3	7.2	7.2	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0	0.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	3	21	3
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	3	22	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	5	4	1	0	35	9	115	0	0	7	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	4	1	0	37	9	121	0	0	7	16
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	7.4	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	50%	22%	78%
Vol Thru, %	32%	40%	6%	14%
Vol Right, %	68%	10%	72%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	10	159	37
LT Vol	7	4	9	5
Through Vol	15	1	115	3
RT Vol	0	5	35	29
Lane Flow Rate	23	11	167	39
Geometry Grp	1	1	1	1
Degree of Util (X)	0.025	0.012	0.17	0.047
Departure Headway (Hd)	3.864	4.211	3.661	4.37
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	918	845	977	815
Service Time	1.922	2.262	1.694	2.421
HCM Lane V/C Ratio	0.025	0.013	0.171	0.048
HCM Control Delay	7	7.3	7.4	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.6	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	29	5	3
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	31	5	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.6
HCM LOS	A

Lane

Appendix F

Existing Plus Temporary Intersection LOS Worksheet

Intersection	
Intersection Delay, s/veh	15.8
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	11	1	17	0	18	4	7	0	20	439	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	1	18	0	19	4	7	0	21	462	16
Number of Lanes	0	0	1	0	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	10.2	10.6	12.1
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	38%	62%	100%	0%	0%
Vol Thru, %	0%	100%	91%	3%	14%	0%	100%	95%
Vol Right, %	0%	0%	9%	59%	24%	0%	0%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	293	161	29	29	20	497	261
LT Vol	0	293	146	1	4	0	497	248
Through Vol	0	0	15	17	7	0	0	13
RT Vol	20	0	0	11	18	20	0	0
Lane Flow Rate	21	308	170	31	31	21	523	275
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.035	0.473	0.258	0.06	0.063	0.033	0.757	0.396
Departure Headway (Hd)	6.036	5.533	5.468	7.04	7.4	5.717	5.215	5.181
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	588	644	650	512	487	621	690	688
Service Time	3.831	3.329	3.263	4.741	5.101	3.499	2.996	2.961
HCM Lane V/C Ratio	0.036	0.478	0.262	0.061	0.064	0.034	0.758	0.4
HCM Control Delay	9.1	13.3	10.2	10.2	10.6	8.7	22.6	11.4
HCM Lane LOS	A	B	B	B	B	A	C	B
HCM 95th-tile Q	0.1	2.5	1	0.2	0.2	0.1	7	1.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	20	745	13
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	21	784	14
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	18.5
HCM LOS	C

Lane

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	6	0	0	14	0	462	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	6	0	0	15	0	486	17

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1045	1305	401	896	1297	252	802	0	0
Stage 1	802	802	-	495	495	-	-	-	-
Stage 2	243	503	-	401	802	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-
Pot Cap-1 Maneuver	183	159	599	235	161	748	817	-	-
Stage 1	344	395	-	525	544	-	-	-	-
Stage 2	739	540	-	597	395	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	179	159	599	233	161	748	817	-	-
Mov Cap-2 Maneuver	179	159	-	233	161	-	-	-	-
Stage 1	344	395	-	525	544	-	-	-	-
Stage 2	724	540	-	591	395	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	11.1	9.9	0
HCM LOS	B	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	817	-	-	599	748	1058	-	-
HCM Lane V/C Ratio	-	-	-	0.011	0.02	-	-	-
HCM Control Delay (s)	0	-	-	11.1	9.9	0	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	762	0
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	802	0

Major/Minor	Major2		
Conflicting Flow All	503	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	1058	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1058	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	

Minor Lane/Major Mvmt

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	38	1	31	13	2	6	40	414	8	24	716	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	40	1	33	14	2	6	42	436	8	25	754	63
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	354	40	224	411	72	135	148	1180	528	148	1102	92
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.08	0.33	0.33	0.08	0.33	0.33
Sat Flow, veh/h	716	119	673	866	216	406	1774	3539	1583	1774	3307	276
Grp Volume(v), veh/h	74	0	0	22	0	0	42	436	8	25	403	414
Grp Sat Flow(s),veh/h/ln	1508	0	0	1488	0	0	1774	1770	1583	1774	1770	1814
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.1	4.5	0.2	0.6	9.4	9.5
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.4	0.0	0.0	1.1	4.5	0.2	0.6	9.4	9.5
Prop In Lane	0.54		0.45	0.64		0.27	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	618	0	0	619	0	0	148	1180	528	148	590	605
V/C Ratio(X)	0.12	0.00	0.00	0.04	0.00	0.00	0.28	0.37	0.02	0.17	0.68	0.68
Avail Cap(c_a), veh/h	618	0	0	619	0	0	148	1180	528	148	590	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	0.0	0.0	10.8	0.0	0.0	20.7	12.2	10.7	20.5	13.8	13.8
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.1	0.0	0.0	4.8	0.9	0.1	2.5	6.3	6.2
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	0.7	0.0	0.0	0.2	0.0	0.0	0.7	2.3	0.1	0.4	5.6	5.7
LnGrp Delay(d),s/veh	11.5	0.0	0.0	10.9	0.0	0.0	25.4	13.1	10.8	22.9	20.1	20.0
LnGrp LOS	B			B			C	B	B	C	C	B
Approach Vol, veh/h		74			22			486			842	
Approach Delay, s/veh		11.5			10.9			14.1			20.1	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	20.0		20.0	8.0	20.0		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	16.0		16.0	4.0	16.0		16.0
Max Q Clear Time (g_c+I1), s	2.6	6.5		3.4	3.1	11.5		2.4
Green Ext Time (p_c), s	0.0	5.3		0.3	0.0	3.0		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	17.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	102	37	493	85	378	24	147	64	326	532	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	13	107	39	519	89	398	25	155	67	343	560	7
Adj No. of Lanes	1	1	0	2	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	179	132	48	1040	90	402	35	843	377	377	1543	19
Arrive On Green	0.10	0.10	0.10	0.30	0.30	0.30	0.02	0.24	0.24	0.21	0.43	0.43
Sat Flow, veh/h	1774	1304	475	3442	298	1330	1774	3539	1583	1774	3580	45
Grp Volume(v), veh/h	13	0	146	519	0	487	25	155	67	343	277	290
Grp Sat Flow(s),veh/h/ln	1774	0	1779	1721	0	1628	1774	1770	1583	1774	1770	1855
Q Serve(g_s), s	0.7	0.0	8.8	13.5	0.0	32.5	1.5	3.8	3.7	20.6	11.5	11.5
Cycle Q Clear(g_c), s	0.7	0.0	8.8	13.5	0.0	32.5	1.5	3.8	3.7	20.6	11.5	11.5
Prop In Lane	1.00		0.27	1.00		0.82	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	179	0	179	1040	0	492	35	843	377	377	763	799
V/C Ratio(X)	0.07	0.00	0.81	0.50	0.00	0.99	0.72	0.18	0.18	0.91	0.36	0.36
Avail Cap(c_a), veh/h	260	0	261	1040	0	492	146	843	377	471	763	799
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	0.66	0.66	0.66
Uniform Delay (d), s/veh	44.5	0.0	48.1	31.3	0.0	37.9	53.2	33.2	33.1	42.0	21.0	21.0
Incr Delay (d2), s/veh	0.2	0.0	11.9	0.4	0.0	37.9	24.6	0.5	1.0	13.7	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	4.9	6.5	0.0	19.8	1.0	1.9	1.7	11.5	5.8	6.1
LnGrp Delay(d),s/veh	44.6	0.0	60.0	31.7	0.0	75.8	77.9	33.6	34.1	55.7	21.8	21.8
LnGrp LOS	D		E	C		E	E	C	C	E	C	C
Approach Vol, veh/h		159			1006			247			910	
Approach Delay, s/veh		58.7			53.0			38.2			34.6	
Approach LOS		E			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	27.2	40.8		15.0	6.1	61.9		37.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	29.0	26.0		16.0	9.0	46.0		33.0
Max Q Clear Time (g_c+I1), s	22.6	5.8		10.8	3.5	13.5		34.5
Green Ext Time (p_c), s	0.6	4.3		0.3	0.0	4.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	44.6
HCM 2010 LOS	D

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	17	0	0	2	12	6	0	3	11	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	18	0	0	2	13	6	0	3	12	16
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7	6.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	11%	10%	18%
Vol Thru, %	38%	89%	60%	64%
Vol Right, %	52%	0%	30%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	19	20	11
LT Vol	11	17	12	7
Through Vol	15	0	6	2
RT Vol	3	2	2	2
Lane Flow Rate	31	20	21	12
Geometry Grp	1	1	1	1
Degree of Util (X)	0.032	0.022	0.023	0.013
Departure Headway (Hd)	3.725	4.044	3.862	3.956
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	962	886	928	906
Service Time	1.743	2.063	1.881	1.976
HCM Lane V/C Ratio	0.032	0.023	0.023	0.013
HCM Control Delay	6.9	7.2	7	7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.1	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	2	7	2
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	2	7	2
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7
HCM LOS	A

Lane

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	3	1	0	0	1	0	1	23	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1	0	0	1	0	1	24	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	48	47	10	47	47	24	11	0	0
Stage 1	21	21	-	26	26	-	-	-	-
Stage 2	27	26	-	21	21	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	953	845	1071	954	845	1052	1608	-	-
Stage 1	998	878	-	992	874	-	-	-	-
Stage 2	990	874	-	998	878	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	949	842	1071	950	842	1052	1608	-	-
Mov Cap-2 Maneuver	949	842	-	950	842	-	-	-	-
Stage 1	997	875	-	991	873	-	-	-	-
Stage 2	988	873	-	994	875	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	8.9	9.3	0.3
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1608	-	-	920	842	1591	-	-
HCM Lane V/C Ratio	0.001	-	-	0.005	0.001	0.003	-	-
HCM Control Delay (s)	7.2	0	-	8.9	9.3	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	5	9	1
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	5	9	1

Major/Minor	Major2		
Conflicting Flow All	24	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1591	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1591	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	2.4
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	4	0	0	48	5	6	0	1	17	20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	4	0	0	51	5	6	0	1	18	21
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7.5	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	33%	81%	22%
Vol Thru, %	45%	67%	8%	61%
Vol Right, %	53%	0%	10%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	6	59	18
LT Vol	17	4	5	11
Through Vol	20	0	6	3
RT Vol	1	2	48	4
Lane Flow Rate	40	6	62	19
Geometry Grp	1	1	1	1
Degree of Util (X)	0.042	0.007	0.071	0.021
Departure Headway (Hd)	3.757	4.151	4.144	4.029
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	950	860	865	885
Service Time	1.794	2.185	2.165	2.067
HCM Lane V/C Ratio	0.042	0.007	0.072	0.021
HCM Control Delay	7	7.2	7.5	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.2	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	4	11	3
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	4	12	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	1	8	1	0	20	8	60	0	0	2	29
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1	8	1	0	21	8	63	0	0	2	31
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	7.3	6.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	10%	23%	94%
Vol Thru, %	6%	80%	9%	2%
Vol Right, %	94%	10%	68%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	10	88	102
LT Vol	2	8	8	2
Through Vol	29	1	60	4
RT Vol	0	1	20	96
Lane Flow Rate	33	11	93	107
Geometry Grp	1	1	1	1
Degree of Util (X)	0.033	0.012	0.098	0.128
Departure Headway (Hd)	3.632	4.208	3.819	4.302
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	974	838	926	831
Service Time	1.699	2.295	1.893	2.343
HCM Lane V/C Ratio	0.034	0.013	0.1	0.129
HCM Control Delay	6.8	7.3	7.3	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.3	0.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	96	2	4
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	101	2	4
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	45.8
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	21	0	29	0	25	2	13	0	30	1243	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	22	0	31	0	26	2	14	0	32	1308	17
Number of Lanes	0	0	1	0	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	12.1	12.2	48.4
HCM LOS	B	B	E

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	42%	62%	100%	0%	0%
Vol Thru, %	0%	100%	96%	0%	5%	0%	100%	96%
Vol Right, %	0%	0%	4%	58%	33%	0%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	829	430	50	40	25	545	282
LT Vol	0	829	414	0	2	0	545	272
Through Vol	0	0	16	29	13	0	0	10
RT Vol	30	0	0	21	25	25	0	0
Lane Flow Rate	32	872	453	53	42	26	573	297
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.058	1	0.77	0.12	0.099	0.05	1	0.521
Departure Headway (Hd)	6.649	6.145	6.118	8.193	8.505	6.831	6.332	6.308
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	544	602	598	436	420	525	573	574
Service Time	4.324	3.826	3.8	5.964	6.277	4.565	4.066	4.042
HCM Lane V/C Ratio	0.059	1.449	0.758	0.122	0.1	0.05	1	0.517
HCM Control Delay	9.7	61.3	26.3	12.1	12.2	9.9	62.6	15.7
HCM Lane LOS	A	F	D	B	B	A	F	C
HCM 95th-tile Q	0.2	14.8	7.1	0.4	0.3	0.2	14.6	3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	25	817	10
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	26	860	11
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	45.5
HCM LOS	E

Lane

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	11	0	0	21	0	1260	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	12	0	0	22	0	1326	18

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1589	2270	464	1798	2262	672	927	0	0
Stage 1	926	926	-	1335	1335	-	-	-	-
Stage 2	663	1344	-	463	927	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-
Pot Cap-1 Maneuver	72	40	545	50	40	398	733	-	-
Stage 1	289	346	-	162	221	-	-	-	-
Stage 2	417	219	-	548	345	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	68	40	545	49	40	398	733	-	-
Mov Cap-2 Maneuver	68	40	-	49	40	-	-	-	-
Stage 1	289	346	-	162	221	-	-	-	-
Stage 2	394	219	-	536	345	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	11.7	14.6	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	733	-	-	545	398	509	-	-
HCM Lane V/C Ratio	-	-	-	0.021	0.056	-	-	-
HCM Control Delay (s)	0	-	-	11.7	14.6	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	879	2
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	925	2

Major/Minor	Major2		
Conflicting Flow All	1344	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	509	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	509	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	

Minor Lane/Major Mvmt

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	22	0	22	18	4	9	21	856	17	22	592	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	23	0	23	19	4	9	22	901	18	23	623	23
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	329	36	252	388	93	141	148	1180	528	148	1160	43
Arrive On Green	0.33	0.00	0.33	0.33	0.33	0.33	0.08	0.33	0.33	0.08	0.33	0.33
Sat Flow, veh/h	649	107	756	805	279	424	1774	3539	1583	1774	3481	128
Grp Volume(v), veh/h	46	0	0	32	0	0	22	901	18	23	316	330
Grp Sat Flow(s),veh/h/ln	1512	0	0	1508	0	0	1774	1770	1583	1774	1770	1840
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.6	10.9	0.4	0.6	7.0	7.0
Cycle Q Clear(g_c), s	0.9	0.0	0.0	0.6	0.0	0.0	0.6	10.9	0.4	0.6	7.0	7.0
Prop In Lane	0.50		0.50	0.59		0.28	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	616	0	0	622	0	0	148	1180	528	148	590	613
V/C Ratio(X)	0.07	0.00	0.00	0.05	0.00	0.00	0.15	0.76	0.03	0.16	0.54	0.54
Avail Cap(c_a), veh/h	616	0	0	622	0	0	148	1180	528	148	590	613
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.0	0.0	0.0	10.9	0.0	0.0	20.4	14.3	10.8	20.4	13.0	13.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	2.1	4.7	0.1	2.2	3.5	3.4
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	0.4	0.0	0.0	0.3	0.0	0.0	0.4	6.0	0.2	0.4	3.9	4.0
LnGrp Delay(d),s/veh	11.2	0.0	0.0	11.0	0.0	0.0	22.5	19.0	10.9	22.7	16.5	16.3
LnGrp LOS	B			B			C	B	B	C	B	B
Approach Vol, veh/h		46			32			941			669	
Approach Delay, s/veh		11.2			11.0			19.0			16.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	20.0		20.0	8.0	20.0		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	16.0		16.0	4.0	16.0		16.0
Max Q Clear Time (g_c+I1), s	2.6	12.9		2.9	2.6	9.0		2.6
Green Ext Time (p_c), s	0.0	2.4		0.3	0.0	4.9		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	59	21	106	137	446	58	565	438	413	249	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	11	62	22	112	144	469	61	595	461	435	262	11
Adj No. of Lanes	1	1	0	2	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	112	83	29	1211	136	442	78	633	283	465	1374	57
Arrive On Green	0.06	0.06	0.06	0.35	0.35	0.35	0.04	0.18	0.18	0.26	0.40	0.40
Sat Flow, veh/h	1774	1314	466	3442	386	1256	1774	3539	1583	1774	3462	145
Grp Volume(v), veh/h	11	0	84	112	0	613	61	595	461	435	133	140
Grp Sat Flow(s),veh/h/ln	1774	0	1780	1721	0	1641	1774	1770	1583	1774	1770	1837
Q Serve(g_s), s	0.6	0.0	5.1	2.4	0.0	39.0	3.8	18.4	19.8	26.6	5.5	5.5
Cycle Q Clear(g_c), s	0.6	0.0	5.1	2.4	0.0	39.0	3.8	18.4	19.8	26.6	5.5	5.5
Prop In Lane	1.00		0.26	1.00		0.77	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	112	0	112	1211	0	577	78	633	283	465	702	729
V/C Ratio(X)	0.10	0.00	0.75	0.09	0.00	1.06	0.78	0.94	1.63	0.94	0.19	0.19
Avail Cap(c_a), veh/h	256	0	257	1211	0	577	80	633	283	512	702	729
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	0.82	0.82	0.82
Uniform Delay (d), s/veh	49.0	0.0	51.1	24.1	0.0	35.9	52.5	44.9	45.5	40.0	21.8	21.8
Incr Delay (d2), s/veh	0.4	0.0	9.6	0.0	0.0	55.0	37.1	23.8	298.7	20.5	0.5	0.5
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	0.3	0.0	2.8	1.2	0.0	26.3	2.7	11.1	32.0	15.7	2.8	2.9
LnGrp Delay(d),s/veh	49.4	0.0	60.6	24.1	0.0	90.9	89.6	68.8	344.2	60.5	22.3	22.3
LnGrp LOS	D		E	C		F	F	E	F	E	C	C
Approach Vol, veh/h		95			725			1117			708	
Approach Delay, s/veh		59.3			80.6			183.6			45.7	
Approach LOS		E			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	33.1	32.9		11.0	8.9	57.1		43.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	32.0	17.0		16.0	5.0	44.0		39.0
Max Q Clear Time (g_c+I1), s	28.6	21.8		7.1	5.8	7.5		41.0
Green Ext Time (p_c), s	0.5	0.0		0.2	0.0	8.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	104.0
HCM 2010 LOS	F

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	11	3	0	5	7	14	0	2	55	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	12	3	0	5	7	15	0	2	58	15
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	12%	19%	38%
Vol Thru, %	77%	69%	27%	41%
Vol Right, %	20%	19%	54%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	71	16	26	29
LT Vol	55	11	7	12
Through Vol	14	3	14	6
RT Vol	2	2	5	11
Lane Flow Rate	75	17	27	31
Geometry Grp	1	1	1	1
Degree of Util (X)	0.081	0.019	0.029	0.034
Departure Headway (Hd)	3.92	4.048	3.843	4.018
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	914	879	926	890
Service Time	1.944	2.096	1.889	2.049
HCM Lane V/C Ratio	0.082	0.019	0.029	0.035
HCM Control Delay	7.3	7.2	7	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.1	0.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	11	12	6
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	12	13	6
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	1	2	1	0	2	3	3	60	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	2	1	0	2	3	3	63	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	98	95	20	97	96	63	21	0	0
Stage 1	26	26	-	69	69	-	-	-	-
Stage 2	72	69	-	28	27	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	884	795	1058	885	794	1002	1595	-	-
Stage 1	992	874	-	941	837	-	-	-	-
Stage 2	938	837	-	989	873	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	877	792	1058	880	791	1002	1595	-	-
Mov Cap-2 Maneuver	877	792	-	880	791	-	-	-	-
Stage 1	990	872	-	939	835	-	-	-	-
Stage 2	931	835	-	984	871	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	9.2	9	0.3
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1595	-	-	868	905	1540	-	-
HCM Lane V/C Ratio	0.002	-	-	0.005	0.006	0.002	-	-
HCM Control Delay (s)	7.3	0	-	9.2	9	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	3	18	2
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	3	19	2

Major/Minor	Major2		
Conflicting Flow All	63	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1540	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1540	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	1
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	3	1	0	22	3	11	0	4	63	30
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	3	1	0	23	3	12	0	4	66	32
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7.3	7.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	33%	61%	11%
Vol Thru, %	65%	50%	8%	78%
Vol Right, %	31%	17%	31%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	97	6	36	27
LT Vol	63	3	3	21
Through Vol	30	1	11	3
RT Vol	4	2	22	3
Lane Flow Rate	102	6	38	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.109	0.007	0.043	0.032
Departure Headway (Hd)	3.856	4.157	4.104	4.045
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	929	855	867	883
Service Time	1.882	2.213	2.153	2.08
HCM Lane V/C Ratio	0.11	0.007	0.044	0.032
HCM Control Delay	7.4	7.2	7.3	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0	0.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	3	21	3
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	3	22	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	5	4	1	0	35	9	120	0	0	7	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	4	1	0	37	9	126	0	0	7	16
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.3	7.5	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	50%	21%	74%
Vol Thru, %	32%	40%	5%	18%
Vol Right, %	68%	10%	73%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	10	164	39
LT Vol	7	4	9	7
Through Vol	15	1	120	3
RT Vol	0	5	35	29
Lane Flow Rate	23	11	173	41
Geometry Grp	1	1	1	1
Degree of Util (X)	0.025	0.012	0.175	0.05
Departure Headway (Hd)	3.873	4.217	3.656	4.373
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	915	843	977	814
Service Time	1.934	2.272	1.694	2.425
HCM Lane V/C Ratio	0.025	0.013	0.177	0.05
HCM Control Delay	7	7.3	7.5	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.6	0.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	29	7	3
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	31	7	3
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.7
HCM LOS	A

Lane